Editing Key:

[Bold brackets**]** = Deletions

Italic text = Additions

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 17 WATER MANAGEMENT

Chapter 02 Stormwater Management

Authority: Environment Article, §§4-201 and 4-203, Annotated Code of Maryland

.01 Purpose and Scope.

A. The primary goals of the State and local stormwater management programs are 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 by implementing environmental site design to the maximum extent practicable and *providing adequate overbank flood protection.* **[**using appropriate structural best management practices only when necessary.**]**

B. *This Chapter applies* **[**These regulations for stormwater management apply**]** to the development or redevelopment of land for residential, commercial, industrial, or institutional use, but *does* **[**do**]** not apply to agricultural land management practices. This chapter specifies the minimum content of county and municipal ordinances, *and the Administration's* responsibilities **[**of the Administration**]** regarding the review of **[**the**]** county and municipal stormwater management programs, and approval of State **[**-**]** *and federal development* [constructed**]** projects for stormwater management. **[**by the Department of the Environment.**]**

[C. This chapter applies to all new development and redevelopment projects that do not have final approval for erosion and sediment control and stormwater management plans by May 4, 2010.**]**

C. **[**D.**]** *This Chapter shall* **[**The provisions of these regulations may**]** not be construed to affect the requirements for a *development* project located in an Intensely Developed Area of the Chesapeake and Atlantic Coastal Bays Critical Area to comply with the 10 percent Pollution Reduction Requirement under COMAR 27.01.02.03D(3).

.01-1 Incorporation by Reference.

A. In this chapter, the following documents are incorporated by reference.

B. Documents Incorporated.

(1) The *2025* **[**2000**]** Maryland Stormwater Design Manual **[**, Volumes I & II (Maryland Department of the Environment, April 2000), Supplement 1,**]** is incorporated by reference by the Administration and shall serve as the official guide for stormwater management principles, methods, and practices.

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

(3) 40 CFR §122.26(b)(14)(i)—(xi).**]**

.01-2 Administrative Waivers of Plan Approvals in Process.

A. Development projects that are in the approval process as of (date to be enumerated that is 18 months after the adoption of these regulations) may be approved and constructed under the regulations adopted in this Chapter on May 4, 2009 if they also meet each of the following requirements:

(1) Concept plans shall be approved by (date to be enumerated that is 24 months after the final adoption of these regulations);

(2) Site development plans shall be approved by (date to be enumerated that is 30 months after the final adoption of these regulations);

(3) Final stormwater management plans shall be approved by (date to be enumerated that is 36 months after the final adoption of these regulations);

(4) Final stormwater management plans approved under this section shall expire 36 months after approval; and

(5) Final stormwater management plan approvals for a development project that is actively under construction may be extended by the approving agency for no more than 36 months to allow for construction completion.

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

(1) Administrative Waiver.

(a) "Administrative waiver" means a decision by the approving agency pursuant to this regulation 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 Regulation .05C of this chapter.

(2) Approval.

(a) "Approval" means a documented action by a county or municipality 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 approving agency 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" 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 approving agency 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. An approving agency may grant an administrative waiver to a development that received a preliminary project approval prior to May 4, 2010. Administrative waivers expire according to §C of this regulation and may be extended according to §D of this regulation.

C. Expiration of Administrative Waivers.

(1) Except as provided for in §D of this regulation, 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 §D of this regulation, by the expiration date of the waiver extension.
D. Extension of Administrative Waivers.
(1) Except as provided in §D(2) of this regulation, 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 §D(2) of this regulation shall expire when the Development Rights and Responsibilities Agreement, the Tax Increment Financing approval, or the Annexation Agreement expires.**]**

.02 Definitions.

A. The following definitions describe the meaning of terms used in this chapter and the *Design Manual.* **[**2000 Maryland Stormwater Design Manual, Volumes I & II. The definitions will be valid unless the context in which they are used clearly requires a different meaning.**]** Terms not defined below shall have the meanings given to them in the relevant statutes or, if not defined in statutes, the meanings attributed by common use. **[**The definitions for these terms are provided below as a convenience, but persons affected by the Department's regulations should be aware that these definitions are subject to amendment by the General Assembly.**]**

B. *Terms Defined.* **[**In this chapter, the following terms have the meanings indicated.**]**

(1) "Administration" means the Water *and Science* **[**Management**]** Administration.

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

(3) "Approving agency" means the entity responsible for review and approval of stormwater management plans.

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

(5) "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.

(6) "Channel protection **[**storage**]** volume" means the volume *required* **[**used**]** to design *stormwater* **[**structural**]** management practices to *protect* **[**control**]** stream *channel from* erosion. Methods for *determining* **[**calculating**]** the channel protection **[**storage**]** volume are specified in the **[**2000 Maryland Stormwater**]** Design Manual. **[**, Volumes I & II.**]**

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

(8) "Department" means the *Maryland* Department of the Environment.

(9) "Design Manual" means the *2025* **[**2000**]** Maryland Stormwater Design Manual **[**, Volumes I & II,**]** that serves as the official guide for stormwater management principles, methods, and practices.

(10) "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.

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

(12) "Development Project" means a land development or redevelopment activity required to comply with this Chapter.

(13) "Development Site" means the land area where development is proposed or occurring and includes the full extents of the proposed disturbance.

(14) **[**(12)**]** "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) **[**(13)**]** "Direct runoff" means the flow of rainwater, snowmelt, or spring flow over the land surface toward stream channels.

(16) **[**(14)**]** "Drainage area" means that area contributing runoff to a single point measured in a horizontal plane, which is enclosed by a ridge line.

