Section 6.0: POST-CONSTRUCTION STORMWATER MANAGEMENT FOR NEW DEVELOPMENT AND REDEVELOPMENT.

6.01. Purpose and Intent

The purpose of this article is to protect, maintain and enhance the public health, safety, environment and general welfare by establishing minimum requirements and procedures to control the adverse effects of increased post-construction stormwater runoff and nonpoint source pollution associated with new development and redevelopment. Proper management of post-construction stormwater runoff will minimize damage to public and private property and infrastructure, safeguard the public health, safety, environment and general welfare of the public, and protect water and aquatic resources. Additionally, Cherokee County is required to comply with several State and Federal laws, regulations and permits, and the requirements of the Metropolitan North Georgia Water Planning District's (MNGWPD) regional water plan related to managing the water quantity, velocity, and quality of post-construction stormwater runoff.

6.02. Definitions

For this Article, the terms below shall have the following meanings:

- "Administrator" means the person appointed to administer and implement this Article on Post-Construction Stormwater Management for New Development and Redevelopment in accordance with Section 6.4.
- "Applicant" means a person submitting a land development application for approval.
- **"BMP" or "best management practice"** means both structural devices to store or treat stormwater runoff and non-structural programs or practices which are designed to prevent or reduce the pollution of the waters of the State of Georgia.
- **"BMP landscaping plan"** means a design for vegetation and landscaping that is critical to the performance and function of the BMP including how the BMP will be stabilized and established with vegetation. It shall include a layout of plants and plant names (local and scientific).
- "Channel" means a natural or artificial watercourse with a definite bed and banks that conveys continuously or periodically flowing water.
- **"Detention"** means the temporary storage of stormwater runoff in a stormwater detention facility for the purpose of controlling the peak discharge.
- **"Detention facility"** means a structure designed for the storage and gradual release of stormwater runoff at controlled rates.
- "Development" means new development or redevelopment.
- "Extended detention" means the storage of stormwater runoff for an extended period.

- "Extreme flood protection" means measures taken to prevent adverse impacts from large lowfrequency storm events with a return frequency of 100 years or more.
- "Flooding" means a volume of surface water that exceeds the banks or walls of a BMP, or channel; and overflows onto adjacent lands.
- "GSMM" means the latest edition of the Georgia Stormwater Management Manual and all associated Technical Data, Appendices, etc. The manual may be updated and expanded periodically, based on improvements in science, engineering, monitoring and local maintenance experience.
- "Hotspot" means a land use or activity on a site that has the potential to produce higher than normally found levels of pollutants in stormwater runoff. As defined by the administrator, hotspot land use may include gasoline stations, vehicle service and maintenance areas, industrial facilities (both permitted under the Industrial Stormwater General Permit and others), material storage sites, garbage transfer facilities, and commercial parking lots with high-intensity use.
- "Impervious surface" means a surface composed of any material that significantly impedes or prevents the natural infiltration of water into the soil.
- "Industrial Stormwater General Permit" means the National Pollutant Discharge Elimination System (NPDES) permit issued by Georgia Environmental Protection Division to an industry for stormwater discharges associated with industrial activity. The permit regulates pollutant levels associated with industrial stormwater discharges or specifies on-site pollution control strategies based on Standard Industrial Classification (SIC) Code.
- "Infiltration" means the process of percolating stormwater runoff into the subsoil.
- "Inspection and maintenance agreement" means a written agreement providing for the longterm inspection, operation, and maintenance of the stormwater management system and its components on a site.
- "Land development application" means the application for a land development permit to Cherokee County along with the supporting documentation as required in Section 6.10(a) and by the Development Service Center.
- "Land development permit" means the authorization necessary to begin construction-related, land-disturbing activity
- "Land disturbing activity" means any activity which may result in soil erosion from water or wind and the movement of sediments into state water or onto lands within the state, including but not limited to clearing, dredging, grading, excavating, and filling of land. Land disturbing activity does not include agricultural practices as described O.C.G.A. 12-7-17(5) or silvicultural land management activities as described O.C.G.A. 12-7-17(6) within areas zoned for these activities.

- **"Linear feasibility program"** means a feasibility program developed by Cherokee County and submitted to the Georgia Environmental Protection Division, which sets reasonable criteria for determining when implementation of stormwater management standards for linear transportation projects being constructed by Cherokee County is infeasible.
- "Linear transportation projects" means construction projects on traveled ways including but not limited to roads, sidewalks, multi-use paths and trails, and airport runways and taxiways.
- "MS4 Permit" means the NPDES permit issued by Georgia Environmental Protection Division for discharges from Cherokee County's municipal separate storm sewer system.
- "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 wastewater treatment facility 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 or 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.
- "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).
- "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.
- **"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-construction stormwater management" means stormwater best management practices (BMPs) that are used on a permanent basis to control and treat runoff once construction has been completed in accordance with a stormwater management plan.
- "Post-development" means the conditions anticipated to exist on site immediately after completion of the proposed development.
- **"Practicability policy"** means the latest edition of the Metropolitan North Georgia Water Planning District's Policy on Practicability Analysis for Runoff Reduction.
- "Pre-development" means the conditions that exist on a site immediately before the

implementation of the proposed development. Where phased development or plan approval occurs (preliminary grading, roads and utilities, etc.), the existing conditions at the time before the first item being approved or permitted shall establish pre-development conditions.

