

Introduced _____
Public Hearing _____
Council Action _____
Executive Action _____
Effective Date _____

County Council Of Howard County, Maryland

2010 Legislative Session

Legislative Day No. 4

Bill No. 13 -2010

Introduced by: The Chairperson at the request of the County Executive

AN ACT, pursuant to the Maryland Stormwater Management Act of 2007, amending certain stormwater management regulations in the Howard County Code; clarifying certain goals; defining certain terms; amending certain definitions; proving that new regulations shall apply to certain projects; requiring certain stormwater management measures and certain design criteria; requiring certain plans including an Environmental Concept Plan; requiring that certain plans be approved before certain permits can be issued; providing a process for certain stormwater management alternative compliance and stormwater management waivers; requiring certain sureties; amending certain inspection authority in accordance with changes to the Howard County Design Manual; making certain technical corrections and reorganizing certain sections; and generally related to stormwater management in Howard County.

Introduced and read first time _____, 2010. Ordered posted and hearing scheduled.

By order _____
Stephen LeGendre, Administrator

Having been posted and notice of time & place of hearing & title of Bill having been published according to Charter, the Bill was read for a second time at a public hearing on _____, 2010.

By order _____
Stephen LeGendre, Administrator

This Bill was read the third time on _____, 2010 and Passed ____, Passed with amendments _____, Failed _____.

By order _____
Stephen LeGendre, Administrator

Sealed with the County Seal and presented to the County Executive for approval this ___ day of _____, 2010 at ___ a.m./p.m.

By order _____
Stephen LeGendre, Administrator

Approved/Vetoed by the County Executive _____, 2010

Ken Ulman, County Executive

NOTE: [[text in brackets]] indicates deletions from existing law; TEXT IN SMALL CAPITALS indicates additions to existing law; Strike-out indicates material deleted by amendment; Underlining indicates material added by amendment.

1 **WHEREAS**, on April 24, 2007 the Governor signed the “Stormwater
2 Management Act of 2007” which is codified in Section 4-201.1 and 4-203 of the
3 Environment Article of the Annotated Code of Maryland; and

4
5 **WHEREAS**, the Stormwater Management Act of 2007 provides that each county
6 shall adopt revisions to its stormwater management regulations by May 4, 2010; and

7
8 **WHEREAS**, the Maryland Department of the Environment prepared the
9 “Maryland Model Stormwater Management Ordinance, June 2009” and noted that the
10 model ordinance should be used by counties to draft their own ordinance modifications;
11 and

12
13 **WHEREAS**, Howard County has prepared revisions to stormwater management
14 requirements in the County Code in accordance with the State’s Stormwater Management
15 Act of 2007.

16
17 **NOW, THEREFORE,**

18
19 ***Section 1. Be It Enacted*** by the County Council of Howard County, Maryland, that
20 *Subtitle 9, Stormwater Management, of Title 18, Public Works, of the Howard County*
21 *Code is amended as follows:*

- 22 1. *Section 18.906 “Appeals” is renumbered to be Section 18.915 and Section 18.907*
23 *“Penalties” is renumbered to be Section 18.916;*
24 2. *Section 18.900 “Purpose and Authority,” Section 18.901 “Definitions,” Section*
25 *18.904 “Inspection,” and Section 18.905 “Maintenance” are amended;*
26 3. *Section 18.902 “Stormwater management required; exemptions; waivers;*
27 *permits; fee in lieu of implementing best management practice,” Section 18.903*
28 *“Design criteria; minimum requirements,” and Section 18.909 “Applicability”*
29 *are repealed; and*
30 4. *New Section 18.902 “Applicability,” Section 18.902A “Requirement to provide*
31 *stormwater management measures, Exemptions,” Section 18.903 “Design*

1 *criteria; Minimum control requirements; Alternatives,” Section 18.904*
2 *“Stormwater Management Measures,” Section 18.905 “Stormwater*
3 *Management Plans,” Section 18.906 “Grading or Building Permits,” Section*
4 *18.907 “Stormwater Management Alternative compliance,” Section 18.908*
5 *“Stormwater Management Waivers; Watershed Management Plans,” Section*
6 *18.909 “Fee in Lieu of Implementing Best Management Practices,” Section*
7 *18.910 “Redevelopment,” Section 18.911 “Performance Bond,” Section 18.913*
8 *“Howard County Design Manual,” and Section 18.912 “Severability,” are*
9 *added.*

10

11 **Title 18. Public Works.**

12 **Subtitle 9. Stormwater Management.**

13

14 **Section 18.900. Purpose and authority.**

15 The purpose of this subtitle is to protect, maintain and enhance public health, safety and
16 welfare by establishing minimum requirements and procedures to control the adverse
17 impacts associated with increased stormwater runoff [[as a result of development or
18 redevelopment. Proper management of stormwater runoff will minimize damage to
19 public and private property, reduce the effects of development and redevelopment on
20 land, control stream channel erosion, reduce local flooding, and maintain after
21 development, as nearly as possible, the predevelopment runoff characteristics]]. THE GOAL
22 IS TO MANAGE STORMWATER BY USING ENVIRONMENTAL SITE DESIGN (ESD) TO THE
23 MAXIMUM EXTENT PRACTICABLE (MEP) IN ORDER (I) TO MAINTAIN, AFTER DEVELOPMENT
24 AND AS NEARLY AS POSSIBLE, THE PREDEVELOPMENT RUNOFF CHARACTERISTICS; (II) TO
25 REDUCE STREAM CHANNEL EROSION, POLLUTION, SILTATION AND SEDIMENTATION, AND
26 LOCAL FLOODING; AND (III) TO USE APPROPRIATE STRUCTURAL BEST MANAGEMENT
27 PRACTICES (BMPs) ONLY WHEN NECESSARY. THE INTENT IS TO RESTORE, ENHANCE, AND
28 MAINTAIN THE CHEMICAL, PHYSICAL, AND BIOLOGICAL INTEGRITY OF STREAMS; TO
29 MINIMIZE DAMAGE TO PUBLIC AND PRIVATE PROPERTY; AND TO REDUCE THE IMPACTS OF
30 LAND DEVELOPMENT.

31

1 The provisions of this subtitle, pursuant to title 4, subtitle 2 of the environmental article,
2 Annotated Code of Maryland, are adopted under the authority of the Howard County
3 Code and shall apply to all development and redevelopment occurring in Howard
4 County. The application of this subtitle and provisions expressed herein shall be the
5 minimum stormwater management requirements and shall not be deemed a limitation or
6 repeal of any other powers granted by State law. HOWARD COUNTY IS RESPONSIBLE FOR
7 THE COORDINATION AND ENFORCEMENT OF THE PROVISIONS OF THIS SUBTITLE.

8

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

10 (a) The 2000 Maryland Stormwater Design Manual Volumes I & II (Maryland
11 Department of the Environment, [[latest edition]] APRIL 2000), AND ALL SUBSEQUENT
12 REVISIONS, is incorporated by reference by Howard County and shall serve as the official
13 guide for stormwater principles, methods, and practices.

14 (b) USDA Natural Resources Conservation Service Maryland Conservation Practice
15 Standard Pond Code 378 (latest edition).

16

17 **Section 18.901. Definitions.**

18 The following terms have the meanings indicated:

19 (a) *Administration* means the Maryland Department of the Environment (MDE) Water
20 Management Administration (WMA).

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

27 (c) *Agricultural land management practices* means those methods and procedures used
28 in the cultivation of land in order to further crop and livestock production and
29 conservation of related soil and water resources.

30 [[(d) *Alternative compliance* means the modification of the minimum stormwater
31 management requirements for specific circumstances such that strict adherence to the

1 requirements would result in an unnecessary hardship and not fulfill the intent of this
2 subtitle.]]

3 ([[e]]D) *Applicant* means a person, firm, or governmental agency who executes the
4 necessary documentation to procure official approval of a project to carry out
5 construction activities involving stormwater management systems.

6 ([[F]]E) *APPROVING AGENCY* MEANS THE ENTITY RESPONSIBLE FOR THE REVIEW AND
7 APPROVAL OF STORMWATER MANAGEMENT PLANS. AS SET FORTH IN THE HOWARD
8 COUNTY DESIGN MANUAL AND DEPENDING ON THE NATURE OF THE PROJECT, THE
9 APPROVING AGENCY IS THE DEPARTMENT OF PLANNING AND ZONING OR THE DEPARTMENT
10 OF PUBLIC WORKS.

11 (f) *Best management practice (BMP)* means any structural device or nonstructural
12 practice designed to temporarily store or treat stormwater runoff in order to mitigate
13 flooding, reduce pollution, or provide other amenities.

14 (g) *Channel protection storage volume (cPv)* means the volume used to design
15 structural management practices to control stream channel erosion. METHODS FOR
16 CALCULATING THE CHANNEL PROTECTION STORAGE VOLUME ARE SPECIFIED IN THE 2000
17 MARYLAND STORMWATER DESIGN MANUAL.

18 (h) *Clearing* means the removal of trees and brush from the land, but shall not include
19 the ordinary moving of grass.

20 (i) *CONCEPT PLAN* MEANS THE FIRST OF THREE REQUIRED PLAN APPROVALS THAT INCLUDES
21 THE INFORMATION NECESSARY TO ALLOW AN INITIAL EVALUATION OF A PROPOSED
22 PROJECT.

23 (j) *COUNTY* MEANS HOWARD COUNTY, MARYLAND.

24 [[(i)]](k) *Design manual* [[or *State design manual* means the Howard County Design
25 Manual, Volume I, Storm Drainage and all incorporated references/the Maryland
26 Stormwater Design Manual, Volumes I and II.]] MEANS THE 2000 MARYLAND
27 STORMWATER DESIGN MANUAL, AND ALL SUBSEQUENT REVISIONS, THAT SERVES AS THE
28 OFFICIAL GUIDE FOR STORMWATER MANAGEMENT PRINCIPLES, METHODS, AND PRACTICES.
29 THE 2000 MARYLAND STORMWATER DESIGN MANUAL MAY BE SUPPLEMENTED BY THE
30 HOWARD COUNTY DESIGN MANUAL.