(17) **[**(15) Environmental Site Design.

(a)**]** "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*, as specified in the Design Manual*.

[(b) "Environmental site design (ESD)" design methods are specified in the Design Manual.**]**

(18) **[**(16)**]** "Extended detention" means *designing a stormwater BMP to capture and store a specified volume for slow release.* **[**a stormwater design feature that provides gradual release of a volume of water in order to increase settling of pollutants and protect downstream channels from frequent storm events.**]** Methods for designing extended detention BMPs are specified in the Design Manual.

(19) **[**(17)**]** "Extreme flood volume" means the storage volume required to *manage* **[**control**]** those infrequent but large storm events in which overbank flows reach or exceed the boundaries of the 100-year floodplain. *Criteria for providing the required extreme flood volume management is specified in the Design Manual.*

(20) **[**(18)**]** "Final stormwater management plan" means the last of three required plan approvals that includes the information necessary to allow all approvals and permits to be issued by the *approving agency.* **[**appropriate authority.**]**

(21) **[**(19)**]** "Flow attenuation" means prolonging the flow time of runoff to reduce the peak discharge.

(22) **[**(20)**]** "Impervious area" means any surface that does not allow stormwater to infiltrate into the ground.

(23) **[**(21)**]** "Infiltration" means the passage or movement of water into the soil surface.

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

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

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

(24) **[**(25)**]** "Overbank flood protection volume" means the volume *managed* **[**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.

(25) **[**(26)**]** "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.

(26) **[**(27)**]** "Planning techniques" means a combination of strategies employed early in *a development* project design to reduce impact from development and to incorporate natural features into a stormwater management plan.

(27) **[**(28)**]** "Recharge volume" means that portion of the water quality volume used to maintain ground water recharge rates at development sites. Methods for calculating the recharge volume are specified in the Design Manual.

(28) (29)**]** "Redevelopment" means any construction, alteration, or improvement performed on *development* sites where existing land use is commercial, industrial, institutional, or multifamily residential and the existing *development* site impervious area exceeds 40 percent.

(29) **[**(30)**]** "Retention structure" means a permanent structure that provides for the storage of runoff by means of a permanent pool of water.

(30) **[**(31)**]** "Retrofitting" means the construction of a **[**structural**]** BMP in a previously developed area, the modification of an existing **[**structural**]** BMP, or the implementation of a nonstructural practice to improve *stormwater management* **[**water quality**]** over current conditions.

(31) **[**(32)**]** "Sediment" means soils or other surficial materials transported or deposited by the action of wind, water, ice, or gravity as a product of erosion.

[(33) "Site" means any tract, lot, 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.**]**

(32) **[**(34)**]** "Site development plan" means the second of three required plan approvals that includes the information necessary to allow a detailed evaluation of a proposed *development* project.

(33) **[**(35)**]** "Stormwater" means water that originates from a precipitation event.

(34) "Stormwater Conveyance" means the pathway, area, or structure where stormwater runoff flows.

(35) **[**(36)**]** "Stormwater management" **[**means,**]** for:

(a) *"Quantity Management"* **[**Quantitative control,**]** *means managing* **[**a system of vegetative and structural measures that control**]** the increased volume and rate of *stormwater* **[**surface**]** runoff caused by man-made changes to the land; and

(b) *"Quality Management"* **[**Qualitative control,**]** *means* **[**a system of vegetative, structural, and other measures that**]** *reducing* **[**reduce**]** or *eliminating* **[**eliminate**]** pollutants that might otherwise be carried by *stormwater* **[**surface**]** runoff.

(36) **[**(37)**]** "Stormwater Management Subtitle" means Environment Article, Title 4, Subtitle 2, Annotated Code of Maryland and cumulative supplement.

(37) **[**(38)**]** "Stormwater management system" means natural areas, ESD practices, *other* stormwater *BMPs* **[**management measures**]**, *stormwater conveyance, or* **[**and**]** any other structure through which stormwater flows, infiltrates, or discharges from a site.

(38) **[**(39)**]** "Water quality volume" means the volume needed to capture and treat *the runoff from the storm event that generates* 90 percent of the average annual *rainfall.* **[**runoff volume at a development site.**]** Methods for calculating the water quality volume are specified in the Design Manual.

(39) **[**(40)**]** "Watershed" means the total **[**drainage**]** area contributing runoff to a single point.

.03 General Provisions.

A. The Administration is responsible for implementing and supervising the stormwater management program which is established by the Stormwater Management Subtitle. This responsibility shall include, but is not limited to:

(1) Establishing policies, procedures, standards, model ordinances, and criteria relating to stormwater management;

(2) Reviewing and approving:

(a) County stormwater management ordinances,

(b) Municipal stormwater management ordinances,

(c) Stormwater management program implementation and operation, and

(d) Stormwater management plans for State and federal *development* **[**construction**]** projects which shall be subject to the requirements of this chapter *and the guidelines developed by the Administration*;

(3) Inspecting and enforcing stormwater management on all State and federal *development* **[**construction**]** projects which shall be subject to the requirements of this chapter;

(4) Inspection and enforcement in conjunction with local governmental authorities;

(5) Developing guidelines and regulations;

(6) Assisting local jurisdictions with improving and maintaining their technical capabilities regarding:

(a) Hydrologic and hydraulic analyses,

(b) Utilization of State adopted standards and specifications for stormwater management, and

(c) Stormwater management plan review;

(7) Training assistance to local jurisdictions for construction and maintenance inspections of stormwater management systems;

(8) Developing public educational programs; and

(9) Evaluating the effectiveness of stormwater *management systems to meet the requirements of this regulation.* **[**control measures in eliminating adverse stream quality impacts.**]**

B. Matters of policy, procedures, standards, criteria, approvals, inspection, and enforcement relating to the Stormwater Management Subtitle shall be established by the Administration subject to the jurisdiction of the Secretary of the Environment. The stormwater management programs which are adopted by the counties and municipalities shall include stormwater management criteria consistent with the standards, procedures, and regulations of the Administration. A variation of requirements by a county or municipality on a specific watershed may not be valid unless approved by the Administration. All State and federal development in the watershed shall be reviewed subject to the same variations and requirements by the Administration.

