

CHAPTER 3

STORMWATER MANAGEMENT

SECTIONS

18-501. General provisions.

18-502. Definitions.

18-503. Waivers.

18-504. Land Disturbance Permit.

18-505. Stormwater system design: Construction and Permanent stormwater management. Performance Standards.

18-506. Buffer Zone Requirements.

18-507. Permanent stormwater management: operation, maintenance, and inspection.

18-508. Existing locations and ongoing developments.

18-509. Illicit discharges.

18-510. Enforcement.

18-511. Penalties.

18-512. Appeals.

18-513. Maintenance

18-501 General Provisions

(1) Purpose. It is the purpose of this chapter to:

(a) Protect, maintain, and enhance the environment of the city and the public health, safety and the general welfare of the citizens of the city, by controlling discharges of pollutants to the city's stormwater system.

(b) Enable the city to comply with the National Pollution Discharge Elimination System permit (NPDES) General Permit for discharges from Small Municipal Separate Storm Sewer Systems (MS4) and applicable regulations, 40 CFR 122.26 for stormwater discharges;

(c) Allow the city to exercise the powers granted in Tennessee Code Annotated § 68-221-1105, which provides that, among other powers cities have with respect to stormwater facilities, is the power by ordinance or resolution to:

(i) Exercise general regulation over the planning, location, construction, and operation and maintenance of stormwater facilities in the city, whether or not owned and operated by the city;

City of Goodlettsville Stormwater Ordinance

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Warren Garrett

- (ii) 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;
- (iii) Establish standards to regulate the quantity of stormwater discharged and to regulate stormwater contaminants as may be necessary to protect water quality;
- (iv) Review and approve plans and plats for stormwater management in proposed subdivisions or commercial developments;
- (v) Issue permits for stormwater discharges, or for the construction, alteration, extension, or repair of stormwater facilities;
- (vi) Suspend or revoke permits when it is determined that the permittee has violated any applicable ordinance, resolution, or condition of the permit;
- (vii) Regulate and prohibit discharges into stormwater facilities of sanitary, industrial, or commercial sewage or waters that have otherwise been contaminated; and
- (viii) Expend funds to remediate or mitigate the detrimental effects of contaminated land or other sources of stormwater contamination, whether public or private.

(2) Administrator: The City Manager, or designee, shall administer the provisions of this chapter.

(3) Jurisdiction: This ordinance shall govern all properties within the corporate limits for the City of Goodlettsville, Tennessee.

(4) Right of Entry: Designated City staff shall have right-of-entry, at reasonable times, on or upon the property of any person subject to this chapter and access to any permit/document issued hereunder. City staff shall be provided ready access to all parts of the premises for purposes of inspection, monitoring, sampling, inventory, records examination and copying, and performance of any other duties necessary to determine compliance with this chapter.

Designated City staff shall have the right to set up on the property of any person subject to this chapter such devices, as are necessary, to conduct sampling and/or flow measurement of the property's stormwater operations or discharges.

The City has the right to determine and impose inspection schedules necessary to enforce provisions of this chapter.

(5) Stormwater management ordinance. The intended purpose of this ordinance is to safeguard property and public welfare by regulating stormwater quality and drainage while requiring temporary and permanent provisions for its control.

18-502. Definitions.

For the purpose of this chapter, 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) “Administrative or Civil Penalties.” Under the authority provided in Tennessee Code Annotated § 68-221-1106, the city declares that any person violating the provisions of this chapter may be assessed a civil penalty by the city of not less than fifty dollars (\$50.00) and not more than five thousand dollars (\$5,000.00) per day for each day of violation. Each day of violation shall constitute a separate violation.

(2) “As built plans” means drawings depicting conditions, elevation, location, and material of stormwater facilities as they were actually constructed.

(3) “Best Management Practices” (“BMP’s”) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the state. BMP’s also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs could be incorporated by reference into this ordinance as if fully set out therein.

(4) “Borrow Pit” is an excavation from which erodible material (typically soil) is removed to be fill for another site. There is no processing or separation of erodible material conducted at the site. Given the nature of activity and pollutants present at such excavation, a borrow pit is considered a construction activity for the purpose of this permit.

(5) “Buffer Zone” means a setback from the top of water body’s bank of undisturbed vegetation, including trees, shrubs and herbaceous vegetation; enhanced or restored vegetation; or the re-establishment of native vegetation bordering streams, ponds, wetlands, springs, reservoirs or lakes, which exists or is established to protect those water bodies.