1 [[j]](L) *Develop land* means to change the runoff characteristics of a parcel of land or
2 lot in conjunction with residential, commercial, industrial, or institutional construction or
3 alteration.

4 [[k]](M) *Drainage area* means an area contributing runoff to a single point measured
5 in a horizontal plane, which is enclosed by a ridge line.

6 [[l]](N) *Easement* means a grant or reservation by the owner of land for the use of such
7 land by others for a specific purpose, and which shall be recorded in the land records of
8 Howard County.

9 (O) *ENVIRONMENTAL SITE DESIGN (ESD)* MEANS USING SMALL-SCALE STORMWATER
10 MANAGEMENT PRACTICES, NONSTRUCTURAL TECHNIQUES, AND BETTER SITE PLANNING TO
11 MIMIC NATURAL HYDROLOGIC RUNOFF CHARACTERISTICS AND MINIMIZE THE IMPACT OF
12 LAND DEVELOPMENT ON WATER RESOURCES. METHODS FOR DESIGNING ESD PRACTICES
13 ARE SPECIFIED IN THE DESIGN MANUAL.

14 [[m]](P) *Exemption* means those land development activities that are not subject to the
15 stormwater management requirements of this subtitle.

16 (Q) *EXTENDED DETENTION* MEANS A STORMWATER DESIGN FEATURE THAT PROVIDES
17 GRADUAL RELEASE OF A VOLUME OF WATER IN ORDER TO INCREASE SETTLING OF
18 POLLUTANTS AND PROTECT DOWNSTREAM CHANNELS FROM FREQUENT STORM EVENTS.
19 METHODS FOR DESIGNING EXTENDED DETENTION BMPs ARE SPECIFIED IN THE DESIGN
20 MANUAL.

21 [[n]](R) *Extreme flood volume (Q_f)* means the storage volume required to control those
22 infrequent but large storm events in which the overbank flows reach or exceed the
23 boundaries of the 100-year floodplain.

24 (S) *FINAL STORMWATER MANAGEMENT PLAN* MEANS THE LAST OF A MULTI-STEP PLAN-
25 APPROVAL PROCESS THAT INCLUDES THE INFORMATION NECESSARY TO ALLOW ALL
26 APPROVALS AND PERMITS TO BE ISSUED BY THE APPROVING AGENCY.

27 [[o]](T) *Flow attenuation* means prolonging the flow time of runoff to reduce the peak
28 discharge.

29 [[p]](U) *Grading* means any act by which soil is cleared, stripped, stockpiled,
30 excavated, scarified, filled, or any combination thereof.

1 (V) *IMPERVIOUS AREA* MEANS ANY SURFACE THAT DOES NOT ALLOW STORMWATER TO
2 INFILTRATE INTO THE GROUND.

3 ~~[(q)]~~(W) *Infiltration* means the passage or movement of water into the soil surface.

4 (X) *MAXIMUM EXTENT PRACTICABLE (MEP)* MEANS DESIGNING STORMWATER MANAGEMENT
5 SYSTEMS SO THAT ALL REASONABLE OPPORTUNITIES FOR USING ESD PLANNING
6 TECHNIQUES AND TREATMENT PRACTICES ARE EXHAUSTED AND, ONLY WHERE
7 ABSOLUTELY NECESSARY, IMPLEMENTING A STRUCTURAL BMP.

8 ~~[(r)]~~(Y) *Off-site stormwater management* means the design and construction of a
9 facility necessary to control stormwater from one or more properties other than the one
10 on which the stormwater management facility lies.

11 ~~[(s)]~~(Z) *On-site stormwater management* means the design and construction of a
12 facility necessary to control stormwater from one property within the boundary of the
13 subject property.

14 ~~[(t)]~~(AA) *Overbank flood protection volume (Q_p)* means the volume controlled by
15 structural practices to prevent an increase in the frequency of the out of bank flooding by
16 development. METHODS FOR CALCULATING THE OVERBANK FLOOD PROTECTION VOLUME
17 ARE SPECIFIED IN THE DESIGN MANUAL.

18 (BB) *PERSON* MEANS THE FEDERAL GOVERNMENT, THE STATE, ANY COUNTY, MUNICIPAL
19 CORPORATION, OR OTHER POLITICAL SUBDIVISION OF THE STATE, OR ANY OF THEIR UNITS;
20 AN INDIVIDUAL, RECEIVER, TRUSTEE, GUARDIAN, EXECUTOR, ADMINISTRATOR, FIDUCIARY,
21 OR REPRESENTATIVE OF ANY KIND; OR ANY PARTNERSHIP, FIRM, ASSOCIATION, PUBLIC OR
22 PRIVATE CORPORATION, OR ANY OTHER ENTITY.

23 (CC) *PLANNING TECHNIQUES* MEANS A COMBINATION OF STRATEGIES EMPLOYED EARLY IN
24 PROJECT DESIGN TO REDUCE THE IMPACT FROM DEVELOPMENT AND TO INCORPORATE
25 NATURAL FEATURES INTO A STORMWATER MANAGEMENT PLAN.

26 ~~[(u)]~~(DD) *Private stormwater management facility* means any best management
27 practice which is not to be owned and maintained by ~~[[Howard]]~~ THE County.

28 ~~[(v)]~~(EE) *Recharge volume (RE_v)* means that portion of the water quality volume used
29 to maintain groundwater recharge rates at development sites. METHODS FOR
30 CALCULATING THE RECHARGE VOLUME ARE SPECIFIED IN THE DESIGN MANUAL.

1 [[(w)]](FF) *Redevelopment* means any construction, alteration, or improvement
2 [[exceeding 5,000 square feet of land disturbance performed on sites where existing land
3 use is commercial, industrial, institutional, or multifamily residential.]] PERFORMED ON
4 SITES WHERE EXISTING SITE IMPERVIOUS AREA EXCEEDS 40 PERCENT AND WHERE EXISTING
5 LAND USE IS COMMERCIAL, INDUSTRIAL, INSTITUTIONAL, OR MULTIFAMILY.

6 [[(x)]](GG) *Retrofitting* means THE IMPLEMENTATION OF ESD PRACTICES, the
7 construction of a structural BMP in a previously developed area, the modification of an
8 existing structural BMP, or the implementation of a nonstructural practice to improve
9 water quality over current conditions.

10 [[(y)]](HH) *Sediment* means soil or other surficial materials transported or deposited by
11 the action of wind, water, ice, or gravity as a product of erosion.

12 [[(z)]](II) *Site* means a tract of land, lot or parcel of land or combination of tracts, lots, or
13 parcels of land, which are in one ownership, or are contiguous and in diverse ownership
14 where development is to be performed as part of a unit, subdivision or project.

15 [(aa)]](JJ) *Stabilization* means the prevention of soil movement by any of various
16 vegetative or structural means.

17 (KK) *STORMWATER MANAGEMENT ALTERNATIVE COMPLIANCE* MEANS THE MODIFICATION OF
18 THE MINIMUM DESIGN REQUIREMENTS FOR SPECIFIC CIRCUMSTANCES SUCH THAT STRICT
19 ADHERENCE TO THE REQUIREMENTS WOULD RESULT IN AN UNNECESSARY HARDSHIP AND
20 NOT FULFILL THE INTENT OF THIS SUBTITLE.

21 [(bb)]](LL) *Stormwater management SYSTEM* means NATURAL AREAS, ESD PRACTICES,
22 STORMWATER MANAGEMENT MEASURES, AND ANY OTHER STRUCTURE THROUGH WHICH
23 STORMWATER FLOWS, INFILTRATES, OR DISCHARGES FROM A SITE.[:

24 *For quantitative control.* A system of best management practices that control the
25 increased volume and rate of surface runoff caused by manmade changes to the land.

26 *For qualitative control.* A system of best management practices that reduce or eliminate
27 pollutants that might otherwise be carried by surface runoff.]]

28 [(cc)]](MM) *Stormwater management plan* means a set of drawings or other documents
29 [[submitted]] INCLUDED AS PART OF A PROPOSAL SUBMITTED UNDER THE SUBDIVISION AND
30 LAND DEVELOPMENT REGULATIONS as a prerequisite to obtaining a stormwater
31 management approval and which contain all of the information and specification[s]

1 required by the Department of Public Works and the Department of Planning and Zoning.
2 These drawings or documents may be a part of the roads, storm drain and sediment
3 control documents and/or drawings, including final road construction plans and site
4 development plans.

5 (NN) *STORMWATER MANAGEMENT WAIVER* MEANS THE REDUCTION OF STORMWATER
6 MANAGEMENT REQUIREMENTS FOR A SPECIFIC DEVELOPMENT ON A CASE-BY-CASE BASIS.

7 [(dd)](OO) *Stripping* means any activity which removes the vegetative cover including
8 tree removal, clearing, grubbing, and storage or removal of topsoil.

9 [(ee) *Waiver* means the relinquishment from the OF stormwater management
10 requirements for A specific circumstances on a case-by-case basis.

11 *Qualitative stormwater management waiver* includes water quality volume and recharge
12 volume parameters.

13 *Quantitative stormwater management waiver* includes channel protection storage
14 volume, overbank flood protection volume, and extreme flood volume design
15 parameters.]]

16 [(ff)](PP) *Watershed* means the total drainage area contributing runoff to a single
17 point.

18 (QQ) *WATERSHED MANAGEMENT PLAN* MEANS A PLAN DEVELOPED BY THE COUNTY FOR THE
19 PURPOSE OF IMPLEMENTING DIFFERENT STORMWATER MANAGEMENT POLICIES FOR
20 WAIVERS AND REDEVELOPMENT. A WATERSHED MANAGEMENT PLAN SHALL CONTAIN THE
21 ITEMS SET FORTH IN SECTION 18.908 OF THIS SUBTITLE.