C. Inspection and Review.

(1) Initially, and at least once every 3 years after that, the Administration shall inspect and review the stormwater management programs of the counties and municipalities and evaluate the effectiveness of the programs.

(2) To be found acceptable, a stormwater management program shall have:

(a) An Administration-approved stormwater management ordinance in effect *that is consistent with this Chapter*;

(b) Stormwater management planning and approval processes that provide:

(i) Stormwater management for every land development subject to this *Chapter;* **[**chapter;**]**

(ii) The implementation of *the* ESD to the *maximum extent practicable (MEP) standard in accordance with the Design Manual;* **[**MEP; and**]**

(iii) Adequate overbank protection; and

(iv) **[**(iii)**]** The ability and the information necessary to review adequately proposed installation and maintenance measures for stormwater management;

(c) Inspection and enforcement procedures that ensure the proper construction and maintenance of approved stormwater management *systems.* **[**measures.**]**

(3) Upon completion of its review and evaluation, the Administration shall submit the findings within 30 days to the *approving agency.* **[**appropriate governing authority.**]** The Administration shall also publish the results of the periodic reviews in one document and conduct a public informational meeting concerning the reviews.

D. If a county or municipality is found not to have an acceptable stormwater management program, the Department may:

(1) Issue an order requiring that necessary corrective action be taken within a reasonably prescribed time; or

(2) Impose other sanctions as authorized by law.

E. *To ensure* **[**In order to assure**]** that Administration-approved programs reflect the policies established in *this chapter and* the Design Manual, each county or municipality shall submit proposed revisions to its ordinance to the Administration by *six months after the adoption of the final regulations.* **[**November 11, 2009. **]** Each county and municipality shall adopt a revised ordinance by *18 months after the adoption of the final regulations that is approved by the Administration and requires* **[**May 4, 2010, in order to require**]** that all **[**new**]** development **[**and redevelopment**]** projects implement the policies and practices established in this Chapter and the Design Manual. Descriptions of other program elements shall be submitted as requested by the Administration.

.04 Stormwater Management Ordinances.

A. Each county and municipality shall adopt ordinances necessary to implement a stormwater management program. Subsequently, counties and municipalities shall submit any proposed amendments to the

Administration for review and approval. By joint action with the county, a municipality may adopt the stormwater management ordinance of its respective county.

B. Each local ordinance shall provide for:

(1) A comprehensive stormwater management plan review and approval process that:

(a) Considers all aspects of *development* project planning, design, and construction from initial conception through final approval;

(b) Requires the submission, review, and approval of interim plans at an increasing level of detail for specific stages of *each development* project*;* **[**development;**]**

(c) Provides for coordinated input for all plans from all appropriate agencies including, but not limited to, soil conservation districts and departments of planning, zoning, public works, and environmental protection *to account for the cumulative impacts of grading and sediment control plans and stormwater management plans*; **[**and**]**

(d) Requires *the* implementation of *the* ESD to the MEP *standard in accordance with the Design Manual*; *and*

(e) *Requires the management of the overbank flood protection volume.*

(2) Exemptions and waivers;

(3) Criteria and procedures for stormwater management;

(4) Proper implementation of stormwater management in accordance with the approved plan;

(5) Maintenance responsibilities and requirements including periodic inspection; and

(6) Penalties for noncompliance with the ordinances including suspension of construction activities when appropriate.

.05 When Stormwater Management is Required.

A. Unless *an* **[**the particular**]** activity is exempted by this *Chapter,* **[**regulation,**]** a person may not develop any land without an approved final stormwater management plan from the approving agency. A grading or building permit may not be issued for a property unless a final stormwater management plan has been approved that is consistent with:

(1) The Stormwater Management Subtitle;

(2) This *Chapter;* **[**chapter;**]**

(3) The county or municipal ordinance.

(4) The Design Manual*;* **[**for new development;**]** and

(5) Policies *for redevelopment* established by the *approving agency.* **[**local approving agency for redevelopment.**]**

B. The following activities are exempt from the provisions of this chapter:

(1) Additions or modifications to existing single family detached residential structures if they comply with §B(2) of this regulation;

(2) Any developments *of land* that *does* **[**do**]** not disturb over 5,000 square feet of land area; and

(3) *Development of land* **[**Land development activities**]** which the Administration determines will be regulated under specific State laws which provide for managing stormwater runoff.

C. Waivers.

(1) County and municipal ordinances may contain waiver policies for individual developments if the ordinances are approved by the Administration. The Administration will approve county and municipal ordinances and waiver policies if:

(a) They reasonably ensure that a development *project* will not adversely impact stream quality;

(b) Waiver decisions are made on a case-by-case basis; and

(c) The cumulative effects of the waiver policy are evaluated.