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

(8) “Common plan of development or sale” is broadly defined as any announcement or documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot. A common plan of development or sale identifies a situation in which multiple areas of disturbance are occurring on contiguous areas. This applies because the activities may take place at different times, on different schedules, by different operators.

(9) “Construction” is the erection, building, acquisition, alteration, reconstruction, improvement or extension of stormwater facilities; preliminary planning to determine the economic and engineering feasibility of stormwater facilities; the engineering, legal, fiscal and economic investigations and studies, surveys, designs, plans, working drawings, specifications, procedures, and other action necessary in the construction of stormwater facilities; and the inspection and supervision of the construction of stormwater facilities.

(10) “Contaminant” means any physical, chemical, biological, or radiological substance or matter in water that degrades the quality of the water.

(11) “Design storm event” means a hypothetical storm event, of a given frequency interval and duration, used in the analysis and design of a stormwater facility. The estimated design rainfall amounts, for any return period interval (i.e., 2-yr, 5-yr, 25-yr, etc.) in terms of either 24-hour depths or intensities for any duration, can be found by accessing the NOAA National Weather Service Atlas 14 data for Tennessee. Other data sources may be acceptable with prior written approval by TDEC Water Pollution Control.

(13) “Discharge” means 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.

(14) “Easement” means an acquired privilege or right of use or enjoyment that a person, party, firm, corporation, city or other legal entity has in the land of another.

(15) “Erosion” means the removal of soil particles by the action of water, wind, ice or other geological agents, whether naturally occurring or acting in conjunction with or promoted by human activities or effects.

(16) “Erosion prevention and sediment control plan (EPSCP)” means a written plan (including drawings or other graphic representations) that is designed to minimize the erosion and sediment runoff at a site during construction activities.

(17) “Hotspot” means an area where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater. The following land uses and activities are deemed stormwater hotspots, but that term is not limited to only these land uses:

- (a) vehicle salvage yards and recycling facilities
- (b) vehicle service and maintenance facilities
- (c) vehicle and equipment cleaning facilities
- (d) fleet storage areas (bus, truck, etc.)
- (e) industrial sites (included on Standard Industrial Classification code list)
- (f) marinas (service and maintenance)
- (g) public works storage areas
- (h) facilities that generate or store hazardous waste materials
- (i) commercial container nursery
- (j) restaurants and food service facilities
- (k) other land uses and activities as designated by an appropriate review authority

(18) “Illicit connections” means illegal and/or unauthorized connections to the municipal separate stormwater system whether or not such connections result in discharges into that system.

(19) “Illicit discharge” means any discharge to the municipal separate storm sewer system that is not composed entirely of stormwater and not specifically exempted under §14-507(2).

(20) “Improved sinkhole” is a natural surface depression that has been altered in order to direct fluids into the hole opening. Improved sinkhole is a type of injection well regulated under TDEC’s Underground Injection Control (UIC) program. Underground injection constitutes an intentional disposal of waste waters in natural depressions, open fractures, and crevices (such as those commonly associated with weathering of limestone).

(21) “Inspector” An inspector is a person that has successfully completed (has a valid certification from) the “Fundamentals of Erosion Prevention and Sediment Control Level I” course or equivalent course. An inspector performs and documents the required inspections, paying particular attention to time-sensitive permit requirements such as stabilization and maintenance activities. An inspector may also have the following responsibilities:

- (a) oversee the requirements of other construction-related permits, such as Aquatic Resources Alteration Permit (ARAP) or Corps of Engineers permit for construction activities in or around waters of the state;
- (b) update field Stormwater Pollution Prevention Plan(s) (SWPPP);
- (c) conduct pre-construction inspection to verify that undisturbed areas have been properly marked and initial measures have been installed; and
- (d) inform the permit holder of activities that may be necessary to gain or remain in compliance with the Construction General Permit (CGP) and other environmental permits.

(22) “Land disturbing activity” means 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.

(23) “Maintenance” means any activity that is necessary to keep a stormwater facility in good working order so as to function as designed. Maintenance shall include complete reconstruction of a stormwater 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 stormwater facility.

(24) “Maintenance agreement” means a document recorded in the land records that acts as a property deed restriction, and which provides for long-term maintenance of stormwater management practices.

(25) “National Pollutant Discharge Elimination System permit” or a “NPDES permit” means a permit issued pursuant to 33 U.S.C. 1342.

(26) “Off-site facility” means a structural BMP located outside the subject property boundary described in the permit application for land development activity.

(27) “On-site facility” means a structural BMP located within the subject property boundary described in the permit application for land development activity.

(28) “Operator” in the context of stormwater associated with construction activity, means, any person associated with a construction project that meets either of the following two criteria:

(a) This person has operational or design control over construction plans and specifications, including the ability to make modifications to those plans and specifications. This person is typically considered the owner or developer of the project or a portion of the project, and is considered the primary permittee; or

(b) This person has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a SWPPP for the site or other permit conditions. This person is typically a contractor or a commercial builder who is hired by the primary permittee and is considered a secondary permittee. It is anticipated at different phases of a construction project, different types of parties may satisfy the definition of “operator”.

(29) “Peak flow” means the maximum instantaneous rate of flow of water at a particular point resulting from a storm event.

(30) “Person” means any and all persons, natural or artificial, including any individual, firm or association and any municipal or private corporation organized or existing under the laws of this or any other state or country.

(31) “Redevelopment” means building or constructing new infrastructure in an area that has previously been built or constructed on, and the old infrastructure is to be replaced with new.

(32) “Runoff” means that portion of the precipitation on a drainage area that is discharged from the area into the municipal separate storm sewer system.

(33) “Sediment” means solid material, both inorganic and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth’s surface either above or below sea level.

(34) “Sedimentation” means soil particles suspended in stormwater that can settle in stream beds.

(35) “Sinkhole” means a cavity in the ground providing a route for surface water to disappear underground.

(36) “Soils Report” means 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, who shall be directly involved in the soil characterization either by performing the investigation or by directly supervising employees conducting the investigation.

(37) “Stabilization” means providing adequate measures, vegetative and/or structural, that will prevent erosion from occurring.

(38) “Stormwater” means stormwater runoff, snow melt runoff, surface runoff, street wash waters related to street cleaning or maintenance, infiltration and drainage.

(39) “Stormwater entity” means the entity designated by the city to administer the stormwater management ordinance, and other stormwater rules and regulations adopted by the city.

(40) “Stormwater management” means the programs to maintain quality and quantity of stormwater runoff to pre-development levels.

(41) “Stormwater management facilities” means the drainage structures, conduits, ponds, ditches, combined sewers, sewers, and all device appurtenances by means of which stormwater is collected, transported, pumped, treated or disposed of.

(42) “Stormwater management plan” means the set of drawings and other documents that comprise all the information and specifications for the programs, drainage systems, structures, BMP’s, concepts and techniques intended to maintain or restore quality and quantity of stormwater runoff to pre-development levels.

(43) “Stormwater System” or “System” means all stormwater facilities, stormwater drainage systems and flood protection systems of the City and all improvements thereto which operate to, among other things, control discharges and flows necessitated by rainfall events; and incorporate methods to collect, convey, store, absorb, inhibit, treat, prevent or reduce flooding, over drainage, environmental degradation and water pollution or otherwise affect the quality and quantity of discharge from such system.

(44) “Stormwater Pollution Prevention Plan (SWPPP)” means a written plan that includes site map(s), an identification of construction/contractor activities that could cause pollutants in the stormwater, and a description of measures or practices to control these pollutants. It must be prepared and approved before construction begins. In order to effectively reduce erosion and sedimentation impacts, Best Management Practices (BMP’s) must be designed, installed, and maintained during land disturbing activities. The SWPPP should be prepared in accordance with the current Tennessee Erosion and Sediment Control Handbook. The handbook is intended for use during the design and construction of projects that require erosion and sediment controls to protect waters of the state. It also aids in the development of SWPPPs and other reports, plans, or

City of Goodlettsville Stormwater Ordinance

Revised October 13, 2016

Warren Garrett

specifications required when participating in Tennessee's water quality regulations. All SWPPP's shall be prepared and updated in accordance with Section 3 of the General NPDES Permit for Discharges of Stormwater Associated with Construction Activities.

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

(46) "Stream" means a surface water that is not a wet weather conveyance. [Rules and Regulations of the State of Tennessee, Chapter 1200-4-3-.04(20)]. See also *Waters of the State*.

(47) "Structural BMP's" means facilities that are constructed to provide control of stormwater runoff.

(48) "Surety" is a Letter of credit or other acceptable form of assurance for completion of improvements as needed acceptable by the City Attorney, Administrator, and/or other City Personnel.

(49) "Surface water" includes waters upon the surface of the earth in bounds created naturally or artificially including, but not limited to, streams, other water courses, lakes and reservoirs.

(50) "Waste site" means an area where waste material from a construction site is deposited. When the material is erodible, such as soil, the site must be treated as a construction site.

(51) "Water Quality Buffer" see "Buffer".

(52) "Watercourse" means a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water.

(53) "Watershed" means all the land area that contributes runoff to a particular point along a waterway.

(54) "Waters" or "waters of the state" means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.

(55) "Wetland(s)" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted to life in saturated soil conditions. Wetlands include, but are not limited to, swamps, marshes, bogs, and similar areas.

(56) “Wet weather conveyances” are man-made or natural watercourses, including natural watercourses that have been modified by channelization, that flow only in direct response to precipitation runoff in their immediate locality and whose channels are above the groundwater table and are not suitable for drinking water supplies; and in which hydrological and biological analyses indicate that, under normal weather conditions, due to naturally occurring ephemeral or low flow, there is not sufficient water to support fish or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months. (Rules and Regulations of the State of Tennessee, Chapter 1200-4-3-.04(3)).

18-503.Waivers.

(1) General. No waivers will be granted to any construction or site work project. All construction and site work shall provide for stormwater management as required by this ordinance. However, alternatives to the primary requirement(s) for on-site permanent stormwater management may be considered, if:

- (a) Management measures cannot be designed, built and maintained to infiltrate, evapotranspire, harvest and/or use, at a minimum, the first inch of every rainfall event preceded by 72 hours of no measurable precipitation. This first inch of rainfall must be 100% managed with no discharge to surface waters.
- (b) It can be demonstrated that the proposed development will not discharge, during or after construction, stormwater runoff that contains contaminants or will otherwise not affect, impair or degrade adjacent or downstream properties, conveyances, or streams.
- (c) Alternative minimum requirements for on-site management of stormwater discharges have been established in a stormwater management plan that has been approved by the city.

(2) Downstream damage, etc. prohibited. In order to receive consideration, the applicant must demonstrate to the satisfaction of the administrator that the proposed alternative will not lead to any of the following conditions downstream:

- (a) Deterioration of existing culverts, bridges, dams, structures or land;
- (b) Degradation of biological functions or habitat;
- (c) Accelerated streambank or streambed erosion or siltation;
- (d) Increased threat of flood damage to public health, life or property.

(3) Alternative Request Procedure

For consideration of an alternative stormwater management measure, a formal request shall be submitted to the Administrator. The formal request shall be submitted with a stormwater management plan outlining why the primary stormwater management measure cannot be addressed and how the alternative measures will address the provisions outlined in this Ordinance. The plan shall demonstrate how the proposed development is not likely to impair attainment of the objectives of this chapter. The Administrator shall notify the appellant customer of the date of the alternative request in writing; such written notice shall be given at the address provided following review of the request. The decision made by the Administrator will be final and conclusive with no further administrative review.

(4) Land Disturbance Permit not to be issued where alternatives requested.

No Land Disturbance Permit shall be issued where an alternative has been requested until the alternative is approved, unless allowed by the Administrator. If no alternative is approved, the plans must be resubmitted with a stormwater management plan that meets the primary requirement for on-site stormwater management. If no alternative is approved, the owner has thirty (30) days to resubmit the Land Disturbance Permit without facing additional fees. If the Land Disturbance Permit is submitted more than thirty (30) days following the alternative request decision by the Administrator, applicable fees will be charged.

18-504. Land Disturbance Permit

(1) General

The Land Disturbance Permit is to be obtained by the owner(s) or owner(s) designee(s) for development or redevelopment of over an acre, or less than an acre if required by the Administrator. The Land Disturbance Permit is designed to track all applicable land disturbance activities and ensure they are monitored for compliant erosion prevention and sediment controls, the absence of illicit discharges leaving the site, and compliance with the City's TDEC NPDES MS4 general permit along with any applicable TDEC Construction General Permits, TDEC Aquatic Resources Alteration Permits (ARAP), and any other relevant permits. Tracking of these activities allows inspection, and in cases of non-compliance, enforcement actions to be taken.

(2) Exemptions

The following land disturbance activities are exempt from the requirements of obtaining a Land Disturbance Permit:

- (a) Surface mining as is defined in Tennessee Code Annotated Section 59-8-202.
- (b) Such minor land disturbing activities as home gardens and individual home landscaping, home repairs, home additional or modifications, home maintenance work, and other related activities that result in no soil erosion leaving the site. (Erosion Prevention and Sediment Control (ESPC) practices may be enforced through individual building permits.)
- (c) Agriculture practices involving the establishment, cultivation or harvesting of products in the field or orchard, preparing and planting of pastureland, farm ponds, dairy operations, livestock and poultry management practices, and the construction of farm buildings.
- (d) Any project carried out under the technical supervision of NCRS, TDOT, TDEC, or USACE that is covered under applicable State or Federal construction permits.
- (e) Installation, maintenance, and repair of any underground public utility lines when such activity occurs on an existing road, street, or sidewalk which is hard surfaced and such street, curb, gutter, or sidewalk construction has been approved.
- (f) Any emergency activity that is immediately necessary for the protection of life, property, or natural resources.

These activities may be undertaken without a Land Disturbance Permit; however, the person conducting these excluded activities shall remain responsible for conducting these activities within accordance with provisions of this Ordinance and other applicable regulations including responsibility for controlling sediment, illicit discharges, and runoff.

(3) Supplemental Permit

In cases where a secondary owner/operator will be working within an area already covered by an existing Land Disturbance Permit that was issued under the name of a primary owner/operator, a supplemental Land Disturbance Permit shall be obtained prior to commencement of the secondary owner/operators work. The application fee may be waived for any supplemental permit. Where applicable, prior to issuance of the supplemental Land Disturbance Permit, the secondary owner/operator must show that coverage under the site's NPDES Construction General Permit has been obtained. Once covered by a Land Disturbance Permit, all primary and secondary owner/operators will be considered by the city as co-permittees. If co-permittee's involvement in the construction activities affects the same project site, they will be held jointly and severally responsible for complying with the terms of the permits issued for that site.

(4) Application

Application for the Land Disturbance Permit shall be made to the Administrator by the property owner(s) and co-permittee (if applicable). Applications are available from the Public Works Department, or assigned division. No land disturbing activities shall take place prior to approval of the Land Disturbance Permit application. Application fees must be paid and the recorded Inspection and Maintenance Agreement filed (original returned to Public Works, or assigned division) prior to issuance of the Land Disturbance Permit.

(5) Permit Requirements

The following are conditions of Land Disturbance Permit coverage. Any violation of these conditions will make the permit holder(s) subject to all enforcement actions and penalties outlined in this Ordinance.

(a) Submittal and approval by City staff and Board(s) of the erosion Prevention and Sediment Control plans.

(b) Compliance with the site's TDEC Construction General Permit, TDEC ARAP, TDEC Underground Injection Well Permit, FEMA Flood Plain Development Permit, and other Federal or State permits where applicable.

(c) Compliance with approved erosion prevention and sediment control plan and EPSC performance standards.

(d) Implementation and maintenance of appropriate erosion prevention and sediment control best management practices.

(e) Construction site operators must control wastes such as discarded building materials, concrete truck washouts, chemicals, litter, and sanitary waste at the construction site to avoid adverse impacts to water quality.

(6) Land Disturbance Surety

Prior to the issuance of a permit for any land disturbance activity, the applicant shall be required to provide a surety to the City of Goodlettsville to guarantee completion of all land and grade stabilization measures and improvements as shown by the approved grading plan. For areas when potentially hazardous soil or drainage conditions exist due to types of soils, steep grades, flood plan development, streams, or drainage ditches, the applicant may be required, to provide a surety to guarantee completion of all land and grade stabilization measures and improvements as shown by the approved plan.

(7) Permit Duration

Each Land Disturbance Permit shall expire and become null and void when one of the following has occurred:

- (a) Six months of no activity on the site has occurred.
- (b) Final stabilization of the site per the approved plans has occurred.
- (c) Issuance of a TDEC Notice of Termination (NOT). A copy must be provided to the City in order to close out the Land Disturbance Permit.
- (d) Three years from issuance of Permit or if new Federal or State regulations exist changing the scope of coverage where a new Land Disturbance Permit is required.
- (e) In cases of expiration of the Land Disturbance Permit, a permit may be re-issued with no additional fee if the plan and scope of the project submitted on the original Land Disturbance Permit does not significantly change. When significant change applies, new permit fees must be paid.

18-505. Stormwater system design: Construction and Permanent stormwater management performance standards

(1) Applicability

This section shall be applicable to all land development, including, but not limited to, site plan applications, subdivision applications, land disturbance applications and grading applications. The requirements in this section shall apply to any new development or redevelopment site that meets one or more of the following criteria:

- (a) One (1) acre or more;
 - (1) New development that involves land disturbance activities of one (1) acre or more;
 - (2) Redevelopment that involves other land disturbance activity of one (1) acre or more;
- (b) Developments and redevelopments less than one acre of total land disturbance may also be required to obtain authorization under this ordinance if:

- (1) The administrator has determined that the stormwater discharge from a site is causing, contributing to, or is likely to contribute to a violation of a state water quality standard;
- (2) The administrator has determined that the stormwater discharge is, or is likely to be a significant contributor of pollutants to waters of the state; or
- (3) Any new development or redevelopment, regardless of size, that is defined by the administrator to be a hotspot land use.

(c) Other options:

- (1) Change in elevation of property.
- (2) Any land disturbance that requires coverage under a TDEC Construction General Permit.
- (3) Any disturbance that requires coverage under a TDEC ARAP.

(2) General Requirements

Stormwater at applicable developments and redevelopments shall be managed in accordance with the requirements contained within this section.

(a) Any discharge of stormwater or other fluid to an improved sinkhole or other injection well, as defined, must be authorized by permit or rule as a Class V underground injection well under the provisions of Tennessee Department of Environment and Conservation (TDEC) Rules, Chapter 1200-4-6.

(b) Stormwater design or BMP manuals.

(1) Adoption. The city adopts as its MS4 stormwater design and best management practices (BMP) manuals for stormwater management, construction and permanent, the following publications, which are incorporated by reference in this ordinance as if fully set out herein:

- (i) TDEC Erosion Prevention and Sediment Control Handbook; most current edition.
- (ii) Tennessee Permanent Stormwater Management and Design Guidance Manual; most current edition.

(iii) Metro Nashville Stormwater Management Manual Volume 5, Low Impact Development

(iv) And/or a collection of city approved BMPs.

(2) The publications listed above include a list of acceptable BMPs including the specific design performance criteria and operation and maintenance requirements. These include city approved BMPs for permanent stormwater management including green infrastructure BMPs.

(3) Stormwater facilities that are designed, constructed and maintained in accordance with these publications will be presumed to meet the minimum water quality performance standards.

(c) Submittal of a copy of the NOC, SWPPP and NOT to the local MS4

(1) Permittees who discharge stormwater through an NPDES-permitted municipal separate storm sewer system (MS4) who are not exempted in section 1.4.5 (Permit Coverage through Qualifying Local Program) of TDEC's Construction General Permit (CGP) must provide proof of coverage under the Construction General Permit (CGP); submit a copy of the Stormwater Pollution Prevention Plan (SWPPP); and at project completion, a copy of the signed notice of termination (NOT) to the administrator. Permitting status of all permittees covered (or previously covered) under this general permit as well as the most current list of all MS4 permits is available at the TDEC's Data Viewer web site.

(2) Copies of additional applicable local, state or federal permits (i.e.: ARAP, etc.) must also be provided upon request.

(3) If requested by the city, these permits must be provided before the issuance of any land disturbance permit or the equivalent.

(3) Stormwater Pollution Prevention Plans for Construction Stormwater Management

(a) Requirement to prepare a SWPPP: The applicant must prepare a stormwater pollution prevention plan (SWPPP) for all construction activities that complies with subsection (6) below. The purpose of this plan is to identify owner/operator activities that could cause pollutants in the stormwater, and to describe measures or practices to control these pollutants during project construction.

(b) Stormwater Pollution Prevention Plan general requirements: The erosion prevention and sediment control plan component of the SWPPP shall adhere to the following requirements.

(1) The potential for soil erosion and sedimentation problems resulting from land disturbing activity shall be accurately described;

(2) The measures that are to be taken to control soil erosion and sedimentation problems shall be explained and illustrated;

(3) The length and complexity of the plan must be commensurate with the size of the project, severity of the site condition, and potential for off-site damage.

(4) If necessary, the measures to control soil erosion and sedimentation problems that are described in the plan shall be phased so that changes to the site that alter drainage patterns or characteristics during construction will be addressed by an appropriate phase of the plan.

(5) The plan shall be sealed by a registered professional engineer or landscape architect licensed in the state of Tennessee.

(6) The plan shall conform to the requirements found in the General NPDES Permit for Stormwater Discharges from Construction Activities (TNR100000), and shall include at least the following:

(i) Project description - Briefly describe the intended project and proposed land disturbing activity including number of units and structures to be constructed and infrastructure required.

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

(iii) All existing drainage ways, including intermittent and wet-weather. Include any designated floodways or flood plains.

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

(v) 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 diameter of the area involved must 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 buffer strips, where they exist. Complete landscape plans may be submitted separately. The plan must include the sequence of implementation for tree protection measures.

- (vi) Approximate limits of proposed clearing, grading and filling.
- (vii) Approximate flows of existing stormwater leaving any portion of the site.
- (viii) A general description of existing soil types and characteristics and any anticipated soil erosion and sedimentation problems resulting from existing characteristics.
- (ix) Location, size and layout of proposed stormwater and sedimentation control improvements.
- (x) Existing and proposed drainage network.
- (xi) Proposed drain tile or waterway sizes.
- (xii) Approximate flows leaving site after construction and incorporating water run-off mitigation measures. The evaluation must include projected effects on property adjoining the site and on existing drainage facilities and systems. The plan must address the adequacy of outfalls from the development: when water is concentrated, what is the capacity of waterways, if any, accepting stormwater off-site; and what measures, including infiltration, sheeting into buffers, etc., are going to be used to prevent the scouring of waterways and drainage areas off-site, etc.
- (xiii) The projected sequence of work represented by the grading, drainage and sedimentation and erosion control plans as related to other major items of construction, beginning with the initiation of excavation and including the construction of any sediment basins or retention/detention facilities or any other structural BMPs.
- (xiv) Specific remediation measures to prevent erosion and sedimentation run-off. Plans shall include detailed drawings of all control measures used;

stabilization measures including vegetation and non-vegetation measures, both temporary and permanent, will be detailed. Detailed construction notes and a maintenance schedule shall be included for all control measures in the plan.

(xv) Specific details for: the construction of stabilized construction entrance/exits, concrete washouts, and sediment 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 city. Soil, sediment, and debris brought onto streets and public ways must be removed by the end of the work day to the satisfaction of the city. Failure to remove the sediment, soil or debris shall be deemed a violation of this ordinance.

(xvi) Proposed structures: location and identification of any proposed additional buildings, structures or development on the site.

(xviii) A description of on-site measures to be taken to recharge surface water into the ground water system through runoff reduction practices.

(xix) Specific details for construction waste management. Construction site operators shall control waste such as discarded building materials, concrete truck washout, petroleum products and petroleum related products, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality. When the material is erodible, such as soil, the site must be treated as a construction site.

(4) Design Performance Standards and Requirements for Permanent Stormwater Management

The following performance standards shall be addressed for permanent stormwater management at all applicable development and redevelopment sites effective as of fifteen (15) days following the adoption date of this Ordinance:

(a) Runoff reduction performance standard. The first inch of rainfall on the development or redevelopment shall be one-hundred percent (100%) managed with no discharge to surface waters or the public storm sewer system. This standard shall be met using measures, alone or in combination, designed, built and maintained to infiltrate, evapotranspire or harvest and use the rainfall, in accordance with the site design layout practices and stormwater control measures provided in the Tennessee Permanent

Stormwater Management and Design Guidance Manual or reference Metro Nashville's Low Impact Development design guidelines, most current edition.

(1) The pre-development infiltrative capacity of soils at the development or redevelopment must be taken into account in selection of infiltration-based stormwater control measures.

(2) The Tennessee Runoff Reduction Assessment Tool (TN-RRAT) or Metro Nashville's Stormwater Management Manual Volume 5, Low Impact Development design guidelines shall be used by the site designer to determine compliance with the runoff reduction requirement.

(3) Incentive standard: The following types of development or redevelopment shall receive a ten percent (10%) reduction in the volume of rainfall to be managed for any of the following types of development. Such incentives are additive such that a maximum reduction of 50% of the runoff reduction performance standard is possible for a project that meets all 5 development types:

(i) Redevelopment;

(ii) Brownfield redevelopment;

(iii) High density developments having greater than 7 units per acre;

(iv) Vertical density developments having a floor to area ratio (FAR) of 2 or greater than 18 units per acre; and

(v) Mixed use and transit oriented development that is located within ½ mile of a mass transit station.

(b) Runoff Reduction performance standard compliance. Developments and redevelopments that achieve 100% of the runoff reduction performance standard (or incentive standard if applicable) using only site design layout practices and/or stormwater control measures that are designed, built and maintained to infiltrate, evapotranspire or harvest and use the rainfall shall be exempt from compliance with the 80% TSS Removal performance standard.

(c) Runoff reduction limitations. Limitations to the application of runoff reduction requirements may prevent a development or redevelopment from meeting 100% of the runoff reduction requirement. Such limitations may include, but are not limited to:

(1) Natural physical conditions exist at the development or redevelopment that preclude or highly limit the use of infiltration practices. Such conditions include, but are not limited to, the following circumstances:

- (i) the presence of sinkholes or other karst features;
- (ii) a high prevalence of shallow bedrock;
- (iii) a high prevalence of poorly-drained soils (i.e., hydrologic soil group D), such that soil amendments to promote infiltration must be extensive;
- (iv) a high prevalence of contractive/expansive soils and their proximity to on-site or off-site structures;
- (v) slopes greater than the maximums identified for the appropriate application of stormwater control measures;

(2) the development lacks the available area to create the necessary hydraulic capacity to fully achieve the runoff reduction requirement through infiltration or evapotranspiration; and,