22 [(gg)](RR) *Water quality volume (WQ_v)* means the storage needed to capture and treat
23 the runoff from 90 percent of the average annual rainfall at a development site.
24 METHODS FOR CALCULATING THE WATER QUALITY VOLUME ARE SPECIFIED IN THE DESIGN
25 MANUAL.

26

27 **SECTION 18.902. APPLICABILITY.**

28 (A) *DEFINITIONS.* FOR PURPOSES OF THIS SECTION ONLY, THE FOLLOWING TERMS HAVE
29 THE MEANINGS INDICATED:

30 (1) *APPROVAL* SHALL MEAN A DOCUMENTED ACTION BY THE COUNTY
31 FOLLOWING REVIEW TO DETERMINE AND ACKNOWLEDGE THE SUFFICIENCY

1 OF SUBMITTED MATERIALS TO MEET THE REQUIREMENTS OF A SPECIFIED
2 STAGE IN THE DEVELOPMENT PROCESS. APPROVAL SHALL NOT MEAN AN
3 ACKNOWLEDGEMENT BY THE COUNTY THAT SUBMITTED MATERIALS HAVE
4 BEEN RECEIVED FOR REVIEW.

5 (2) *FINAL PROJECT APPROVAL* SHALL MEAN THAT THE COUNTY HAS APPROVED:

- 6 (I) THE FINAL STORMWATER MANAGEMENT PLAN;
- 7 (II) THE FINAL EROSION AND SEDIMENT CONTROL PLAN FOR THE
8 PROJECT'S STORMWATER FACILITIES; AND
- 9 (III) IF APPLICABLE, BOND OR FINANCING, OR BOTH, HAS BEEN SECURED
10 BASED ON THE FINAL PLANS FOR THE DEVELOPMENT.

11 (3) *PRELIMINARY PROJECT APPROVAL* SHALL MEAN PROJECTS FOR WHICH THE
12 FOLLOWING PLANS THAT HAVE BEEN REVIEWED BY THE SUBDIVISION
13 REVIEW COMMITTEE AND DETERMINED BY THE DEPARTMENT OF PLANNING
14 AND ZONING TO BE TECHNICALLY COMPLETE:

- 15 (I) FOR PROJECTS THAT ARE SUBJECT TO THE SUBDIVISION PROCESS:
 - 16 A. FOR MAJOR SUBDIVISIONS, A SKETCH OR PRELIMINARY
17 EQUIVALENT SKETCH PLAN; OR
 - 18 B. FOR MINOR SUBDIVISIONS, A FINAL PLAN; OR
- 19 (II) FOR PROJECTS THAT ARE NOT SUBJECT TO THE SUBDIVISION
20 PROCESS, A SITE DEVELOPMENT PLAN.

21
22 A PLAN THAT HAS RECEIVED PRELIMINARY PROJECT APPROVAL SHALL
23 INCLUDE THE FOLLOWING INFORMATION:

- 24 (I) NUMBER OF PLANNED DWELLING UNITS OR LOTS AND PROPOSED
25 DENSITY;
- 26 (II) PROPOSED SIZE AND LOCATION OF ALL LAND USES IN THE PROJECT;
- 27 (III) A PLAN THAT IDENTIFIES:
 - 28 A. THE PROPOSED DRAINAGE PATTERNS;
 - 29 B. LOCATIONS OF ALL POINTS OF DISCHARGE FROM THE SITE;
 - 30 AND

1 C. THE TYPE, LOCATION, AND SIZE OF ALL STORMWATER
2 MANAGEMENT CONTROLS BASED UPON SITE-SPECIFIC
3 COMPUTATIONS OF STORMWATER MANAGEMENT
4 REQUIREMENTS;.

5 (IV) THE PROPOSED ALIGNMENT, LOCATION, AND CONSTRUCTION TYPE
6 AND STANDARD FOR ALL PROPOSED ROADS, ACCESS WAYS, AND
7 AREAS OF VEHICULAR TRAVEL;

8 (V) THE GENERAL LOCATION, SIZE, TYPE, AND ADEQUACY OF ALL
9 INFRASTRUCTURE PROPOSED FOR WATER AND WASTEWATER
10 SYSTEMS; AND

11 (VI) ANY OTHER INFORMATION DEEMED NECESSARY BY THE COUNTY TO
12 ADEQUATELY REVIEW THE PROPOSAL.

13 (B) *APPLICABILITY* THIS SUBTITLE SHALL APPLY TO ALL DEVELOPMENT PROJECTS, EXCEPT
14 PROJECTS THAT RECEIVED PRELIMINARY PROJECT APPROVAL PRIOR TO MAY 4, 2010 ARE
15 SUBJECT TO STORMWATER MANAGEMENT REGULATIONS IN EFFECT AT THE TIME OF
16 APPROVAL PROVIDED THAT:

17 (1) FINAL PROJECT APPROVAL IS RECEIVED PRIOR TO MAY 4, 2013; AND

18 (2) CONSTRUCTION IS COMPLETE PRIOR TO MAY 4, 2017.

19

20 **SECTION 18.902A. REQUIREMENT TO PROVIDE STORMWATER MANAGEMENT**
21 **MEASURES, EXEMPTIONS.**

22 (A) *REQUIREMENT TO PROVIDE.* A PERSON SHALL NOT DEVELOP ANY LAND FOR
23 RESIDENTIAL, COMMERCIAL, INDUSTRIAL, OR INSTITUTIONAL USES WITHOUT PROVIDING
24 STORMWATER MANAGEMENT MEASURES THAT CONTROL OR MANAGE RUNOFF FROM SUCH
25 DEVELOPMENTS, EXCEPT AS PROVIDED WITHIN THIS SUBTITLE. STORMWATER
26 MANAGEMENT MEASURES MUST BE DESIGNED CONSISTENT WITH THE DESIGN MANUAL AND
27 CONSTRUCTED ACCORDING TO AN APPROVED PLAN FOR NEW DEVELOPMENT OR
28 REDEVELOPMENT.

29 (B) *EXEMPTIONS.* A STORMWATER MANAGEMENT PLAN IS NOT REQUIRED FOR:

- 1 (1) ADDITIONS OR MODIFICATIONS TO EXISTING SINGLE-FAMILY DETACHED
2 RESIDENTIAL STRUCTURES THAT DO NOT DISTURB OVER 5,000 SQUARE FEET
3 OF LAND AREA;
- 4 (2) DEVELOPMENTS THAT DISTURB LESS THAN 5,000 SQUARE FEET OF LAND
5 AREA;
- 6 (3) LAND DEVELOPMENT ACTIVITIES WHICH ARE REGULATED UNDER SPECIFIC
7 STATE LAWS REGARDING THE MANAGEMENT OF STORMWATER; OR
- 8 (4) AGRICULTURAL LAND MANAGEMENT ACTIVITIES.

9

10 **SECTION 18.903. DESIGN CRITERIA; MINIMUM CONTROL REQUIREMENTS;**
11 **ALTERNATIVES.**

12 (A) THE MINIMUM CONTROL REQUIREMENTS ESTABLISHED IN THIS SECTION AND THE
13 DESIGN MANUAL ARE AS FOLLOWS:

- 14 (1) THE COUNTY SHALL REQUIRE THAT THE PLANNING TECHNIQUES,
15 NONSTRUCTURAL PRACTICES, AND DESIGN METHODS SPECIFIED IN THE
16 DESIGN MANUAL BE USED TO IMPLEMENT ESD TO THE MEP. THE USE OF
17 ESD PLANNING TECHNIQUES AND TREATMENT PRACTICES MUST BE
18 EXHAUSTED BEFORE ANY STRUCTURAL BMP IS IMPLEMENTED.
19 STORMWATER MANAGEMENT PLANS FOR DEVELOPMENT PROJECTS SUBJECT
20 TO THIS SUBTITLE SHALL BE DESIGNED USING ESD SIZING CRITERIA,
21 RECHARGE VOLUME, WATER QUALITY VOLUME, AND CHANNEL PROTECTION
22 STORAGE VOLUME CRITERIA ACCORDING TO THE DESIGN MANUAL. THE
23 MEP STANDARD IS MET WHEN CHANNEL STABILITY IS MAINTAINED,
24 PREDEVELOPMENT GROUNDWATER RECHARGE IS REPLICATED, NONPOINT
25 SOURCE POLLUTION IS MINIMIZED, AND STRUCTURAL STORMWATER
26 MANAGEMENT PRACTICES ARE USED ONLY IF DETERMINED TO BE
27 ABSOLUTELY NECESSARY.
- 28 (2) CONTROL OF THE 2-YEAR AND 10-YEAR FREQUENCY STORM EVENT IS
29 REQUIRED ACCORDING TO THE DESIGN MANUAL AND ALL SUBSEQUENT
30 REVISIONS IF THE COUNTY DETERMINES THAT ADDITIONAL STORMWATER
31 MANAGEMENT IS NECESSARY BECAUSE HISTORICAL FLOODING PROBLEMS

1 EXIST AND DOWNSTREAM FLOODPLAIN DEVELOPMENT AND CONVEYANCE
2 SYSTEM DESIGN CANNOT BE CONTROLLED.

3 (3) THE COUNTY MAY REQUIRE MORE THAN THE MINIMUM CONTROL
4 REQUIREMENTS IF:

5 (I) HYDROLOGIC OR TOPOGRAPHIC CONDITIONS WARRANT; OR

6 (II) FLOODING, STREAM CHANNEL EROSION, OR WATER QUALITY
7 PROBLEMS EXIST DOWNSTREAM FROM A PROPOSED PROJECT.

8 (B) STORMWATER MANAGEMENT PLANS WHERE APPLICABLE, SHALL BE CONSISTENT WITH
9 ADOPTED AND APPROVED WATERSHED MANAGEMENT PLANS OR FLOOD MANAGEMENT
10 PLANS AS APPROVED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT IN
11 ACCORDANCE WITH THE FLOOD HAZARD MANAGEMENT ACT OF 1976.