(2) Except as provided in §C(3) **[**and (5)**]** of this regulation, stormwater **[**management**]** *quantity management* **[**quantitative control**]** waivers shall be *limited* **[**granted only**]** to those *development* projects within areas where watershed management plans have been developed consistent with §E of this regulation.

(3) [Except as provided in §C(5) of this regulation,] *If* [if] watershed management plans consistent with §E of this regulation have not been developed, stormwater *quantity* management [quantitative control] waivers may *only* be granted to *development* projects:

(a) That have direct discharges to tidally influenced receiving waters;

(b) That are in-fill development located in a Priority Funding Area where the economic feasibility of the *development* project is tied to the planned density, and where implementation of the *2025* [2009] regulatory requirements would result in a loss of the planned development density provided that:

(i) Public water and sewer*, and adequate* [and] stormwater conveyance exist;

(ii) The *quantity management* [quantitative] waiver is applied to the *development* project *only* for the impervious cover that previously existed on the *development* site *and;* [only;]

(iii) ESD *practices are* [to the MEP is] used to meet the full *recharge volume and* water quality *volume* [treatment] requirements for the [entire] development *site*. [and]

[(iv) ESD to the MEP is used to provide full quantity control for all new impervious surfaces; or]

(c) When the approving agency determines that circumstances exist that prevent the reasonable implementation of quantity *management.* [control practices.]

[(4) Except as provided in §C(5) of this regulation, stormwater management qualitative control waivers apply only to:

(a) In-fill development projects where stormwater management implementation is not feasible;

(b) Redevelopment projects if the requirements of §D of this regulation are satisfied; or

(c) Sites where the approving agency determines that circumstances exist that prevent the reasonable implementation of quality control practices.

(5) 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 local ordinances 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.]

D. Redevelopment.

(1) An approving agency shall require that stormwater management be addressed for redevelopment. Unless otherwise specified by watershed management plans developed according to §E of this regulation, all redevelopment project designs shall do one of the following:

(a) Reduce existing impervious area within the *development site* [limit of disturbance] by at least 50 percent according to the Design Manual;

(b) [Implement ESD to the MEP to] *Provide* [provide] water quality *management* [treatment] for at least 50 percent of the existing impervious area within the *development site according to the Design Manual;* [limit of disturbance;] or

(c) Use a combination of both §D(1)(a) and (b) of this regulation for at least 50 percent of the *development site's* existing [site] impervious area.

(2) *The use of ESD practices shall be maximized* [Alternative stormwater management measures may be used] to meet the requirements in §D(1) of this regulation*. Alternative stormwater management practices may be used* if the developer satisfactorily demonstrates to the approving agency that *the reduction of* impervious area [reduction] and *the use of* ESD *practices to provide water quality management* have been *maximized.* [implemented to the MEP.] Alternative stormwater management *practices* [measures] include, but are not limited to:

(a) An on-site structural BMP;

(b) An [off-site] *ESD practice or* structural BMP to provide water quality *management* [treatment] for an area equal to or greater than 50 percent of the *development site's* existing impervious area; or

(c) A combination of impervious area reduction *and*, *water quality management in an* [ESD implementation, and an on-site or off-site] *ESD or* structural BMP for an area equal to or greater than 50 percent of the existing [site] impervious area within the *development site.* [limit of disturbance.]

(3) An approving agency may develop separate policies *to provide* **[**for providing**]** water quality *management* **[**treatment**]** for redevelopment projects if the requirements of §D(1) and (2) of this regulation cannot be met. Any separate redevelopment policy *requires approval from the Administration* **[**shall be reviewed and approved by the Administration**]** and may include, but *is* not **[**be**]** limited to:

[(a) A combination of ESD and an on-site or off-site structural BMP;**]**

(a) **[**(b)**]** Retrofitting including existing BMP upgrades*;* **[**, filtering practices, and off-site ESD**]** **[**implementation;**]**

(b) **[**(c)**]** Participation in a stream restoration project;

(c) **[**(d)**]** Pollution trading with another entity *in accordance with COMAR 26.08.11*;

(d) **[**(e)**]** Design criteria based on watershed management plans developed according to §E of this regulation; *or*

(e) **[**(f)**]** Payment of a fee-in-lieu.**[**; or**]**

[(g) A partial waiver of the treatment requirements if ESD is not practicable.**]**

(4) The *approving agency will determine* **[**determination of**]** what alternative stormwater management *practices are available* **[**measures will be available may be made by the approving agency**]** at the appropriate point in the development review process. *If the approving agency determines that it is not practicable to manage the water quality volume in an ESD practice, then the approving agency* **[**Counties and municipalities**]** shall consider the prioritization of alternative *practices* **[**measures**]** in §D(3) of this regulation*.* **[**after it has been determined that it is not practicable to meet the 2009 regulatory requirements using ESD.**]** In deciding what alternative *practices* **[**measures**]** may be required, an approving agency may consider factors including, but not limited to:

(a) Whether the *development* 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;

(b) Whether the *development* project is necessary to accommodate growth consistent with comprehensive plans; or

(c) Whether bonding and financing have already been secured based on an approved development plan.

(5) For redevelopment projects, the recharge volume, channel protection volume, and overbank flood protection requirements specified in the Design Manual only apply to the new construction.

(6) **[**(5)**]** Stormwater management *for any net increase in impervious area* shall be addressed according to the new development requirements in the Design Manual. **[**for any net increase in impervious area.**]**

[(6) The recharge, channel protection storage volume, and overbank flood protection volume requirements specified in the Design Manual do not apply to redevelopment projects unless specified by the approving agency.**]**

(7) On-site or off-site channel protection **[**storage**]** volume requirements *and quantity management* as specified in the Design Manual may be imposed if watershed management plans developed according to §E of this regulation indicate that downstream flooding or erosion need to be addressed.