- **"Pre-development hydrology"** means (a) for new development, the runoff curve number determined using natural conditions hydrologic analysis based on the natural, undisturbed condition of the site immediately before implementation of the proposed development; and (b) for redevelopment, the existing conditions hydrograph may take into account the existing development when defining the runoff curve number and calculating existing runoff, unless the existing development causes a negative impact on downstream property.
- "Previously developed site" means a site that has been altered by paving, construction, and/or land disturbing activity.
- "Redevelopment" means structural development (construction, installation, or expansion of a building or other structure), creation or addition of impervious surfaces, replacement of impervious surfaces not as part of routine maintenance, and land disturbing activities associated with structural or impervious development on a previously developed site. Redevelopment does not include such activities as exterior remodeling.
- **"Routine maintenance"** means activities to keep an impervious surface as near as possible to its constructed condition. This includes ordinary maintenance activities, resurfacing paved areas, and exterior building changes or improvements which do not materially increase or concentrate stormwater runoff, or cause additional nonpoint source pollution.
- "Runoff" means stormwater runoff.
- "Site" means an area of land where development is planned, which may include all or portions of one or more parcels of land. For subdivisions and other common plans of development, the site includes all areas of land covered under an applicable land development permit.
- "Stormwater concept plan" means an initial plan for post-construction stormwater management at the site that provides the groundwork for the stormwater management plan including the natural resources inventory, site layout concept, initial runoff characterization, and first round stormwater management system design.
- "Stormwater management plan" means a plan for post-construction stormwater management at the site that meets the requirements of Section 6.8(d) and is included as part of the land development application.
- "Stormwater management standards" means those standards set forth in Section 6.7.
- "Stormwater management system" means the entire set of non-structural site design features and structural BMPs for collection, conveyance, storage, infiltration, treatment, and disposal of stormwater runoff in a manner designed to prevent increased flood damage, streambank channel erosion, habitat degradation and water quality degradation, and to enhance and promote the public

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health, safety and general welfare.

"Stormwater runoff" means flow on the surface of the ground, resulting from precipitation.

"Subdivision" means the division of a tract or parcel of land resulting in one or more new lots or building sites for the purpose, whether immediately or in the future, of sale, other 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.

"Trout stream" means waters designated by the Wildlife Resources Division of the Georgia Department of Natural Resources as Primary Trout Waters or Secondary Trout Streams. Primary Trout Waters are waters supporting a self-sustaining population of Rainbow, Brown or Brook Trout. Secondary Trout Streams are those with no evidence of natural trout reproduction but are capable of supporting trout throughout the year.

Other terms used but not defined in this Article shall be interpreted based on how such terms are defined and used in the GSMM and Cherokee County's MS4 permit.

6.03. Adoption and Implementation of the GSMM; Conflicts and Inconsistencies

- (a) In implementing this Article, Cherokee County shall use and require compliance with all relevant design standards, calculations, formulas, methods, and other guidance from the GSMM as well as all related appendices.
- (b) This Article is not intended to modify or repeal any other Article, ordinance, rule, regulation or other provision of law, including but not limited to any applicable stream buffers under state and local laws, and the Georgia Safe Dams Act and Rules for Dam Safety. In the event of any conflict or inconsistency between any provision in Cherokee County's MS4 permit and this Article, the provision from the MS4 permit shall control. In the event of any conflict or inconsistency between any provision of this Article and the GSMM, the provision from this Article shall control. In the event of any other conflict or inconsistency between any provision of this Article and any other ordinance, rule, regulation or other provision of law, the provision that is more restrictive or imposes higher protective standards for human health or the environment shall control.
- (c) If any provision of this Article is invalidated by a court of competent jurisdiction, such judgment shall not affect or invalidate the remainder of this Article.

6.04. Designation of Administrator

The Cherokee County Stormwater Manager will administer and implement this Article.

6.05. Applicability Criteria for Stormwater Management Standards

This Article applies to the following activities:

- (a) New development that creates or adds 5,000 square feet or greater of new impervious surface area or that involves land disturbing activity of 1 acre of land or greater;
- (b) Redevelopment (excluding routine maintenance and exterior remodeling) that creates, adds, or replaces 5,000 square feet or greater of new impervious surface area or that involves land disturbing activity of 1 acre or more;
- (c) New development and redevelopment if:
 - (i) Such new development or redevelopment is part of a subdivision or other common plan of development; and
 - (ii) the sum of all associated impervious surface area or land disturbing activities that are being developed as part of such subdivision or other common plan of development meets or exceeds the threshold in (a) and (b) above;
- (d) Any commercial or industrial new development or redevelopment, regardless of size, that is a hotspot land use as defined in this Article; and
- (e) Linear transportation projects that exceed the threshold in (a) or (b) above.