12
13 **SECTION 18.904. STORMWATER MANAGEMENT MEASURES.**

14 (A) *REQUIRED.* THE ESD PLANNING TECHNIQUES AND TREATMENT PRACTICES AND
15 STRUCTURAL STORMWATER MANAGEMENT MEASURES ESTABLISHED IN THIS SUBTITLE AND
16 THE DESIGN MANUAL SHALL BE USED, EITHER ALONE OR IN COMBINATION, IN A
17 STORMWATER MANAGEMENT PLAN. A DEVELOPER SHALL DEMONSTRATE THAT ESD HAS
18 BEEN IMPLEMENTED TO THE MEP BEFORE THE USE OF A STRUCTURAL BMP IS CONSIDERED
19 IN DEVELOPING THE STORMWATER MANAGEMENT PLAN.

20 (B) *ESD PLANNING TECHNIQUES.* THE FOLLOWING PLANNING TECHNIQUES SHALL BE
21 APPLIED IN ACCORDANCE WITH THE DESIGN MANUAL TO SATISFY THE APPLICABLE
22 MINIMUM CONTROL REQUIREMENTS ESTABLISHED IN THIS SUBTITLE:

23 (1) PRESERVING AND PROTECTING NATURAL RESOURCES;

24 (2) CONSERVING NATURAL DRAINAGE PATTERNS;

25 (3) MINIMIZING IMPERVIOUS AREA;

26 (4) REDUCING RUNOFF VOLUME;

27 (5) USING ESD PRACTICES TO MAINTAIN 100 PERCENT OF THE ANNUAL
28 PREDEVELOPMENT GROUNDWATER RECHARGE VOLUME;

29 (6) USING GREEN ROOFS, PERMEABLE PAVEMENT, REINFORCED TURF, AND
30 OTHER ALTERNATIVE SURFACES;

31 (7) LIMITING SOIL DISTURBANCE, MASS GRADING, AND COMPACTION;

- 1 (8) CLUSTERING DEVELOPMENT; AND
- 2 (9) ANY PRACTICES APPROVED BY THE ADMINISTRATION.

3 (C) *ESD TREATMENT PRACTICES*. THE FOLLOWING ESD TREATMENT PRACTICES SHALL BE
4 DESIGNED IN ACCORDANCE WITH THE DESIGN MANUAL TO SATISFY THE APPLICABLE
5 MINIMUM CONTROL REQUIREMENTS ESTABLISHED IN THIS CODE:

- 6 (1) DISCONNECTION OF ROOFTOP RUNOFF;
- 7 (2) DISCONNECTION OF NON-ROOFTOP RUNOFF;
- 8 (3) SHEETFLOW TO CONSERVATION AREAS;
- 9 (4) RAINWATER HARVESTING;
- 10 (5) SUBMERGED GRAVEL WETLANDS;
- 11 (6) LANDSCAPE INFILTRATION;
- 12 (7) INFILTRATION BERMS;
- 13 (8) DRY WELLS;
- 14 (9) MICRO-BIORETENTION;
- 15 (10) RAIN GARDENS;
- 16 (11) SWALES;
- 17 (12) ENHANCED FILTERS; AND
- 18 (13) ANY PRACTICES APPROVED BY THE ADMINISTRATION.

19 (D) *STRUCTURAL STORMWATER MANAGEMENT PRACTICES*. THE FOLLOWING STRUCTURAL
20 STORMWATER MANAGEMENT PRACTICES SHALL BE DESIGNED IN ACCORDANCE WITH THE
21 DESIGN MANUAL TO SATISFY THE APPLICABLE MINIMUM CONTROL REQUIREMENTS
22 ESTABLISHED IN THIS CODE:

- 23 (1) STORMWATER MANAGEMENT PONDS;
- 24 (2) STORMWATER MANAGEMENT WETLANDS;
- 25 (3) STORMWATER MANAGEMENT INFILTRATION;
- 26 (4) STORMWATER MANAGEMENT FILTERING SYSTEMS; AND
- 27 (5) STORMWATER MANAGEMENT OPEN CHANNEL SYSTEMS.

28 (E) *STRUCTURAL STORMWATER MANAGEMENT SELECTION*. THE FOLLOWING REQUIREMENTS
29 SHALL APPLY WHEN SELECTING STRUCTURAL STORMWATER MANAGEMENT:

- 30 (1) THE PERFORMANCE CRITERIA SPECIFIED IN THE DESIGN MANUAL WITH
31 REGARD TO GENERAL FEASIBILITY, CONVEYANCE, PRETREATMENT,

1 TREATMENT AND GEOMETRY, ENVIRONMENT AND LANDSCAPING, AND
2 MAINTENANCE SHALL BE CONSIDERED; AND

3 (2) STRUCTURAL STORMWATER MANAGEMENT PRACTICES SHALL BE SELECTED
4 TO ACCOMMODATE THE UNIQUE HYDROLOGIC OR GEOLOGIC REGIONS OF
5 THE STATE.

6 (F) *REQUIREMENT TO RECORD; ALTERATIONS PROHIBITED.* A MAINTENANCE AGREEMENT OR
7 EASEMENT SETTING FORTH THE ESD PLANNING TECHNIQUES AND TREATMENT PRACTICES
8 AND STRUCTURAL STORMWATER MANAGEMENT MEASURES USED TO SATISFY THE MINIMUM
9 REQUIREMENTS IN THIS SUBTITLE SHALL BE RECORDED IN THE LAND RECORDS OF HOWARD
10 COUNTY AND REMAIN UNALTERED BY SUBSEQUENT PROPERTY OWNERS. PRIOR APPROVAL
11 FROM THE COUNTY SHALL BE OBTAINED BEFORE ANY STORMWATER MANAGEMENT
12 PRACTICE IS ALTERED.

13 (G) *ALTERNATIVES.* ALTERNATIVE ESD PLANNING TECHNIQUES AND TREATMENT
14 PRACTICES AND STRUCTURAL STORMWATER MEASURES MAY BE USED FOR NEW
15 DEVELOPMENT RUNOFF CONTROL IF THEY MEET THE PERFORMANCE CRITERIA ESTABLISHED
16 IN THE DESIGN MANUAL AND ALL SUBSEQUENT REVISIONS. PRACTICES USED FOR
17 REDEVELOPMENT PROJECTS SHALL BE APPROVED BY THE COUNTY.

18 (H) *MODIFICATIONS.* FOR THE PURPOSES OF MODIFYING THE MINIMUM CONTROL
19 REQUIREMENTS OR DESIGN CRITERIA, THE OWNER OR DEVELOPER SHALL SUBMIT TO THE
20 COUNTY AN ANALYSIS OF THE IMPACTS OF STORMWATER FLOWS DOWNSTREAM IN THE
21 WATERSHED. THE ANALYSIS SHALL INCLUDE HYDROLOGIC AND HYDRAULIC
22 CALCULATIONS NECESSARY TO DETERMINE THE IMPACT OF HYDROGRAPH TIMING
23 MODIFICATIONS OF THE PROPOSED DEVELOPMENT UPON A DAM, HIGHWAY, STRUCTURE, OR
24 NATURAL POINT OF RESTRICTED STREAMFLOW. THE POINT OF INVESTIGATION IS TO BE
25 ESTABLISHED WITH THE CONCURRENCE OF THE COUNTY, DOWNSTREAM OF THE FIRST
26 DOWNSTREAM TRIBUTARY WHOSE DRAINAGE AREA EQUALS OR EXCEEDS THE
27 CONTRIBUTING AREA TO THE PROJECT OR STORMWATER MANAGEMENT FACILITY.

28

29 **SECTION 18.905. STORMWATER MANAGEMENT PLANS.**

30 (A) *SUBMISSION OF STORMWATER MANAGEMENT PLANS.* EXCEPT AS PROVIDED IN
31 SUBSECTION (C) OF THIS SECTION, FOR ANY PROPOSED DEVELOPMENT, THE OWNER OR

1 DEVELOPER SHALL SUBMIT MULTI-STEP STORMWATER MANAGEMENT PLANS TO THE
2 COUNTY FOR REVIEW AND APPROVAL AS FOLLOWS:

3 (1) EACH PLAN SUBMITTAL SHALL INCLUDE THE MINIMUM CONTENT SPECIFIED
4 IN SUBSECTION (D) OF THIS SECTION; AND

5 (2) THE FOLLOWING PLANS SHALL BE SUBMITTED FOR:

6 (I) PROJECTS SUBJECT TO THE SUBDIVISION PROCESS:

7 A. ENVIRONMENTAL CONCEPT PLAN;

8 B. SKETCH PLAN (IF APPLICABLE);

9 C. PRELIMINARY PLAN (IF APPLICABLE);

10 D. PRELIMINARY EQUIVALENT SKETCH (IF APPLICABLE);

11 E. FINAL PLAN;

12 F. SITE DEVELOPMENT PLAN (IF APPLICABLE); AND

13 G. GRADING PLAN; AND

14 (II) PROJECTS SUBJECT TO THE SITE DEVELOPMENT PLAN PROCESS
15 WITHOUT THE SUBDIVISION PROCESS:

16 A. ENVIRONMENTAL CONCEPT PLAN;

17 B. SITE DEVELOPMENT PLAN; AND

18 C. GRADING PLAN.

19 (B) *REVIEW AND APPROVAL OF STORMWATER MANAGEMENT PLANS.* THE COUNTY SHALL
20 PERFORM A COMPREHENSIVE REVIEW OF THE STORMWATER MANAGEMENT PLANS FOR EACH
21 STEP OF PLAN REVIEW. COORDINATED COMMENTS WILL BE PROVIDED BY THE DEPARTMENT
22 OF PLANNING AND ZONING FOR EACH PLAN STEP THAT REFLECTS INPUT FROM ALL
23 APPROPRIATE AGENCIES INCLUDING, BUT NOT LIMITED TO, THE SOIL CONSERVATION
24 DISTRICT (SCD), THE DEPARTMENT OF PUBLIC WORKS, AND SPECIFIC DIVISIONS WITHIN
25 THE DEPARTMENT OF PLANNING AND ZONING. ALL COMMENTS FROM THE COUNTY AND
26 OTHER APPROPRIATE AGENCIES SHALL BE ADDRESSED AND APPROVAL RECEIVED AT EACH
27 STEP OF THE PROJECT DESIGN BEFORE SUBSEQUENT SUBMISSIONS.

