ORDINANCE NO. 23-11

AN ORDINANCE TO AMEND THE STORM WATER MANAGEMENT ORDINANCE (SECTIONS 18-401, 18-404, 18-406, 18-407, 18-409. AND 18-410) AS SET BY ORDINANCE 07-45 AND 19-21, TO COMPLY WITH THE NEW TENNESSE DEPARTMENT OF ENVIORNMENT AND CONSERVATION SMALL MS4 PERMIT

WHEREAS, the City of Spring Hill established a Storm Water Management Ordinance and adopted by Ordinance 07-45 and amended by Ordinance 19-21; and

WHEREAS, the Tennessee Department of Environment and Conservation ("TDEC") under the State of Tennessee National Pollutant Discharge Elimination System (NPDES) from Small Municipal Separate Storm Sewer Systems (Small MS4) Permit Number TNS000000 requires amendments be made to the existing ordinance; and

WHEREAS, additions are required to the ordinance, as noted in the yellow highlighted areas of attached Exhibit A; and

WHEREAS, deletions are required to the ordinance, as noted in the blue highlighted areas of attached Exhibit A; and

WHEREAS, City staff requests the reference to the "Stormwater Coordinator" be changed to "Public Works Director or Designee," as noted in the green highlighted areas of attached Exhibit A; and

WHEREAS, in Section 18-401, the word "Tennessee" is added to clarify the state permit; and

WHEREAS, language was added to Section 18-404 (1)(a), to properly refer to TDEC's Construction General Permit; and

WHEREAS, revisions were made to Section 18-406, Paragraphs (2)(a), (2)(b), (3)(a), (4)(a)(5), (4)(b), (4)(d), (4)(g)(2)(a), (4)(g)(2)(b), (5), and (5)(r) through (5)(v), per the required permit guidelines as noted in the highlighted areas of Exhibit A; and

WHEREAS, revisions were made to Section 18-407, paragraph (1), to require as-built drawings prepared by a developer hired design professional at the completion of this project; and

WHEREAS, language was added to Section 18-409 (2)(a), noting permissible discharges may be deemed an illicit discharge if it introduces pollutants into the MS4 system. Items 1 through 19 were revised to match the order and exact wording as shown in the TDEC MS4 General Permit; and

WHEREAS, Section 15-410, Paragraph (1), reference was made to the Enforcement Response Plan (ERP), Old Paragraph (2), notice of violation section stricken for complete removal as it conflicts with the ERP, and new paragraph (3) and Table B adds the requirement for

investigations to be initiated within 7 calendar days in accordance with TDEC's permit.

NOW, THEREFORE, BE IT ORDAINED, that the Storm Water Management Ordinance (18-401, 18-404, 18-406, 18-407, 18-409. AND 18-410) be amended to comply with the new TDEC Small MS4Permit.

NOW THEREFORE BE IT FUTHER ORDAINED, that all ordinances or partial ordinances in conflict herewith be, and the same hereby are, repealed or modified as the case may be.

BE IT FURTHER ENACTED, that this Ordinance shall take effect from and after its final passage by the Board of Mayor and Aldermen.

Passed and adopted by the Board of Mayor and Aldermen of the City of Spring Hill, Tennessee on 21st day of August, 2023.

Jim Hagaman, Mayor

ATTEST:

April Goad, City Recorder

LEGAL FORM APPROVED:

Patrick M. Carter, City Attorney

Passed on First Reading: August 7, 2023

Passed on Second Reading: August 21, 2023

EXHIBIT A (as referenced in Ordinance 23-XX)

18-401. Title and Purpose.
This ordinance shall be known as the "Storm Water Management Ordinance" for the City of Spring Hill, Tennessee.

(1). Introduction:
Inadequate management of storm water runoff from development in a watershed increases flood flows and velocities, erodes and/or silts stream channels altering the integrity and profile of the stream regime, pollutes water, overloads existing drainage facilities with storm water and sediment, undermines floodplain management in downstream communities, reduces groundwater recharge, harms, possibly eliminating, natural fauna and flora, and threatens public health and safety. More specifically, surface water runoff can carry pollutants, including the leading pollutant, sediment, into receiving waters. The potential impacts of these pollutants and the accompanying higher velocities and greater volumes include:

(a) Changing natural ecosystems through sediment and pollutant deposits as well as erosion of stream banks that affect the quantity and quality of water flowing, the destruction of habitats, and the loss of plant and animal life;

(b) Posing significant health risks through increased bacteria;

(c) Accelerating algal growth to the extent of contamination of receiving waters by adding excessive nutrient loads;

(d) Increasing metal deposits and total suspended solids, thus creating adverse toxicity for aquatic life;

(e) Reducing oxygen levels because of oil, grease, and organic matter;

(f) Affecting animal and plant life adversely, due to changing temperatures, thus decreasing dissolved oxygen levels of receiving waters.

Uncontrolled storm water can increase the incidence of flooding and the level of floods which occur, altering the integrity and profile of stream regime, endangering roads, public and private property, and human life.

Altered land surfaces can change runoff rate and volume as seen in erosion and slumping of stream banks and undercutting roots; increased erosion rates; and uniform and shallow streambeds, providing less varied aquatic habitats.

The adverse water quality and quantity consequences described above may result in substantial economic and/or human losses. The potential losses include, but are not limited to, increased wastewater and drinking water treatment costs, diminished property values, increased flood damages and insurance rates, increased stream bank remediation as well as state and federal fines associated with water quality violations. Many future problems can be avoided through proper storm water management, whereby a comprehensive and reasonable program of regulations is fundamental to public health, safety, and welfare and to the protection of the citizenry and environment.

(2). Purpose:
The purpose of this storm water management ordinance is to:

(a) Protect, maintain, and enhance the environment of the City of Spring Hill and the public health, safety, and the general welfare of the citizens of the city, by controlling discharges of pollutants to the City of Spring Hill's storm water system and to maintain and improve the quality of the receiving waters into which the storm water outfalls flow, including, without limitation, lakes, rivers, streams, ponds, wetlands, and groundwater of the City of Spring Hill.

(b) Enable the City of Spring Hill to comply with the Tennessee National Pollutant Discharge Elimination System (NPDES) Permit and applicable regulations, 40 CFR Section 122.26 for storm water discharges; and

(c) Allow the City of Spring Hill to exercise the powers granted in Tennessee Code Annotated Section 68-221-1105, which proves that, among other powers municipalities have with respect to storm water facilities, is the power by ordinance or resolution to:

(1) Exercise general regulation over the planning, location, construction, and operation and maintenance of storm water facilities in the City of Spring Hill, whether or not owned and operated by the City of Spring Hill government;

(2) Adopt any rules and regulations deemed necessary to accomplish the purposes of this statute, including the adoption of a system of fees for services and permits;

(3) Establish standards to regulate the quantity of storm water discharged and to regulate storm water contaminants as may be necessary to protect water quality;

(4) Review and approve plans and plats for storm water management in proposed subdivisions, commercial developments or industrial developments;

(5) Issue permits for storm water discharges, or for the construction, alteration, extension, or repair of storm water facilities;

(6) Suspend or revoke permits when it is decided that the permit holder has violated any applicable ordinance, resolution, or condition;

(7) Regulate and prohibit discharges into storm water facilities of sanitary industrial, or commercial sewage or waters that have otherwise been contaminated; and

(8) Expend funds to remediate or mitigate the detrimental effects of contaminated land or other sources of storm water contamination, whether public or private.

(3). Administering Entity.

The City of Spring Hill Public Works Director or Designee, under the direction and supervision of the City Administrator, shall administer the provisions of this storm water management ordinance.

18-402. Jurisdiction.
The Storm Water Management Ordinance shall govern all properties within the corporate limits of the City of Spring Hill.

18-403. Definitions.
For the purpose of this Section, the following definitions shall apply: Words used in the singular shall include the plural, and the plural shall include the singular; words used in the present tense shall include the future tense. The word "shall" is mandatory and not discretionary. The word "may" is permissive. Words not defined in this section shall be construed to have the meaning given by common and ordinary use as defined in the latest edition of Webster's Dictionary.

(1) *"Active Construction Site"* - Any site that has a permit for grading or other related activities (even if actual construction is not proceeding) and any site where construction is occurring regardless of permits acquired.

(2) *"Appeal"* - A request for a review of the City of Spring Hill Engineer's interpretation of any provisions of these regulations.

(3) *"Base Flood"* - The flood having a one percent chance of being equaled or exceeded in any given year. While this statistical event may occur more frequently, it may also be known as the "100-year flood event".

(4) *"Blue Line Streams"* - Streams that are represented on the United States Department of the Interior, Geological Survey (USGS) 1:24,000 topographic quadrangle maps and/or as determined by the Tennessee Department of Environment and Conservation (TDEC).

