

Model Post-Construction Stormwater Management Ordinance for the Coastal Nonpoint Source Management Area

Description: This model ordinance addresses post-construction stormwater management in Georgia's Coastal Nonpoint Source Management Area. The ordinance establishes requirements for stormwater plans that are to be submitted before land development commences. The plans document how post-construction stormwater runoff quality and quantity will be effectively managed according to performance criteria described in the ordinance. Guidelines for inspection, maintenance, and violations are also included. The ordinance is linked with existing stormwater management manuals including the Georgia Stormwater Management Manual, the Coastal Stormwater Supplement and local design manuals that provide the technical specifications for stormwater system design.

Formatting notes: Summary boxes precede many sections of the ordinance and provide a descriptive overview and regulatory intent of the section. Language that is italicized in brackets may be altered or removed to suit the needs of the local jurisdiction. Language italicized in parenthesis should be changed to match the terminology used by the local jurisdiction or to include data specific to the jurisdiction.

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Section 1. General Provisions

1.1. Findings of Fact

It is hereby determined that:

- (1) Land development activities alter the hydrologic response of local watersheds, increasing stormwater runoff rates, volumes, and pollutant loads, and increase flooding, channel erosion, and pollutant transport and deposition in rivers and streams;
- (2) Land development activities alter the hydrologic response of local watersheds, increasing stormwater runoff rates, volumes, and pollutant loads, and, consequently, alter water levels and fluctuations and increase pollutant transport and deposition in wetlands;
- (3) Land development activities alter the hydrologic response of local watersheds, increasing stormwater runoff rates, volumes, and pollutant loads, and alter salinity concentrations and fluctuations and increase productivity and pollutant transport and deposition in estuaries;
- (4) Land development activities and alter the hydrologic response of local watersheds, increasing stormwater runoff rates, volumes, and pollutant loads, and increase bacteria transport and deposition in near coastal waters, which leads to beach contamination and closure and poses a serious threat to human health;
- (5) Land development activities alter the hydrologic response of local watersheds, increasing stormwater runoff rates and volumes, and, consequently, decreasing the amount of rainfall that is available to recharge shallow groundwater aquifers;
- (6) The negative impacts of land development activities on these important local aquatic resources can adversely affect the health, safety and general welfare of the general public;
- (7) The negative impacts of land development can be controlled and minimized through the regulation of stormwater runoff rates, volumes, and pollutant loads on development and redevelopment sites;
- (8) Communities within the Coastal Nonpoint Source Management Area are required to comply with a number of State and Federal regulations that require the adverse impacts of increased stormwater runoff rates, volumes and pollutant loads to be controlled and minimized;
- (8) Therefore, the *(local jurisdiction)* has determined that it is in the public interest to control and minimize the adverse impacts of land development activities and has established this set of stormwater management provisions to regulate post-construction stormwater runoff rates, volumes and pollutant loads on development and redevelopment sites.

1.2. Purpose and Intent

Purpose and Intent

- Most local ordinances have a Purpose and Intent section that establishes the reasons that the local jurisdiction is regulating stormwater runoff.
- This section is usually tied to protection of public health and safety and may also refer to regulatory requirements (e.g., MS4 requirements).

The purpose of this ordinance is to protect and maintain the integrity of local aquatic resources, and, consequently, the health, safety and welfare of the general public, by establishing minimum stormwater management provisions that control and minimize the adverse impacts of land development activities. This ordinance seeks to meet that purpose through the following objectives:

- (1) Establish decision-making processes surrounding land development activities that protect the integrity of local aquatic resources;
- (2) Establish minimum post-development stormwater management standards and design criteria that will reduce flooding, channel erosion, and pollutant transport and deposition in local aquatic resources;
- (3) Establish minimum post-development stormwater management standards and design criteria that will help preserve existing hydrologic conditions and development and redevelopment sites;
- (4) Establish design criteria for structural and nonstructural stormwater management practices that can be used to meet the minimum post-development stormwater management standards and design criteria;
- (5) Encourage the use of better site planning, better site design and low impact development practices to the maximum extent practical at development and redevelopment sites;
- (6) Establish provisions for the long-term upkeep and maintenance of structural and nonstructural stormwater management practices to ensure that they continue to function as designed and pose no threat to public safety; and,
- (7) Establish administrative procedures for the submission, review, approval and disapproval of stormwater management plans and for the inspection of approved land development projects.

Note: The above list is a general set of objectives to reduce the impacts of post-development stormwater quantity and quality from land development activities. The locality may wish to set more specific objectives based upon a watershed management plan, impervious surface targets, or the findings of a watershed assessment study or in order to address a local water quality problem, TMDL, or other regulatory obligations.

1.3. Applicability and Exemptions

Applicability and Exemptions

- The Applicability and Exemptions section establishes the “mesh size” for the ordinance; that is, the site size or site characteristics that trigger application of the ordinance and its provisions.
- Applicability can be based on site impervious cover, a land disturbance threshold, overall site size, number of lots, and/or the type of development (e.g., hotspots).
- The most common threshold is 1-acre disturbed. The advantage of this threshold is that it is consistent with the NPDES threshold for construction sites. However, impervious cover is a more precise trigger for a stormwater management ordinance.
- Some local ordinances will have a variable trigger for new development versus redevelopment, especially if redevelopment is a critical component to an overall land use policy that encourages infill.
- The most important consideration regarding Exemptions is to identify only those development projects that should not be regulated. Since exemptions categorically exclude activities from the provisions of the ordinance, ordinance language must be to avoid having exemptions turn into loopholes.

- (1) This ordinance shall be applicable to all land development activities, including, but not limited to, site plan applications, subdivision applications, and grading applications, unless exempt pursuant to Section 1.3.2 below. These standards apply to any new development or redevelopment activity within (*local jurisdiction*) that meets one or more of the following criteria:
 - (a) New development that involves the creation of (*5,000 square feet or more*) of impervious cover or that involves other land development activities of (*1 acre or more*);
 - (b) Redevelopment that includes the creation, addition, or replacement of (*5,000 square feet or more*) of impervious cover or that involves other land development activities of (*1 acre or more*);
 - (c) Any new development or redevelopment, regardless of size, that is defined by the (*administrator*) to be a hotspot land use; or,
 - (d) Land development activities that are smaller than the minimum applicability criteria set forth above if such activities are part of a larger common plan of development, even though multiple, separate, and distinct land development activities may take place at different times on different schedules.
- (2) The following activities are exempt from this ordinance:

- (a) Individual single-family or duplex residential lots that are not part of a subdivision or phased development project that is otherwise subject to this ordinance;
- (b) Additions or modifications to existing single-family or duplex residential structures;
- (c) Projects that are exclusively for agricultural or silvicultural activities within areas zoned for these agricultural and silvicultural use;
- (d) Maintenance and repairs of any stormwater facility deemed necessary by the (*administrator*);
- (e) Any part of a land development project that was approved by the (*administrator*) prior to the adoption of this ordinance; and,
- (f) Redevelopment that constitutes the replacement of the original square footage of impervious cover and original acreage of other land development activity when the original development is wholly or partially lost due to natural disaster or other acts of God occurring after (*date of adoption*).