28 (C) *EXCEPTIONS.* THE FOLLOWING PLAN TYPES ARE EXEMPT FROM THE SUBMISSION OF THE
29 ENVIRONMENTAL CONCEPT PLAN:

1 (1) BUILDING PERMITS WITH STORMWATER MANAGEMENT PLANS PREVIOUSLY
2 REVIEWED AND APPROVED THROUGH ANOTHER REVIEW PROCESS (I.E.,
3 SUBDIVISION OR SITE DEVELOPMENT PLANS); AND

4 (2) REDLINE REVISIONS THAT DO NOT REQUIRE CHANGES TO STORMWATER
5 MANAGEMENT

6 (D) *CONTENTS AND SUBMISSION OF STORMWATER MANAGEMENT PLANS.* STORMWATER
7 MANAGEMENT PLANS SHALL CONTAIN THE FOLLOWING:

8 (1) FOR SITES SUBJECT TO THE SUBDIVISION PROCESS OR SITE DEVELOPMENT
9 PLAN PROCESS, THE OWNER OR DEVELOPER SHALL SUBMIT AN
10 ENVIRONMENTAL CONCEPT PLAN THAT PROVIDES SUFFICIENT
11 INFORMATION FOR AN INITIAL ASSESSMENT OF THE PROPOSED PROJECT AND
12 WHETHER STORMWATER MANAGEMENT CAN BE PROVIDED ACCORDING TO
13 THIS SUBTITLE. PLANS SUBMITTED FOR CONCEPT APPROVAL SHALL
14 INCLUDE, BUT ARE NOT LIMITED TO:

15 (I) A MAP AT A SCALE SPECIFIED BY THE DEPARTMENT OF PLANNING
16 AND ZONING SHOWING SITE LOCATION, EXISTING NATURAL
17 FEATURES, WATER AND OTHER SENSITIVE RESOURCES,
18 TOPOGRAPHY, AND NATURAL DRAINAGE PATTERNS;

19 (II) THE ANTICIPATED LOCATION OF ALL PROPOSED IMPERVIOUS AREAS,
20 BUILDINGS, ROADWAYS, PARKING, SIDEWALKS, UTILITIES, AND
21 OTHER SITE IMPROVEMENTS;

22 (III) THE LOCATION OF THE PROPOSED LIMIT OF DISTURBANCE, ERODIBLE
23 SOILS, STEEP SLOPES, AND AREAS TO BE PROTECTED DURING
24 CONSTRUCTION;

25 (IV) PRELIMINARY ESTIMATES OF STORMWATER MANAGEMENT
26 REQUIREMENTS, THE SELECTION AND LOCATION OF ESD PRACTICES
27 TO BE USED, AND THE LOCATION OF ALL POINTS OF DISCHARGE FROM
28 THE SITE;

29 (V) A NARRATIVE THAT SUPPORTS THE CONCEPT DESIGN AND DESCRIBES
30 HOW ESD WILL BE IMPLEMENTED TO THE MEP; AND

31 (VI) ANY OTHER INFORMATION REQUIRED BY THE COUNTY.

1 (2) FOLLOWING ENVIRONMENTAL CONCEPT PLAN APPROVAL BY THE COUNTY,
2 THE OWNER OR DEVELOPER FOR PROJECTS SUBJECT TO THE SUBDIVISION
3 PLAN PROCESS SHALL SUBMIT THE FOLLOWING:

4 (I) SKETCH, PRELIMINARY, OR PRELIMINARY EQUIVALENT PLANS THAT
5 REFLECTS COMMENTS RECEIVED DURING ANY PREVIOUS REVIEW
6 PHASE INCLUDING REVIEW OF THE ENVIRONMENTAL CONCEPT
7 PLAN. PLANS SUBMITTED FOR APPROVAL SHALL BE OF SUFFICIENT
8 DETAIL TO ALLOW THE PLAN TO BE REVIEWED AND SHALL INCLUDE,
9 WITHOUT LIMITATION, THE FOLLOWING ITEMS:

10 A. ALL INFORMATION PROVIDED DURING THE ENVIRONMENTAL
11 CONCEPT PLAN REVIEW PHASE;

12 B. SUBDIVISION LAYOUT, EXACT IMPERVIOUS AREA LOCATIONS
13 AND ACREAGES, PROPOSED TOPOGRAPHY, DELINEATED
14 DRAINAGE AREAS AT ALL POINTS OF DISCHARGE FROM THE
15 SITE, AND STORMWATER VOLUME COMPUTATIONS FOR ESD
16 PRACTICES AND QUANTITY CONTROL STRUCTURES;

17 C. A PROPOSED EROSION AND SEDIMENT CONTROL PLAN THAT
18 CONTAINS THE CONSTRUCTION SEQUENCE, ANY PHASING
19 NECESSARY TO LIMIT EARTH DISTURBANCES AND IMPACTS
20 TO NATURAL RESOURCES, AND AN OVERLAY PLAN SHOWING
21 THE TYPES AND LOCATIONS OF ESD AND EROSION AND
22 SEDIMENT CONTROL PRACTICES TO BE USED;

23 D. A NARRATIVE THAT SUPPORTS THE SUBDIVISION DESIGN,
24 DESCRIBES HOW ESD WILL BE USED TO MEET THE MINIMUM
25 CONTROL REQUIREMENTS, AND JUSTIFIES ANY PROPOSED
26 STRUCTURAL STORMWATER MANAGEMENT MEASURE; AND

27 E. ANY OTHER INFORMATION REQUIRED BY THE COUNTY.

28 (II) EXCEPT FOR A MINOR SUBDIVISION WHICH IS SUBJECT TO EITHER
29 THE SITE DEVELOPMENT PLAN PROCESS OR A GRADING PLAN, IF
30 FINAL ROAD CONSTRUCTION PLANS ARE REQUIRED, FINAL ROAD
31 CONSTRUCTION PLANS SHALL INCLUDE FINAL EROSION AND

1 SEDIMENT CONTROL AND STORMWATER MANAGEMENT PLANS THAT
2 REFLECT THE COMMENTS RECEIVED DURING ANY PREVIOUS REVIEW
3 PHASES, INCLUDING REVIEW OF THE ENVIRONMENTAL CONCEPT
4 PLAN. PLANS SUBMITTED FOR FINAL APPROVAL SHALL BE OF
5 SUFFICIENT DETAIL TO ALLOW ALL APPROVALS AND PERMITS TO BE
6 ISSUED ACCORDING TO THE FOLLOWING:

- 7 A. FINAL EROSION AND SEDIMENT CONTROL PLANS SHALL BE
8 SUBMITTED ACCORDING TO COMAR 26.17.01.05; AND
- 9 B. FINAL STORMWATER MANAGEMENT PLANS SHALL BE
10 SUBMITTED FOR APPROVAL IN THE FORM OF CONSTRUCTION
11 DRAWINGS AND SHALL BE ACCOMPANIED BY A REPORT THAT
12 INCLUDES SUFFICIENT INFORMATION TO EVALUATE THE
13 EFFECTIVENESS OF THE PROPOSED RUNOFF CONTROL DESIGN.

14
15 INSIDE THE PLANNED SERVICE AREA FOR WATER AND SEWER
16 SERVICE, WITH APPROVAL OF THE FINAL ROAD CONSTRUCTION
17 PLANS THE OWNER OR DEVELOPER SHALL SUBMIT THE FINAL SITE
18 DEVELOPMENT PLANS FOR APPROVAL BY THE COUNTY.

19
20 (3) FOLLOWING ENVIRONMENTAL CONCEPT PLAN APPROVAL BY THE COUNTY,
21 THE OWNER OR DEVELOPER FOR PROJECTS SUBJECT TO THE SITE
22 DEVELOPMENT PLAN PROCESS SHALL SUBMIT A SITE DEVELOPMENT PLAN
23 THAT REFLECTS COMMENTS RECEIVED DURING ANY PREVIOUS REVIEW
24 PHASE INCLUDING REVIEW OF THE ENVIRONMENTAL CONCEPT PLAN. PLANS
25 SUBMITTED FOR APPROVAL SHALL BE OF SUFFICIENT DETAIL TO ALLOW SITE
26 DEVELOPMENT TO BE REVIEWED AND SHALL INCLUDE, WITHOUT
27 LIMITATION, THE FOLLOWING ITEMS:

- 28 (I) ALL INFORMATION PROVIDED DURING THE ENVIRONMENTAL
29 CONCEPT PLAN REVIEW PHASE;
- 30 (II) SITE LAYOUT, EXACT IMPERVIOUS AREA LOCATIONS AND ACREAGES,
31 PROPOSED TOPOGRAPHY, DELINEATED DRAINAGE AREAS AT ALL