(5) *"Best Management Practices"* or *"BMPs"* - The physical, structural, and/or managerial practices that, when used singly or in combination, prevent or reduce pollution of water, that have been approved by the City of Spring Hill, and that have been incorporated by reference into this ordinance as if fully set out therein. [NOTE: See _ 6(1) for recommended BMP manual.]

(6) *"BMP Treatment Train"* - A technique for progressively selecting various storm water management practices to address water quality, by which groups of practices may be used to achieve a treatment goal while optimizing effectiveness, maintenance needs, and space.

(7) *"Borrow Pit"* - An excavated area where material has been dug for use as fill at another location.

(8) *"Bridge"* - A man-made conveyance over storm water flows.

(9) *"Building"* - Any structure built for support, shelter, or enclosure for any occupancy or storage.

(10) *"Channel"* - A natural or artificial watercourse with a definite bed and banks that conducts flowing water continuously or periodically.

(11) *"Community Water"* - Any rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage

systems, springs, wetlands, wells, and other bodies of surface or subsurface water, natural or artificial, lying within or forming a part of the boundaries of the City of Spring Hill.

(12) *"Contaminant"* - Any physical, chemical, biological, or radiological substance or matter in water.

(13) *"Culvert"* - A man-made conveyance of storm water flows, including a pipe or other constructed conveyance.

(14) *"Critical Design-Storm Period"* - Refers to the time in which detention volume must be controlled with the pre-development flow volume as a maximum limit.

(15) *"Cut"* - Portion of land surface or area from which earth has been removed or will be removed by excavation, the depth below original ground surface to the excavated surface.

(16) *"Design Storm Event"* - A hypothetical storm event, of a given frequency interval and duration, used in the analysis and design of a storm water facility.

(17) *"Discharge*" - Dispose, deposit, spill, pour, inject, seep, dump, leak, or place by any means, or that which is disposed, deposited, spilled, poured, injected, seeped, dumped, leaked, or placed by any means including any direct or indirect entry of any solid or liquid matter into the municipal separate storm sewer system.

(18) *"Easement"* - An acquired privilege or right of use or enjoyment that a person, party, firm, corporation, City of Spring Hill, or other legal entity has in the land of another.

(19) *"Erosion"* - The removal of soil particles by the action of water, wind, ice, gravity, or other geological agents, whether naturally occurring or acting in conjunction with or promoted by man-made activities or effects.

(20) *"Erosion and Sediment Control Plan"* - A written plan (including drawings or other graphic representations) that is designed to minimize the accelerated erosion and sediment runoff at a site during construction activities.

(21) *"Hotspot" ("Priority Area")* - An area where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in storm water.

(22) *"Illicit Connections"* - Illegal and/or unauthorized connections to the City of Spring Hill separate storm water system whether or not such connections result in discharges into that system.

(23) *"Illicit Discharge"* - Any discharge to the municipal separate storm sewer system that is not composed entirely of storm water and not specifically exempted under Section 18-409.

(24) *"Land Disturbing Activity"* - Any activity on property that results in a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land disturbing activities include, but are not limited to, development, re-development, demolition, construction, reconstruction, clearing, grading, filling, and excavation.

(25) *"Maintenance"* - Any activity that is necessary to keep a storm water facility in good working order so as to function as designed. Maintenance shall include complete reconstruction of a storm water facility if reconstruction is needed in order to restore the facility to its original operational design parameters. Maintenance shall also include the correction of any problem on the site property that may directly impair the functions of the storm water facility.

(26) *"Maintenance Agreement"* - A document recorded in the land records that acts as a property deed restriction, and which provides for long-term maintenance of storm water management practices and facilities.

(27) *"Municipal Separate Storm Sewer System (MS4)"* - The conveyances owned or operated by the City of Spring Hill for the collection and transportation of storm water, including the roads and streets and their drainage systems, catch basins, curbs, gutters, ditches, man-made channels, and storm drains.

(28) *"National Pollutant Discharge Elimination System Permit" or "NPDES Permit"* - A permit issued pursuant to 33 U.S.C. 1342.

(29) *"Off-site Facility"* - A structural BMP located outside the subject property boundary described in the permit application for land development activity.

(30) *"On-site Facility"* - A structural BMP located within the subject property boundary described in the permit application for land development activity.

(31) *"Peak Flow"* - The maximum instantaneous rate of flow of water at a particular point resulting from a storm event.

(32) *"Person"* - Any and all persons, natural or artificial, including any individual, firm or association, and any county or private corporation organized or existing under the laws of this or any other state or country.

(33) *"Priority Area"* - See "Hot Spot" (Section 18-401 of this ordinance).

(34) "*Record Drawings"* - Drawings depicting conditions as they were actually constructed.

(35) *"Runoff"* - That portion of the precipitation on a drainage area that is discharged from the area into the City of Spring Hill separate storm water system.

(36) *"Sediment"* - Solid material, both mineral and organic, that is in suspension, or in bed load, is being transported, or has been moved from its site of origin by water, wind, ice, or gravity and has come to rest on the earth's surface either above or below sea level.

(37) *"Sedimentation"* - The action of soil particles suspended in storm water that settle in streambeds and can disrupt the natural flow of the stream and suffocate biota.

(38) *"Soils Report"* - A study of soils on a subject property with the primary purpose of characterizing and describing the soils. The soils report shall be prepared by a qualified soils engineer or scientist, who shall be directly involved in the soil characterization either by

performing the investigation or by directly supervising employees.

(39) *"Stabilization"* - Providing adequate measures, vegetative and/or structural, that will prevent or minimize erosion from occurring.

(40) *"Storm Water"* - Storm water runoff, snow melt runoff, surface runoff, infiltration, and drainage.

(41) *"Storm Water Management"* - The programs to maintain quality and quantity of storm water runoff to pre-development levels.

(42) *"Storm Water Management Facilities"* - The drainage structures, conduits, ditches, combined sewers, sewers, and all device appurtenances by means of which storm water is collected, transported, pumped, treated, or disposed.

(43) *"Storm Water Management Plan"* - The set of drawings and other documents that comprise all the information and specifications for the programs, drainage systems, structures, BMPs, concepts, and techniques intended to maintain or restore quality and quantity of storm water runoff to pre-development levels.

(44) *"Storm Water Runoff"* - Water that flows on the surface of the ground, resulting from precipitation.

(45) *"Storm Water Utility"* - The storm water utility created by ordinance of the City of Spring Hill or other entity designated by the City of Spring Hill, to administer the storm water management ordinance, and other storm water rules and regulations adopted by the City of Spring Hill.

(46) *"Structural BMPs"* - Devices that are constructed to provide control of storm water runoff.

(47) *"Surface Water"* - Waters upon the surface of the earth in bounds created naturally or artificially including, but not limited to, streams, other watercourses, lakes, wetlands, marshes, and sinkholes.

(48) *"TDEC"* - The Tennessee Department of Environment and Conservation.

(49) *"Watercourse"* or *"Waterway"* - A permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water.

(50) *"Watershed"* - All land area that contributes runoff to a particular point in a stream.

(51) *"Water Quality Buffer Zone"* - A water quality buffer zone (a.k.a. a riparian zone) is a strip of undisturbed native (indigenous) vegetation, either original or re-established, that borders streams and rivers, ponds and lakes, wetlands, and seeps.

18-404. Land Disturbance Permits.

(1). Requirements.

(a) Every person shall be required to obtain a Notice of Coverage under the Construction General Permit from Tennessee Department of Environment and Conservation (TDEC)

which will be utilized as the permit required by the City of Spring Hill Public Works Director or Designee in the following cases:

(1) Land disturbing activity disturbs one (1) or more acres of land, unless exempted under Section 18-404(5);

(2) Land disturbing activity of less than one (1) acre of land if such activity is part of a larger common plan of development that affects one (1) or more acres of land;

(3) Land disturbing activity of less than one (1) acre of land, if, at the discretion of the City of Spring Hill Public Works Director or Designee, such activity poses a unique threat to water, public health, or safety; and

(4) The creation and use of borrow pits.

(2) Wetlands Permit.
No grading or building permit shall be issued until the applicant has obtained the appropriate wetlands permits from the U.S. Army Corps of Engineers (USACOE), TDEC and Tennessee Valley Authority (TVA).

(3) Aquatic Resource Alteration Program Permit.
No grading or building permit shall be issued until the applicant has obtained the appropriate Aquatic Resource Alteration Program (ARAP) permits from TDEC.

(4) Grading or Building Permits.
No grading or building permit shall be issued until the applicant has obtained a land disturbance permit where the same is required by this ordinance.

(5) Exemptions.
The following activities are exempt from the permit requirement:

(a) Any emergency activity that is immediately necessary for the protection of life, property, or natural resources;

(b) Existing nursery and agricultural operations conducted as a permitted main or accessory use;

(c) Any logging or farming activity that complies with conservation practices or timber management practices prepared or approved by the appropriate federal or state agency;

(d) Additions or modifications to existing single family structures.

(6). Application for Land Disturbance Permit.

(a) Each application shall include the following:

(1) Name of applicant;

(2) Business or residence address of applicant;

(3) Name, address, and telephone number of the owner of the property of record in the office of the assessor of property;

(4) Address and legal description of subject property including the tax map reference number and parcel number of the subject property;

(5) Name, address, and telephone number of the contractor and any subcontractor(s) who will perform the land disturbing activity and who shall implement the erosion and sediment control plan;

(6) A statement indicating the nature, extent, and purpose of the land disturbing activity including the size of the area for which the permit shall be applicable and a schedule for the starting and completion dates of the land disturbing activity;

(7) Where the property includes a sinkhole, the applicant shall obtain the appropriate permits from TDEC, Division of Water Supply, Section of Groundwater Protection;

(8) The applicant shall obtain from all other state or federal agencies any other appropriate environmental permits that pertain to the property. However, the inclusion of those permits in the application shall not foreclose the City of Spring Hill Public Works Director or Designee from imposing additional development requirements and conditions, commensurate with this ordinance, on the development of property covered by those permits.

(b) Each application shall be accompanied by:

(1) An erosion and sediment control plan as described in Section 18-406(5);

(2) A storm water management plan as described in Section 18-406(4), providing for storm water management during the land disturbing activity and after the activity has been completed; and

(3) Payment of land disturbance permit and other storm water management fees, which shall be set by resolution or ordinance.

(7). Review and Approval of Application.

(a) The City of Spring Hill Public Works Director or Designee will review each application for a land disturbance permit to determine its conformance with the provisions of this ordinance. Within thirty (30) working days after receiving an application, the Public Works Director or Designee shall provide one of the following responses in writing:

(1) Approval of the permit application;

(2) Approval of the permit application, subject to such reasonable conditions as

may be necessary to substantially secure the objectives of this ordinance, and issue the permit subject to these conditions; or

(3) Denial of the permit application, indicating the reason(s).

(b) If the Public Works Director or Designee has granted conditional approval of the permit, the applicant shall submit a revised plan that conforms to the conditions established by the Public Works Director or Designee. However, the applicant shall be allowed to proceed with his land disturbing activity so long as it conforms to conditions established by the Public Works Director or Designee. The revised plan shall be submitted to the Public Works Director or Designee within ten (10) working days from the date of conditional approval.

(c) No development plans will be released until the land disturbance permit has been approved.

(8). Permit Duration.
Every land disturbance permit shall expire and become null and void if substantial work authorized by such permit has not commenced within ninety (90) calendar days of issuance, or is not complete within twelve (12) months from the date of the commencement of construction.

(9) Notice of Construction.
The applicant must notify the City of Spring Hill Public Works Director or Designee in writing ten (10) working days in advance of the commencement of construction. The Public Works Director or Designee shall conduct regular inspections of the storm water management system construction. 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 storm water management plan;

(3) Variations from the approved construction specifications; and

(4) Any violations that may exist.

(10) Performance Agreement/Letter of Credit.

(a) The City of Spring Hill Public Works Director or Designee may, at his discretion, require the submittal of a performance agreement/letter of credit prior to issuance of a permit in order to ensure that the storm water practices are installed by the permit holder as required by the approved storm water management plan. The amount of the installation performance agreement/letter of credit shall be the total estimated construction cost of the Structural BMPs approved under the permit plus any reasonably foreseeable additional related costs, e.g., for damages or enforcement or "plus a certain percentage of the total estimated cost". The performance agreement/letter of credit shall contain forfeiture provisions for failure to complete work specified in the storm water management plan. The applicant shall provide an itemized construction cost estimate complete with unit prices, which shall be subject

to acceptance, amendment, or rejection by the Public Works Director or Designee. Alternatively, the Public Works Director or Designee shall have the right to calculate the construction cost estimates.

(b) The performance agreement/letter of credit shall be released in full only upon submission of record drawings and written certification by a registered professional engineer licensed to practice in the State of Tennessee that the Structural BMPs have been installed in accordance with the approved plan and other applicable provisions of this ordinance. The City of Spring Hill Public Works Director or Designee will make a final inspection of the Structural BMP to ensure that it is in compliance with the approved plan and the provisions of this ordinance. Provisions for a partial pro-rata reduction of the performance agreement/letter of credit based on the completion of various development stages can be made at the discretion of the Public Works Director or Designee.

18-405. Waivers.

(1). General.

Every applicant shall provide for storm water management as required by this ordinance, unless a written request is filed to waive this requirement. Requests to waive these requirements shall be submitted to the City of Spring Hill Public Works Director or Designee for approval.

(2). Conditions for Waiver.

The minimum requirements for storm water management may be waived in whole or in part upon written request of the applicant, provided that at least one of the following conditions applies:

(a) It can be demonstrated that the proposed development is not likely to impair attainment of the objectives of this ordinance;

(b) Alternative minimum requirements for on-site management of storm water discharges have been established in a storm water management plan that has been approved by the Public Works Director or Designee; or

(c) Provisions are made to manage storm water by an off-site facility. The off-site facility shall be in place and designed to provide the level of storm water control that is equal to or greater than that which would be afforded by on-site practices. Further, the facility must be operated and maintained by an entity that is legally obligated to continue the operation and maintenance of the facility.

(3). Downstream Damage Prohibited.

In order to receive a waiver, the applicant shall demonstrate, to the satisfaction of the Public Works Director or Designee, the waiver will not lead to any of the following conditions downstream:

(a) Deterioration of existing culverts, bridges, dams, and other structures;

(b) Degradation of biological functions or habitat;

(c) Accelerated stream bank or streambed erosion or siltation; or

(d) Increased threat of flood damage to public health, life, or property.

(4). Land Disturbance Permit Not Issued Where Waiver Requested.
No land disturbance permit shall be issued where a waiver has been requested until the waiver is granted. If no waiver is granted, the plans shall be resubmitted with a storm water management plan.

18-406. Storm Water System Design and Management Standards.
(1). Storm Water Design or BMP Manual.

(a) Adoption: The City of Spring Hill adopts as its storm water design and BMP manual the following publications and policy (as such publications and policies may hereafter be amended and/or restated from time to time), which are incorporated by reference in this ordinance as is fully set out herein:

(1) TDEC Erosion and Sediment Control Manual

(2) TDEC Guide to the Selection & Design of Stormwater Best Management Practices (BMPs); A Guide for Phase II MS4 Communities for Protecting Post-construction Stormwater Quality and Managing Stormwater Flow

(3) City of Spring Hill Water Quality Buffer Zone Policy

(4) Tennessee Construction General Permit (CGP)

(b) These manuals include policies for dry detention basin design and water quality buffer zones and a list of acceptable BMPs, including the specific design performance criteria and operation and maintenance requirements for each storm water practice. The Storm Water Design and BMP Manuals and Water Quality Buffer Zone Policy may be updated and expanded from time to time, at the discretion of the City of Spring Hill Board of Mayor and Alderman, upon the recommendation of the City of Spring Hill Public Works Director or Designee and the City of Spring Hill Planning Commission, based on improvements in engineering, science, monitoring, and local maintenance experience. Storm water facilities that are designed, constructed, and maintained in accordance with the City of Spring Hill's BMP Manuals and Water Quality Buffer Zone Policy criteria will be presumed to meet the minimum water quality performance standards.

(c) The design, inspection and maintenance of all Best Management Practices (BMPs) described in the SWPPP (and construction plans) must be prepared in accordance with good engineering practices and, at a minimum, shall be consistent with the requirements and recommendations contained in the current edition of the Tennessee Erosion and Sediment Control Handbook and the Tennessee Construction General Permit (CGP).

(2) General Performance Criteria for Storm Water Management.
Unless granted a waiver or judged by the Public Works Director or Designee to be exempt, the following performance criteria shall be addressed for storm water management at all sites:

(a) All site designs shall control the peak flow rates of storm water discharge associated with design storms specified in this ordinance or in the City of Spring Hill BMP Manuals, Unified Development Code, and/or the Water Quality Buffer Zone Policy

listed in Section 18-406(1)(a) and reduce the generation of post-construction storm water runoff to a minimum of pre-construction levels. These practices shall seek to utilize pervious areas for storm water runoff control and to infiltrate storm water runoff from driveways, sidewalks, rooftops, parking lots, and landscaped areas to the maximum extent practical to provide treatment for water quantity.

(b) All new development and redevelopment shall be designed to reduce pollutants to the maximum extent possible. As an indicator of pollutant reduction, all sites shall be designed with permanent stormwater control measures (SCMs), at a minimum, to achieve an overall treatment efficiency of 80% total suspended solids (TSS) removal from the Water Quality Treatment Volume (WQTV). The SCMs shall be designed to treat the 1-year, 24-hour design storm event. The SCMs shall be designed to provide full treatment capacity within 72 hours following the end of the preceding rain event for the life of the project. The quantity of the WQTV depends on the type of treatment provided, as established in the following table:

WATER QUALITY TREATMENT VOLUME AND THE CORRESPONDING SCM TREATMENT TYPE FOR THE 1-YEAR, 24-HOUR DESIGN STORM

SCM TREATMENT TYPE	WQTV	NOTES
INFILTRATION, EVAPORATION, TRANSPIRATION, AND/OR REUSE	RUNOFF GENERATED FROM THE FIRST 1 INCH OF THE DESIGN STORM	EXAMPLES INCLUDE, BUT ARE NOT LIMITED TO, BIORETENTION, STORMWATER WETLANDS, AND INFILTRATION SYSTEMS.
BIOLOGICALLY ACTIVE FILTRATION, WITH AN UNDERDRAIN	RUNOFF GENERATED FROM THE FIRST 1.25 INCHES OF THE DESIGN STORM	TO ACHIEVE BIOLOGICALLY ACTIVE FILTRATION, SCMS MUST PROVIDE MINIMUM OF 12 INCHES OF INTERNAL WATER STORAGE
SAND OR GRAVEL FILTRATION, SETTLING PONDS, EXTENDED DETENTION PONDS, AND WET PONDS	RUNOFF GENERATED FROM THE FIRST 2.5 INCHES OF THE DESIGN STORM OR THE FIRST 75% OF THE DESIGN STORM, WHICHEVER IS LESS	EXAMPLES INCLUDE, BUT ARE NOT LIMITED TO, SAND FILTERS, PERMEABLE PAVERS, AND UNDERGROUND GRAVEL DETENTION SYSTEMS. PONDS MUST PROVIDE FOREBAYS COMPRISING A MINIMUM OF 10% OF THE TOTAL DESIGN VOLUME. EXISTING REGIONAL DETENTION PONDS ARE NOT SUBJECT TO THE FOREBAY REQUIREMENT
HYDRODYNAMIC SEPARATION, BAFFLE BOX SETTLING, OTHER FLOW-THROUGH MANUFACTURED TREATMENT DEVICES (MTDS), AND TREATMENT TRAINS USING MTDS	MAXIMUM RUNOFF GENERATED FROM THE ENTIRE DESIGN STORM	FLOW-THROUGH MTDS MUST PROVIDE AN OVERALL TREATMENT EFFICIENCY OF AT LEAST 80% TSS REDUCTION

The 80% TSS removal shall be calculated using a Treatment Train Calculation.

(1) Treatment trains using manufactured treatment devices (MTDs)

Treatment trains using MTDs must provide an overall treatment efficiency of at least 80% TSS reduction utilizing the following formula:

Formula:
$R = A + B - (A \times B) / 100$

Where:
R = Total TSS percent removal from application of both SCMs,
A = The TSS percent removal rate applicable to the first SCM, and
B = The TSS percent removal rate applicable to the second SCM

TSS removal rates for MTD must be evaluated using industry-wide standards. TSS removal rates for other SCMs must be from published literature.

(2) Treatment trains not using MTDs

Treatment trains using infiltration, evaporation, transpiration, reuse, or biologically active filtration followed by sand or gravel filtration, settling ponds, extended detention ponds or wet ponds may subtract the treated WQTV of the upstream SCMs from the WQTV of the downstream SCMs.

(c) To protect stream channels from degradation, specific channel protection criteria shall be provided as prescribed in the BMP Manuals and Water Quality Buffer Zone Policy and in accordance with the CGP as stated below:

(1) <u>For sites that discharge into Waters with Available Parameters:</u>
The water quality riparian buffer zone should be preserved between the top of stream bank and the disturbed construction area. The 30-foot criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than 15 feet at any measured location.

All EPSC measures used at the site are designed to control stormwater runoff generated by a 2-year, 24-hour storm event, at a minimum, either from total rainfall in the designated period or the equivalent intensity as specified on the following website http://hdsc.nws.noaa.gov/hdsc/pfds/orb/tn_pfds.html.

(2) <u>For sites that discharge into Waters with Unavailable Parameters or Exceptional Tennessee Waters:</u>
The water quality riparian buffer zone should be preserved between the top of stream bank and the disturbed construction area. The 60-foot criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than 30 feet at any measured location.

All EPSC measures used at the site are designed to control stormwater runoff generated by a 5-year, 24-hour storm event, at a minimum, either from total rainfall in the designated period or the equivalent intensity as specified on the following website http://hdsc.nws.noaa.gov/hdsc/pfds/orb/tn_pfds.html.

(d) Storm water discharges to critical areas with sensitive resources (i.e., cold water fisheries, shellfish beds, swimming beaches, recharge areas, natural springs, and water supply reservoirs and intakes) may be subject to additional performance criteria, or may need to utilize or restrict certain storm water management practices;

(e) Storm water discharges from hot spots may require the application of specific Structural BMPs and pollution prevention practice;

(f) Prior to or during the site design process, applicants for land disturbance permits shall consult with the Public Works Director or Designee to determine if they are subject to additional storm water design requirements; and

(g) The calculations for determining peak flows as found in the BMP Manuals listed in Section 18-406 (1)(a)(1) and (2).

(3). Minimum Control Requirements.

(a) Storm water designs shall meet the WQTV and multi-stage storm frequency storage requirements as identified in the BMP Manuals as listed in Section 18-406 (1)(a) (1) and (2) unless the Public Works Director or Designee has granted the applicant a full or partial waiver for a particular regulation under Section 18-405.

(b) If hydrologic or topographic conditions warrant greater control than that provided by the minimum control requirements, the Public Works Director or Designee may impose any and all additional requirements deemed necessary to control the volume, timing, release velocities and rate of runoff.

(4). Storm Water Management Plan Requirements.

The storm water management plan shall include sufficient information to allow the Storm Water Coordinator to evaluate the environmental characteristics of the project site, the potential impacts of all proposed development of the site, both present and future, on the water resources, and the effectiveness and acceptability of the measures proposed for managing storm water generated at the project site. To accomplish this goal the storm water management plan shall include the following:

(a) Topographic Base Map: A 1" = 200' topographic base map of the site which extends a minimum of 500-feet beyond the limits of the proposed development and indicates:

(1) Existing surface water drainage including streams, ponds, natural springs, culverts, ditches, sinkholes, wetlands; and the type, size, elevation, etc., of nearest upstream and downstream drainage structures;

(2) Current land use, including all existing structures, locations of utilities, roads, and easements;

(3) All other existing significant natural and artificial features;

(4) Proposed land use with tabulation of the percentage of surface area to be adapted to various uses; drainage patterns; locations of utilities, roads and easements; and the limits of clearing and grading;

(5) Proposed Structural BMPs (temporary and permanent); and

(6) A written description of the site plan and justification of proposed changes in natural conditions may also be required.

(b) Calculations: Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in the City of Spring Hill Unified Development Code. These calculations shall show that the proposed storm water management measures are capable of controlling runoff from the site in compliance with this ordinance and the guidelines of the City of Spring Hill Unified Development Code. Such calculations shall include:

(1) A description of the design storm frequency, duration, and intensity where applicable;

(2) Time of concentration;

(3) Soil curve numbers or runoff coefficients, including assumed soil moisture conditions;

(4) Peak runoff rates and total runoff volumes for each watershed area;

(5) Infiltration rates, where applicable;

(6) Culvert, storm water sewer, ditch, and/or other storm water conveyance capacities;

(7) Flow velocities;

(8) Data on the increase in rate and volume of runoff for the design storms referenced in the City of Spring Hill Unified Development Code; and

(9) Documentation of sources for all computation methods and field test results.

(c) Soils Information: If a storm water management control measure depends on the hydrologic properties of soils (e.g., infiltration basins), then a soils report shall be submitted. The soils report shall be based upon on-site boring logs or soil pit profiles and soil survey reports. The number and location of required soil borings or soil pits shall be determined based on what is needed to determine the suitability and distribution of soil types present at the location of the control measure.

(d) Maintenance and Repair Plan: The design and planning of all storm water management facilities shall include detailed maintenance and repair procedures to ensure their continued performance. These plans will identify the parts or components of a storm

water management facility that need to be maintained and the equipment and skills or training necessary. 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. A permanent elevation benchmark shall be identified in the plans to assist in the inspection of the facility.

Detention ponds with sides constructed from a poured-in-place concrete wall, mass-retaining wall, manufactured product retaining walls, or similar type construction and exceed 4-feet in height, shall include a permanently constructed ramp for accessibility of equipment into the pond. The location of the ramp within the pond shall be located so that it is within the path of the recorded permanent access easement. The Public Works Director or Designee shall make final acceptance of the pond wall construction and accessibility measures.

(e) Landscaping Plan: The applicant shall present a detailed plan for management of vegetation at the site after construction is finished, including who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved. The landscaping plan shall also include a full landscaping buffer zone to be located around the perimeter of the detention or retention basin. The landscaping buffer zone shall be established with planting types which will provide both seasonal blooming and plants that will provide constant annual screening, such as evergreens. The landscaping plan shall be submitted to both the City of Spring Hill Planning Commission and the Public Works Director or Designee for approval. Where it is required by the BMP and as required by the Public Works Director or Designee, this plan must be prepared by a registered landscape architect licensed in the State of Tennessee.

(f) Maintenance Easements: The applicant shall ensure access to the site for the purpose of inspection and repair by securing all the maintenance easements needed. These easements shall be binding on the current property owner and all subsequent owners of the property and shall be properly recorded with the Maury County or Williamson County Register of Deeds in perpetuity.

(g) Maintenance Agreement:

(1) The owner of property to be served by an on-site storm water management facility shall execute an inspection and maintenance agreement that shall operate as a deed restriction binding on the current property owner and all subsequent property owners.

(2) The maintenance agreement shall:

(a) Assign responsibility for the maintenance and repair of the storm water facility and landscaping to the owner of the property upon which the facility is located and be recorded as such on the plat and in instances when a plat may not be required on the Maintenance Agreement for the property by appropriate notation;

(b) Provide for a periodic inspection at least once every five years by the property owner for the purpose of documenting maintenance and repair needs and ensure compliance with the purpose and requirements of this

ordinance. The property owner will arrange for this inspection to be conducted by a The professional will submit a sealed report of the inspection to the Storm Water Coordinator. It shall also grant permission to the City of Spring Hill to enter the property at reasonable times and to inspect the storm water facility to ensure that it is being properly maintained;

(c) Provide that the minimum maintenance and repair needs include, but are not limited to: The removal of silt, litter, and other debris, the cutting of grass, grass cuttings and vegetation removal, and the replacement of landscape vegetation, in detention and retention basins, and inlets and drainage pipes and any other storm water facilities. It shall also provide that the property owner shall be responsible for additional maintenance and repair needs consistent with the needs and standards outlined in the BMP manual;

(d) Provide that maintenance needs shall be addressed in a timely manner, on a schedule to be determined by the Storm Water Coordinator; and

(e) Provide that if the property is not maintained or repaired within the prescribed schedule, the Storm Water Coordinator shall have the maintenance and repair work performed at the City's expense and shall bill the same to the property owner. The maintenance agreement shall also provide that the City's cost of having the maintenance work performed shall be paid within one hundred and twenty (120) days of the work being performed. If the payment is not received within the time frame specified, a lien against the property will be filed for the indicated amount.

(3) The City of Spring Hill shall have the discretion to accept the dedication of any existing or future storm water management facility, provided such facility meets the requirements of this ordinance, and includes adequate and perpetual access and sufficient areas, by easement or otherwise, for inspection and regular maintenance. Any storm water facility accepted by the City of Spring Hill must also meet the city's construction standards and any other standards and specifications that apply to the particular storm water facility in question.

(h) Erosion and Sediment Control Plans: The applicant shall prepare an erosion and sediment control plan for all construction activities that complies with the following, Section 18-406(5), below.

(5). Erosion and Sediment Control Plan Requirements.

The erosion and sediment control plan shall accurately describe the potential for soil erosion and sedimentation problems resulting from land disturbing activity and shall explain and illustrate the measures that are to be taken to control these problems. The length and complexity of the plan is to be commensurate with the size of the project, severity of the site condition, and potential for off-site damage. A registered professional engineer licensed in the State of Tennessee shall seal the plan. The plan shall also conform to the requirements found in the BMP Manuals referenced in Section 18-406 (1)(a) (1), (2), and (4), and shall include, at a minimum, the following:

(a) A description of on-site measures to be taken to recharge surface water into the groundwater system through infiltration by mean of rain gardens, soil percolation or other standard practices.

(b) Project Description - Briefly describe the intended project and proposed land disturbing activity, including number of units and structures to be constructed and infrastructure required;

(c) A topographic map with contour intervals of five (5) feet or less showing present conditions and proposed contours resulting from land disturbing activity;

(d) All existing drainage ways, including intermittent and wet weather, water quality buffer zone, wetlands, natural springs, sinkholes or any other drainage or natural features. Include any designated floodways or flood plains whether published by the Federal Emergency Management Administration (FEMA) or as designated by sound engineering practices and hydrologic calculations;

(e) A general description of existing land cover. Individual trees and shrubs do not need to be identified;

(f) Stands of existing trees as they are to be preserved upon project completion, specifying their general location on the property. Differentiation shall be made between existing trees to be preserved, trees to be removed, and proposed planted trees. Tree protection measures must be identified, and the perimeter of the area involved shall also be identified on the plan and shown to scale. Information shall be supplied concerning the proposed destruction of exceptional and historic trees in setbacks and landscape buffer strips, where they exist. Complete landscape plans may be submitted separately. The plan shall include the order of implementation for tree protection efforts;

(g) Approximate limits of proposed clearing, grading, and filling;

(h) Approximate flows of existing storm water leaving any portion of the site;

(i) A general description of existing soil types and characteristics and any anticipated soil erosion and sedimentation problems resulting from existing characteristics;

(j) Location, size, and layout of proposed storm water and sedimentation control improvements;

(k) Proposed drainage network;

(l) Proposed drain tile or waterway sizes;

(m) Approximate flows leaving site after construction and incorporating water runoff mitigation measures. The evaluation shall include projected effects on property adjoining the site and on existing drainage facilities and systems. The plan shall address the adequacy of outfalls from the development: when water is concentrated,

what is the capacity of waterways, if any, accepting storm water off-site; and what measures, including infiltration, sheeting into buffers, etc., will be used to prevent high velocities and scouring of waterways and drainage areas off-site, etc.:

(n) The projected sequence of work represented by the grading, drainage, and erosion and sedimentation control plans as related to other major items of construction, beginning with the initiation of excavation and including the construction of any sediment basins, detention or retention facilities, or any other Structural BMPs;

(o) Specific remediation measures to prevent erosion and sedimentation runoff. Plans shall include detailed drawings of all control measures used; stabilization measures including vegetation and non-vegetation measures, both temporary and permanent, shall be detailed. Detailed construction notes and a maintenance schedule shall be included for all control measures in the plan;

(p) Specific details for: the construction of rock pads, construction entrance and exit roads, concrete wash down pads, and settling basins for controlling erosion; road access points; eliminating or keeping soil, sediment, and debris on streets and public ways at a level acceptable to the Storm Water Coordinator. Soil, sediment, and debris brought onto streets and public ways shall be removed by the end of the workday by machine, broom, or shovel to the satisfaction of the Storm Water Coordinator. Failure to remove the sediment, soil, or debris shall be deemed a violation of this ordinance;

(q) Proposed structures, location (to the extent possible) and identification of any proposed additional buildings, structures, or development on the site.

(r) On sites discharging into waters with available parameters, the erosion prevention and sediment control measures shall be designed to minimize eorison and maximize sediment removal resulting from a 2-year, 24-hour storm (the design storm).

(s) On sites discharging into waters with unavailable parameters or Exceptional Tennessee Waters, the erosion prevention and sediment control measures shall be designed to minimize erosion and maximize sediment removal resulting from a 5-year, 24-hour storm (the design storm).

(t) Sediment basins or equivalent sediment controls must be provided for construction sites involving drainage to an outfall totaling 10 or more acres. A minimum sediment basin volume that will provide treatment for a calculated volume of runoff from a 2-year, 24-hour storm and runoff from each acre drained shall be provided until permanent stabilization of the site. A drainage area of 10 or more acres includes disturbed and undisturbed portions of the site and areas adjacent to the site, all draining through the common outfall.

(u) Sediment basins or equivalent sediment controls must be provided for construction sites involving drainage to an outfall totaling 5 or more acres if draining into waters with unavailable parameters or Exceptional Tennessee Waters. A minimum sediment basin volume that will provide treatment for a calculated volume of runoff from a 5-year, 24-hour storm and runoff from each acre drained shall be provided until

permanent stabilization of the site. A drainage area of 5 or more acres includes disturbed and undisturbed portions of the site and areas adjacent to the site, all draining through the common outfall.

(v) Sediment trap or equivalent sediment controls must be provided for construction sites involving drainage to an outfall totaling 3.5-4.9 acres if draining into waters with unavailable parameters or Exceptional Tennessee Waters. A minimum sediment trap volume that will provide treatment for a calculated volume of runoff from a 5-year, 24-hour storm and runoff from each acre drained shall be provided until permanent stabilization of the site. A drainage area of 3.5-4.9 or more acres includes disturbed and undisturbed portions of the site and areas adjacent to the site, all draining through the common outfall.

Section 18-407. Post Construction.

(1). Record Drawings

All applicants are required to submit actual record drawings (as-builts) for all storm water drainage components and structures located on-site after final construction is completed. The record drawings shall be prepared by the project developer hired design professional and submitted to the Stormwater Department within 90 days of installation. The drawings shall also show the final design specifications for all storm water management facilities and shall be sealed by a registered professional engineer licensed to practice in the State of Tennessee. A final inspection by the Public Works Director or Designee is required before any performance agreement/letter of credit will be released. The Public Works Director or Designee shall have the discretion to adopt provisions for a partial pro-rata reduction of the performance agreement/letter of credit on the completion of various stages of development. In addition, certificates occupancy (CO) permits or signing of the final plat shall not be granted until corrections to all BMPs have been made and accepted by the Public Works Director or Designee.

(2). Landscaping and Stabilization Requirements.

(a) Any area of land from which the natural vegetative cover has been either partially or wholly cleared by development activities, shall be re-vegetated according to a schedule approved by the Public Works Director or Designee. The following criteria shall apply to re-vegetation efforts:

(1) Reseeding shall be done with a native annual or perennial cover crop accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until such time as the cover crop is established;

(2) Placement of straw mulch or its equivalent of sufficient coverage to control erosion until the plantings are established and are capable of controlling erosion shall accompany replanting with native woody and herbaceous vegetation;

(3) Any area of re-vegetation must exhibit survival of a minimum of seventy-five percent (75%) of the cover crop throughout the year immediately following re-vegetation or exhibit no erosion based on the Storm Water Coordinator's field review. Re-vegetation shall be repeated in successive years until the aforementioned criteria are achieved. If erosion should occur anywhere on-site it should be repaired to the satisfaction of the Storm Water Coordinator.

(b) In addition to the above requirements, a landscaping plan shall be submitted with the final design describing the vegetative stabilization and management techniques to be

used at a site after construction is completed. This plan will explain not only how the site will be stabilized after construction, but who will be responsible for the maintenance of vegetation and landscaping at the site. The plan shall also indicate the practices to be employed to ensure that adequate vegetative cover, general landscaping and landscaping located around the perimeter of detention and retention basins are preserved.

(3). Inspection of Storm Water Management Facilities.
Periodic inspections of facilities shall be performed as provided for in Section 18-406(a)(2)(b) of this ordinance and as described in the BMP Manuals.

(4). Records of Installation and Maintenance Activities.
Parties responsible for the operations and maintenance of a storm water management facility shall make records of the installation of the storm water facility, and of all maintenance and repairs to the facility, and shall retain the records for at least five (5) years and in accordance with the BMP Manuals.

(5). Failure to Meet or Maintain Design or Maintenance Standards.
If a responsible party fails or refuses to meet the design or maintenance standards required for storm water facilities under this ordinance, the Storm Water Coordinator, after reasonable notice, may correct a violation of the design standards or maintenance needs by performing all necessary work to place the facility in proper working condition. In the event that the storm water management facility becomes a danger to public safety or public health, the Storm Water Coordinator shall notify in writing the party responsible for maintenance of the storm water management facility. Upon receipt of that notice the responsible party shall have fourteen (14) calendar days to perform maintenance and repair of the facility in an approved manner. In the event that corrective action is not undertaken within that time, the Storm Water Coordinator may take necessary corrective action. The cost of any action by the Storm Water Coordinator under this section shall be charged to the responsible party.

18-408. Existing Locations and Developments.
(1). Requirements for Existing Locations and Developments.
The following requirements shall apply to all locations and developments at which land disturbing activities have occurred previous to the enactment of this ordinance:

(a) Denuded areas shall be vegetated or covered under the standards and guidelines specified in the BMP Manuals and on a schedule acceptable to the Storm Water Coordinator.

(b) Cuts and slopes shall be properly covered with appropriate vegetation and/or retaining walls constructed;

(c) Drainage ways shall be properly covered in vegetation or bioengineered products as approved by the Storm Water Coordinator, etc., to prevent erosion;

(d) Trash, junk, rubbish, etc. shall be cleared from drainage ways; and

(e) Storm water runoff shall be controlled to the extent reasonable to prevent pollution of local waters. Such control measures may include, but are not limited to, the following:

(1) Constructed wetlands.

(2) Infiltration systems:
- (a) Infiltration/percolation trench;
- (b) Infiltration basin;
- (c) Drainage (recharge) well; and
- (d) Pervious pavement.

(3) Filtering systems:
- (a) Catch basin inserts/media filter;
- (b) Sand filter;
- (c) Filter/absorption bed; and
- (d) Filters, buffer strips and water quality buffer zones.

(4) Ponds:
- (a) Detention pond;
- (b) Extended detention pond;
- (c) Wet pond (retention basin); and
- (d) Alternative storage measures.

(5) Open channel:
- (a) Swale.

(2). Requirements for Existing Problem Locations.
Upon approval by the City Administrator, the Storm Water Coordinator shall, in writing, notify the owners of existing locations and developments of specific drainage, erosion, or sediment problem affecting such locations and developments, and the specific actions required to correct those problems. The notice shall also specify a reasonable time for compliance.

(3). Inspection of Existing Facilities.
The Storm Water Coordinator may, to the extent authorized by state and federal law, establish inspection programs to verify that all storm water management facilities, including those built before as well as after the adoption of this ordinance, are functioning within design limits. These inspection programs may 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; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type which are more likely than the typical discharge to cause violations of the City of Spring Hill's NPDES storm water permit; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may

include, but are not limited to:

(a) Reviewing maintenance and repair records;

(b) Sampling discharges, surface water, groundwater, and material or water in drainage control facilities; and

(c) Evaluating the condition of drainage control facilities and other BMPs.

(4). Corrections of Problems Subject to Appeal.
Corrective measures imposed by the City of Spring Hill under this section are subject to appeal under Section 18-412 of this ordinance.

Section 18-409. Illicit Discharges.
(1). Scope.
This section shall apply to all water generated on developed or undeveloped land entering the City of Spring Hill's Separate Storm Sewer System.

(2). Prohibition of Illicit Discharges.
No person shall introduce or cause to be introduced into the City of Spring Hill's Separate Storm Sewer System any discharge that is not composed entirely of storm water. The commencement, conduct, or continuance of any non-storm water discharge to the City of Spring Hill's Separate Storm Sewer System is prohibited except as described as follows:

(a) Uncontaminated discharges from the following sources which are not significant contributors of pollutants to the MS4**:

(1) Water line flushing
(2) Landscape irrigation
(3) Diverted stream flows
(4) Rising ground waters
(5) Uncontaminated groundwater infiltration (infiltration is defined as water other than wastewater that enters a sewer system, including sewer service connections and foundation drains, from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow)
(6) Uncontaminated pumped groundwater
(7) Discharges from potable water sources
(8) Foundation drains
(9) Air conditioning condensation
(10) Irrigation Water
(11) Springs
(12) Water from crawl space pumps
(13) Footing drains
(14) Lawn watering
(15) Individual residential car washing
(16) Flows from riparian habitats and wetlands
(17) Dechlorinated swimming pool discharges
(18) Street wash water
(19) Discharges or flow from firefighting activities

**Any of the above mentioned activities which result in the introduction of pollutants

into the MS4 may be deemed an illicit discharge resulting in ceasing of the activity and corrective action.

(b) Discharges specified in writing by the Storm Water Coordinator as being necessary to protect public health and safety.

(c) Dye testing is an allowable discharge if the Storm Water Coordinator has so specified in writing.

(3). Prohibition of Illicit Connections.

(a) The construction, use, maintenance, or continued existence of illicit connections to the City of Spring Hill Separate Storm Sewer System is prohibited.

(b) This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

(4). Reduction of Storm Water Pollutants by Use of BMPs.

Any person responsible for a property or premises, which is, or may be, the source of an illicit discharge, may be required to implement, at the person's expense, the BMPs necessary to prevent the further discharge of pollutants to the City of Spring Hill's Separate Storm Sewer System. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of storm water associated with an industrial user activity, to the extent practicable, shall be deemed in compliance with the provisions of this section.

(5). Notification of Spills.

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation, has information of any known or suspected release of materials which are resulting in, or may result in, illicit discharges or pollutants discharging into storm water, the City of Spring Hill's Separate Storm Sewer System, the person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials, the person shall notify the Storm Water Coordinator in person or by telephone or facsimile no later than the next business day. Notifications in person or by telephone shall be confirmed by written notice addressed and mailed to the Storm Water Coordinator within three (3) business days of the telephone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and actions taken to prevent recurrences. Records shall be retained for at least five (5) years.

18-410. Enforcement.

(1). Enforcement Authority.

The City Administrator, or his or her designee, hereinafter called the "Storm Water Coordinator," shall have the authority to issue notices of violation (NOV), and to enforce the requirements set forth in the Enforcement Response Plan (ERP).

(2). Conflicting Standards.

Whenever there is a conflict between any standard contained in this ordinance, existing ordinances and policies and in the BMP Manuals adopted by the City of Spring Hill under this ordinance, the strictest

standard shall prevail.

(3) Enforcement Response Plan (ERP)

The intent of the ERP is to provide guidance to city officials in enforcing the stormwater management ordinance. It should be used as a guide while recognizing that each situation is unique. The provisions of this enforcement response plan are not intended to limit the judgement and flexibility of the director in determining an appropriate response.

While the purpose is to provide guidance for administration of the stormwater management ordinance, actual enforcement procedures should consider any unusual aspects of a violation or condition, as well as special characteristics of an enforcement action, in determining the proper response.

Minor infractions may be resolved by a verbal notice, telephone call, or warning letter advising the owner/operator/person of the nature of the violation. If such action fails to generate an adequateresponse by the owner/operator/person, further enforcement actions as provided by the ordinance may be taken.

Investigations of complaints shall be initiated by the Storm Water Coordinator no later than 7 calendar days after receipt of the complaint.

(a) Procedures for Development Site Plan Reviews

Review all site plans at Planning Commission Staff Review. This review includes 2 (two) staff level reviews with members from the following departments present: stormwater, codes, planning, utilities, and the consulting engineer. The Stormwater Coordinator maintains a status tracking table of all projects tracking plans review to conducting a preconstruction meeting.

Upon approval by the Planning Commission, the applicant is required to submit a grading application to the stormwater department prior to construction. A letter is sent with all Planning Commission approval letters outlining the grading permit process. The grading application must be accompanied by an approved TDEC's Notice of Coverage and written SWPPP.

A grading preconstruction meeting is held with the developer and contractor to review all site procedures and inspection regimes. All sites are inspected by a Level 1 inspector for verificationthat the initial sediment controls are properly installed.

The stormwater department inspector will visit all active construction sites at a minimum on a monthly basis. The inspection includes a written report and shall record any deficiencies or changes to the SWPPP. If any enforcement actions are required, they will follow the procedures outlined below.

Prior to issuance of a Certificate of Occupancy, all permanent stormwater BMP's are inspected by the City's stormwater inspector to ensure they are installed as designed.

(b) Enforcement Responses

The order of precedence for enforcement responses outlined in this guide should not be construed to prevent the director from taking a stronger action without first implementing less stringent steps, if in his opinion, a more forceful response is necessary.

A show cause hearing should be held prior to any enforcement action other than a telephone call, warning letter, notice of violation (NOV), or stop work order. The purpose of a show cause hearing isto provide a forum for the owner to present a defense to charges as outlined, or, to obtain additional information.

(c) Documented Phone Calls or Informal Discussions

In the case of the most minor violation of a permit or the ordinance, a telephone call or informal meeting may be sufficient to obtain the desired compliance. Phone calls should be documented onto the department's violation tracking table. Likewise, if an informal discussion is held, it should be entered onto the department's violation tracking table.

(d) Warning Letter

A warning letter is the lowest level of formal response to a violation. It is intended for minor violationswhich would not cause harm to the environment.

(e) Notice of Violation

A notice of violation (NOV) is an official notification to inform a non-compliant owner of a violation of the stormwater management ordinance. Within ten (10) days of receipt of this notice, a written explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted by the owner to the director. Inspection to ensure performance of any corrective actions may be conducted by the director at his discretion. Submission of this plan in no way relieves the owner of liability for any violations occurring before or after receipt of the notice of violation.

(f) Stop Work Order

A Stop Work Order may be issued when the director finds that an owner has violated, or continues to violate, the stormwater management ordinance or order issued thereunder. The order shall require that the owner:

1. Comply forthwith; and
2. Take such appropriate remedial or preventive action as may be needed or deemed necessary to properly address a continuing or threatened violation, including halting operations and terminating the discharge.

(g) Administrative Orders

Administrative orders (AO) are enforcement documents which direct owners to perform, or to cease, specific activities. Administrative orders may also invoke a penalty. There are three primary types of administrative orders: consent orders; compliance orders; and cease and desist orders.

1. Consent orders are entered into between the city and the owner to assure compliance as to specific actions to be taken by the owner to correct non-compliance within a specified time period. The director may enter into consent orders, assurances of voluntary compliance or other similar documents establishing an agreement with any owner responsible for noncompliance. Such documents shall include specific action to be taken by the owner to correct the noncompliance within a time period specified in the document. Such documents shall have the

same force and effect as orders issued pursuant to Section 14-610.

2. Compliance orders may be issued when the director finds that an owner has violated, orcontinues to violate, the ordinance or an order issued thereunder. It is similar to a consent order except that the consent of the owner is not implied in its issuance. When the director finds that an owner has violated or continues to violate and section of this article, or a permitor order issued under this article, the director may issue an order to the owner responsible for the violation directing that the owner come into compliance within a specified time, and such order may include assessment of a penalty to be paid if the owner does not come into compliance within the time provided. Compliance orders also may contain other requirements to address the noncompliance, including additional self-monitoring and management practices designed to minimize the amount of pollutants discharged offsite. A compliance order does not relieve the owner of liability for any violation, including any continuing violation. Issuance of a compliance order shall not be a bar against or a prerequisite for taking any other action against the owner.

3. Cease and desist orders may be issued when the director finds that an owner has violated, or continues to violate, the stormwater management ordinance or order issued thereunder. Issuance of a cease and desist order shall not be a bar against or a prerequisite for taking any other action against the owner.

Administrative orders contain the following components:

1. Title - The title specifies the type of order being issued (see below), to whom it is being issued, summarizes the purpose of the order, and contains an identification number.

2. Legal Authority - The authority under which the order is issued (the stormwater managementordinance).

3. The Finding of Noncompliance - All violations must be described including the dates, the specific permit and/or ordinance provisions violated, and any damages known and attributable to the violation.

4. Required Activity - All orders should specify the required actions, such as installation of BMPs, additional inspections, appearance at show cause hearings, etc.

5. Milestone Dates for Corrective Actions - When compliance schedules are appropriate, all milestone dates must be established including due dates for required written reports.

6. Supplemental Clauses - The document should contain standard clauses providing that:

   (a) Compliance with the terms and conditions of the administrative order shall not be construed to relieve the owner of its obligation to comply with applicable state, federal or local law, or the permit;

(b) Violation of the administrative order itself may subject the owner to additional penalties as set out in the stormwater management ordinance;

(c) No provision of the order shall be construed to limit the City's authority to issue supplementary or additional orders, or to take action deemed necessary to implement this program or ordinance;

(d) The order shall be binding upon the owner, its officers, directors, agents, employees, successors, assigns, and all persons, firms or corporations acting under, through or on behalf of the owner.

Administrative orders issued as a result of a violation of the stormwater management ordinance may contain a penalty pursuant to Section 18-411 of the stormwater management ordinance. Administrative orders may also be used to advise an owner of the need to take, or cease, certain actions, and in such case, may or may not be associated with penalties as defined in the ordinance or in this guide.

(h) Civil Litigation

Pursuant to Section 18-411 of the stormwater management ordinance, the director may, through the city attorney, petition the appropriate court(s) for issuance of preliminary or permanent injunctions to restrain or compel activities by an owner.

(i) Penalties, Administrative or Civil

The stormwater management ordinance authorizes assessment of penalties not to exceed $5,000 per violation per day. Additionally, Section 18-411 of the ordinance authorizes the director to assess a civil penalty for actual damages incurred by the city. Before assessment of any administrative penalty, a show cause hearing must be held with the non-compliant owner.

If a violation results in conditions requiring the expenditure of public funds for mitigation of damages, a penalty shall be assessed in such amount as to offset the public funds so expended. This will in no way reduce or offset the liability of the owner with respect to damages incurred.

(j) Cease and Desist Order

A civil injunction may be requested at any time, for any violation, if in the opinion of the director inconsultation with the city attorney, such action is justified, needed or appropriate.

(k) Criminal Action

In cases where criminal acts are suspected by the director, after consultation with the city attorney, information shall be gathered and forwarded to the district attorney of the appropriate county for action, Criminal prosecution, if pursued, shall be in addition to other actions authorized by ordinance.

(l) Public Reporting of Suspected Illicit Discharge

In the case of a suspected illicit discharge, any citizens may contact the MS4 department directly via phone, email or website contact form. Upon receiving a complaint, the department shall initiate an investigation within seven days. If an illicit discharge is detected, the department shall follow the protocol outlined in the ERP.

TABLE B ENFORCEMENT RESPONSE GUIDE
ESCALATION OF RESPONSES

The following table outlines a recommended course of action for violations of the stormwater ordinance. When enforcement actions involving a specific site, a common operator or owner include multiple or successive violations then the severity level may be increased. TDEC may also be consulted for violations that have not been satisfactorily addressed by the owner.

While the purpose is to provide guidance for administration of the stormwater management ordinance, it is not intended to limit the judgment and flexibility of the director in determining an appropriate response.

SEVERITY OF VIOLATION	ACTION
1	Informal Phone Call/Discussion
2	Written warning
3	Notice of Violation
4	Stop Work Order
5	Administrative Order
6	Administrative Order with up to $500 Penalty
7	Administrative Order with up to $1000 Penalty
8	Administrative Order with up to $2000 Penalty
9	Administrative Order with up to $3000 Penalty
10	Administrative Order with up to $5000 Penalty

18-411. Penalties.

(1). Violations.

Any person who shall commit any act declared unlawful under this ordinance, who violates any provision of this ordinance, who violates the provisions of any permit issued pursuant to this ordinance, or who fails or refuses to comply with any lawful communication, order, or notice to abate or take corrective action issued by either the City of Spring Hill or the Public Works Director or Designee, shall be guilty of a civil offense.

(2). Penalties.

Under the authority provided in Tennessee Code Annotated Section 68-221-1106, the City of Spring Hill declares that any person violating the provisions of this ordinance may be assessed a civil penalty by the Public Works Director or Designee of not less than fifty dollars ($50.00) or more than five thousand dollars ($5,000.00) per day for each day of violation. Each day of violation shall constitute a separate violation. The City of Spring Hill shall give the violator reasonable notice of the assessment of any penalty.

(3). Measuring Civil Penalties.

In assessing a civil penalty, the Public Works Director or Designee may consider:

(a) The harm done to the public health and/or the environment;

(b) Whether the civil penalty imposed will be a substantial economic deterrent to the illegal activity;

(c) The economic benefit gained by the violator;

(d) The amount of effort put forth by the violator to remedy this violation;

(e) Any unusual or extraordinary enforcement costs incurred by the City of Spring Hill;

(f) The amount of penalty established by ordinance or resolution for specific categories of violations; and

(g) Any equities of the situation which outweigh the benefit of imposing any penalty or damage assessment.

(4). Recovery of Damages and Costs.
In addition to the civil penalty in the prior subsection (2), the City of Spring Hill may recover, but is not limited to recover, the following:

(a) All damages proximately caused by the violator to the City of Spring Hill, which may include any reasonable expenses incurred in investigating violations of, and enforcing compliance with, this ordinance, or any other actual damages caused by the violation; and

(b) The costs of the City of Spring Hill's maintenance of storm water facilities when the user of such facilities fails to maintain them as required by this ordinance.

(5). Other Remedies.
The City of Spring Hill may bring legal action to enjoin the continuing violation of this ordinance, and the existence of any other remedy, at law or equity, shall be no defense to any such actions.

(6). Remedies Cumulative.
The remedies set forth in this section shall be cumulative, not exclusive, and it shall not be a defense to any action, civil or criminal, that one (1) or more of the remedies set forth herein has been sought or granted.

18-412. Appeals.
Pursuant to Tennessee Code Annotated Section 68-221-1106(d), any person aggrieved by the imposition of a civil penalty or damage assessment as provided by this ordinance may appeal said penalty or damage assessment to the Board of Mayor and Aldermen.

(1). Written Appeals.
The appeal shall be in writing and filed with the City Recorder within fifteen days (15) days after the civil penalty and/or damage assessment is served in any manner authorized by law. If a petition for review is not filed within such time, the violator shall be deemed to have consented to the damage assessment and/or civil penalty and it shall become final.

(2). Public Hearing.
Upon receipt of an appeal, the Board of Mayor and Aldermen shall hold a public hearing within thirty (30) days. Ten (10) days prior notice of the time, date and location of said hearing shall be published in a daily newspaper of general circulation. At least ten (10) days advance written notice, by registered mail, shall be provided to the aggrieved party, such notice to be sent to the address provided

by the aggrieved party at the time of appeal. The decision of the governing body shall be final.

(3). Appealing Decisions.
Any alleged violator may appeal a decision of the Board of Mayor and Aldermen pursuant to the provisions of Tennessee Code Annotated, title 27, chapter 8.

18-413. Amendments.
The Board of Mayor and Aldermen shall have the authority to enact amendments to this ordinance from time to time.

Spring Hill Board of Mayor and Aldermen

TO:	Spring Hill Board of Mayor and Aldermen
FROM:	Tyler Scroggins, Public Works Director, Peter Hughes, Development Director And Cory Hall, Thomas & Hutton
MEETING:	August 7th and 21st, 2023
SUBJECT:	Storm Water Management Ordinance Update

Background: The City of Spring Hill's Stormwater Department is a permitted with the Tennessee Department of Environment and Conservation (TDEC) under the State of Tennessee National Pollutant Discharge Elimination System (NPDES) from Small Municipal Separate Storm Sewer Systems (Small MS4) Permit Number TNS000000. The Stormwater Department completed the required Notice of Intent application for coverage under the permit in November 2022. TDEC's current permit became effective on September 1st, 2022, and it is required for the City to update its ordinances and policies to comply with the new permit within 12 months of the effective date (deadline being August 31, 2023). Permit Sections 4.2.4.a - Construction Site Stormwater Runoff Control and 4.2.5.1.c – Permanent Stormwater Management Plan specifically requires the City of Spring Hill to have ordinances and policies in place to enforce the requirements established in the permit. The attached revisions to Municipal Code 18-401, Storm Water Management Ordinance (Approved by Ordinance 07-45, Revised by Ordinance 19-21) are proposed to make the necessary revisions to be in compliance with the new TDEC MS4 permit.

Specific Changes to the Storm Water Management Ordinance include the following:

Entire Document

1. At the request of City Staff, the term "Storm Water Coordinator" shall be replaced with "Public Works Director or Designee" where noted in the ordinance.

Section 18-401

a. The word "Tennessee" is added to clarify the state permit.

Section 18-404

1. Paragraph (1)(a) – Language was added to properly refer to TDEC's Construction General Permit.

Section 18-406

1. Paragraph (2)(a) – The paragraph was revised to only refer to stormwater controls for water quantity. Reference to the UDC was added.
2. Paragraph (2)(b) – The paragraph was added to define the water quality requirements established in the new TDEC MS4 permit. A copy of TDEC's chart for water quality treatment control measures was added. In addition, the formula was added for calculating the total suspended solids (TSS) removal to demonstrate a minimum 80% TSS removal.
3. Paragraph (3)(a) – The former first flush water quality treat was updated to the new water quality treatment volume (WQTV) requirements.
4. Paragraph (4)(a)(5) – The requirement to show structural BMP's was revised to state both temporary and permanent.
5. Paragraph (4)(b) – The reference to Subdivision Regulations was revised to reference the Unified Development code.
6. Paragraph (4)(d) – A paragraph was added requiring detention ponds with near vertical sides shall include an accessible path for construction equipment included in the design

7. Paragraph (4)(g)(2)(a) – Language was added requiring recording of maintenance responsibility to the property owner in a Maintenance Agreement when a plat is not required as part of the project approval process.
8. Paragraph (4)(g)(2)(b) – Paragraph was revised to require periodic inspections to occur at least once every five years by a licensed professional in accordance with the TDEC permit.
9. Paragraph (5) – Section Reference corrected.
10. Paragraphs (5) – Paragraphs (r) through (v) were added to include design criteria for storm events and sediment basins based on drainage areas and available/unavailable parameters.

Section 18-407

1. Paragraph (1) – Paragraph was revised to require as-built drawings prepared by a developer hired design professional at the completion of the project.

Section 18-409

1. Paragraph (2)(a) – Language was added noting permissible discharges may be deemed an illicit discharge if it introduces pollutants into the MS4 system. Items 1 through 19 were revised to match the order and exact wording as shown in the TDEC MS4 General Permit.

Section 15-410

1. Paragraph (1) – Reference was added to the Enforcement Response Plan (ERP).
2. Old Paragraph (2) – Notice of Violation section stricken for complete removal as it conflicts with the ERP.
3. New Paragraph (3) & Table B – The requirement for investigations to be initiated within 7 calendar days was added in accordance with TDEC's permit.