1.4. Designation of Ordinance Administrator

Designation of Ordinance Administrator, Compatibility with Other Regulations, Severability, Stormwater Management Manual

- These sections appear in some, but not all, ordinances for various legal reasons.
- Check with legal staff to determine the applicability of these sections to your local jurisdiction.

The (*administrator*) is hereby appointed to administer and implement the provisions of this ordinance.

5. Compatibility with Other Regulations

This ordinance is not intended to interfere with, modify or repeal any other ordinance, rule, regulation, or other provision of law. The requirements of this ordinance should be considered minimum requirements, and where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule, regulation, or other provision of law, whichever provision is more restrictive or imposes higher protective standards for human health or the environment shall control.

6. Severability

If the provisions of any section, subsection, paragraph, subdivision, or clause of this ordinance shall be adjudged invalid by a court of competent jurisdiction, such judgment shall not affect or invalidate the remainder of any section, subsection, paragraph, subdivision, or clause of this ordinance.

7. Stormwater Management Manual

The *(local jurisdiction)* will utilize the standards, criteria, and information presented in the latest edition of the Coastal Stormwater Supplement, the Georgia Stormwater Management Manual, and any relevant local addenda, for the proper implementation of this ordinance. These references may be updated and expanded periodically, based on improvements in science, engineering, monitoring, and local experience.

Section 2. Definitions

Definitions

- The Definitions section ensures that terms are defined consistently across other related guidance and regulatory documents.

“Applicant” means a property owner or other responsible person who has submitted an application for a post-development stormwater management permit.

“Better Site Design” means site design techniques that can be used during the site design process to minimize the creation of new impervious cover and reduce a site's impact on the watershed. Better site design techniques include reducing clearing and grading limits, roadway lengths and widths, and parking lot and building footprints.

“Better Site Planning” means site planning techniques that can be used during the site planning process to protect and conserve natural areas that are critical in preserving pre-development site hydrology and reducing a site's impact on the watershed. Better site planning techniques include conserving significant stands of trees and other vegetation, natural drainage features, and riparian buffers.

“Building” means any structure, either temporary or permanent, having walls and a roof, designed for the shelter of any person, animal, or property, and occupying more than 100 square feet of area.

“Channel” means a natural or artificial watercourse with a definite bed and banks that conducts continuously or periodically flowing water.

“Conservation Easement” means an agreement between a land owner and the *(local jurisdiction)* or other government agency or land trust that permanently protects open space or greenspace on the owner's land by limiting the amount and type of development that can take place but continues to leave the remainder of the fee interest in private ownership.

“Dedication” means the deliberate appropriation of property by its owner for general public use.

“Detention” means the temporary storage of stormwater runoff in a stormwater management practice for the purpose of controlling the peak discharge.

“Detention Facility” means a detention basin or structure designed for the detention of stormwater runoff and gradual release of stored water at controlled rates.

“Developer” means a person who undertakes land development activities.

“Development” means a land development or land development project.

“Drainage Easement” means an easement appurtenant or attached to a tract or parcel of land allowing the owner of adjacent tracts or other persons to discharge stormwater runoff onto the tract or parcel of land subject to the drainage easement.

“Easement” means a legal right granted by a land owner to a grantee allowing the use of private land for conveyance or treatment of stormwater runoff and access to stormwater management practices.

“Erosion and Sedimentation Control Plan” means a plan that is designed to minimize the accelerated erosion and sediment runoff at a site during land development activities.

“Evapotranspiration” means the loss of water to the atmosphere by both evaporation and transpiration, which is the evaporation of water by plants.

“Extended Detention” means the detention of stormwater runoff for an extended period, typically 24 hours or greater.

“Extreme Flood Protection” means measures taken to prevent adverse impacts from large low-frequency storm events with a return frequency of 100 years or more.

“Flooding” means a volume of surface water that is too great to be confined within the banks or walls of a conveyance or stream channel and that overflows onto adjacent lands.

“Greenspace” or **“Open Space”** means permanently protected areas of the site that are preserved in a natural state.

“Green Infrastructure” means better site planning and design techniques and low impact development practices that are used during the site planning and design process to preserve and/or replicate the pre-development hydrology of a development or redevelopment site and reduce a site's impact on the watershed.

“Hotspot” means an area where the use of the land has the potential to generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater. Hotspots may be permanent or temporary. Hotspots include, but are not limited to, fueling stations (including temporary fueling stations during construction) and golf courses.

“Hydrologic Soil Group (HSG)” means a Natural Resource Conservation Service classification system in which soils are categorized into four runoff potential groups. The groups range from group A soils, with high permeability and little runoff produced, to group D soils, which have low permeability rates and produce much more runoff.

“Impaired Waters” means those streams, rivers and lakes that currently do not meet their designated use classification and associated water quality standards under the Clean Water Act.

“Impervious Cover” means a surface composed of any material that greatly impedes or prevents the passive, natural infiltration of water into soil. Impervious surfaces include, but are not limited to, rooftops, buildings, streets, and roads, except those designed specifically to provide active, engineered infiltration.

“Industrial Stormwater Permit” means a National Pollutant Discharge Elimination System (NPDES) permit issued to an industry or group of industries that regulates the pollutant levels associated with industrial stormwater discharges or specifies on-site pollution control strategies.

“Infill Development” means land development that occurs within designated areas based on local land use, watershed, and/or utility plans where the surrounding area is generally developed, and where the site or area is either vacant or has previously been used for another purpose.

“Infiltration” means the process of percolating stormwater runoff into the subsoil.

“Infiltration Facility” means any stormwater management practice designed to provide active, engineered infiltration of retained water to the subsurface. These stormwater management practices may be above or below grade.

“Inspection and Maintenance Agreement and Covenant” means a written agreement and covenant providing for the long-term inspection and maintenance of stormwater management facilities and practices on a site or with respect to a land development project, which when properly recorded in the deed records constitutes a restriction on the title to a site or other land involved in a development project.

“Jurisdictional Wetland” means an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation.

“Land Development” means any change in land cover, including, but not limited to, clearing, digging, grubbing, stripping, removal of vegetation, dredging, grading, excavating, filling, and paving, that alters the hydrologic response of local watersheds.

“Land Development Activities” means those actions or activities that comprise, facilitate, or result in land development.

“Land Development Project” means a discrete land development undertaking.

“Low Impact Development” means small-scale, distributed stormwater management practices that can be used during the site design process to replicate existing

hydrologic conditions, help offset the creation of new impervious cover and reduce a site's impact on the watershed.

“New Development” means a land development activity on a previously undeveloped site.

“Nonpoint Source Pollution” means a form of water pollution that does not originate from a discrete point, such as a sewage treatment plant or industrial discharge, but involves the transport of pollutants, such as sediment, fertilizers, pesticides, heavy metals, oil, grease, bacteria, organic materials, and other contaminants from land to surface water and groundwater via mechanisms such as precipitation, stormwater runoff, and leaching. Nonpoint source pollution is a by-product of land use practices, such as agricultural, silvicultural, mining, construction, subsurface disposal, and urban runoff sources.