- 1 POINTS OF DISCHARGE FROM THE SITE, AND STORMWATER VOLUME
2 COMPUTATIONS FOR ESD PRACTICES AND QUANTITY CONTROL
3 STRUCTURES;
- 4 (III) A PROPOSED EROSION AND SEDIMENT CONTROL PLAN THAT
5 CONTAINS THE CONSTRUCTION SEQUENCE, ANY PHASING NECESSARY
6 TO LIMIT EARTH DISTURBANCES AND IMPACTS TO NATURAL
7 RESOURCES, AND AN OVERLAY PLAN SHOWING THE TYPES AND
8 LOCATIONS OF ESD AND EROSION AND SEDIMENT CONTROL
9 PRACTICES TO BE USED;
- 10 (IV) A NARRATIVE THAT SUPPORTS THE SITE DESIGN, DESCRIBES HOW
11 ESD WILL BE USED TO MEET THE MINIMUM CONTROL
12 REQUIREMENTS, AND JUSTIFIES ANY PROPOSED STRUCTURAL
13 STORMWATER MANAGEMENT MEASURE; AND
- 14 (V) ANY OTHER INFORMATION REQUIRED BY THE APPROVING AGENCY.
- 15 (4) A GRADING PLAN IS REQUIRED FOLLOWING THE APPROVAL OF THE FINAL
16 PLAN OR SITE DEVELOPMENT PLAN. THE GRADING PLAN SHALL INCLUDE
17 FINAL EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT
18 PLANS THAT REFLECT THE COMMENTS RECEIVED DURING ANY PREVIOUS
19 REVIEW PHASE INCLUDING REVIEW OF THE ENVIRONMENTAL CONCEPT
20 PLAN. PLANS SUBMITTED FOR FINAL APPROVAL SHALL BE OF SUFFICIENT
21 DETAIL TO ALLOW ALL APPROVALS AND PERMITS TO BE ISSUED ACCORDING
22 TO THE FOLLOWING:
- 23 (I) FINAL EROSION AND SEDIMENT CONTROL PLANS SHALL BE
24 SUBMITTED ACCORDING TO COMAR 26.17.01.05; AND
- 25 (II) FINAL STORMWATER MANAGEMENT PLANS SHALL BE SUBMITTED
26 FOR APPROVAL IN THE FORM OF CONSTRUCTION DRAWINGS AND
27 SHALL BE ACCOMPANIED BY A REPORT THAT INCLUDES SUFFICIENT
28 INFORMATION TO EVALUATE THE EFFECTIVENESS OF THE PROPOSED
29 RUNOFF CONTROL DESIGN.
- 30 (5) REPORTS SUBMITTED FOR FINAL STORMWATER MANAGEMENT PLAN
31 APPROVAL SHALL INCLUDE, BUT ARE NOT LIMITED TO:

- 1 (I) GEOTECHNICAL INVESTIGATIONS INCLUDING SOIL MAPS, BORINGS,
2 SITE SPECIFIC RECOMMENDATIONS, AND ANY ADDITIONAL
3 INFORMATION NECESSARY FOR THE FINAL STORMWATER
4 MANAGEMENT DESIGN;
- 5 (II) DRAINAGE AREA MAPS DEPICTING POST DEVELOPMENT RUNOFF
6 FLOW PATH AND LAND USE;
- 7 (III) HYDROLOGIC COMPUTATIONS OF THE APPLICABLE ESD AND
8 UNIFIED SIZING CRITERIA ACCORDING TO THE DESIGN MANUAL FOR
9 ALL POINTS OF DISCHARGE FROM THE SITE;
- 10 (IV) HYDRAULIC AND STRUCTURAL COMPUTATIONS FOR ALL ESD
11 PRACTICES AND STRUCTURAL STORMWATER MANAGEMENT
12 MEASURES TO BE USED;
- 13 (V) A NARRATIVE THAT SUPPORTS THE FINAL STORMWATER
14 MANAGEMENT DESIGN; AND
- 15 (VI) ANY OTHER INFORMATION REQUIRED BY THE COUNTY.
- 16 (6) CONSTRUCTION DRAWINGS SUBMITTED FOR FINAL STORMWATER
17 MANAGEMENT PLAN APPROVAL SHALL INCLUDE, BUT ARE NOT LIMITED TO:
- 18 (I) A VICINITY MAP;
- 19 (II) EXISTING AND PROPOSED TOPOGRAPHY AND PROPOSED DRAINAGE
20 AREAS, INCLUDING AREAS NECESSARY TO DETERMINE DOWNSTREAM
21 ANALYSIS FOR PROPOSED STORMWATER MANAGEMENT FACILITIES;
- 22 (III) ANY PROPOSED IMPROVEMENTS INCLUDING LOCATION OF
23 BUILDINGS OR OTHER STRUCTURES, IMPERVIOUS SURFACES, STORM
24 DRAINAGE FACILITIES, AND ALL GRADING;
- 25 (IV) THE LOCATION OF EXISTING AND PROPOSED STRUCTURES AND
26 UTILITIES;
- 27 (V) ANY EASEMENTS AND RIGHTS-OF-WAY;
- 28 (VI) THE DELINEATION, IF APPLICABLE, OF THE 100-YEAR FLOODPLAIN
29 AND ANY ON-SITE WETLANDS;
- 30 (VII) STRUCTURAL AND CONSTRUCTION DETAILS INCLUDING
31 REPRESENTATIVE CROSS SECTIONS FOR ALL COMPONENTS OF THE

- 1 PROPOSED DRAINAGE SYSTEM OR SYSTEMS, AND STORMWATER
2 MANAGEMENT FACILITIES;
- 3 (VIII) ALL NECESSARY CONSTRUCTION SPECIFICATIONS;
- 4 (IX) A SEQUENCE OF CONSTRUCTION;
- 5 (X) DATA FOR TOTAL SITE AREA, DISTURBED AREA, NEW IMPERVIOUS
6 AREA, AND TOTAL IMPERVIOUS AREA;
- 7 (XI) A TABLE SHOWING THE ESD AND UNIFIED SIZING CRITERIA
8 VOLUMES REQUIRED IN THE DESIGN MANUAL;
- 9 (XII) A TABLE OF MATERIALS TO BE USED FOR STORMWATER
10 MANAGEMENT FACILITY PLANTING;
- 11 (XIII) ALL SOIL BORING LOGS AND LOCATIONS;
- 12 (XIV) AN INSPECTION AND MAINTENANCE SCHEDULE;
- 13 (XV) CERTIFICATION BY THE OWNER/DEVELOPER THAT ALL STORMWATER
14 MANAGEMENT CONSTRUCTION WILL BE DONE ACCORDING TO THIS
15 PLAN;
- 16 (XVI) AN AS-BUILT CERTIFICATION SIGNATURE BLOCK TO BE EXECUTED
17 AFTER PROJECT COMPLETION; AND
- 18 (XVII) ANY OTHER INFORMATION REQUIRED BY THE COUNTY.
- 19 (7) IF A STORMWATER MANAGEMENT PLAN INVOLVES DIRECTION OF SOME OR
20 ALL RUNOFF OFF OF THE SITE, THE DEVELOPER SHALL OBTAIN FROM
21 ADJACENT PROPERTY OWNERS ANY EASEMENTS OR OTHER NECESSARY
22 PROPERTY INTERESTS CONCERNING FLOWAGE OF WATER.
- 23 (E) *PREPARATION OF STORMWATER MANAGEMENT PLANS.* THE DESIGN OF STORMWATER
24 MANAGEMENT PLANS SHALL BE PREPARED BY ANY INDIVIDUAL WHOSE QUALIFICATIONS
25 ARE ACCEPTABLE TO THE COUNTY AS FOLLOWS:
- 26 (1) THE COUNTY SHALL REQUIRE THAT THE DESIGN BE PREPARED BY EITHER A
27 PROFESSIONAL ENGINEER, PROFESSIONAL LAND SURVEYOR, OR LANDSCAPE
28 ARCHITECT LICENSED IN THE STATE, AS NECESSARY TO PROTECT THE
29 PUBLIC OR THE ENVIRONMENT; AND
- 30 (2) IF A STORMWATER BMP REQUIRES EITHER A DAM SAFETY PERMIT FROM THE
31 MARYLAND DEPARTMENT OF THE ENVIRONMENT OR SMALL POND

1 APPROVAL FROM THE HOWARD SOIL CONSERVATION DISTRICT, THE
2 COUNTY SHALL REQUIRE THAT THE DESIGN BE PREPARED BY A
3 PROFESSIONAL ENGINEER LICENSED IN THE STATE.
4

5 **SECTION 18.906. GRADING OR BUILDING PERMITS.**

6 (A) *PERMIT REQUIREMENT.* A GRADING OR BUILDING PERMIT MAY NOT BE ISSUED FOR ANY
7 PARCEL OR LOT UNLESS FINAL EROSION AND SEDIMENT CONTROL AND STORMWATER
8 MANAGEMENT PLANS HAVE BEEN APPROVED BY THE COUNTY AS MEETING ALL THE
9 REQUIREMENTS OF THE DESIGN MANUAL AND THIS CODE. WHERE APPROPRIATE, A
10 BUILDING PERMIT MAY NOT BE ISSUED WITHOUT:

- 11 (1) RECORDED EASEMENTS FOR THE STORMWATER MANAGEMENT FACILITY
12 AND EASEMENTS TO PROVIDE ADEQUATE ACCESS FOR INSPECTION AND
13 MAINTENANCE FROM A PUBLIC RIGHT-OF-WAY;
- 14 (2) A RECORDED STORMWATER MANAGEMENT MAINTENANCE AGREEMENT AS
15 DESCRIBED IN THIS SUBTITLE; AND
- 16 (3) A PERFORMANCE BOND AS DESCRIBED IN THIS SUBTITLE.

17 (B) *PERMIT SUSPENSION AND REVOCATION.* ANY GRADING OR BUILDING PERMIT ISSUED BY
18 THE COUNTY MAY BE SUSPENDED OR REVOKED AFTER WRITTEN NOTICE IS GIVEN TO THE
19 PERMITTEE FOR ANY OF THE FOLLOWING REASONS:

- 20 (I) ANY VIOLATION OF THE CONDITIONS OF THE STORMWATER MANAGEMENT
21 PLAN APPROVAL;
- 22 (II) CHANGES IN SITE RUNOFF CHARACTERISTICS UPON WHICH AN APPROVAL OR
23 WAIVER WAS GRANTED;
- 24 (III) CONSTRUCTION IS NOT IN ACCORDANCE WITH THE APPROVED PLAN;
- 25 (IV) NONCOMPLIANCE WITH ANY CORRECTION NOTICE OR STOP WORK ORDER
26 ISSUED FOR THE CONSTRUCTION OF ANY STORMWATER MANAGEMENT
27 PRACTICE; AND
- 28 (V) IN THE OPINION OF THE COUNTY, AN IMMEDIATE DANGER EXISTS IN A
29 DOWNSTREAM AREA.