(8) *The Administration may approve variations from §D of this regulation.* **[**Variations of this redevelopment policy shall be approved by the Administration.**]**

E. An approving agency may develop *quantity management waivers* **[**quantitative waiver**]** and redevelopment provisions for stormwater management *in one or more specified watersheds* that differ from the requirements of this *Chapter.* **[**chapter.**]** These provisions shall be developed only as part of an overall watershed management plan *approved by the Administration*. Watershed management plans developed for the purposes 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;

(3) Include cumulative impact assessment of watershed development;

(4) Identify existing flooding and receiving stream channel conditions;

(5) Be conducted at a scale determined by the approving agency; and

(6) Specify where on-site or off-site *quantity and quality management* **[**quantitative and qualitative stormwater management**]**

.06 Minimum Control Requirements.

A. County and Municipal Requirements.

(1) The minimum control requirements established in this *regulation* **[**section**]** and the Design Manual shall be contained in each county and municipal ordinance. **[**as they apply to the applicable parts of the State.**]** The minimum control requirements for each county and municipality are provided in §A(2) and (3) of this regulation.

(2) All counties and **[**their incorporated**]** municipalities shall require that the planning techniques, nonstructural and structural practices, and design methods specified in the Design Manual be used to implement *the minimum control requirements per section 21.17.02.06.3 through section 21.17.02.06.5 of this Chapter.* **[**ESD to the MEP. Stormwater management plans for development projects subject to this chapter shall be designed using the ESD sizing criteria, recharge volume, water quality volume, and channel protection storage volume criteria according to the Design Manual. The MEP standard is met when channel stability and 100 percent of the average annual predevelopment groundwater recharge are maintained, nonpoint source pollution is minimized, and structural stormwater management practices are used only if determined to be absolutely necessary.**]**

(3) Stormwater management plans for development projects shall be designed to meet the ESD to MEP standard according to the Design Manual.

(4) **[**(3)**]** *Quantity management* **[**Control**]** of the **[**2-year frequency storm event,**]** 10-year frequency storm event**[**, or both**]** is required *for all new development* according to the Design Manual. **[**if any county or municipality determines that additional stormwater management is necessary because historical flooding problems exist and downstream floodplain development and conveyance system design cannot be controlled.**]**

(5) **[**(4)**]** An approving agency may require more than the minimum control requirements specified in this regulation if hydrologic*, hydraulic,* or topographic conditions warrant or if flooding, stream channel erosion, or water quality problems exist downstream from a proposed *development* project.

B. *An approving authority may adopt alternate* **[**Alternate**]** minimum control requirements **[**may be adopted**]** subject to *the Administration's* **[**Administration**]** approval. The Administration shall require a demonstration that alternative requirements will implement *the ESD to the MEP standard* **[**ESD to the MEP**]** and control *the impacts of the development project for* flood damages, accelerated stream erosion, water quality, and sedimentation, *and,* **[**including,**]** if necessary, *to be consistent with* **[**address**]** comprehensive watershed studies.

C. Development *projects* in watersheds designated as interjurisdictional **[**flood hazard**]** watersheds *in* **[**within**]** this chapter *shall* **[**may**]** not increase the downstream peak discharge for the 100-year frequency storm event *in accordance with the Design Manual* and shall comply with flood management plans as approved by the Department in accordance with the Flood Hazard Management Act of 1976 (Environment Article, Title 5, Subtitle 8, Annotated Code of Maryland).

.07 Interjurisdictional Flood Hazard Watersheds.

A. The watersheds specified in this regulation are interjurisdictional in nature and have documented flood damages to residential, commercial, industrial, or institutional structures. Development *projects* in *these* **[**the**]** interjurisdictional flood hazard *watersheds shall* **[**watershed may**]** not increase the downstream peak discharge for the 100-year frequency storm event *in accordance with the Design Manual*. Additionally, development *of land* shall comply with *watershed studies and* flood management plans as approved by the Department in accordance with the Flood Hazard Management Act of 1976 (Environment Article, Title 5, Subtitle 8, Annotated Code of Maryland). The following watersheds and all their tributaries are **[**designated as**]** interjurisdictional flood hazard watersheds:

(1) Carroll Creek in Frederick City and Frederick County;

(2) Gwynns Falls in Baltimore City and Baltimore County; **[**and**]**

(3) Jones Falls in Baltimore City and Baltimore County*; and* **[**.**]**

(4) Herring Run in Baltimore City and Baltimore County.

B. The Administration shall periodically review watersheds to be included as interjurisdictional flood hazard watersheds for the purposes of this *Chapter.* **[**chapter.**]** Any additional interjurisdictional watershed to be designated will be considered with respect to the:

(1) Economic losses due to flood damages;

(2) Expected upstream development;

(3) Frequency of flooding;

(4) Number and value of structures flooded; and

(5) Threat to life.

.08 Stormwater Management *Practices.* [Measures.]

A. The ESD planning techniques and practices and structural stormwater management *practices* **[**measures**]** established in this regulation and the Design Manual shall be contained in all county and municipal ordinances. Each ordinance shall require that a developer demonstrate that the ESD **[**has been implemented**]** to the MEP *standard has been implemented* and *adequate overbank flood protection has been provided in accordance with the Design Manual.* **[**, only where absolutely necessary, is a structural BMP used in developing a stormwater management plan.**]**

B. ESD Planning Techniques and Practices.

(1) The following planning techniques shall be applied according to the Design Manual to satisfy the minimum control requirements established in Regulation .06 of this chapter:

(a) Preserving and protecting natural resources;

(b) Conserving natural drainage patterns;

(c) Minimizing impervious area;

(d) Reducing runoff volume;

(e) Using ESD practices to maintain 100 percent of the average annual predevelopment groundwater recharge volume for the *development* site;

(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 *planning techniques or* practices approved by the Administration.