“Nonstructural Stormwater Management Practice” or **“Nonstructural Practice”** means any natural or planted vegetation or other nonstructural component of the stormwater management plan that provides for or enhances stormwater quantity and/or quality control or other stormwater management benefits and includes, but is not limited to, riparian buffers, open and greenspace areas, overland flow filtration areas, natural depressions, and vegetated channels.

“Off-Site Facility” means a stormwater management facility located outside the boundaries of the site.

“On-Site Facility” means a stormwater management facility located within the boundaries of the site.

“Overbank Flood Protection” means measures taken to prevent an increase in the frequency and magnitude of out-of-bank flooding (i.e. flow events that exceed the capacity of the channel and enter the floodplain) and that are intended to protect downstream properties from flooding for the 2-year through 25-year frequency storm events.

“Owner” means the legal or beneficial owner of a site, including, but not limited to, a mortgagee or vendee in possession, receiver, executor, trustee, lessee or other person, firm, or corporation in control of the site.

“Permit” means the permit issued by the (*local jurisdiction*) to the applicant, which is required for undertaking any land development activity.

“Person” means, except to the extent exempted from this ordinance, any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, city, county or other political subdivision of the State, any interstate body, or any other legal entity.

“Post-development” refers to the time period or the conditions that may reasonably be expected or anticipated to exist, after completion of the land development activity on a site as the context may require.

“Pre-development” refers to the time period or the conditions that exist, on a site prior to the commencement of a land development project and at the time that plans for the land development of a site are approved by the plan approving authority. Where phased development or plan approval occurs (preliminary grading, roads and utilities, etc.), the existing conditions at the time prior to the first item being approved or permitted shall establish pre-development conditions.

“Project” means a land development project.

“Recharge” means the replenishment of groundwater aquifers.

“Redevelopment” means a change to previously existing, improved property, including but not limited to the demolition or building of structures, filling, grading, paving, or excavating, but excluding ordinary maintenance activities, remodeling of buildings on the existing footprint, resurfacing of paved areas, and exterior changes or improvements that do not materially increase or concentrate stormwater runoff or cause additional nonpoint source pollution.

“Regional Stormwater Management Facility” or **“Regional Facility”** means stormwater management facilities designed to control stormwater runoff from multiple properties, where the owners or developers of the individual properties may assist in the financing of the facility and the requirement for on-site controls is either eliminated or reduced.

“Riparian Buffer” means an area of land at or near a streambank, wetland, or waterbody that has intrinsic water quality value due to the ecological and biological processes it performs or is otherwise sensitive to changes which may result in significant degradation of water quality.

“Runoff” means stormwater runoff.

“Site” means the parcel of land being developed, or the portion thereof on which the land development project is located.

“Stormwater Hotspot” means an area where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater runoff.

“Stormwater Management Practice” means structural and nonstructural practices that control stormwater runoff and provide for or enhance stormwater quantity and/or quality control or other stormwater management benefits.

“Stormwater Management” means the collection, conveyance, storage, treatment, and disposal of stormwater runoff in a manner intended to prevent increased flood damage, streambank channel erosion, habitat degradation, and water quality degradation and to enhance and promote the public health, safety and general welfare.

“Stormwater Management Facility” means any infrastructure that controls or conveys stormwater runoff.

“Stormwater Management Measure” means any stormwater management facility or nonstructural stormwater practice.

“Stormwater Management Plan” means a document describing how existing runoff characteristics will be affected by a land development project and containing measures for complying with the provisions of this ordinance.

“Stormwater Management System” means the entire set of structural and nonstructural stormwater management practices that are used to capture, convey, and control the quantity and quality of the stormwater runoff.

“Stormwater Retrofit” means a stormwater management practice designed for an existing development site that previously had either no stormwater management practice in place or a practice inadequate to meet local stormwater management criteria.

“Stormwater Runoff” means the flow of surface water resulting from precipitation.

“Structural Stormwater Management Practice” means a structural stormwater management facility or device that controls stormwater runoff and changes the characteristics of that runoff including, but not limited to, the quantity and quality, the period of release, or the velocity of flow of such runoff.

“Subdivision” means the division of a parcel of land resulting in one or more new lots or building sites for the purpose, whether immediately or in the future, of sale, transfer of ownership, or land development, and includes divisions of land resulting from or made in connection with the layout or development of a new street or roadway or a change in an existing street or roadway.

“Watercourse” means a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water.

“Watershed Management Plan” means a document, usually developed cooperatively by government agencies and other stakeholders, to protect, restore, and/or otherwise manage the water resources within a particular watershed or subwatershed. The plan commonly identifies threats, sources of impairment, institutional issues, and technical and programmatic solutions or projects to protect and/or restore water resources.

Permit Procedures and Requirements

- The Permit Procedures and Requirements section outlines the requirements for plans to be submitted and the general conditions for approval.
- Plan approval can be a local jurisdiction's last chance to influence several important issues, such as ensuring long-term access to stormwater management practices and assigning maintenance responsibility.
- The ordinance should establish the plan approval process as a mechanism to secure a maintenance agreement and plan that will ensure the long-term viability of a site's stormwater management practices.

Section 3. Permit Procedures and Requirements

3.1. Permit Application Requirements

No owner or developer shall perform any land development activity without first meeting the requirements of this ordinance and having been issued a permit from the (*local jurisdiction*). Unless specifically exempted by this ordinance, any owner or developer proposing a land development activity shall submit to the (*local jurisdiction*) a permit application on a form provided by the (*local jurisdiction*) for that purpose. Unless otherwise exempted by this ordinance, the following items shall accompany a permit application:

- (1) Stormwater management concept plan and record of a consultation meeting held in accordance with Section 3.2;
- (2) Stormwater management design plan in accordance with Section 3.3;
- (3) Inspection and maintenance agreement and plan in accordance with Section 3.4, if applicable;
- (4) Permit application and plan review fees in accordance with Sections 3.5 and 3.6; and,
- (5) *Performance bond in accordance with Section 3.7.*

2. Stormwater Management Concept Plan and Consultation Meeting

Prior to the submittal of a stormwater management design plan, inspection and maintenance agreement and plan, and permit application, the landowner or developer shall submit to the (*local jurisdiction*) for review and approval, a preliminary concept plan describing, in general, how stormwater runoff through and from the development will be conveyed and managed.

The submittal should include the following components:

(a) Natural Resources Inventory

A graphic illustration of the natural resources at the site as they exist prior to the start of the project. The natural resources inventory shall be prepared in accordance with Section 4.1.

(b) Proposed Site Plan

A graphic illustration of the proposed site layout including, at a minimum: existing and proposed topography; natural drainage features; perennial and intermittent streams; wetlands; soil types; groundwater recharge areas; floodplains; stands of trees and other vegetation; existing infrastructure; existing easements; proposed limits of clearing and grading; and location of proposed roads, buildings, parking areas, and other impervious surfaces.

(c) Stormwater Management Concept Plan

A graphic illustration of the proposed stormwater management system including, at a minimum: location of existing and proposed better site planning and design techniques, low impact development practices, and structural stormwater management practices; location of existing and proposed stormwater conveyance systems, such as grass channels, swales, and storm drains; flow paths; location of existing floodplains and floodways; the relationship of site to upstream and downstream properties and stormwater management systems; and the location of any proposed stream channel modifications, such as bridge or culvert crossings.