6.06. Exemptions from Stormwater Management Standards

This Article does not apply to the following activities:

- (a) Land disturbing activity conducted by local, state, authority, or federal agencies, solely to respond to an emergency need to protect life, limb, or property or conduct emergency repairs;
- (b) Land disturbing activity that consists solely of cutting a trench for utility work and related pavement replacement;
- (c) Land disturbing activity conducted by local, state, authority, or federal agencies, whose sole purpose is to implement stormwater management or environmental restoration;
- (d) Repairs to any stormwater management system deemed necessary by the administrator;
- (e) Agricultural practices as described O.C.G.A. 12-7-17(5) within areas zoned for these activities with the exception of buildings or permanent structures that exceed the threshold in 6.05 (a) or (b);
- (f) Silvicultural land management activities as described O.C.G.A. 12-7-17(6) within

- areas zoned for these activities with the exception of buildings or permanent structures that exceed the threshold in 6.05 (a) or (b);
- (g) Installations or modifications to existing structures solely to implement Americans with Disabilities Act (ADA) requirements, including but not limited to elevator shafts, handicapped access ramps and parking, and enlarged entrances or exits;
- (h) Linear transportation projects being constructed by Cherokee County to the extent the administrator determines that the stormwater management standards may be infeasible to apply, all or in part, for any portion of the linear transportation project. For this exemption to apply, an infeasibility report that is compliant with Cherokee County's linear feasibility program shall first be submitted to the administrator that contains adequate documentation to support the evaluation for the applicable portion(s) and any resulting infeasibility determination, if any, by the administrator;
- (i) Single-family or duplex residential lots platted prior to the adoption of this ordinance, whether or not they are part of a subdivision or phased development project;
- (j) Individual single-family or duplex residential lots that are not part of a subdivision or phased development project;
- (k) Additions or modifications to existing single-family or duplex residential structures;
- (l) Rural Subdivisions are exempt from Stormwater Quality/Reduction as outlined in Sections 6.07(d); however, are required to provide quantity control as outlined in Section 6.07(e-g).

Section 6.07. Stormwater Management Standards

Subject to the applicability criteria 6.05 and exemptions in 6.06, the following stormwater management standards apply. Additional details for each standard can be found in the GSMM Section 2.2.2.2:

- (a) <u>Design of Stormwater Management System</u>: The design of the stormwater management system shall be in accordance with the applicable sections of the GSMM as directed by the administrator. Any design which proposes a dam shall comply with the Georgia Safe Dams Act and Rules for Dam Safety as applicable.
- (b) <u>Natural Resources Inventory</u>: Site reconnaissance and surveying techniques shall be used to complete a thorough assessment of existing natural resources, both terrestrial and aquatic, found on the site. Resources to be identified, mapped, and shown on the Stormwater Management Plan, shall include, at a minimum (as applicable):
 - (i) Topography (minimum of 2-foot contours) and Steep Slopes (i.e., Areas with Slopes Greater Than 15%),
 - (ii) Natural Drainage Divides and Patterns,
 - (iii) Natural Drainage Features (e.g., swales, basins, depressional areas),

- (iv) Natural feature protection and conservation areas such as wetlands, lakes, ponds, floodplains, stream buffers, drinking water wellhead protection areas and river corridors,
- (v) Predominant soils (including erodible soils and karst areas), and
- (vi) Existing predominant vegetation including trees, high quality habitat and other existing vegetation.
- (c) <u>Better Site Design Practices for Stormwater Management</u>: Stormwater management plans shall preserve the natural drainage and natural treatment systems and reduce the generation of additional stormwater runoff and pollutants to the maximum extent practicable. Additional details can be found in the GSMM Section 2.3.
- (d) <u>Stormwater Runoff Quality/Reduction</u>: Stormwater Runoff Quality/Reduction shall be provided by using the following:
 - (i) For development with a stormwater management plan submitted before December 6, 2020, the applicant may choose either (A) Runoff Reduction or (B) Water Quality.
 - (ii) For development with a stormwater management plan submitted on or after December 6, 2020, the applicant shall choose (A) Runoff Reduction and additional water quality shall not be required. To the extent (A) Runoff Reduction has been determined to be infeasible for all or a portion of the site using the Practicability Policy, then (B) Water Quality shall apply for the remaining runoff from a 1.2 inch rainfall event and must be treated to remove at least 80% of the calculated average annual post-development total suspended solids (TSS) load or equivalent as defined in the GSMM.
 - (A) Runoff Reduction The stormwater management system shall be designed to retain the first 1.0 inch of rainfall on the site using runoff reduction methods, to the maximum extent practicable.
 - (B) Water Quality The stormwater management system shall be designed to remove at least 80% of the calculated average annual post-development total suspended solids (TSS) load or equivalent as defined in the GSMM for runoff from a 1.2 inch rainfall event.
 - (iii) If a site is determined to be a hotspot as detailed in Section 6.05, Cherokee County may require the use of specific or additional components for the stormwater management system to address pollutants of concern generated by that site.
- (e) <u>Stream Channel Protection</u>: Stream channel protection shall be provided by using all of the following three approaches:
 - (i) 24-hour extended detention storage of the 1-year, 24-hour return frequency

storm event;