(2) The following ESD treatment practices shall be designed according to the Design Manual to satisfy the minimum control requirements established in Regulation .06 of this chapter:

(a) Disconnection of rooftop runoff;

(b) Disconnection of nonrooftop runoff;

(c) Sheetflow to conservation areas;

(d) Rainwater harvesting;

(e) Submerged gravel wetlands;

(f) Landscape infiltration;

(g) Infiltration berms;

(h) Dry wells;

(i) Micro-bioretention;

(j) Rain gardens;

(k) Swales;

(l) Enhanced filters; and

(m) Any practices approved by the Administration.

(3) The use of the ESD planning techniques and treatment practices specified in this section may not conflict with existing State law or local ordinances, regulations, or policies. Counties and municipalities shall modify *any ordinances, codes, regulations, policies, or related requirements* **[**planning and zoning ordinances

and public works codes**]** to eliminate any impediments to implementing *the* ESD to the MEP *standard* according to the Design Manual.

C. Structural Stormwater Management *Practices.* **[**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 Regulation .06 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**[.]** *; and*

(f) Any practice approved by the Administration.

(2) The performance criteria specified in the Design Manual *for* **[**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. Standard Plans.

(1) Compliance with any of the following Standard Plans is considered to satisfy the minimum control requirements established in Regulation .06A(2) of this chapter.

(2) Standard Plans. The following documents are incorporated by reference:

(a) Standard Stormwater Management Plan for Agricultural Structures (SSDS — SP01);

(b) Standard Stormwater Management Plan for Poultry House Development on Maryland's Eastern Shore (SSDS — SP02); and

(c) Standard Stormwater Management Plan for Single Lot Residential Construction (SSDS — SP03).

(3) Compliance with an approved Soil Conservation and Water Quality Plan (SCWQP) is considered to satisfy the minimum control requirements established in Regulation .06A(2) of this chapter if the development:

(a) Is an agricultural structure, or associated access roads and parking areas;

(b) Complies with USDA Natural Resources Conservation Service Maryland Conservation Practice Standard Stormwater Runoff Control Code 570 (March 2013);

(c) Is not located within the Chesapeake and Atlantic Coastal Bays Critical Area; and

(d) Is not subject to the requirements of:

(i) COMAR 26.08.04.09A;

(ii) COMAR 26.08.04.09N; or

(iii) COMAR 26.17.04.05.

(4) An approving agency may require more than the minimum control measures. An approving agency may require that an engineered stormwater management plan be submitted if:

(a) Otherwise required by statute or regulation;

(b) The plan fails to meet *the ESD to the MEP standard;* **[**ESD to the MEP;**]**

(c) Hydrologic or topographic conditions warrant; or

(d) Flooding, stream channel erosion, or water quality problems exist downstream from a proposed project.**]**

(D.) **[**E.**]** County and municipal ordinances shall specify that the ESD planning techniques and treatment practices and structural stormwater management *practices* **[**measures**]** used to satisfy the minimum control requirements in Regulation *26.17.02*.06 of this *Chapter* **[**chapter**]** are documented and remain unaltered by subsequent property owners. *The property owner shall obtain approval from the approving agency* **[**Approval from the appropriate approving agency should be obtained**]** before *altering* any *approved* stormwater management practice. **[**is altered.**]**

(E.) **[**F.**]** Alternative ESD planning techniques and treatment practices and structural stormwater management *practices* **[**measures**]** may be used for new development runoff control if they meet the performance criteria established in the Design Manual and are approved by the Administration. Practices used for redevelopment projects shall be approved by the **[**appropriate**]** approving agency.

(F.) **[**G**]**. For purposes of modifying the minimum control requirements or design criteria, the owner/developer shall submit to the approving agency an analysis of the impacts of stormwater flows downstream in the watershed. The analysis shall include hydrologic and hydraulic calculations necessary to determine the impact of hydrograph timing modifications of the proposed development upon a dam, highway, structure, or natural point of restricted streamflow, established with the concurrence of the approving agency, downstream of the first downstream tributary whose drainage area equals or exceeds the contributing area to the project or stormwater management facility.

.09 Stormwater Management Plans.

A. The design of stormwater management plans shall be prepared by any individual whose qualifications are acceptable to the approving agency. The approving agency may require that the design be prepared by either a professional engineer, professional land surveyor, or landscape architect licensed in the State, as necessary to protect the public or the environment. If a stormwater BMP requires either a dam safety permit from the Department or small pond approval by the *Department, the* appropriate soil conservation district, *or Department Designee,* the approving agency shall require that the design be prepared by a professional engineer licensed in the State.

B. Stormwater management **[**and development**]** plans shall be consistent with adopted and approved watershed management plans or flood management plans as approved by the Department in accordance with the Flood Hazard Management Act of 1976 (Environment Article, Title 5, Subtitle 8, Annotated Code of Maryland).

C. An operation and maintenance plan shall be required as a condition of stormwater management plan approval.

D. If a stormwater management plan involves direction of some or all runoff off of the *development* site, it is the responsibility of the developer to obtain from adjacent property owners any easements or other necessary property interests concerning flowage of water. Approval of a stormwater management plan does not create or affect any right to direct runoff onto adjacent property without that property owner's permission.