The stormwater management concept plan shall utilize, to the maximum extent practical, better site planning and design techniques and low impact development practices to reduce stormwater runoff rates, volumes, and pollutant loads and reduce the site's impact on the watershed. Such techniques and practices include, but are not limited to: conservation and/or restoration of natural areas, such as forests, wetlands, and riparian buffers, minimization and/or disconnection of impervious surfaces, and small-scale distributed stormwater management practices that intercept and treat or otherwise manage stormwater runoff closer to its source.

All applicants are encouraged to hold a consultation meeting with the (*local jurisdiction*) to discuss the proposed development project, the stormwater management concept plan, and opportunities to use better site planning and design techniques and low impact development practices to reduce runoff rates, volumes and pollutant loads and the site's impact on the watershed. This consultation meeting shall take place (*on-site*) after submittal, but prior to approval, of the stormwater management concept plan for the purposes of verifying site conditions and the feasibility of the stormwater management plan.

Local watershed plans and any other relevant resource protection plans will be consulted during review of the stormwater management concept plan. If necessary, a follow-up meeting may be held with the applicant before formal site design commences to verify the feasibility of the stormwater management system that will be used to control and minimize the impacts of the proposed land development project.

3.3. Stormwater Management Design Plan

Subsequent to approval of the stormwater management concept plan and completion of formal site design, the owner or developer shall submit to the (*local jurisdiction*) for review and approval, a stormwater management design plan that details how stormwater runoff through and from the development will be conveyed and managed. The stormwater management design plan shall detail how post-development stormwater runoff will be controlled or managed and how the proposed project will meet the requirements of this ordinance, including the post-construction stormwater management criteria set forth in Section 4.

The submittal should include the following components:

- (1) Certification by Plan Preparer: The stormwater management design plan shall be prepared in accordance with the criteria outlined in Section 3.3(b) below by a certified design professional such as a landscape architect, professional surveyor, or professional engineer who must certify that the design of the stormwater management system meets the requirements of this ordinance and the latest edition of the Coastal Stormwater Supplement, the Georgia Stormwater Management Manual, and any relevant local addenda.
- (2) Certification by Owner: The owner shall certify that all land clearing, construction, land development and drainage will be done according to the approved stormwater management design plan.
- (3) Stormwater Management Design Plan: The stormwater management design plan shall address the requirements of this ordinance and ensure that better site planning and design techniques and low impact development practices are being used to the maximum extent practical to reduce stormwater runoff rates, volumes, and pollutant loads and reduce the site's impact on the watershed. The stormwater management design plan shall include maps, narrative descriptions, and supporting design calculations (hydrologic and hydraulic) for the proposed stormwater management system. The stormwater management design plan shall include all of the information required in the latest edition of the Coastal Stormwater Supplement, the Georgia Stormwater Management Manual, and any relevant local addenda.
- (4) Stormwater Management Concept Plan: A copy of the approved stormwater management concept plan shall be included with the submittal of the stormwater management design plan. The stormwater management design plan shall be consistent with the approved concept plan. If changes to the proposed land development activity have resulted in modification of the approved concept plan, the *(local jurisdiction)* may require a revised concept plan or a written statement providing rationale for the changes made to the approved concept plan.

3.4. Stormwater Management Inspection and Maintenance Agreement and Plan

Stormwater Management Inspection and Maintenance Agreement and Plan

- The Stormwater Management Inspection and Maintenance Agreement and Plan section is intended to ensure long-term maintenance of stormwater management practices. This section should be used to:
 - Ensure that maintenance agreements are recorded.
 - Ensure the easements for maintenance and access are platted.
 - Establish maintenance inspection and reporting requirements.

- (1) Prior to the issuance of a permit for any land development activity requiring one, the applicant (or owner of the site, if different) must execute an inspection and maintenance agreement and plan that shall be binding on all subsequent owners of the site, unless the stormwater management system is dedicated to and accepted by the *(local jurisdiction)*.

- (2) The inspection and maintenance agreement and plan shall include the following information:
- A. Identification by name or official title the person(s) responsible for carrying out the inspection and maintenance.
 - B. A statement that responsibility for the operation and maintenance of the stormwater management system, unless assumed by a governmental agency, shall remain with the property owner and shall pass to any successor owner.
 - C. A provision stating that, if portions of the land are sold or otherwise transferred, legally binding arrangements shall be made to pass the inspection and maintenance responsibility to the appropriate successors in title. These arrangements shall designate, for each portion of the stormwater management system, the person to be permanently responsible for its inspection and maintenance.
 - D. A maintenance schedule stating when and how often routine inspection and maintenance will occur to ensure proper function of the stormwater management system.
 - E. Plans for annual inspections to ensure proper performance of the stormwater management system between scheduled maintenance and remedies for the default thereof.
- (3) The inspection and maintenance agreement and plan shall be approved by the (*local jurisdiction*) prior to approval of the stormwater management design plan and recorded with the deed upon approval of the stormwater management design plan.
- (4) In addition to enforcing the terms of the inspection and maintenance agreement and plan, the (*local jurisdiction*) may also enforce all of the provisions for ongoing inspection and maintenance in Section 6 of this ordinance.
- (5) The terms of the stormwater management inspection and maintenance agreement and plan shall provide for the (*local jurisdiction*) to enter the property at reasonable times and in a reasonable manner for the purpose of inspection. These terms include the right to enter a property when the (*local jurisdiction*) has a reason to believe that a violation of an approved stormwater management inspection and maintenance agreement and plan or this ordinance is occurring or has occurred and to enter when necessary for abatement of a public nuisance or correction of a violation of an approved stormwater management inspection and maintenance agreement and plan or this ordinance.

3.5. Permit Application Procedure

- (1) Applications for post-construction stormwater management permits shall be filed with the *(local jurisdiction)* on a permit application on a form provided by the *(local jurisdiction)* for that purpose.
- (2) Permit applications shall include the items set forth in Section 3.1 above *(two copies of the stormwater management design plan and the stormwater management inspection and maintenance agreement and plan, shall be included)*.
- (3) The *(local jurisdiction)* shall inform the applicant whether the application, stormwater management design plan, and inspection and maintenance agreement and plan are approved or disapproved.
- (4) If the permit application, stormwater management design plan, or inspection and maintenance agreement and plan are disapproved, the *(local jurisdiction)* shall notify the applicant of such fact in writing. The applicant may then revise any item not meeting the requirements of this ordinance and resubmit the same, in which event Section 3.5.3 above and this Section shall apply to such re-submittal.
- (5) Upon a finding by the *(local jurisdiction)* that the permit application, stormwater management design plan, and inspection and maintenance agreement and plan, if applicable, meet the requirements of this ordinance, the *(local jurisdiction)* may issue a post-construction stormwater management permit for the land development project, provided all other legal requirements for the issuance of such permit have been met.
- (6) Notwithstanding the issuance of the permit, in conducting the land development project, the applicant or other responsible person shall be subject to the following requirements:
 - (a) The applicant shall comply with all applicable requirements of the approved stormwater management design plan and the provisions of this ordinance and shall certify that all land clearing, construction, land development, and drainage will be done according to the approved stormwater management design plan;
 - (b) The land development project shall be conducted only within the area specified in the approved stormwater management design plan;
 - (c) The *(local jurisdiction)* shall be allowed to conduct periodic inspections of the project in accordance with Sections 5 and 6;
 - (d) No changes may be made to an approved stormwater management design plan without review and written approval by the *(local jurisdiction)*; and,
 - (e) Upon completion of the project, the applicant or other responsible person shall submit a statement certifying that the project has been completed in accordance with the approved stormwater management design plan and as-

built plans for the stormwater management system, as required by Section 5.3 of this ordinance.