30 (C) *PERMIT CONDITIONS.* IN GRANTING AN APPROVAL FOR ANY PHASE OF SITE
31 DEVELOPMENT, THE COUNTY MAY IMPOSE SUCH CONDITIONS THAT MAY BE DEEMED

1 NECESSARY TO ENSURE COMPLIANCE WITH THE PROVISIONS OF THIS SUBTITLE AND THE
2 PRESERVATION OF PUBLIC HEALTH, SAFETY, AND WELFARE.

3
4 **SECTION 18.907. STORMWATER MANAGEMENT ALTERNATIVE COMPLIANCE.**

5 (A) *AUTHORITY TO GRANT.* THE COUNTY MAY GRANT A WRITTEN ALTERNATIVE
6 COMPLIANCE FROM ANY DESIGN REQUIREMENT OF SECTION 18.903 OF THIS SUBTITLE OR
7 THE DESIGN MANUAL, IF THERE ARE EXCEPTIONAL CIRCUMSTANCES APPLICABLE TO THE
8 SITE SUCH THAT STRICT ADHERENCE WILL RESULT IN UNNECESSARY HARDSHIP AND NOT
9 FULFILL THE INTENT OF THIS SUBTITLE.

10 (B) *REQUEST.* A WRITTEN REQUEST FOR ALTERNATIVE COMPLIANCE SHALL BE PROVIDED TO
11 THE COUNTY AND SHALL STATE THE:

- 12 (1) SPECIFIC ALTERNATIVES SOUGHT; AND
- 13 (2) REASONS FOR THE REQUEST.

14 (C) *JUSTIFICATION.* THE COUNTY SHALL NOT GRANT AN ALTERNATIVE COMPLIANCE
15 UNLESS AND UNTIL SUFFICIENT JUSTIFICATION IS PROVIDED BY THE PERSON DEVELOPING OR
16 REDEVELOPING LAND THAT THE IMPLEMENTATION OF ESD TO THE MEP HAS BEEN
17 INVESTIGATED THOROUGHLY.

18
19
20 **SECTION 18.908. STORMWATER MANAGEMENT WAIVERS; WATERSHED**
21 **MANAGEMENT PLANS.**

22 (A) *STORMWATER MANAGEMENT WAIVER REQUESTS.* A REQUEST FOR A WAIVER UNDER THIS
23 SECTION SHALL:

- 24 (1) BE IN WRITING; AND
- 25 (2) CONTAIN SUFFICIENT DESCRIPTIONS, DRAWINGS, AND ANY OTHER
26 INFORMATION THAT IS NECESSARY TO DEMONSTRATE THAT ESD HAS BEEN
27 IMPLEMENTED TO THE MEP.

28 (B) *CRITERIA TO GRANT WAIVERS.* THE APPROVING AGENCY MAY GRANT A WAIVER WHEN IT
29 HAS BEEN DEMONSTRATED THAT ESD HAS BEEN IMPLEMENTED TO THE MEP AND ANY
30 GRANT SHALL:

- 31 (1) BE ON A CASE-BY-CASE BASIS;

- 1 (2) CONSIDER THE CUMULATIVE EFFECTS WAIVERS; AND
2 (3) REASONABLY ENSURE THE DEVELOPMENT WILL NOT ADVERSELY IMPACT
3 STREAM QUALITY.

4 (C) *QUANTITATIVE CONTROL WAIVERS - REQUIREMENT TO HAVE WATERSHED MANAGEMENT*
5 *PLAN.* EXCEPT AS PROVIDED IN SUBSECTION (E) OF THIS SECTION, THE COUNTY SHALL
6 GRANT STORMWATER MANAGEMENT QUANTITATIVE CONTROL WAIVERS ONLY TO THOSE
7 PROJECTS WITHIN AREAS WHERE WATERSHED MANAGEMENT PLANS HAVE BEEN DEVELOPED
8 CONSISTENT WITH THIS SECTION.

9 (D) *WATERSHED MANAGEMENT PLAN.* A WATERSHED MANAGEMENT PLAN SHALL:

- 10 (1) INCLUDE DETAILED HYDROLOGIC AND HYDRAULIC ANALYSES TO
11 DETERMINE HYDROGRAPH TIMING;
12 (2) EVALUATE BOTH QUANTITY AND QUALITY MANAGEMENT AND
13 OPPORTUNITIES FOR ESD IMPLEMENTATION;
14 (3) INCLUDE A CUMULATIVE IMPACT ASSESSMENT OF CURRENT AND PROPOSED
15 WATERSHED DEVELOPMENT;
16 (4) IDENTIFY EXISTING FLOODING AND RECEIVING STREAM CHANNEL
17 CONDITIONS;
18 (5) BE CONDUCTED AT A REASONABLE SCALE;
19 (6) SPECIFY WHERE ON-SITE OR OFF-SITE QUANTITATIVE AND QUALITATIVE
20 STORMWATER MANAGEMENT PRACTICES ARE TO BE IMPLEMENTED;
21 (7) BE CONSISTENT WITH THE GENERAL PERFORMANCE STANDARDS FOR
22 STORMWATER MANAGEMENT IN MARYLAND FOUND IN THE DESIGN
23 MANUAL; AND
24 (8) BE APPROVED BY THE ADMINISTRATION.

25 (E) *QUANTITATIVE CONTROL WAIVERS WITHOUT WATERSHED MANAGEMENT PLANS.* IF A
26 WATERSHED MANAGEMENT PLAN CONSISTENT WITH THIS SECTION HAS NOT BEEN
27 DEVELOPED, A STORMWATER MANAGEMENT QUANTITATIVE CONTROL WAIVER MAY BE
28 GRANTED PROVIDED THAT IT HAS BEEN DEMONSTRATED THAT ESD HAS BEEN
29 IMPLEMENTED TO THE MEP WHEN THE APPROVING AGENCY DETERMINES THAT
30 CIRCUMSTANCES EXIST THAT PREVENT THE REASONABLE IMPLEMENTATION OF QUANTITY
31 CONTROL PRACTICES.

1 (F) *QUANTITATIVE CONTROL WAIVER - ADDITIONS, EXTENSIONS, OR MODIFICATIONS.* IF THERE
2 ARE SUBSEQUENT ADDITIONS, EXTENSIONS, OR MODIFICATIONS TO A DEVELOPMENT THAT
3 HAS RECEIVED A QUANTITATIVE CONTROL WAIVER, A SEPARATE WRITTEN WAIVER REQUEST
4 IS REQUIRED THAT SHALL COMPLY WITH SUBSECTION (B) OF THIS SECTION.

5 (G) *QUALITATIVE CONTROL WAIVER.* A STORMWATER MANAGEMENT QUALITATIVE CONTROL
6 WAIVER APPLIES ONLY TO:

7 (1) IN-FILL DEVELOPMENT PROJECTS WHERE ESD HAS BEEN IMPLEMENTED TO
8 THE MEP AND IT HAS BEEN DEMONSTRATED THAT OTHER BMPs ARE NOT
9 FEASIBLE;

10 (2) REDEVELOPMENT PROJECTS IF THE APPROVING AGENCY DETERMINES THAT
11 THE REQUIREMENTS OF THIS SUBTITLE ARE SATISFIED; OR

12 (3) SITES WHERE THE APPROVING AGENCY DETERMINES THAT CIRCUMSTANCES
13 EXIST THAT PREVENT THE REASONABLE IMPLEMENTATION OF ESD TO THE
14 MEP.

15 (H) *NEW DEVELOPMENT IN PHASED PROJECTS WITH LESS THAN 40% EXISTING*
16 *IMPERVIOUSNESS.* FOR NEW DEVELOPMENT PROJECTS WITH LESS THAN 40% EXISTING
17 IMPERVIOUSNESS, THE COUNTY MAY GRANT A WAIVER OF THE REQUIREMENTS OF THIS
18 SUBTITLE FOR PHASED PROJECTS THAT HAVE ALREADY CONSTRUCTED STORMWATER
19 MANAGEMENT FACILITIES THAT ARE DESIGNED TO MEET 2000 REGULATORY
20 REQUIREMENTS. REASONABLE EFFORTS TO INCORPORATE ESD SHALL BE DEMONSTRATED.

21
22 **SECTION 18.909. FEE IN LIEU OF IMPLEMENTING BEST MANAGEMENT PRACTICES.**

23 (A) IF THE DEPARTMENT OF PUBLIC WORKS OR THE DEPARTMENT OF PLANNING AND
24 ZONING DETERMINES THAT IMPLEMENTATION OF ESD TO THE MEP OR STRUCTURAL
25 PRACTICES REQUIRED TO CONTROL THE QUANTITY OF STORMWATER OR RUNOFF IS NOT
26 FEASIBLE OR WILL BE INEFFECTIVE, THEN THE DEPARTMENT OF PUBLIC WORKS OR THE
27 DEPARTMENT OF PLANNING AND ZONING MAY ALLOW THE PERSON OBLIGATED UNDER THIS
28 SUBTITLE TO PAY A FEE TO THE COUNTY INSTEAD OF IMPLEMENTING THE BEST
29 MANAGEMENT PRACTICE.

30 (B) THE AMOUNT OF THE FEE IN LIEU OF IMPLEMENTING BEST MANAGEMENT PRACTICES
31 SHALL BE CALCULATED BY METHODS ESTABLISHED BY THE COUNTY.

1 (C) THE COUNTY EXECUTIVE SHALL RECOMMEND AND THE COUNTY COUNCIL SHALL SET
2 BY RESOLUTION THE AMOUNT PER ACRE-FOOT OF STORAGE VOLUME USED TO CALCULATE
3 THE FEE. THIS STORAGE VOLUME SHALL BE DETERMINED USING ASSUMED ESD PRACTICES.