E. Contents and Submission of Stormwater Management Plans.

(1) The owner/developer is responsible for submitting phased stormwater management plans for development projects according to the comprehensive review and approval process specified in Regulation .04 of this *Chapter,* **[**chapter,**]** the Design Manual, and county and municipal stormwater management ordinances. Plans shall be submitted for the concept, site development, and final stormwater management construction phases of *development* project design. Comments from the *approving agency* **[**appropriate approval authority**]** shall be addressed and approval received at each phase of *development* project design before subsequent submissions.

(2) The owner/developer shall submit a concept plan that provides sufficient information for an initial assessment of the proposed *development* project and whether stormwater management can be provided according to this *Chapter* **[**chapter**]** and the Design Manual. Plans submitted for concept approval shall include, but are not limited to:

(a) A map at a scale specified by the approving agency **[**appropriate approval authority**]** showing *development* site location, existing natural features, water and other sensitive resources, topography, and natural drainage patterns;

(b) The anticipated location of all proposed impervious areas, buildings, roadways, parking, sidewalks, utilities, and other *development* site improvements;

(c) The location of the proposed *development site* **[**limit of disturbance**]**, erodible soils, steep slopes, and areas to be protected during construction;

(d) Preliminary estimates of stormwater management requirements, the selection and location of ESD practices *and structural practices* to be used, and the location of all points of discharge from the *development* site;

(e) A narrative that supports the concept design and describes how *flood protection and the* ESD *to the MEP standard* will be implemented **[**to the MEP**]**; and

(f) Any other information required by the approving *agency.* **[**Agency.**]**

(3) Following concept plan approval by the *approving agency* **[**appropriate authority,**]** the owner or developer shall submit site development plans that reflect comments received during the previous review phase. Plans submitted for site development approval shall be of sufficient detail to allow site development to be reviewed and *shall* include but not be limited to:

(a) All information provided during the concept plan review phase;

(b) Final *development* site layout, exact impervious area locations and acreages, proposed topography, delineated drainage areas at all points of discharge from *development* site, and stormwater volume computations for ESD practices and *structural stormwater management practices;* **[**quantity control structures;**]**

(c) A proposed erosion and sediment control plan that contains the construction sequence, any phasing necessary to limit earth disturbances and impacts to natural resources, and an overlay plan showing the types and locations of ESD *practices, structural practices,* and erosion and sediment control practices to be used;

(d) A narrative that supports the site development design *and***[**,**]** describes how ESD *and structural practices* will be used to meet the minimum control requirements*; and* **[**, and justifies any proposed structural stormwater management measure; and**]**

(e) Any other information required by the approving *agency.* **[**Agency.**]**

(4) Following site development approval by the *approving agency,* **[**appropriate authority,**]** 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:

(a) Final erosion and sediment control plans shall be submitted according to COMAR 26.17.01.05; and

(b) Final stormwater management plans shall be submitted for approval in the form of construction drawings and *shall* be accompanied by a report that includes sufficient information to evaluate the effectiveness of the proposed runoff control design.

(5) Reports submitted for final stormwater management plan approval shall include, but are not limited to:

(a) Geotechnical investigations including soil maps, borings, site-specific recommendations, and any additional information necessary for the final stormwater management design;

(b) Drainage area maps depicting predevelopment and postdevelopment runoff flow path segmentation and land use;

(c) Hydrologic computations of the applicable *stormwater management system* **[**ESD and unified sizing criteria**]** according to the Design Manual for all points of discharge from the *development* site;

(d) Hydraulic and structural computations for all ESD practices and structural stormwater management *practices* **[**measures**]** to be used;

(e) A narrative that supports the final stormwater management design; and

(f) Any other information required by the approving agency.

(6) Construction drawings submitted for final stormwater management plan approval shall include, but are not limited to:

(a) A vicinity map;

(b) Existing and proposed topography and proposed drainage areas, including *all locations where discharge leaves the development site and all* areas necessary to determine downstream analysis for the proposed stormwater management *practices;* **[**facilities;**]**

(c) Any proposed improvements including the location of buildings or other structures, impervious surfaces, storm drainage facilities, and all grading;

(d) The location of existing and proposed structures;

(e) Any easements and rights-of-way;

(f) The delineation, if applicable, of the *locally regulated floodplain, the Federal Emergency Management Agency (FEMA)* 100-year floodplain and any on-site wetlands;

(g) Structural and construction details including representative cross sections *and profiles* for all components of the proposed drainage system or systems and stormwater management *practices;* **[**facilities;**]**

(h) All necessary construction specifications;

(i) A sequence of construction;

(j) Data for *the development site, including the total impervious area, disturbed area, pre-development and post-development impervious areas, and pervious areas by hydrologic soil group;* **[**total site area, disturbed area, new impervious area, and total impervious area;**]**

(k) A table showing the *water quality, channel protection, overbank flood protection, and extreme flood protection volumes and discharge rates as* **[**ESD and unified sizing criteria volumes**]** required in the Design Manual;

(l) A table of materials to be used for stormwater management facility planting;

(m) All soil boring logs and locations;

(n) An inspection and maintenance schedule;

(o) Certification by the owner/developer that all stormwater management construction will be done according to this plan;

(p) An as-built certification signature block to be executed after *development* project completion; and

(q) Any other information required by the approving agency.

F. Standard plans *approved by the Administration* **[**specified in Regulation .08D of this chapter**]** are considered an acceptable stormwater management plan for satisfying the requirements of §E of this regulation.