3.6. Application Review Fees

Application Review Fees

- The local jurisdiction should insert an appropriate fee schedule into this Section.
- If a local jurisdiction does not currently charge fees for plan review, waivers, and inspections, then it should consider fees as a possible revenue source for its post-construction stormwater management program.

A non-refundable permit fee (*shall/may*) be collected at the time the post-construction stormwater management permit application is submitted. Any monetary collection shall be credited to a local budget to support plan review, administration and management of the permitting process, and inspection of all projects subject to this ordinance. The (*local jurisdiction*) (*shall/may*) develop a fee schedule based on the area of land disturbed by the project and may amend the fee schedule from time to time.

3.7. Performance Bonds

The (local jurisdiction) shall require from the developer a surety or cash bond, irrevocable letter of credit, or other means of security acceptable to the (local jurisdiction) prior to the issuance of any building and/or grading permit for any land development activity requiring a permanent stormwater management system. The amount of the security shall not be less than the total estimated construction cost of the permanent stormwater management system. The bond required in this Section shall include provisions relative to forfeiture for failure to complete work specified in the approved stormwater management design plan, compliance with all of the provisions of this ordinance, other applicable laws and regulations, and any time limitations. The bond shall not be fully released without a final inspection of the completed work by the (local jurisdiction), submission of "as-built" plans, a recorded inspection and maintenance agreement and plan, and a certification of completion by the Applicant that the stormwater management system complies with the approved stormwater management design plan and provisions of this ordinance. A procedure may be used to release parts of the bond held by the (local jurisdiction) after various stages of construction have been completed and accepted by the (local jurisdiction). The procedures used for partially releasing performance bonds must be specified by the local authority in writing prior to the approval of a stormwater management design plan.

8. Compliance Through Off-Site Stormwater Management Practices

The stormwater management design plan for each land development project shall include structural and nonstructural stormwater management practices located on the development or redevelopment site unless provisions are made to manage stormwater runoff at an off-site or regional facility. The off-site or regional facility must be located on property legally dedicated for that purpose, be designed and adequately sized to

meet the post-construction stormwater management criteria set forth in Section 4, provide a level of stormwater quality and quantity control that is equal to or greater than that which would be provided by on-site stormwater management practices, and have a legally-obligated entity responsible for long-term operation and maintenance of the off-site or regional stormwater facility. In addition, stormwater management measures shall be implemented, where necessary, to protect upstream and downstream properties and drainage channels between the site and the location of the off-site or regional facility.

To be eligible for compliance through an off-site stormwater management practice, the applicant must submit a stormwater management design plan to the (*local jurisdiction*) that shows the adequacy of the off-site or regional facility and demonstrates, to the satisfaction of the (*local jurisdiction*), that the off-site or regional facility will not result in the following impacts:

- (1) Increased threat of flood damage or endangerment to public health or safety;
- (2) Deterioration of existing culverts, bridges, dams, and other structures;
- (3) Accelerated streambank or streambed erosion or siltation;
- (4) Degradation of in-stream biological functions or habitat; or
- (5) Water quality impairment in violation of State water quality standards, and/or violation of any state or federal regulations.

Post-Construction Stormwater Management Criteria

- Criteria are the core of the stormwater ordinance. They establish the design objectives for stormwater management practices, and will influence the types and sizes of these practices.
- Criteria in the ordinance should remain fairly simple, with technical detail relegated to the design manual, which, in this case, is the Coastal Stormwater Supplement.

Section 4. Post-Construction Stormwater Management Criteria

All development and redevelopment sites shall utilize structural and nonstructural stormwater management practices to control and minimize the increased stormwater runoff rates, volumes, and pollutant loads caused by land development in accordance with the criteria presented below. Better site planning and design techniques and low impact development practices should be used to the maximum extent practical to reduce runoff rates, volumes, and pollutant loads and the site's impact on the watershed. Such techniques and practices include, but are not limited to, conservation and/or restoration of natural areas, such as forests, wetlands, and riparian buffers, minimization and/or disconnection of impervious surfaces, and small-scale distributed stormwater management practices, such as rain gardens, pervious pavement, and

stormwater planters, that intercept and treat or otherwise manage stormwater runoff close to its source.

For structural and nonstructural stormwater management practices not included in the Coastal Stormwater Supplement or the Georgia Stormwater Management Manual, or for which pollutant removal and runoff reduction rates have not been provided, the effectiveness of the structural or nonstructural stormwater management practice must be documented through prior studies, literature reviews, or other means and receive approval from the (*local jurisdiction*) before being included in the design of a stormwater management system. In addition, if hydrologic or topographic conditions or land use activities warrant greater control than that provided by the post-construction stormwater management criteria, the (*local jurisdiction*) may impose additional requirements deemed necessary to protect upstream and downstream properties and aquatic resources from damage due to increased volume, frequency, and rate of stormwater runoff or due to increased nonpoint source pollution loads created on the development or redevelopment site in question.

The following criteria shall apply to all land development activities and stormwater management design plans, unless otherwise provided for in this ordinance:

4.1. Natural Resources Inventory

A graphic illustration of the natural resources at the development or redevelopment site, as they exist prior to the start of land development activities, shall be prepared during the site planning process. The Natural Resources Inventory shall include, at a minimum: existing topography; natural drainage features; perennial and intermittent streams; wetlands; riparian buffers; floodplains; steep slopes; soil types; groundwater recharge areas; areas with high groundwater; stands of trees and/or other vegetation; and areas with significant habitat value. Protection, conservation and/or restoration of a site's natural resources through the use of better site planning techniques may, at the discretion of the (*local jurisdiction*), allow for a reduction in stormwater runoff volume as a means of complying with the post-construction stormwater management criteria outlined in Sections 4.2 through 4.7. The better site planning techniques that qualify for this credit, and the procedures for calculating the runoff reduction provided by these nonstructural stormwater management practices, is provided in the latest edition of the Coastal Stormwater Supplement.

4.2. Runoff Reduction

Some portion of the stormwater runoff generated on a development or redevelopment site shall be captured and retained, reused, or otherwise reduced in order to preserve and/or replicate pre-development site hydrology, recharge shallow groundwater aquifers, promote baseflow to on-site and downstream aquatic resources, and minimize the water quality impacts of land development. A stormwater management system complies with this requirement if:

- (1) It is designed to capture and retain, reuse, or otherwise reduce the prescribed runoff reduction volume from the site, as defined in the latest edition of the Coastal Stormwater Supplement;

- (2) Appropriate structural and nonstructural stormwater management practices that provide for the interception, evaporation, transpiration, passive infiltration, active (engineered) infiltration, extended filtration, and capture and reuse of stormwater runoff have been selected, designed, constructed, and maintained in accordance with the standards, criteria, and information presented in the latest edition of the Coastal Stormwater Supplement; and,
- (3) Stormwater runoff from any development or redevelopment site that is defined by the (*local jurisdiction*) as a stormwater hotspot is not managed through the use of structural or nonstructural stormwater management practices that provide for passive or active (engineered) infiltration of stormwater runoff, unless adequate pre-treatment is provided, as defined by the (*local jurisdiction*).

Green infrastructure, which includes better site planning and design techniques and low impact development practices, shall be used to the maximum extent practical during the site planning and design process to capture and retain, reuse, or otherwise reduce the prescribed runoff reduction volume on a development or redevelopment site.

The (*local jurisdiction*) may reduce or waive the runoff reduction requirements on a development or redevelopment site with high groundwater, groundwater recharge areas, tight or contaminated soils, or other site constraints that prevent the use of one or more runoff reduction processes. When seeking a reduction in or waiver from runoff reduction requirements, the applicant shall demonstrate that structural and nonstructural stormwater management practices that provide for the interception, evaporation, transpiration, passive infiltration, active (engineered) infiltration, extended filtration, and capture and reuse of stormwater runoff have been used to the maximum extent practical and that no additional runoff reduction can be provided on the site. Any of the prescribed runoff reduction volume that is not captured and retained, reused, or otherwise reduced on the site, shall be captured and treated in an appropriate structural stormwater management practice that has been selected, designed, constructed, and maintained in accordance with the standards, criteria, and information presented in the latest edition of the Coastal Stormwater Supplement.

4.3. Aquatic Resource Protection

All stormwater management systems shall be designed to protect on-site and downstream aquatic resources from the water quality and water quality impacts of land development. A stormwater management system is presumed to comply with this standard if:

- (1) It provides aquatic resource protection in accordance with the criteria and information provided in the latest edition of the Coastal Stormwater Supplement; and,
- (2) Appropriate structural and nonstructural stormwater management practices have been selected, designed, constructed, and maintained in accordance

with the standards, criteria, and information presented in the latest edition of the Coastal Stormwater Supplement and any relevant local addenda.

4.4. Water Quality

A significant portion of the stormwater runoff generated on a development or redevelopment site shall be adequately treated before discharge to minimize the water quality impacts of land development. A stormwater management system complies with this requirement if it meets the runoff reduction requirements of Section 4.2 of this ordinance and the aquatic resource protection requirements of Section 4.3 of this ordinance.

4.5. Groundwater Recharge

Groundwater recharge shall be preserved on a development or redevelopment site in order to preserve and/or replicate pre-development site hydrology, recharge shallow groundwater aquifers, and promote baseflow to on-site and downstream aquatic resources. A stormwater management system complies with this requirement if it provides groundwater recharge in accordance with the criteria and information provided in the latest edition of the Coastal Stormwater Supplement.

The prescribed groundwater recharge volume on a development or redevelopment site, as defined in the latest edition of the Coastal Stormwater Supplement, shall be considered part of the runoff reduction volume defined in Section 4.2, and shall not be managed in addition to the prescribed runoff reduction volume. Green infrastructure, which includes better site planning and design techniques and low impact development practices, shall be used to the maximum extent practical during the site planning and design process to preserve groundwater recharge on a development or redevelopment site.

4.6. Overbank Flood Protection

Overbank Flood Protection

- Most local jurisdictions establish overbank flood protection criteria that are matched with the same design storm used for open channels, culverts, bridges, and storm drain systems. Therefore, many local jurisdictions require that the post-development peak discharge generated by the 10-year and/or 25-year, 24-hour storm event be controlled to match the pre-development peak discharge generated by the same storm event(s).

All stormwater management systems shall be designed to control the post-development peak discharge generated by the overbank flood protection storm event, as defined in the latest edition of the Coastal Stormwater Supplement, to prevent an increase in the frequency and magnitude of damaging overbank flooding. A stormwater management system complies with this requirement if:

- (1) It provides overbank flood protection in accordance with the criteria and information provided in the latest edition of the Coastal Stormwater Supplement; and,
- (2) Appropriate structural and nonstructural stormwater management practices have been selected, designed, constructed, and maintained in accordance with the standards, criteria, and information presented in the latest edition of the Coastal Stormwater Supplement and any relevant local addenda.

Extreme Flood Protection

- Some local jurisdictions establish extreme flood protection criteria to maintain the boundaries of existing floodplains, reduce the threat of flooding, and protect public health and safety. Even if an extreme flood protection criteria is not applied, local jurisdictions should require that all stormwater structures that impound water can safely pass the 100-year storm without overtopping or creating damaging downstream conditions.

4.7. Extreme Flood Protection

All stormwater management systems shall be designed to control and/or safely convey the post-development peak discharge generated by the extreme flood protection storm event, as defined in the latest edition of the Coastal Stormwater Supplement, to protect downstream properties from flood damage, maintain the boundaries of existing floodplains, and protect the physical integrity of downstream stormwater conveyance features, management practices, and flood control facilities. A stormwater management system complies with this requirement if:

- (1) It provides extreme flood protection in accordance with the criteria and information provided in the latest edition of the Coastal Stormwater Supplement; and,
- (2) Appropriate structural and nonstructural stormwater management practices have been selected, designed, constructed, and maintained in accordance with the standards, criteria, and information presented in the latest edition of the Coastal Stormwater Supplement and any relevant local addenda.

Redevelopment Criteria

- Include separate Redevelopment Criteria when the local jurisdiction encourages redevelopment as part of a greater land use or Smart Growth strategy.
- With these criteria, stormwater requirements are tailored to unique redevelopment conditions, such as less rigorous stormwater management requirements or provisions for off-site mitigation in lieu of full on-site compliance.
- In some local jurisdictions, redevelopment projects may be required to meet more rigorous stormwater management criteria if downstream flooding and/or water quality are important issues.

4.8. Redevelopment Criteria

Land development that qualifies as redevelopment shall meet one of the following criteria:

- (1) **Reduce Impervious Cover:** Reduce existing site impervious cover by at least 20%.
- (2) **Provide Stormwater Management:** Manage the stormwater runoff from at least 20% of the site's existing impervious cover and any new impervious cover in accordance with the post-construction stormwater management criteria outlined in Sections 4.2 through 4.7 using stormwater management practices designed in accordance with the standards, criteria, and information presented in the latest edition of the Coastal Stormwater Supplement, the Georgia Stormwater Management Manual, and any relevant local addenda.
- (3) **Provide Off-Site Stormwater Management:** Provide a level of stormwater quality and quantity control that is equal to or greater than that which would be provided by on-site stormwater management practices, in accordance with Section 3.8 of this ordinance.
- (4) **Combination of Measures:** Any combination of (1) through (3) above that is acceptable to the (local jurisdiction).

4.9. Structural Stormwater Management Practices

All structural stormwater management practices shall be selected, designed, constructed, and maintained in accordance with the standards, criteria, and information presented in the latest edition of the Coastal Stormwater Supplement, the Georgia Stormwater Management Manual, and any relevant local addenda. Applicants shall consult the latest edition of the Coastal Stormwater Supplement, the Georgia Stormwater Management Manual, and any relevant local addenda for guidance on selecting structural stormwater management practices that can be used to satisfy the post-construction stormwater management criteria outlined in Sections 4.2 through 4.7.

4.10. Nonstructural Stormwater Management Practices

The use of nonstructural stormwater management practices, including better site planning and design techniques and low impact development practices, is encouraged to preserve and/or replicate the pre-development hydrology of a development or redevelopment site, reduce a site's impact on the watershed, and minimize reliance on structural stormwater management practices. The use of nonstructural stormwater management practices may, at the discretion of the (local jurisdiction), allow for a reduction in stormwater runoff volume as a means of complying with the post-construction stormwater management criteria outlined in Sections 4.2 through 4.7. The nonstructural stormwater management practices that qualify for this credit, and procedures for applying and calculating the runoff reduction provided by these nonstructural stormwater management practices, is provided in the latest edition of the Coastal Stormwater Supplement.

4.11. Stormwater Conveyance Systems

Stormwater conveyance systems, which may include but are not limited to culverts, stormwater drainage pipes, catch basins, drop inlets, junction boxes, headwalls, gutters, swales, channels, ditches, and energy dissipaters, shall be provided when necessary for the protection of public right-of-way and private properties adjoining development and redevelopment sites and/or public right-of-ways. Stormwater conveyance systems that are designed to convey stormwater runoff from more than one parcel shall meet the following requirements:

- (1) Methods used to calculate stormwater runoff rates and volumes shall be in accordance with the latest edition of the Georgia Stormwater Management Manual;
- (2) All culverts, pipe systems, and open channel flow systems shall be sized in accordance with the stormwater management design plan using the methods included in the latest edition of the Georgia Stormwater Management Manual; and,
- (3) Planning and design of stormwater conveyance systems shall be in accordance with the criteria and specifications found in the latest edition of the Georgia Stormwater Management Manual.

Section 5. Construction Inspection of Stormwater Management Systems

Construction Inspection of Stormwater Management Systems

- The inspection section of the ordinance outlines the regulatory requirements for inspecting and reporting on permanent stormwater management practices.
- The ordinance should be clear about who is responsible for conducting inspections (the responsible party, a local government department or a combination), and the type and frequency of reporting that must be submitted.

5.1. Notice of Construction Commencement

The applicant must notify the (*local jurisdiction*) before the commencement of construction. In addition, the applicant must notify the (*local jurisdiction*) in advance of construction of critical components of the stormwater management practices shown on the approved stormwater management design plan. The (*local jurisdiction*) may, at its discretion, issue verbal or written authorization to proceed with critical construction steps, such as installation of permanent stormwater management practices based on stabilization of the drainage area and other factors.

5.2. Inspections During Construction

Periodic inspections of the stormwater management practices shown on the approved stormwater management design plan shall be conducted by staff or representatives of the *(local jurisdiction)* during construction. Construction inspections shall utilize the approved stormwater management design plan for establishing compliance with the provisions of this ordinance. All inspections shall be documented in written reports that contain the following information:

- (1) The date and location of the inspection;
- (2) The name of the inspector;
- (3) Whether construction is in compliance with the approved stormwater management design plan;
- (4) Violations of the approved stormwater management design plan; and,
- (5) Any other variations from the approved stormwater management plan.

If any violations are found, the applicant shall be notified in writing about the nature of the violation and the remedial measures that are required to bring the action or inaction into compliance with the approved stormwater management design plan, as described in Section 7.1. In the event that the remedial measures described in such notice have not been completed by the date set forth in the notice, any one or more of the enforcement actions outlined in Section 7.2 of this ordinance may be taken against the applicant.

5.3. Final Inspection and As Built Plans

Subsequent to the final installation and stabilization of all permanent stormwater management practices shown on the approved stormwater management design plan and before the issuance of a certificate of occupancy the applicant is responsible for certifying that the project has been completed in accordance with the approved stormwater management design plan and submitting "as built" plans for all permanent stormwater management practices shown on the approved stormwater management design plan. The "as built" plans must show the final design specifications for all structural and nonstructural stormwater management practices and must be certified by a licensed landscape architect, professional surveyor, or professional engineer. A final inspection shall be conducted by the staff or representatives of the (local jurisdiction) to confirm the accuracy of the "as built" plans. A final inspection is required before any performance bond or other guarantee can be released.

Section 6. Ongoing Inspection and Maintenance of Stormwater Management Systems

6.1. Maintenance Responsibility

The responsible party named in the recorded stormwater management inspection and maintenance agreement and plan (Section 3.4), shall maintain in good condition and promptly repair and restore all structural and nonstructural stormwater management

practices, maintenance access routes, and appurtenances, including, but not limited to grade surfaces, walls, drains, dams, structures, vegetation, erosion and sediment controls, and other protective devices. Such repairs, restoration, and maintenance shall be in accordance with the approved inspection and maintenance agreement and plan.

If the responsible party named in the recorded inspection and maintenance agreement and plan is a homeowner's association or other owner's association, such as a unit owner's association, the responsible party shall submit to the *(local jurisdiction)* a copy of a recorded declaration that provides:

- (1) That stormwater management practices are part of the common elements of the development and shall be subject to the requirements of the stormwater management inspection and maintenance agreement and plan;
- (2) That membership in the association shall be mandatory and automatic for all homeowners or unit owners of the development and their successors;
- (3) That the association shall have lien authority to ensure the collection of dues from all members;
- (4) That the requirements of the inspection and maintenance agreement and plan shall receive the highest priority for expenditures by the association except for any other expenditures that are required by law to have a higher priority;
- (5) That a separate fund shall be maintained by the association for the routine maintenance, reconstruction, and repair of the stormwater management practices, and kept in an account insured by the FDIC or by another entity acceptable to the *(local jurisdiction)*;
- (6) That the routine maintenance, reconstruction, and repair fund shall contain at all times the dollar amount reasonably determined from time to time by the *(local jurisdiction)* to be adequate to pay for the probable reconstruction and repair cost (but not routine maintenance cost) of the stormwater management system for a three-year period; and,
- (7) That, to the extent permitted by law, the association shall not enter into voluntary dissolution unless responsibility for the stormwater management practices is transferred to a successor.

The *(local jurisdiction)*, in lieu of an inspection and maintenance agreement and plan, may accept dedication of any existing or future stormwater management practice or facility for maintenance, provided such practice or facility meets all of the requirements of this ordinance, is in proper working order at the time of dedication, and includes adequate and perpetual access and sufficient area for inspection and regular maintenance. Such adequate and perpetual access shall be accomplished by granting of an easement to the *(local jurisdiction)* or through a fee simple dedication to the *(local jurisdiction)*.

6.2. Maintenance Inspections

Periodic inspections of the stormwater management practices shown on an approved stormwater management design plan and subject to the terms and conditions of an approved inspection and maintenance agreement and plan shall be conducted by staff or representatives of the (*local jurisdiction*) to document repair and maintenance needs and ensure compliance with the requirements of the approved inspection and maintenance agreement and plan and provisions of this ordinance. All inspections should be documented in written reports that contain the following:

- (1) The date and location of the inspection;
- (2) The name of the inspector;
- (3) The condition of:
 - (a) Vegetation and filter media,
 - (b) Fences and other safety devices,
 - (c) Spillways, valves, and other hydraulic control structures,
 - (d) Embankments, slopes, and safety benches,
 - (e) Reservoirs and permanent pools,
 - (f) Inlet and outlet channels and structures,
 - (g) Underground drainage structures;
 - (h) Sediment and debris accumulation in storage and forebay areas;
 - (i) Nonstructural stormwater management practices;
 - (j) Any other item that could affect the proper function of the stormwater management system; and
- (4) A description of repair, restoration, and maintenance needs.

If any repair, restoration, or maintenance needs are found, the responsible party named in the recorded stormwater management inspection and maintenance agreement and plan shall be notified in writing about the repair, restoration, or maintenance needs and the remedial measures that are required to bring the stormwater management system into compliance with the approved stormwater management inspection and maintenance agreement and plan, as described in Section 7.1. In the event that the remedial measures described in such notice have not been completed by the date set forth in the notice, any one or more of the enforcement actions outlined in Section 7.2 of this ordinance may be taken against the responsible party named in the approved stormwater management inspection and maintenance agreement and plan.

6.3. Records of Maintenance Activities

The responsible party shall make and maintain records of all inspections, maintenance, and repairs, and shall retain the records for a minimum of five years. These records shall be made available to the *(local jurisdiction)* during inspections and at other reasonable times upon request of the *(local jurisdiction)*.

6.4. Failure to Maintain

If the responsible party fails or refuses to meet the terms and conditions of an approved stormwater management inspection and maintenance agreement and plan and/or the requirements of this ordinance, the *(local jurisdiction)*, after thirty (30) days written notice (except, that in the event the violation constitutes an immediate danger to public health or safety, 24 hours notice shall be sufficient), may correct a violation by performing the work necessary to place the stormwater management practice in proper working condition. The *(local jurisdiction)* may assess the responsible party for the cost of the repair work, which shall be a lien on the property, and may be placed on the ad valorem tax bill for such property and collected in the ordinary manner for such taxes by the *(local jurisdiction)*.

Section 7. Violations, Enforcement and Penalties

Any action or inaction that violates the provisions of this ordinance or the requirements of an approved stormwater management design plan, stormwater management inspection and maintenance agreement and plan, or permit may be subject to the enforcement actions outlined in this Section. Any such action or inaction that is continuous with respect to time is deemed to be a public nuisance and may be abated by injunctive or other equitable relief. The imposition of any of the penalties described below shall not prevent such equitable relief.

7.1. Notice of Violation

If the *(local jurisdiction)* determines that an owner, applicant, or other responsible person has failed to comply with the provisions of this ordinance, or the terms and conditions of an approved stormwater management design plan, permit, or inspection and maintenance agreement and plan, it shall issue a written notice of violation to such owner, applicant, or other responsible person. Where a person is engaged in a land development activity covered by this ordinance without having first secured a stormwater management permit, the notice of violation shall be served on the owner or the person in charge of the land development activity being conducted on the development or redevelopment site.

The notice of violation shall contain:

- (1) The name and address of the owner, applicant, or other responsible person;
- (2) The address or other description of the site upon which the violation is occurring;

- (3) A statement specifying the nature of the violation;
- (4) A description of the remedial measures necessary to bring the action or inaction into compliance with the provisions of this ordinance, or the terms and conditions of the approved stormwater management design plan, permit, or inspection and maintenance agreement and plan, and the date for the completion of such remedial measures;
- (5) A statement of the penalty or penalties that may be assessed against the person to whom the notice of violation is issued; and,
- (6) A statement that the determination of violation may be appealed to the (*local jurisdiction*) by filing a written notice of appeal within thirty (30) days after the notice of violation (except, that in the event the violation constitutes an immediate danger to public health or safety, a written notice of appeal must be filed within 24 hours after the notice of violation).

7.2. Penalties

Penalties

- Many local ordinances do not have a schedule of civil penalties as laid out below. The advantage of having such a schedule is that it makes the civil penalties easier for the local jurisdiction to apply and administer. The violations that are tied to each penalty and the penalty amounts themselves can be modified by a local jurisdiction.
- It is important to check with legal staff before including a schedule of civil penalties within a local ordinance. Other state or local codes may specify how civil penalties can be applied.

In the event that the remedial measures described in the notice of violation have not been completed by the date set forth for such completion in the notice of violation, any one or more of the following actions or penalties may be taken or assessed against the person to whom the notice of violation was issued.

Before taking any of the following actions or imposing any of the following penalties, the (*local jurisdiction*) shall first notify the owner, applicant, or other responsible person in writing of its intended action and shall provide a reasonable opportunity of not less than ten days (except, that in the event the violation constitutes an immediate danger to public health or safety, 24 hours notice shall be sufficient) to correct the violation. In the event the owner, applicant, or other responsible person fails to correct the violation by the date set forth in said notice, the (*local jurisdiction*) may take any one or more of the following actions or impose any one or more of the following penalties.

- (1) **Stop Work Order** - The (*local jurisdiction*) may issue a stop work order that shall be served on the owner, applicant, or other responsible person. The stop work order shall remain in effect until the owner, applicant, or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise corrected the violation or violations described therein, provided the stop work

order may be withdrawn or modified to enable the applicant or other responsible person to take the remedial measures necessary to correct such violation or violations.

- (2) **Withhold Certificate of Occupancy** - The *(local jurisdiction)* may refuse to issue a certificate of occupancy for the building or other structure constructed or being constructed on the site until the owner, applicant, or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise corrected the violation or violations described therein.
- (3) **Suspension, Revocation, or Modification of Permit** - The *(local jurisdiction)* may suspend, revoke, or modify the permit authorizing the land development activity. A suspended, revoked, or modified permit may be reinstated after the owner, applicant, or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise corrected the violation or violations described therein, provided the permit may be modified as the *(local jurisdiction)* may deem necessary to enable the owner, applicant, or other responsible person to take the remedial measures necessary to correct such violation or violations.
- (4) **Civil Penalties** - In the event the owner, applicant, or other responsible person fails to take the remedial measures set forth in the notice of violation or otherwise fails to correct the violation or violations described therein by the date set forth in the notice of violation, the *(local jurisdiction)* may impose a penalty not to exceed \$1,000 (depending on the severity of the violation) for each day the violation remains unremedied after the date set forth in the notice of violation.
- (5) **Criminal Penalties** - For intentional and flagrant violations of this ordinance, the *(local jurisdiction)* may issue a citation to the applicant or other responsible person, requiring such person to appear in *(appropriate municipal court)* court to answer charges for such violation. Upon conviction, such person shall be punished by a fine not to exceed \$1,000 or imprisonment for up to 60 days or both. Each act of violation and each day upon which any violation shall occur shall constitute a separate offense.