4 (D) AMOUNTS COLLECTED FROM THIS FEE SHALL BE USED IN THE SAME MAJOR DRAINAGE
5 BASIN IN WHICH THE PROPERTY IS LOCATED TO PAY FOR CONSTRUCTING NEW BEST
6 MANAGEMENT PRACTICES, RETROFITTING EXISTING BEST MANAGEMENT PRACTICES,
7 CONDUCTING WATERSHED STUDIES, RESTORING, OR STABILIZING STREAMS, OR TO
8 REIMBURSE DEVELOPERS WHO PROVIDE BEST MANAGEMENT PRACTICES LARGER THAN
9 REQUIRED BY THEIR OWN DEVELOPMENT.

10
11 **SECTION 18.910 . REDEVELOPMENT.**

12 (A) STORMWATER MANAGEMENT PLANS FOR REDEVELOPMENT SHALL BE CONSISTENT
13 WITH THE DESIGN MANUAL.

14 (B) ALL REDEVELOPMENT PROJECTS SHALL REDUCE EXISTING IMPERVIOUS AREA WITHIN
15 THE LIMIT OF DISTURBANCE BY AT LEAST 50 PERCENT. WHERE SITE CONDITIONS PREVENT
16 THE REDUCTION OF IMPERVIOUS AREA, THEN ESD PRACTICES SHALL BE IMPLEMENTED TO
17 PROVIDE QUALITATIVE CONTROL FOR AT LEAST 50 PERCENT OF THE SITE'S IMPERVIOUS
18 AREA. WHEN A COMBINATION OF IMPERVIOUS AREA REDUCTION AND STORMWATER
19 MANAGEMENT PRACTICE IMPLEMENTATION IS USED, THE COMBINED REDUCTION SHALL
20 EQUAL OR EXCEED 50 PERCENT OF THE EXISTING IMPERVIOUS AREA WITHIN THE LIMIT OF
21 DISTURBANCE.

22 (C) IF THE COUNTY DETERMINES THAT WATER QUALITY TREATMENT REQUIREMENTS OF
23 THIS SECTION FOR REDEVELOPMENT PROJECTS CANNOT BE MET, THE COUNTY MAY
24 APPROVE OTHER OPTIONS INCLUDING, WITHOUT LIMITATION:

- 25 (1) ON-SITE STRUCTURAL BMPs;
- 26 (2) OFF-SITE BMP IMPLEMENTATION FOR A DRAINAGE AREA COMPARABLE IN
27 SIZE AND PERCENT IMPERVIOUSNESS TO THAT OF THE PROJECT;
- 28 (3) WATERSHED OR STREAM RESTORATION;
- 29 (4) RETROFITTING;
- 30 (5) POLLUTION TRADING WITH ANOTHER ENTITY;
- 31 (6) WATERSHED MANAGEMENT PLANS;

- 1 (7) PAYMENT OF A FEE-IN-LIEU;
- 2 (8) A PARTIAL WAIVER OF THE TREATMENT REQUIREMENT TO THE EXTENT
- 3 THAT ESD IS NOT PRACTICABLE; OR
- 4 (9) OTHER PRACTICES APPROVED BY THE COUNTY.

5

6 **SECTION 18.911. PERFORMANCE BOND.**

7 (A) *REQUIREMENT TO PROVIDE.* THE DEVELOPER SHALL PROVIDE A SURETY OR CASH BOND,
8 IRREVOCABLE LETTER OF CREDIT, OR OTHER MEANS OF SECURITY ACCEPTABLE TO THE
9 COUNTY PRIOR TO THE ISSUANCE OF ANY BUILDING OR GRADING PERMIT FOR THE
10 CONSTRUCTION OF A DEVELOPMENT REQUIRING STORMWATER MANAGEMENT.

11 (B) *AMOUNT.* THE AMOUNT OF THE SECURITY SHALL NOT BE LESS THAN THE ESTIMATED
12 CONSTRUCTION COST OF ALL STORMWATER MANAGEMENT FACILITIES.

13 (C) *REQUIRED PROVISIONS.* THE BOND REQUIRED IN THIS SECTION SHALL INCLUDE
14 PROVISIONS RELATIVE TO FORFEITURE FOR FAILURE TO COMPLETE WORK SPECIFIED IN THE
15 APPROVED STORMWATER MANAGEMENT PLAN, COMPLIANCE WITH ALL OF THE PROVISIONS
16 OF THIS SUBTITLE, AND OTHER APPLICABLE LAWS AND REGULATIONS, AND ANY TIME
17 LIMITATIONS.

18 (D) *RELEASE.* THE BOND SHALL NOT BE FULLY RELEASED WITHOUT A FINAL INSPECTION OF
19 THE COMPLETED WORK BY THE COUNTY, SUBMISSION OF "AS-BUILT" PLANS, AND
20 CERTIFICATION OF COMPLETION BY THE COUNTY THAT ALL STORMWATER MANAGEMENT
21 FACILITIES COMPLY WITH THE APPROVED PLAN AND THE PROVISIONS OF THIS CODE. AT
22 THE COUNTY'S DISCRETION, A PROCEDURE MAY BE USED TO RELEASE PARTS OF THE BOND
23 HELD BY THE COUNTY AFTER VARIOUS STAGES OF CONSTRUCTION HAVE BEEN COMPLETED
24 AND ACCEPTED BY THE COUNTY. THE PROCEDURES USED FOR PARTIALLY RELEASING
25 PERFORMANCE BONDS MUST BE SPECIFIED BY THE COUNTY IN WRITING PRIOR TO
26 STORMWATER MANAGEMENT PLAN APPROVAL.

27

28 **Section 18.9[[04]]12 Inspection.**

29 (a) *Inspection During Construction.* [[The Department of Public Works shall inspect
30 best management practices during construction, pursuant to the schedule set forth in the
31 design manual and the regulations set forth in the Code of Maryland Regulations.]] THE

1 COUNTY SHALL MAKE REGULAR INSPECTIONS AT VARIOUS STAGES OF CONSTRUCTION AS
2 PROVIDED IN CHAPTER 5, STORMWATER MANAGEMENT, OF VOLUME I (STORM DRAINAGE)
3 OF THE HOWARD COUNTY DESIGN MANUAL. INSPECTIONS SHALL BE DOCUMENTED IN
4 WRITING BY THE COUNTY.

5 (b) *Periodic Inspection.* The Department of Public Works shall ensure that preventative
6 maintenance is performed by inspecting all ESD AND best management practices IN
7 ACCORDANCE WITH THE MAINTENANCE AGREEMENT. [[during the first year of operation
8 and at least once every three years thereafter. The Department of Public Works shall
9 notify in writing any property owner of any deficiencies that are found during the
10 inspections pursuant to the criteria set forth in the design manual.]]

11 (c) *Inspection Access.* The property owner OR DEVELOPER shall construct and maintain
12 all best management practices in a manner such as not to hinder, impede, or restrict the
13 Department of Public Works from making necessary inspections, visual observations,
14 measurements, or from performing tests.

15 (d) *Enforcement.* When a deficiency is discovered during an inspection, construction, or
16 periodic maintenance inspection, the County may:

- 17 (1) Issue a notice of violation specifying the deficiency, the corrective action
18 needed, and the time by which the corrective action must be completed;
- 19 (2) Issue a stop work order for all site work;
- 20 (3) Withhold bonds or securities;
- 21 (4) Impose civil or criminal penalties pursuant to section [[18.907]] 18.916 of
22 this subtitle; or
- 23 (5) Take any of the actions set forth in this section at any time.

24
25 **SECTION 18.913. HOWARD COUNTY DESIGN MANUAL.**

26 (A) THE HOWARD COUNTY DESIGN MANUAL VOLUME I (STORM DRAINAGE) SHALL
27 INCLUDE THE MINIMAL CONTROL REQUIREMENTS AND DESIGN CRITERIA FOR STORMWATER
28 MANAGEMENT; PROCEDURES FOR THE APPROVAL OF PLANS; AND CONSTRUCTION
29 INSPECTION REQUIREMENTS.

1 (B) THE COUNTY EXECUTIVE SHALL SUBMIT THE HOWARD COUNTY DESIGN MANUAL TO
2 THE COUNTY COUNCIL FOR THE COUNCIL'S APPROVAL BY RESOLUTION. AMENDMENTS TO
3 THE MANUAL SHALL BE PREPARED AND APPROVED IN THE SAME MANNER.
4

5 **Section 18.9[[05]]14. Maintenance.**

6 (a) *Responsibility for Maintenance.* The owners of property containing [[private]]
7 PRIVATE, PUBLIC, OR BOTH PUBLIC AND PRIVATE stormwater management facilities shall
8 be responsible for maintenance of those facilities. In cases where there is joint
9 maintenance provided by the County and the property owner or home owners association,
10 the County shall be responsible for structural maintenance only as specified on the plans
11 and in the developer agreement for the specific facilities.

12 (b) *Enforcement of Maintenance Requirement.*

13 (1) When the County determines that deficiencies exist in a private
14 stormwater management system, the County shall notify the property
15 owner in writing of the deficiencies, describe the required corrective
16 action, and the time period to have the deficiencies corrected.

17 (2) If the property owner fails to correct the deficiencies within the specified
18 time frame, the County may apply to the appropriate court for an order
19 allowing the County to enter the property and to make, at the property
20 owner's expense, the necessary repairs or corrections to the system.

21 (3) Following entry of the order and completion of corrective action, the
22 County shall send to the property owner a bill for the costs to correct the
23 deficiencies. If the bill is not paid within 30 days, the County may file
24 with the court a verified statement of costs, for the purpose of entering a
25 civil judgment in the County's favor against the property owner.

26 (c) *Maintenance Agreement.* Whenever a stormwater management plan is required for
27 property pursuant to this subtitle, no grading or building permit shall be issued until the
28 owner of the private stormwater management system executes a maintenance agreement
29 to be recorded in the land records of Howard County and binding upon all subsequent
30 owners of the property, providing that:

