

WALKER COUNTY ORDINANCE FOR POST-DEVELOPMENT STORMWATER MANAGEMENT FOR NEW DEVELOPMENT AND REDEVELOPMENT

Description:

This model ordinance addresses post-development stormwater management requirements for new development and redevelopment in a community. The ordinance will define requirements for a post-development stormwater management plan, which would be required in order to undertake land development activities. This plan contains the details of how the development will address post-development stormwater runoff quality and quantity impacts resulting from the permanent alteration of the character and hydrology of the land surface as well as the nonpoint source pollution from land use activities. The ordinance also outlines the water quantity and quality performance criteria for managing this runoff and specifies local requirements for the use of structural stormwater controls and nonstructural practices, in order to protect public health and safety, protection of public and private property and infrastructure, and environmental protection. Ongoing long-term inspection and maintenance provisions are provided. The majority of technical criteria and standards are adopted by reference through the use of a local stormwater management design manual.

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Introduction:

It is hereby determined that:

Land development projects and other land use conversions, and their associated changes to land cover, permanently alter the hydrologic response of local watersheds and increase stormwater runoff rates and volumes, which in turn increase flooding, stream channel erosion, and sediment transport and deposition; Land development projects and other land use conversions also contribute to increased nonpoint source pollution and degradation of receiving waters; The impacts of post-development stormwater runoff quantity and quality can adversely affect public safety, public and private property, drinking water supplies, recreation, fish and other aquatic life, property values and other uses of lands and waters; These adverse impacts can be controlled and minimized through the regulation of stormwater runoff quantity and quality from new development and redevelopment, by the use of both structural facilities as well as nonstructural measures, such as the conservation of open space and greenspace areas; Localities in the State of Georgia are required to comply with a number of both State and Federal laws, regulations and permits which require a locality to address the impacts of post-development stormwater runoff quality and nonpoint source pollution; Therefore, the Governing Authority of Walker County establishes this set of stormwater management policies to provide reasonable guidance for the regulation of post-development stormwater runoff for the purpose of protecting local water resources from degradation. It is determined that the regulation of post-development stormwater runoff discharges in order to control and minimize increases in stormwater runoff rates and volumes, post-construction soil erosion and sedimentation, stream channel erosion, and nonpoint source pollution associated with post-development stormwater runoff is in the public interest.

Section 1. General Provisions

1.1. Purpose and Intent

The purpose of this ordinance is to protect, maintain and enhance the public health, safety and general welfare by establishing minimum requirements and procedures to control the adverse effects of increased post-development stormwater runoff and nonpoint source pollution associated with new development and redevelopment. Proper management of post-development stormwater runoff will minimize damage to public and private property and infrastructure, safeguard the general health, safety, and welfare of the public, and protect water and aquatic resources. This ordinance seeks to meet that purpose through the following objectives:

- (1) Encourage decision-making processes surrounding land development activities that reflect the integrity of the watershed and preserving the health of water resources
- (2) Require that new development and redevelopment, in their post-development state, maintain the pre-development hydrologic response, as nearly as practicable, in order to reduce flooding, streambank erosion, nonpoint source pollution and increases in stream temperature, and maintain the integrity of stream channels and aquatic habitats;
- (3) Establish minimum post-development stormwater management standards and design criteria for the regulation and control of stormwater runoff quantity and quality;
- (4) Establish design and application criteria for the construction and use of structural stormwater control facilities that can be used to meet the minimum post-development stormwater management standards;

- (5) Encourage the use of nonstructural stormwater management and stormwater better site design practices, such as the preservation of greenspace and other conservation areas, to the maximum extent practicable;
- (6) Establish provisions for the long-term responsibility for and maintenance of structural stormwater control facilities and nonstructural stormwater management practices to ensure that they continue to function as designed and pose no threat to public safety;
- (7) Establish administrative procedures for the submission, review, approval and disapproval of stormwater management plans, and for the inspection of approved projects.

1.2. Applicability

This ordinance shall be applicable to all land development, including, but not limited to site plan applications, subdivision applications, and grading applications, unless eligible for an exemption from this ordinance. The ordinance also applies to land development activities that are smaller than the minimum applicability criteria if such activities are part of a larger common plan of development that meets the following applicability criteria, even though multiple separate and distinct land development activities may take place at different times on different schedules.

1. To prevent the adverse impacts of post-development stormwater runoff, Walker County has developed a set of minimum post-development stormwater management standards that must be met. These standards apply to any new development or redevelopment site that meets one or more of the following criteria:
 - A. New development that involves land development activity of 5,000 square feet of land or greater;
 - B. Redevelopment that includes the creation or addition of 5,000 square feet or greater of new impervious surface area, or that involves other land development activity of 1 acre or more; or
 - C. Any commercial or industrial new development or redevelopment, regardless of size, that is defined by Walker County.
2. The following activities are exempt from this ordinance:
 - A. Developments that do not involve land development activity of more than 5,000 square feet of land, provided they are not part of a larger common development plan;
 - B. Individual single-family residential lots that are not part of a subdivision or phased development project;
 - C. Additions or modifications to existing single-family structures;
 - D. Agricultural or silvicultural land management activities; or
 - E. Repairs to any stormwater management facility or practice deemed necessary by Walker County.

1.3. Compatibility with Other Regulations

This ordinance is not intended to interfere with, abrogate, or annul any other ordinance, rule or regulation, statute, 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 or regulation, or other provision of law, whichever provisions are more restrictive or impose higher protective standards for human health or the environment shall be considered to take precedence.

1.4. Severability

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

1.5. Stormwater Management Design Manual

Walker County will utilize the policy, criteria and information including technical specifications and standards in the latest edition of the *Georgia Stormwater Management Manual* and any relevant local addenda or equivalent local stormwater management design manual, for the proper implementation of the requirements of this ordinance. The Manual may be updated and expanded periodically, based on improvements in science, engineering, monitoring and local maintenance experience.

Section 2. Definitions

“Applicant” means a person submitting a post-development stormwater management application and plan for approval.

“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 a legal agreement between a landowner and a government agency or land trust that permanently protects open space or greenspace by limiting the amount and type of development that can take place, but continues to leave the land in private ownership.

“Detention” means the temporary storage of stormwater runoff in a stormwater management facility with the goal of controlling the peak discharge.

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

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

“Development” means land development or land development project.

“Drainage Easement” means a legal right granted by a landowner to a grantee allowing the use of private land for stormwater management purposes.

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

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

“Extreme Flood Protection” means preventing adverse impacts from large low-frequency storm events with a return frequency of 100 years or greater. It is intended to protect the public safety and welfare.

“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.

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

“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 A soils, with high permeability and little runoff production, to D soils, which have low permeability rates and produce much more runoff.

“Impervious Cover” means a surface composed of any material that significantly impedes or prevents the natural infiltration of water into soil. Impervious surfaces include, but are not limited to, rooftops, buildings, streets and roads, and any concrete, asphalt, or compacted soil surface.

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

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

“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” or **“Land Development Project”** means any land change, including, but not limited to, clearing or timbering, digging, grubbing, stripping, removal of vegetation, dredging, grading, excavating, transporting and filling of land, construction, paving, and any other installation of impervious cover.

“Landowner” means the legal or beneficial owner of land, including those holding the right to purchase or lease the land, or any other person holding proprietary rights in the land.

“Linear Development Project” means a land development project that is linear in nature such as, but not limited to, (i) the construction of electric and telecommunication utility lines, natural gas pipelines, water and sewer lines, and related facilities; (ii) construction of tracks, rights-of-way, bridges, communication facilities and other related facilities of a railroad company.

“Locality” means county or city

“Maintenance Agreement” means a legally recorded document that acts as a property deed restriction, and which provides for long-term maintenance of stormwater management facilities and practices.

“New Development” means land-disturbing activities, structural development (construction, installation or expansion of a building or other structure), and/or creation of impervious surfaces 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. Pollutants such as sediment, fertilizers and pesticides, heavy metals, oil and grease, bacteria, organic materials and other contaminants are delivered 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 Practice” means any natural or nonstructural vegetated feature or nonstructural component of the stormwater management plan that provides stormwater quantity and/or quality control or benefits. This 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 subject property boundary described in the permit application.

“On-Site Facility” means a stormwater management facility located within the subject property boundary described in the permit application necessary to control stormwater runoff for that site.

“Overbank Flooding” means flow events that exceed the capacity of the channel and enter the floodplain.

“Overbank Flood Protection” means preventing an increase in the frequency and magnitude of damaging out-of-bank flooding. It is intended to protect downstream properties from flooding for the 2-year through 25-year frequency storm events.

“Owner” means the owner or owners of the property or lesser estate therein, a mortgagee or vendee in possession, assignee of rents, receiver, executor, trustee, lessee or other person, firm or corporation in control of a property.

“Person” means 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 conditions that may reasonably be expected or anticipated to exist after completion of the land development activity on a specific site or tract of land.

“Pre-development” refers to the conditions that exist at the time that plans for the land development of a tract of land 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.

“Redevelopment” means structural development, creation or addition of impervious surfaces, replacement of impervious surface not part of routine maintenance, and land disturbing activities associated with structural or impervious development. Redevelopment does not include such activities as exterior remodeling as long as there is no additional impervious surface being added and there is no land disturbing activity.

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

“Runoff” means stormwater runoff.

“Site” means the parcel of land being developed, or a designated planning area in which the land development project is located.

“Stop Work Order” means an order issued which requires that construction activity, including but not limited to grading activity, building construction, etc., relevant to the subject of the violation on a site be stopped.

“Stormwater Better Site Design” means nonstructural site design approaches and techniques that can reduce a site’s impact on watershed and can provide for nonstructural stormwater management. Stormwater better site design includes conserving and protecting natural areas and greenspace, reducing the impact of the site design, reducing impervious cover and using natural features for stormwater management.

“Stormwater Management” means the collection, conveyance, storage, treatment and disposal of stormwater runoff in a manner to prevent increased flood damage, streambank channel erosion and water quality degradation, and in a manner 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 containing material for describing how existing runoff characteristics will be affected by a land development project and methods for complying with the provisions of this ordinance.

“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 the stormwater management requirements of the site.

“Stormwater Runoff” or **“Stormwater”** means flow on the surface of the ground resulting from precipitation.

“Structural Development” means construction, installation or expansion of a building or other structure.

“Structural Stormwater Control” 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.

“Subdivision” means all divisions of a tract or parcel of land into two or more lots, building sites, or other divisions for the purpose, whether immediate or future, of sale, legacy or building development, and includes all division of land involving a new street or a change in existing streets.

Section 3.

Post-Development Stormwater Management Permit Procedures & Requirements

3.1. Permit Application Requirements

No landowner or developer shall perform any land development activities without first meeting the requirements of this ordinance prior to commencing the proposed activity. Unless specifically exempted by this ordinance, any land owner or developer proposing a land development activity shall submit to Walker County a permit application on a form provided by Walker County for that purpose. Unless otherwise exempted by this ordinance, a permit application must be accompanied by the following in order to be considered:

1. Stormwater concept plan consultation meeting certification in accordance with Section 3.2;
2. Stormwater management plan in accordance with Section 3.3;
3. Maintenance agreement in accordance with Section 3.4;
4. Performance bond in accordance with Section 3.5;
5. Permit application and Plan review fees in accordance with Section 3.6.

3.2 Stormwater Concept Plan and Consultation Meeting

Before any stormwater management permit application is submitted, the land owner or developer shall meet with Walker County for a consultation meeting on a concept plan for the post-development stormwater management system. This meeting shall the following representatives from Walker County, the Planning Director, Environmental Manager, County Coordinator and Road Supervisor. At a minimum the developer and the design professional shall attend this meeting. This consultation meeting shall take place at the time of the preliminary plan of subdivision or other early step in the development process. The intent of this meeting is to

discuss the post-development stormwater management measures necessary for the proposed project, as well as to discuss and assess constraints, opportunities and potential ideas for stormwater management designs before the formal site design engineering is commenced.

To accomplish this goal the following information shall be included in the concept plan, which shall be submitted in advance of the meeting:

- A. Existing conditions and proposed site layout sketch plans, which illustrate at a minimum: existing and proposed topography; perennial and intermittent streams; mapping of predominant soils from soil surveys or from a soil scientist; boundaries of existing predominant vegetation and proposed limits of clearing and grading; and location of existing and proposed roads, buildings, parking areas and other impervious surfaces.
- B. A written or graphic inventory of the natural resources at the site and surrounding area as it exists prior to the commencement of the project. This description should include a discussion of soil conditions, forest cover, topography, wetlands, and other native vegetative areas on the site, as well as the location and boundaries of other natural feature protection and conservation areas such as wetlands, lakes, ponds, floodplains, stream buffers and other setbacks (e.g., drinking water well setbacks, septic setbacks, etc.). Particular attention should be paid to environmentally sensitive features that provide particular opportunities or constraints for development.
- C. A sketched or graphic concept plan of the proposed post-development stormwater management system including: preliminary selection and location of proposed structural stormwater controls; location of existing and proposed conveyance systems such as grass channels, swales, and storm drains; flow paths; location of floodplain/floodway limits; relationship of site to upstream and downstream properties and drainages; and preliminary location of proposed stream channel modifications, such as bridge or culvert crossings. Local watershed plans and relevant resource protection plans will be consulted in the discussion of the concept plan. Upon completion of the meeting, the landowner/developer will receive a certification that the consultation meeting has taken place. This certification shall be included in the permit application.

3.3 Stormwater Management Plan Requirements

The stormwater management 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. This plan shall be in accordance with the criteria established in this section and must be submitted with the stamp and signature of a Georgia licensed professional engineer (PE), who will verify that the design of all stormwater management facilities and practices meet the submittal requirements outlined in the submittal checklist(s) found in the stormwater design manual. The stormwater management plan ensures that requirements and criteria in this ordinance are being complied with and that opportunities are being taken to minimize adverse post-development stormwater runoff impacts from the development. The plan shall consist of maps (including but not necessarily limited to a color copy of the USGS map of the project area), narrative, and supporting design calculations (hydrologic and hydraulic) for the proposed stormwater management system. The plan shall include all of the information required in the Stormwater Management Site Plan checklist found in the *Stormwater Management Design Manual*. This includes:

- A. Common address and/or Map and Parcel Number and legal description of site

B. Vicinity Map

C. Existing Conditions Hydrologic Analysis

An existing condition hydrologic analysis for stormwater runoff rates, volumes, and velocities, which includes: a topographic map of existing site conditions with the drainage basin boundaries indicated; total acreage of site; acreage of each drainage area, including off-site drainage; soil types and land cover of areas for each subbasin affected by the project; all perennial and intermittent streams and other surface water features; all existing stormwater conveyances and structural control facilities; direction of flow and exits from the site; analysis of runoff provided by off-site areas upstream of the project site; and methodologies, assumptions, site parameters and supporting design calculations used in analyzing the existing conditions site hydrology.

D. Post-Development Hydrologic Analysis.

A post-development hydrologic analysis for stormwater runoff rates, volumes, and velocities, which includes: a topographic map of developed site conditions with the post-development drainage basin boundaries indicated; total acreage of site; acreage of each drainage area, including off-site; total area of post-development impervious surfaces and other land cover areas for each subbasin affected by the project; calculations for determining the runoff volumes that need to be addressed to meet the post-development stormwater management performance criteria in Section 4 for each subbasin; location and boundaries of proposed natural feature protection and conservation areas; documentation and calculations for any applicable site design credits that are being utilized; methodologies, assumptions, site parameters and supporting design calculations used in analyzing the existing conditions site hydrology.

E. Stormwater Management System

Description, drawings and design calculations for the proposed post-development stormwater management system, including: A map and/or drawing or sketch of the stormwater management facilities, including the location of nonstructural site design features and the placement of existing and proposed structural stormwater controls, including design water surface elevations, storage volumes available from zero to maximum head, location of inlet and outlets, location of bypass and discharge systems, and all orifice/restrictor size; narrative describing that appropriate and effective structural stormwater controls have been selected; cross-section and profile drawings and design details for each of the structural stormwater controls in the system, including supporting calculations to show that the facility is designed according to the applicable design criteria; hydrologic and hydraulic analysis of the stormwater management system for all applicable design storms (should include stage-storage or outlet rating curves, and inflow and outflow hydrographs); documentation and supporting calculations to show that the stormwater management system adequately meets the post-development stormwater management performance criteria in Section 4; and drawings, design calculations, elevations and hydraulic grade lines for all existing and proposed stormwater conveyance elements including stormwater drains, pipes, culverts, catch basins, channels, swales and areas of overland flow.

F. Post-Development Downstream Analysis

Provide the assumptions, results and supporting calculations for a downstream peak flow analysis to show safe passage of post-development design flows downstream. The analysis of downstream conditions in the report shall address each and every point or area along the project site's boundaries at which runoff will exit the property. The analysis shall focus on the portion of the drainage channel or watercourse immediately downstream from the project. This area shall extend downstream from the project to a point in the drainage basin where the project area is 10 percent of the total basin area. In calculating runoff volumes and discharge rates, consideration may need to be given to any planned future upstream land use changes. The analysis shall be in accordance with the Stormwater Management Design Manual.

G. Construction-Phase Erosion and Sedimentation Control Plan.

An erosion and sedimentation control plan in accordance with the Georgia Erosion and Sedimentation Control Act and the Walker County Soil Erosion and Sedimentation Control Ordinance or NPDES Permit for Construction Activities shall be submitted. The plan should also include information on the sequence/phasing of construction and temporary stabilization measures and temporary structures that will be converted into permanent stormwater controls.

H. Landscaping and Open Space Plan

A detailed landscaping and vegetation plan describing the woody and herbaceous vegetation that will be used within and adjacent to stormwater management facilities and practices. The landscaping plan must also include: the arrangement of planted areas, natural and greenspace areas and other landscaped features on the site plan; information necessary to construct the landscaping elements shown on the plan drawings; descriptions and standards for the methods, materials and vegetation that are to be used in the construction; descriptions of the stabilization and management techniques used to establish vegetation; and a description of who will be responsible for ongoing maintenance of vegetation for the stormwater management facility and what practices will be employed to ensure that adequate vegetative cover is preserved.

I. Operations and Maintenance Plan

Detailed description of ongoing operations and maintenance procedures for stormwater management facilities and practices to ensure their continued function as designed and constructed. These plans will identify the parts or components of a stormwater management facility or practice that need to be regularly or periodically inspected and maintained, and the equipment and skills or training necessary. The plan shall include an inspection and maintenance schedule, maintenance tasks, a list of parties responsible for maintenance, funding, access and safety issues. Provisions for the periodic review and evaluation of the effectiveness of the maintenance program and the need for revisions or additional maintenance procedures shall be included in the plan.

J. Maintenance Easements

The applicant must ensure access from public right-of-way to all stormwater management facilities and practices at the site for the purpose of inspection and repair by securing all the 30-ft wide maintenance easements needed on a permanent basis. Such access shall be sufficient for all necessary equipment for maintenance activities. These easements will be recorded with the plan and will remain in effect even with the transfer of title to the property.

K. Maintenance Agreements

The applicant must execute an easement and an inspection and maintenance agreement binding on all subsequent owners of land served by an on-site stormwater management facility or practice in accordance with the specifications of this ordinance. See Section 3.4.

L. Evidence of Acquisition of Applicable Local and Non-local Permits

The applicant shall provide documentation to Walker County that all other applicable environmental permits have been acquired for the site prior to approval of the stormwater management plan.

3.4 Stormwater Management Maintenance Agreements

Prior to the issuance of any permit that has a stormwater management facility or practice as one of the requirements of the permit, the applicant or owner of the site must execute a maintenance agreement, or conservation easement, if applicable, that shall be binding on all subsequent owners of land served by the stormwater management facility or practice. This formal maintenance agreement must be approved by Walker County and recorded into the land record prior to final plan approval. The agreement shall identify by name or official title the person(s) responsible for carrying out the maintenance. Responsibility for the operation and maintenance of the stormwater management facility or practice, unless assumed by a governmental agency, shall remain with the property owner and shall pass to any successor or owner. If portions of the land are to be sold, legally binding arrangements shall be made to pass the basic responsibility to successors in title. These arrangements shall designate for each property owner, governmental agency, or other legally established entity to be permanently responsible for maintenance. As part of the agreement, a schedule shall be developed for when and how often, routine maintenance will occur to ensure proper function of the stormwater management facility or practice. The agreement shall also include plans for annual inspections to ensure proper performance of the facility between scheduled maintenance and should also include “failure to maintain” provisions. In the event that maintenance or repair is neglected, or the stormwater management facility or practice becomes a danger to public health or safety, or is causing the degradation of water resources or the environment, **Walker County** reserves the authority to perform the work and to recover the costs from the owner. Walker County, in lieu of a maintenance agreement, may accept dedication of any existing or future stormwater management facility for maintenance, provided such facility meets all the requirements of this Section and includes adequate and perpetual access and sufficient area, by easement or otherwise, for inspection and regular maintenance.

3.5 Performance Bonds

Walker County may, at its discretion, require the submittal of a performance security or bond with surety, cash escrow, letter of credit or such other acceptable legal arrangement prior to issuance of a permit in order to insure that the stormwater facilities and/or practices are installed by the permit holder as required by the approved stormwater management plan.

1. The amount of the installation performance security shall be the total estimated construction cost of the stormwater management practices approved under the permit, plus 25%.
2. The performance security shall contain forfeiture provisions for failure, after proper notice, to complete work within the time specified, or to initiate or maintain appropriate actions, which may be required of the applicant in accordance with the approved stormwater management plan.

3. If Walker County takes such action upon such failure by the applicant, Walker County may collect from the applicant for the difference should the amount of the reasonable cost of such action exceed the amount of the security held.
4. Within sixty days of the completion of the requirements of the approved stormwater management plan in the form of certified as-built report and survey, such bond, cash escrow, letter of credit or other legal arrangement, except for the landscaping survivability shall be refunded to the applicant or terminated.
5. The landscaping portion of the stormwater management plan shall be inspected one (1) year after installation with replacement in accordance with the final plans and specifications prior to final release.
6. These requirements are in addition to all other provisions of Walker County ordinances relating to the issuance of such plans and are not intended to otherwise affect the requirements for such plans.

3.6 Application Procedure

1. Land owners or developers wishing to submit an application, must first attend a consultation meeting with Walker County for discussion of a stormwater concept plan. This meeting shall include the Planning Director, Environmental Manager, Count Coordinator, and Road Supervisor from the County, as well as owner/developer and design professional.
2. Applications for stormwater management permits must be filed with Walker County on any regular business day.
3. A copy of this permit application shall be forwarded to the appropriate review agency for review.
4. Permit applications shall include the following: three copies of the stormwater management plan, maintenance agreement and any required review fees.
5. Walker County shall inform the applicant whether the application, stormwater management plan and maintenance agreement are approved or disapproved.
6. If the permit application, stormwater management plan or maintenance agreement(s) are disapproved, Walker County shall notify the applicant of the decision in writing. The applicant may then revise the permit application, stormwater concept plan, or the maintenance agreement(s) and submit the required changes. If additional information is submitted, Walker County shall inform the applicant as to whether or not the documents are approved or disapproved. If the permit application, stormwater management plan or maintenance agreement(s) are approved by Walker County, all appropriate land development permits may be issued and the following conditions apply:
 - A. The applicant shall comply with all applicable requirements of the approved plan and this ordinance and shall certify that all land clearing, construction, land development and drainage will be done according to the approved plan.
 - B. The land development project shall be conducted only within the area specified in the approved plan.
 - C. Walker County shall be allowed, after giving notice to the owner, occupier or operator of the land development project, to conduct periodic inspections of the project.
 - D. The person responsible for implementing the approved plan shall conduct monitoring and submit reports as Walker County may require to ensure compliance with the approved plan and to determine whether the plan provides effective stormwater management.
 - E. No changes may be made to an approved plan without review and written approval by Walker County.

- F. A certified inspection of all aspects of the structural stormwater control facility, including surface As-Built surveys, and geotechnical inspections during subsurface or backfilling and compaction activities shall be required.
- G. It must be understood that in the event that the design fails, it is the responsibility of the owner/developer to get a revised plan from a design professional and to resubmit that plan to Walker County for review and approval.

3.7. Application Review Fees

The fee for review of any stormwater management application shall be based on the fee structure established by Walker County. All of the monetary contributions shall be credited to a local budgetary category to support local plan review, inspection and program administration, and shall be made prior to the issuance of any building permit for the development.

3.8 Modifications for Off-Site Facilities

Every applicant shall provide for on-site post-development stormwater management as required by this ordinance in Section 4, unless provisions are made to manage stormwater by an off-site or regional facility. The off-site or regional facility is required to be in place, to be designed and adequately sized to provide a level of stormwater quantity and quality control that is equal to or greater than that which would be afforded by on-site practices and there is a legally-obligated entity responsible for long-term operation and maintenance of the off-site or regional stormwater facility. A stormwater management plan must be submitted to Walker County, which shows the adequacy of the off-site or regional facility. To be eligible for a modification, the applicant must demonstrate to the satisfaction of Walker County that the modification will not result in the following impacts to downstream areas:

- 1. Increased threat of flood damage to public health, life, and property;
- 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;
- 5. Water quality impairment in violation of State water quality standards, and/or violation of any state or federal regulations.

Section 4.

Post-Development Stormwater Management Performance Criteria

The following performance criteria shall be addressed for stormwater management at all sites, unless otherwise provided for by this ordinance:

4.1. Water Quality

All stormwater runoff generated from a site shall be adequately treated before discharge. Stormwater management systems, which can include both structural stormwater controls and better site design practices, must be designed to remove 80% of the average annual post-development total suspended solids (TSS) load and be able to meet any other additional watershed- or site-specific water quality requirements. It will be presumed that a stormwater management system complies with this performance standard if:

- 1. It is sized to capture and treat the prescribed water quality treatment volume, which is defined as the runoff volume resulting from the first 1.2 inches of rainfall from a site; and

2. Appropriate structural stormwater controls are selected, designed, constructed, and maintained according to the specific criteria in the Stormwater Management Design Manual. Runoff from hotspot land uses and activities identified by Walker County must be adequately treated and addressed through the use of appropriate structural stormwater controls and pollution prevention practices.

4.2 Stream Channel Protection

Protection of stream channels from bank and bed erosion and degradation shall be provided by using all of the following three approaches:

1. 24-hour extended detention storage of the 1-year, 24-hour return frequency storm event; this requirement may be adjusted or waived by Walker County for sites that discharge directly into larger streams, rivers, wetlands, or lakes, or to an man-made channel or conveyance system where the reduction in these flows will not have an impact on downstream streambank or channel integrity.
2. Erosion prevention measures such as energy dissipation and velocity control; and
3. Preservation of the applicable stream buffer.

4.3 Overbank Flooding Protection

Downstream overbank flood and property protection shall be provided by controlling (attenuating) the postdevelopment peak discharge rate to the predevelopment rate for the 25-year, 24-hour return frequency storm event. If control of the 1-year, 24-hour storm under Section 4.2 is exempted, then peak discharge rate attenuation of the 2-year through the 25-year return frequency storm event must be provided. This requirement may be adjusted or waived by Walker County for sites where all downstream conveyances and receiving waters have the natural capacity to handle the full build-out 25-year storm through a combination of channel capacity and overbank flood storage without causing flood damage. **However, the developer must have his design engineer do a study to prove that this is truly the case.**

4.4 Extreme Flooding Protection

Extreme flood and public safety protection shall be provided by controlling and safely conveying the 100-year, 24 hour return frequency storm event such that flooding is not exacerbated. This requirement may be adjusted or waived by Walker County for sites where all downstream conveyances and receiving waters have the natural capacity to handle the full build-out 100-year storm through a combination of channel capacity and overbank flood storage without causing flood damage.

4.5 Structural Stormwater Controls

All structural stormwater management facilities shall be selected and designed using the appropriate criteria in the Stormwater Management Design Manual. All structural stormwater controls must be designed appropriately to meet their intended function. In addition, if hydrologic or topographic conditions, or land use activities warrant greater control than that provided by the minimum control requirements, the Walker County reserves the right to impose any and all additional requirements deemed necessary to protect downstream properties and aquatic resources from damage due to increased volume, frequency, and rate of stormwater runoff, or increased nonpoint source pollution loads. Applicants shall consult the Stormwater Management Design Manual for guidance on the factors that determine site design feasibility when selecting and locating a structural stormwater control.

4.6 Stormwater Credits for Nonstructural Measures

The use of one or more site design measures by the applicant may allow for a reduction in the water quality treatment volume required under Section 4.1. The applicant may, if approved by Walker County, take credit for the use of stormwater better site design practices and reduce the water quality volume requirement. For each potential credit, there is a minimum set of criteria and requirements, which identify the conditions or circumstances under which the credit may be applied. The site design practices that qualify for this credit and the criteria and procedures for applying and calculating the credit are included in the Stormwater Management Design Manual.

4.7 Drainage System Guidelines

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

1. Methods to calculate stormwater flows shall be in accordance with the Stormwater Management Design Manual.
2. All culverts, pipe systems, and open channel flow systems shall be sized based on all on-site upstream areas being developed in accordance with the approved plans and the off-site upstream areas being fully developed in accordance with the future land use plan using the methods included in the Stormwater Management Design Manual. Upstream storage may be included when determining flows, provided that the engineer calculates the reduced flows by routing the developed flows through any stormwater management facility rather than assuming the reduction will occur. The engineer must show that detention facilities used in the analysis will remain, be properly maintained, and the storage volume and outlet structure is based upon current conditions.
3. Design and construction of stormwater conveyance facilities shall be in accordance with the criteria and specifications found in the Stormwater Management Design Manual.

4.8 Dam Design Guidelines

Any land disturbing activity that involves a property, which proposes a dam shall comply with the Georgia Safe Dams Act and Rules for Dam Safety.

Section 5.

Construction Inspections of Post-Development Stormwater Management System

Construction inspections for the post-development stormwater management system shall utilize the final approved stormwater management site plan and specifications for compliance.

5.1. Notice of Construction Commencement

The applicant must notify Walker County in advance before the commencement of construction or land development activities. Periodic inspections of the stormwater management system construction shall be conducted by the staff of Walker County or certified by a professional

engineer or their designee who has been approved by Walker County. All inspections shall be documented and written reports prepared that contain the following information:

1. The date and location of the inspection;
2. Whether construction is in compliance with the approved stormwater management plan;
3. Variations from the approved construction specifications; and
4. Any violations that exist

If any violations are found, the applicant shall be notified in writing of the nature of the violation and the required corrective actions. No additional work shall proceed until any violations are corrected and all work previously completed has received approval by Walker County.

In addition, the person responsible for carrying out the plan may be required to provide inspection monitoring and reports to ensure compliance with the approved plan and to determine whether the measures required in the plan provide effective erosion and sedimentation control and stormwater management.

5.2. Post Construction Final Inspection and As Built Plans

Upon completion, and before a certificate of occupancy shall be granted, the applicant is responsible for certifying that the completed project is in accordance with the approved final stormwater management site plan and specifications. All applicants are required to submit actual “as built” plans for any stormwater management facilities or practices after final construction is completed. The plan must show the final design specifications for all stormwater management facilities and practices and must be certified by a professional engineer. A final inspection by Walker County is required before the release of any performance securities can occur.

Section 6.

Ongoing Inspection and Maintenance of Stormwater Facilities and Practices

6.1. Long-Term Maintenance Inspection of Stormwater Facilities and Practices

Stormwater management facilities and practices that are included in the executed maintenance agreement and plan must undergo ongoing inspections to document maintenance and repair needs and ensure compliance with the requirements of this ordinance and accomplishment of its purposes.

A stormwater management facility or practice shall be inspected on a periodic basis by the responsible party in accordance with the maintenance agreement and plan. In the event that the stormwater management facility has not been maintained and/or becomes a danger to public safety or public health, Walker County shall notify the person responsible for carrying out the maintenance plan by registered or certified mail to the person specified in the maintenance agreement. The notice shall specify the measures needed to comply with the plan and shall specify the time within which such measures shall be completed. If the responsible party fails or refuses to meet the requirements of the maintenance agreement, Walker County, after a 30 day notice, may correct a violation of the design standards or maintenance needs by performing all necessary work to place the facility or practice in proper working condition, and recover the costs from the owner.

Inspection programs by Walker County shall be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to: reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in stormwater management facilities; and evaluating the condition of stormwater management facilities and practices.

6.2. Right-of-Entry for Inspection

Persuant to the maintenance easement agreement, the property owner shall grant to Walker County the right to enter the property at reasonable times and in a reasonable manner for the purpose of inspection. This includes the right to enter a property when it has a reasonable basis to believe that a violation of this ordinance is occurring or has occurred, and to enter when necessary for abatement of a public nuisance or correction of a violation of this ordinance.

6.3. Records of Maintenance Activities

Parties responsible for the operation and maintenance of a stormwater management facility shall provide records of all maintenance and repairs to Walker County.

6.4. Failure to Maintain

If a responsible party fails or refuses to meet the requirements of the maintenance agreement, Walker County, after reasonable notice, may correct a violation of the design standards or maintenance needs by performing all necessary work to place the facility or practice in proper working condition. In the event that the stormwater management facility or practice becomes a danger to public safety or public health, Walker County shall notify the party responsible for maintenance of the stormwater management facility in writing. Upon receipt of that notice, the responsible person shall have 30 days to effect maintenance and repair of the facility in an approved manner. After proper notice, Walker County may assess the owner(s) of the facility for the cost of repair work and any penalties; and the cost of the work shall be a lien on the property, or prorated against the beneficial users of the property, and may be placed on the tax bill and collected as ordinary taxes by the county.

Section 7. Violations, Enforcement and Penalties

Any activity that is commenced or is conducted contrary to this ordinance or the approved final stormwater management site plan and permit, or failure to act, may be subject to the enforcement actions outlined in this Section or may be restrained by injunction or otherwise abated in a manner provided by law.

7.1. Notice of Violation

If Walker County determines that a permittee under this ordinance has failed to comply with the terms and conditions of the permit and the provisions of this ordinance, it shall issue a written notice of violation to the applicant. Where a party is engaged in activity covered by this ordinance without having first secured a permit thereof, all notices under the provisions of this ordinance may be served upon the persons in charge on site.

The notice of violation shall contain:

1. The name and address of the owner or applicant;

2. The address or map and parcel number when available or a description of the building, structure or land 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 development activity into compliance with this ordinance and a time schedule for the completion of such remedial action;
5. A statement of the penalty or penalties that shall or may be assessed against the person to whom the notice of violation is directed;
6. A statement that the determination of violation may be appealed to Walker County by filing a written notice of appeal within thirty (30) days of service of notice of violation.

7.2 Penalties

Penalties that may be assessed against the person to whom the notice of violation is directed include:

1. **Stop Work Orders** - Persons receiving a notice of violation for a land development activity will be required to halt all development activities. This “stop work order” will be in effect until Walker County confirms that the development activity is in compliance and the violation has been satisfactorily addressed. Failure to address a notice of violation in a timely manner may result in revocation of the permit and can result in civil or monetary penalties in accordance with the enforcement measures authorized in this ordinance.
2. **Restoration of Lands** - Persons receiving a notice of violation for a land development activity may be required to restore land to its previous condition, if applicable, or in accordance with a Notice to Comply, Stop Work Order, or permit requirements. In the event that restoration is not undertaken within a reasonable time after notice, Walker County may take necessary corrective action, the cost of which shall be covered by the performance bond, or become a lien upon the property until paid, or both.
3. **Holds on Certificate of Occupancy** - A Certificate of Occupancy shall not be granted until a corrections to all stormwater management provisions have been made in accordance with the approved plans, Notice to Comply, Stop Work Order, or permit requirements, and accepted by Walker County.
4. **Suspension, Revocation or Modification of Permit** - The permit issued under this ordinance may be suspended, revoked or modified by Walker County upon finding that the holder is in violation of the terms of the permit or any portion of this ordinance.
5. **Civil Penalties** - After due notice, any person who violates any provision of this ordinance, any condition of a permit or stop-work order, shall be liable for a civil penalty of not more than \$1,000 against the person for each violation. Each day constitutes a separate violation.
6. **Injunction** - Walker County may apply to the circuit court to enjoin a violation or a threatened violation of the provisions of this ordinance without the necessity of showing that an adequate remedy at law does not exist.

7. **Criminal Penalties** - After due notice, any person who violates any provision of this ordinance or program adopted pursuant to the authority of this article shall be guilty of a misdemeanor and upon conviction shall be subject to a fine not exceeding \$1,000 or up to thirty days imprisonment for each violation or both. Each day constitutes a separate violation.

ATTEST:

Bebe Heiskell, County Commissioner

Briggitt Garrett, County Clerk