.10 Construction Inspection and Enforcement.

A. Before Beginning Construction.

(1) All county and municipal ordinances shall require:

(a) Advance notification of the beginning of construction by the owner/developer;

(b) Documented regular inspections during construction of stormwater management systems;

(c) Certification by a professional engineer licensed in the State documenting that structural practices have been constructed according to approved *final stormwater management* plans; and

(d) Effective enforcement procedures to ensure compliance with approved stormwater management plans.

(2) The owner/developer shall notify the **[**appropriate**]** approving agency at least 48 hours before beginning any work in conjunction with stormwater management system construction.

(3) Inspections shall be conducted by county or municipal staff or certified by a professional engineer licensed in the State. The periodic inspections shall be documented and *the approving agency shall maintain reports of these inspections.* **[**reports maintained by the county or municipality.**]** Written reports shall be prepared for every inspection and include:

(a) The date and location of the inspection;

(b) Whether construction was in compliance with the approved stormwater management plan;

(c) Any variations from the approved construction specifications; and

(d) Any violations that exist.

(4) 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.

(5) *Each specific stage of construction in 10.c below for each practice must be completed and approved by the approving agency before moving on to the subsequent stage of construction.* **[**Work may not proceed until the work previously completed is approved by the appropriate inspection authority.**]**

B. Regular inspections shall be made and documented for each ESD **[**planning technique and**]** practice*, structural practice, and stormwater conveyance* at the stages of construction specified in the Design Manual. At a minimum, all ESD and other nonstructural practices*, structural practices, and stormwater conveyances* shall be inspected upon completion of final grading, the establishment of permanent stabilization, and before issuance of use and occupancy approval.

C. 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 *§C(1)* **[**§B(1)**]** of this regulation, 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, orifices, 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 *§C(1)* **[**§B(1)**]** of this regulation and during placement and backfill of under drain systems;

(5) For filtering systems *and ESD practices*:

(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; and

(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 or diaphragms, check dams, or weirs; and

(d) Upon completion of final grading and establishment of permanent stabilization.

(7) For closed stormwater conveyances:

(a) During excavation to subgrade; and

(b) During placement of the stormwater conveyance system.

D. If the approving agency identifies any noncompliance with a stormwater management plan, the approving agency shall issue a notice of violation that specifies corrective actions and shall further issue a stop work order if the violation persists. **[**The county or municipality responsible for inspection and

enforcement of approved stormwater management plans may, for enforcement purposes, use any one or a combination of the following actions:**]** The approving agency may also:

[(1) A notice of violation shall be issued specifying the need for the violation to be corrected if stormwater management plan noncompliance is identified;

(2) A stop work order shall be issued for the site by the county or municipality if a violation persists;**]**

(1) **[**(3)**]** *Withold* Bonds or securities **[**may be withheld**]** or *refer* the case **[**may be referred**]** for legal action*; or* **[**if reasonable efforts to correct the violation have not been undertaken; or**]**

(2) Initiate a **[**(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 or this chapter.**]**

E. Any step in the enforcement process may be taken at any time, depending on the severity of the violation.

F. Once construction is complete, as-built plan certification shall be *signed and* submitted by either a professional engineer or professional land surveyor licensed in the State *stating* **[**to ensure**]** that ESD *treatment practices,* **[**planning techniques, treatment practices, and**]** structural stormwater management *practices,* **[**measures**]** and *stormwater conveyances* **[**conveyance systems**]** comply with the specifications contained in *the final stormwater management* approved *plan.* **[**plans. At a minimum,**]** *The* as-built certification shall include a set of drawings comparing the approved *final* stormwater management plan with what was constructed. Other information shall be submitted as required by the approving agency.

G. Each *approving agency* **[**county or municipality**]** shall submit *a* notice of construction completion to the Administration on a form supplied by the Administration for each stormwater management practice within 45 days of construction completion. If BMPs requiring soil conservation district approval are constructed, notice of construction completion shall also be submitted to the appropriate soil conservation district.

.11 Maintenance.

A. Maintenance requirements established in this regulation shall be contained in all county and municipal ordinances and shall provide for inspection and maintenance. The owner shall perform or cause to be performed preventive maintenance of all completed ESD treatment practices*,* **[**and**]** structural stormwater management *practices,* **[**measures**]** *and stormwater conveyances* to ensure proper functioning. The *approving agency* **[**responsible agency of the county or municipality**]** shall *verify the performance of* **[**ensure**]** preventive maintenance through inspection of all stormwater management systems. *These inspections* **[**The inspection**]** shall occur during the first year of operation and then at least once every 3 years after that.

B. *The approving agency shall maintain inspection reports* **[**Inspection reports shall be maintained by the county or municipality**]** on all stormwater management systems*. At a minimum, each inspection report shall include the following:* **[**and shall include the following:**]**

(1) The date of inspection;

(2) Name of inspector;

(3) 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) *Closed storm drain systems, catch basins, culverts, open channels, and other stormwater conveyance:*

(j) Any nonstructural practices to the extent practicable; and

(k) **[**(j)**]** Any other item that could affect the proper function of the stormwater management system;

(4) Description of needed maintenance.

C. County and municipal ordinances shall provide procedures to ensure that deficiencies indicated by inspections are rectified. The procedures shall include the following:

(1) Notification to the owner of deficiency including a time frame for repairs;

(2) Subsequent inspection to ensure completion of repairs; and

(3) Effective enforcement procedures if repairs are not undertaken or are not done properly.

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