- (ii) Erosion prevention measures, such as energy dissipation and velocity control; and
- (iii) Preservation of any applicable stream buffer.
- (f) Overbank Flood Protection: Downstream overbank flood protection shall be provided by controlling the post-development peak discharge rate to the pre-development rate for the 25-year, 24-hour storm event.
- (g) Extreme Flood Protection: Extreme flood protection shall be provided by controlling the 100-year, 24-hour storm event such that flooding is not exacerbated.
- (h) <u>Trout Stream Protection:</u> Trout stream protection shall be provided by controlling temperature for receiving waters with trout stream designation. In streams designated as primary trout waters by the Wildlife Resources Division, there shall be no elevation of natural stream temperatures. In streams designated as secondary trout waters, there shall be no elevation exceeding 2°F of natural stream temperatures.
- (i) Downstream Analysis: Due to peak flow timing and runoff volume effects, some structural components of the stormwater management system fail to reduce discharge peaks to pre-development levels downstream from the site. A downstream peak flow analysis shall be provided to the point in the watershed downstream of the site or the stormwater management system where the area of the site comprises 10% of the total drainage area in accordance with Section 3.1.9 of the GSMM. This is to help ensure that there are minimal downstream impacts from development on the site. The downstream analysis may result in the need to resize structural components of the stormwater management system. 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 downstream analysis shall also include a thorough review of immediate downstream nodal components (pipes, channels, etc.). The report shall demonstrate the safe passage of post-development 100-year flows downstream, with a focus on the portion of the drainage channel, pipe, conveyance, or watercourse immediately downstream from the project. Upsizing of undersized pipes or stormwater channels may be required where applicable based on downstream analysis. Care shall be taken to minimize impact to downstream properties.
- (j) Stormwater Management System Inspection and Maintenance: The components of the stormwater management system that will not be dedicated to and accepted by Cherokee County, including all drainage facilities, best management practices, credited conservation spaces, and conveyance systems, shall have an inspection and maintenance agreement to ensure that they continue to function as designed. All new development and redevelopment sites are to prepare a comprehensive inspection and maintenance agreement for the on-site stormwater management system. This plan shall be written in accordance with the requirements in Section 6.16.

Section 6.08. Pre-Submittal Meeting, Stormwater Concept Plan, and Stormwater Management Plan Requirements

- (a) Before a land development permit application is submitted, an applicant may request a pre-submittal meeting with Cherokee County. The pre-submittal meeting should take place based on an early step in the development process such as before site analysis and inventory (GSMM Section 2.4.2.4) or the stormwater concept plan (GSMM Section 2.4.2.5). The purpose of the pre-submittal meeting is to discuss opportunities, constraints, and ideas for the stormwater management system before formal site design engineering. To the extent applicable, local and regional watershed plans, greenspace plans, trails and greenway plans, and other resource protection plans should be consulted in the pre-submittal meeting. Applicants must request a pre-submittal meeting with Cherokee County when applying for a Determination of Infeasibility through the Practicability Policy.
- (b) The stormwater concept plan shall be prepared using the minimum following steps:
 - (i) Develop the site layout using better site design techniques, as applicable (GSMM Section 2.3).
 - (ii) Calculate preliminary estimates of the unified stormwater sizing criteria requirements for stormwater runoff quality/reduction, channel protection, overbank flooding protection and extreme flood protection (GSMM Section 2.2).
 - (iii) Perform screening and preliminary selection of appropriate best management practices and identification of potential siting locations (GSMM Section 4.1).
- (c) The stormwater concept plan shall contain:
 - (i) Common address and legal description of the site,
 - (ii) Vicinity map, and
 - (iii) Existing conditions and proposed site layout mapping and plans (recommended scale of 1'' = 50'), which illustrate at a minimum:
 - (A) Existing and proposed topography (minimum of 2-foot contours),
 - (B) Perennial and intermittent streams,
 - (C) Mapping of predominant soils from USDA soil surveys,
 - (D) Boundaries of existing predominant vegetation and proposed limits of clearing and grading,

- (E) 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.),
- (F) Location of existing and proposed roads, buildings, parking areas and other impervious surfaces,
- (G) Existing and proposed utilities (e.g., water, sewer, gas, electric) and easements,
- (H) Preliminary estimates of unified stormwater sizing criteria requirements,
- (I) Preliminary selection and location, size, and limits of disturbance of proposed BMPs,
- (J) Location of existing and proposed conveyance systems such as grass channels, swales, and storm drains,
- (K) Flow paths,
- (L) Location of the boundaries of the base flood floodplain, future-conditions floodplain, and the floodway (as applicable) and relationship of site to upstream and downstream properties and drainage, and
- (M) Preliminary location and dimensions of proposed channel modifications, such as bridge or culvert crossings.
- (d) The stormwater management plan shall contain the items listed in this part and be prepared under the direct supervisory control of either a registered Professional Engineer or a registered Landscape Architect licensed in the state of Georgia. Items (iii), (iv), (v), and (vi) shall be sealed and signed by a registered Professional Engineer licensed in the state of Georgia. The overall site plan must be stamped by a design professional licensed in the State of Georgia for such purpose. (GSMM Section 2.4.2.7)
 - (i) Natural Resources Inventory
 - (ii) Stormwater Concept Plan
 - (iii) Existing Conditions Hydrologic Analysis
 - (iv) Post-Development Hydrologic Analysis
 - (v) Stormwater Management System
 - (vi) Downstream Analysis
 - (vii) Erosion and Sedimentation Control Plan

- (viii) BMP Landscaping Plan
- (ix) Inspection and Maintenance Agreement
- (x) Evidence of Acquisition of Applicable Local and Non-Local Permits
- (xi) Determination of Infeasibility (if applicable)
- (xii) 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 or preserved. 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, responsible parties 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.

(xiii) Maintenance Access Easements

The applicant must ensure access from public right-of-way to stormwater management facilities and practices requiring regular maintenance at the site for the purpose of inspection and repair by securing all the maintenance access easements needed on a permanent basis. Such access shall be sufficient for all necessary equipment for maintenance activities. Upon final inspection and approval, a plat or document indicating that such easements exist shall be recorded and shall remain in effect even with the transfer of title of the property.

(xiv) Performance Bonds

Cherokee County may require the developer to post an irrevocable letter of credit, or other means of security acceptable to Cherokee County, prior to the issuance of any land disturbance permit for the construction of a development requiring a stormwater management system, or prior to a final plat in certain situations. The amount of the security shall not be less than the total estimated construction cost of the 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 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 Cherokee County Engineering Department,

submission of "as-built" plans, a signed maintenance agreement, and a certification of completion by the Cherokee County Engineering Department that the stormwater management system complies with the approved plan and provisions of this ordinance. A procedure may be used to release parts of the bond held by Cherokee County after various stages of construction have been completed and accepted by the Cherokee County Engineering Department. The procedures used for partially releasing performance bonds will be specified by the Cherokee County Engineering Department in writing prior to the approval of a stormwater management plan.

- (e) For redevelopment and to the extent existing stormwater management structures are being used to meet stormwater management standards the following must also be included in the stormwater management plan for existing stormwater management structures
 - (i) As-built Drawings
 - (ii) Hydrology Reports
 - (iii) Current inspection of existing stormwater management structures with deficiencies noted
 - (iv) BMP Landscaping Plans

Section 6.09 Application Fee

The fee for review of any land development application shall be based on the fee structure established by Cherokee County and payment shall be made before the issuance of any land disturbance permit or building permit for the development.

6.10. Application Procedures

Land development applications are handled as part of the process to obtain the land disturbance permit pursuant to Section 3.0 of the Cherokee County Development Ordinance, as applicable. Before any person begins development on a site, the owner of the site shall first obtain approval in accordance with the following procedure:

- (a) File a land development application with Cherokee County containing the following supporting materials:
 - (i) The stormwater management plan prepared in accordance with Section 6.08 (d),
 - (ii) A certification that the development will be performed in accordance with the stormwater management plan once approved,
 - (iii) A Preliminary Determination of Infeasibility, as applicable, prepared in accordance with the practicability policy, and

- (iv) An acknowledgement that applicant has reviewed Cherokee County's form of inspection and maintenance agreement and that applicant agrees to sign and record such inspection and maintenance agreement before the final inspection.
- (b) The administrator shall inform the applicant whether the application and supporting materials are approved or disapproved.
- (c) If the application or supporting materials are disapproved, the administrator shall notify the applicant of such fact in writing. The applicant may then revise any item not meeting the requirements hereof and resubmit the same for the administrator to again consider and either approve or disapprove.
- (d) If the application and supporting materials are approved, Cherokee County may issue the associated land disturbance permit or building permit, provided all other legal requirements for the issuance of such permits have been met. The stormwater management plan included in such applications becomes the approved stormwater management plan.

6.11. Compliance with the Approved Stormwater Management Plan.

All development shall be:

- (a) Consistent with the approved stormwater management plan and all applicable land disturbance and building permits, and
- (b) Conducted only within the area specified in the approved stormwater management plan.

No changes may be made to an approved stormwater management plan without review and advanced written approval by the administrator.

Section 6.12. Inspections to Ensure Plan Compliance During Construction

Periodic inspections of the stormwater management system during construction shall be conducted by the staff of Cherokee County or conducted and certified by a professional engineer who has been approved by Cherokee County. Inspections shall use the approved stormwater management plan for establishing compliance. All inspections shall be documented with written reports that contain the following information:

- (a) The date and location of the inspection;
- (b) Whether the stormwater management system is in compliance with the approved stormwater management plan;
- (c) Variations from the approved stormwater management plan; and

(d) Any other variations or violations of the conditions of the approved stormwater management plan.

Section 6.13. Final Inspection; As-Built Drawings; Delivery of Inspection and Maintenance Agreement

Upon completion of the development, the applicant is responsible for:

- (a) Certifying that the stormwater management system is functioning properly and was constructed in conformance with the approved stormwater management plan and associated hydrologic analysis,
- (b) Submitting as-built drawings showing the final design specifications for all components of the stormwater management system as certified by a professional engineer,
- (c) Certifying that the landscaping is established and installed in conformance with the BMP landscaping plan, and
- (d) Delivering to Cherokee County a signed inspection and maintenance agreement that has been recorded by the owner in the property record for all parcel(s) that make up the site.

The required certification under part (a) shall include a certification of volume, or other performance test applicable to the type of stormwater management system component, to ensure each component is functioning as designed and built according to the design specifications in the approved stormwater management plan. This certification and the required performance tests shall be performed by a qualified person and submitted to Cherokee County with the request for a final inspection. Cherokee County shall perform a final inspection with applicant to confirm applicant has fulfilled these responsibilities.

Section 6.14 Violations and Enforcement

Any violation of the approved stormwater management plan during construction, failure to submit as-built drawings, failure to submit a final BMP landscaping plan, or failure of the final inspection shall constitute and be addressed as violations of, or failures to comply with, the underlying land disturbance permit pursuant to Section 3.0 of the Cherokee County Development Ordinance. To address a violation of this Article, Cherokee County shall have all the powers and remedies that are available to it for other violations of building and land disturbance permits, including without limitation the right to issue notices and orders to ensure compliance, stop work orders, and penalties as set forth in the applicable ordinances for such permits.

Any action or inaction which violates the provisions of this ordinance or the requirements of an approved stormwater management plan or permit, may be subject to the enforcement actions outlined in this Section. Any such action or inaction which 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.

A. Notice of Violation

If the Cherokee County Engineering Department determines that an applicant or other responsible person has failed to comply with the terms and conditions of a permit, an approved stormwater management plan or the provisions of this ordinance, it shall issue a written notice of violation to such applicant or other responsible person. Where a person is engaged in activity covered by this ordinance without having first secured a permit therefor, the notice of violation shall be served on the owner or the responsible person in charge of the activity being conducted on the site. The notice of violation shall contain:

- (1) The name and address of the owner or the applicant or the 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 permit, the stormwater management plan or this ordinance and the date for the completion of such remedial action;
- (5) A statement of the penalty or penalties that may be assessed against the person to whom the notice of violation is directed; and,
- (6) A statement that the determination of violation may be appealed to the Cherokee County Engineering Department 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 public safety, 24 hours' notice shall be sufficient).

B. Penalties

In the event 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 directed. Before taking any of the following actions or imposing any of the following penalties, Cherokee County shall first notify the 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 public safety, 24 hours' notice shall be sufficient) to cure such violation. In the event the applicant or other responsible person fails to cure such violation after such notice and cure period, Cherokee County 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 Cherokee County Engineering Department may issue a stop work order which shall be served on the applicant or other responsible person. The stop work order shall remain in effect until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured 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 necessary remedial measures to cure such violation or violations.
- (2) Withhold Certificate of Occupancy The Cherokee County Engineering Department may refuse to issue a certificate of occupancy for the building or other improvements constructed or being constructed on the site until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein.
- (3) Suspension, Revocation or Modification of Permit The Cherokee County Engineering Department may suspend, revoke or modify the permit authorizing the land development project. A suspended, revoked or modified permit may be reinstated after the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein, provided such permit may be reinstated [upon such conditions as the Cherokee County Engineering Department may deem necessary] to enable the applicant or other responsible person to take the necessary remedial measures to cure such violations. (4) Civil Penalties - In the event the applicant or other responsible person fails to take the remedial measures set forth in the notice of violation or otherwise fails to cure the violations described therein within ten days, or such greater period as the Cherokee County Engineering Department shall deem appropriate (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours' notice shall be sufficient) after Cherokee County has taken one or more of the actions described above, Cherokee County may impose a penalty not to exceed \$1,000 (depending on the severity of the violation) for each day the violation remains unremedied after receipt of the notice of violation.
- (4) Criminal Penalties For intentional and flagrant violations of this ordinance, the Cherokee County Engineering Department may issue a citation to the applicant or other responsible person, requiring such person to appear in the Cherokee County Magistrate 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 60 days or both. Each act of violation and each day upon which any violation shall occur shall constitute a separate offense.

Section 6.15 Maintenance by Owner of Stormwater Management Systems Predating Current GSMM

For any stormwater management systems approved and built based on requirements predating the current GSMM and that is not otherwise subject to an inspection and maintenance agreement, such stormwater management systems shall be maintained by the owner so that the stormwater management systems perform as they were originally designed.

Section 6.16 Inspection and Maintenance Agreements, Ongoing Inspection and Maintenance of Stormwater Facilities and Practices

- (a) The owner shall execute an inspection and maintenance agreement with Cherokee County obligating the owner to inspect, clean, maintain, and repair the stormwater management system; including vegetation in the final BMP landscaping plan. The form of the inspection and maintenance agreement shall be the form provided by Cherokee County. After the inspection and maintenance agreement has been signed by the owner and Cherokee County, the owner shall promptly record such agreement at the owner's cost in the property record for all parcel(s) that make up the site.
- (b) The inspection and maintenance agreement shall identify by name or official title the person(s) serving as the point of contact for carrying out the owner's obligations under the inspection and maintenance agreement. The owner shall update the point of contact from time to time as needed and upon request by Cherokee County. Upon any sale or transfer of the site, the new owner shall notify Cherokee in writing within 30 days of the name or official title of new person(s) serving as the point of contact for the new owner. Any failure of an owner to keep the point of contact up to date shall, following 30 days' notice, constitute a failure to maintain the stormwater management system.
- (c) The inspection and maintenance agreement shall run with the land and bind all future successors-in-title of the site. If there is a future sale or transfer of only a portion of the site, then:
 - (i) The parties to such sale or transfer may enter into and record an assignment agreement designating the owner responsible for each portion of the site and associated obligations under the inspection and maintenance agreement. The parties shall record and provide written notice and a copy of such assignment agreement to Cherokee County.
 - (ii) In the absence of a recorded assignment agreement, all owners of the site shall be jointly and severally liable for all obligations under the inspection and maintenance agreement regardless of what portion of the site they own.

(d) Maintenance Responsibility

Stormwater management facilities and practices included in a stormwater management plan which are subject to an inspection and maintenance agreement must undergo ongoing inspections to document maintenance and repair needs and ensure compliance with the requirements of the agreement, the plan and this ordinance. The owner of the property on which work has been done pursuant to this Ordinance for private stormwater management facilities, or any other person or agent in control of such property, shall maintain in good condition and promptly repair and restore all grade surfaces, walls, drains, dams and structures, vegetation, erosion and sedimentation controls, and other protective devices. Such repairs or restoration and maintenance shall be in accordance with approved plans.

A maintenance schedule shall be developed for the life of all stormwater management facilities and shall state the maintenance to be completed, the time period for completion, and who shall perform the maintenance. This maintenance agreement shall be included in the approved stormwater management plan.

(e) Maintenance Inspections

A stormwater management facility or practice shall be inspected on a periodic basis by the responsible person in accordance with the approved inspection and maintenance agreement. In the event that the stormwater management facility has not been maintained and/or becomes a danger to public safety or public health, the Cherokee County Engineering Department shall notify the person responsible for carrying out the maintenance plan by registered or certified mail to the person specified in the inspection and maintenance agreement. The notice shall specify the measures needed to comply with the agreement and the plan and shall specify the time within which such measures shall be completed. If the responsible person fails or refuses to meet the requirements of the inspection and maintenance agreement, the Cherokee County Engineering Department, may correct the violation as provided in Section 6.18. hereof.

The Cherokee County Engineering Department may ensure that preventative maintenance is performed by inspecting all stormwater management systems. Inspection may occur during the first year of operation and at least once every five years thereafter, or as outlined by the County's Ms4 permit. In addition, a maintenance agreement between the owner and Cherokee County shall be executed for privately-owned stormwater management systems as described in this ordinance.

Owners shall routinely inspect and repair their facilities. Owner generated inspection reports shall be submitted to the Cherokee County Engineering Department for all stormwater management systems. Inspection reports for stormwater management systems shall include the following and other items as per the maintenance agreement:

- (1) The date of inspection;
- (2) Name of inspector;
- (3) The condition of:
 - (a) Vegetation or filter media
 - (b) Fences or other safety devices
 - (c) Spillways, valves, or other control structures
 - (d) Embankments, slopes, and safety benches
 - (e) Reservoir or treatment areas
 - (f) Inlet and outlet channels and structures
 - (g) Underground drainage
 - (h) Sediment and debris accumulation in storage and forebay areas
 - (i) Any nonstructural practices
 - (j) Any other item that could affect the proper function of the stormwater management system

(4) Description of the need for maintenance

After notification is provided to the owner of any deficiencies discovered from an inspection of a stormwater management system, by the County or their own agent, the owner shall have 30 days or other time frame mutually agreed to between the Cherokee County Engineering Department and the owner to correct the deficiencies. The Cherokee County Engineering Department shall then conduct a subsequent inspection to ensure completion of repairs. If repairs are not undertaken or are not found to be done properly, then enforcement procedures outlined in Section 6.14 of this ordinance shall be followed by the Cherokee County Engineering Department.

Section 6.17. Right of Entry for Maintenance Inspections.

The terms of the inspection and maintenance agreement shall provide for Cherokee County's right of entry for maintenance inspections and other specified purposes. If a site was developed before the requirement to have an inspection and maintenance agreement or an inspection and maintenance agreement was for any reason not entered into, recorded, or has otherwise been invalidated or deemed insufficient, then Cherokee County shall have the right to enter and make inspections pursuant to this ordinance. Entry by the County will be 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.

Section 6.18. Owner's Failure to Maintain the Stormwater Management System

The terms of the inspection and maintenance agreement and this ordinance shall provide for what constitutes a failure to maintain a stormwater management system and the enforcement options available to Cherokee County.

If a responsible person fails or refuses to meet the requirements of the inspection and maintenance agreement, Cherokee County, after thirty (30) days written notice (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours' notice shall be sufficient), may correct a violation of the design standards or maintenance requirements by performing the necessary work to place the facility or practice in proper working condition. Cherokee County may assess the owner(s) of the facility for the cost of repair work which shall be a lien on the property, and may be placed on the ad valorum tax bill for such property and collected in the ordinary manner for such taxes.

If a site was developed before the requirement to have an inspection and maintenance agreement or an inspection and maintenance agreement was for any reason not entered into, recorded, or has otherwise been invalidated or deemed insufficient, then:

(a) An owner's failure to maintain the stormwater management system so that it performs as it was originally designed shall constitute and be addressed as a violation of, or failure to comply with, owner's property maintenance obligations pursuant to Section

- 6.14 of this ordinance.
- (b) To address such a failure to maintain the stormwater management system, Cherokee County shall have all the powers and remedies that are available to it for other violations of an owner's property maintenance obligations, including without limitation prosecution, penalties, abatement, and emergency measures.

Section 6.19. GI/LID (Green Infrastructure/Low Impact Development) Program

For all projects subject to the applicability criteria in Section 6.05 and not exempt per Section 6.06, the following stormwater management standards shall apply specific to Runoff Reduction and the use of GI/LID's. These items should supplement the requirements of Sections 6.07 & 6.08.

- (a) Practicability policy
 - (i) All applicable developments shall use the latest edition of the Metropolitan North Georgia Water Planning District's Policy on Practicability Analysis for Runoff Reduction.
 - (ii) The use of GI/LIDs for achieving Runoff Reduction may be waived for sites with infiltration rates less than or equal to 0.5 inches/hour. Infiltration rates must be certified by a professional engineer or professional geologist. Testing should be conducted as per Section D.2.1 of the GSMM.
- (b) All GI/LID practices found in the current edition of the GSMM are allowed to be constructed within the County's jurisdiction, provided all applicable design criteria and standards are met.
 - (i) GI/LID structures located on individual lots in residential subdivisions are strongly discouraged, due to the high maintenance burden transferred to these property owners. To the maximum extent practicable, all structural stormwater facilities shall be located common property in residential subdivisions.
 - (ii) Downspout Disconnect credits can only be used when the lot size is greater than 60,000 square feet.
- (c) The inspection and maintenance of all GI/LID structures shall be in accordance with this ordinance, with specific reference to Sections 6.07, 6.08, and 6.12 through 6.18.

Section 6.20 Linear Transportation Projects

The performance standards in Section 6.07 must be applied during the design of all applicable construction projects. However, the performance standards may be infeasible to apply, all or in part, for linear transportation projects being constructed by Cherokee County. This section sets

reasonable criteria for determining when implementing the performance standards in linear transportation projects is infeasible. The section shall only apply to linear transportation projects constructed/funded by Cherokee County. There will not application fees associated with linear transportation stormwater design.

6.20.1 Linear Transportation Exemptions and Exclusions

Projects that meet any of the following criterion will be exempt from the performance standards in Section 6.07:

- (i) Projects that have concept plans submitted on or before December 10, 2020.
- (ii) Maintenance and safety improvement projects whereby the sites are not connected and disturbs less than one acre at each individual site. This includes, but is not limited to, projects such as routine maintenance activities, repaying, shoulder building, utility line installation, sign addition, and sound barrier installation.
- (iii) Road projects that disturb less than 1 acre or for site development projects that add less than 5,000 ft² of impervious area.
- (iv) Road projects where the net impervious surface area within a drainage basin has been reduced or remains the same as pre-developed conditions.
 - a. Special consideration from the Cherokee County Engineering Department may be given to those projects with a minimal increase in impervious area. In such cases, the designer will be required to provide supporting calculations showing that the increase in stormwater runoff and/or volume required to be treated for water quality is negligible with respect to the drainage area in question. As a general rule increases over one tenth of an acre in impervious surface per basin are not considered negligible.
- (v) Where installation of post-construction BMPs on the project would require a roadway alignment change solely to allow for BMPs. This exclusion applies only to existing roadway Alignment changes that would create a safety concern.
- (vi) Where the installation of post-construction BMPs would require the re-alignment and/or piping of a stream. Where installation of post-construction BMPs on a project would impact existing vegetated stream buffers or wetlands solely for the purposes of installing BMPs. Where stormwater discharges from the project site are designed to exit the right-of-way as sheet flow. Sheet flow should be designed in a manner to ensure that the flow will not cause instability, erosion, or flooding.
- (vii) Quantity controls outlined in Section 6.07(e-g) may be excluded if the project discharges into a FEMA or Cherokee County Future Conditions Floodplain.
- (viii) Runoff that originates outside of Cherokee County's right-of-way or flows diverted from undisturbed areas may be excluded from stormwater quantity or quality treatment.

6.20.2 Linear Transportation Infeasibilities

Cherokee County's MS4 permit requires treatment of stormwater runoff from Cherokee County property and right-of-way to the maximum extent practicable. Therefore, the requirements and minimum standards described in Section 6.07 should be met to the maximum extent practicable. In some situations, site constraints and other factors make implementation of post-construction stormwater BMPs infeasible. The following criteria are generally used to define these situations (note: criteria should be applied to each outfall drainage basin individually):

- 1. The BMP costs equal or exceed 10% of the total project costs. Project costs should include:
 - right-of-way acquisition
 - roadway construction
 - utility relocation
 - mitigation costs

BMP costs should only be compared to the portion of the project within the BMP's associated outfall drainage basin and should include:

- additional right-of-way requirements
- BMP construction and all other related design elements
- 2. Implementation of BMPs will cause 90 days or greater of delays to the project.
- 3. Implementation of BMPs will cause loss of habitat for endangered or threatened species.
- 4. Implementation of BMPs will cause significant damage to a cultural or community resource such as an historical site, archeological site, cemetery, a park, wildlife refuge, nature trail, or school facility.
- 5. Implementation of BMPs would result in the displacement of a residence or business.
- 6. Implementation of BMPs would result in violation of state or federal law or regulation.
- 7. Site limitations including: shallow bedrock, contaminated soils, high groundwater, utilities, or underground facilities if avoidance or relocation is infeasible (cost of the relocation equals or exceeds the cost of the BMP).
- 8. Soil infiltration capacity is limited. The use of GI/LIDs for achieving Runoff Reduction may be waived for sites with infiltration rates less than or equal to 0.5 inches/hour. Infiltration rates must be certified by a professional engineer or professional geologist. Testing should be conducted as per Section D.2.1 of the GSMM.
- 9. Site is too small to infiltrate a significant volume.
- 10. Site does not allow for gravity flow to the appropriate BMP.

If it is determined infeasible to meet all of the minimum standards presented in this section based on the above criteria, the designer should strive to meet as many requirements as possible.

Consideration should be given for locating BMPs anywhere within the limits of environmental concern. Where there is a risk to life or property, the infeasibility criteria should be disregarded in favor of a prudent design.

6.20.3 Linear Transportation Stormwater Management Documentation

All linear transportation stormwater management documentation should be submitted to the Cherokee County Engineering Department for review. MS4 post-construction stormwater requirements shall be considered during concept planning. Documentations for exemptions and exemptions and exclusions should be submitted as soon as possible. The documentation and associated reports, plans, etc. should generally be consistent with Sections 6.07 & 6.08 of this ordinance. Design professionals may also utilize report formats consistent with the current edition of the Georgia DOT *Drainage Design for Highways* if desired.

6.20.4 Linear Transportation BMP Construction and Maintenance

Linear transportation BMP construction and final certification shall be conducted as per the Cherokee Engineering Department.

Cherokee County, or duly authorized personnel, will maintain stormwater facilities as outlined in its Ms4 permit and Appendix E of the GSMM.