(3) the proposed use for the development is inconsistent with the capture and re-use of stormwater;

(4) soil or topographic conditions at the development dictate that stormwater control measures which rely on infiltration to reduce stormwater volumes would be located in close proximity to on-site or off-site subsurface foundations, basements or crawlspaces where wet conditions or flooding is known or suspected to occur;

(5) conditions exist at the development that create a potential for introducing pollutants into the groundwater, unless pre-treatment is provided;

(6) pre-existing soil contamination is present in areas that are or could be subject to contact with infiltrated stormwater;

(6) the placement of on-site or off-site utilities precludes the use of stormwater control measures that infiltration, evapotranspire or harvest and use rainfall;

(8) the site has a historic or archeological significance that cannot be disturbed as determined by the State Historic Preservation Office.

(c) 80% TSS removal performance standard: Developments and redevelopments that cannot meet one hundred percent (100%) of the runoff reduction performance standard using the site design layout practices and stormwater control measures provided in the Tennessee Permanent Stormwater Management and Design Guidance Manual must treat the remainder of the stipulated amount of runoff prior to discharge from the development or redevelopment with a technology documented to remove eighty percent (80%) total suspended solids (TSS), unless an alternative provided under this Ordinance is approved. The treatment technology must be designed, installed and maintained to continue to meet this performance standard.

(d) It can be demonstrated that multiple criteria rule out an adequate combination of infiltration, evapotranspiration, and reuse such as lack of available area to create the necessary infiltrative capacity; a site use that is inconsistent with capture and reuse of stormwater; physical conditions that preclude use of these practices.

(e) Stormwater discharges to critical areas with sensitive resources (i.e., cold water fisheries, shellfish beds, swimming beaches, recharge areas, water supply reservoirs, etc.) may be subject to additional performance criteria, or may need to utilize or restrict certain stormwater management practices.

(f) Stormwater discharges from hotspots may require the application of additional structural BMP's and pollution prevention practices beyond runoff reduction and 80% TSS removal practices.

(g) Prior to or during the site design process, applicants for land disturbance permits shall consult with the administrator to determine if they are subject to additional stormwater design requirements.

(h) The calculations for determining peak flows shall be used for sizing all stormwater facilities.

(5) Minimum peak discharge control requirements.

The administrator may establish standards to regulate the quantity of stormwater discharged, therefore:

(a) Stormwater designs shall meet the storm frequency storage requirements; and,

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

(6) Permanent stormwater management plan requirements.

(a) Requirement to prepare a permanent stormwater management plan: The permanent stormwater management plan shall be prepared and submitted to the administrator for all applicable developments and redevelopments.

(b) The permanent stormwater management plan shall include sufficient information to allow the administrator 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, the appropriateness of the measures proposed for managing stormwater generated at the project site, and design compliance with the performance standards and requirements for permanent stormwater management identified in this Ordinance.

(c) The permanent stormwater management plan shall be sealed by a registered professional engineer or landscape architect licensed in the state of Tennessee.

(d) The plan shall include, at a minimum, the elements listed below:

(1) Topographic base map: Topographic base map of the site which extends a minimum of 100 feet beyond the limits of the proposed development and indicates:

(i) Existing surface water drainage including streams, ponds, culverts, ditches, sink holes, wetlands; and the type, size, elevation, etc., of nearest upstream and downstream drainage structures;

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

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

(iv) 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; the limits of clearing and grading.

(2) A completed Site Assessment and Inventory Checklist (found in the Tennessee Permanent Stormwater Management and Design Guidance Manual).

(3) Proposed structural and non-structural BMPs and stormwater control measures;

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

(5) Calculations: Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in the approved stormwater design and BMP manuals. These calculations must show that the proposed stormwater management measures are capable of controlling runoff from the site in compliance with this chapter and the guidelines of the approved stormwater design and BMP manuals. Such calculations shall include:

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

(ii) Time of concentration;

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

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

(v) Infiltration rates, where applicable;

(vi) Culvert, stormwater sewer, ditch and/or other stormwater conveyance capacities;

(vii) Flow velocities;

(viii) Data on the increase in rate and volume of runoff for the design storms referenced in the approved stormwater design and BMP manuals; and

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

(x) Results from the Tennessee Runoff Reduction Assessment Tool (TN-RRAT) or Metro Nashville's Stormwater Management Manual Volume 5, Low Impact Development design.

(6) Soils information: If a stormwater 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 on 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.

(7) 80% TSS Removal Information: If 80% TSS Removal BMPs are included in the plan, then it must also include:

- (i) a narrative description of all runoff reduction limitations that exist at the development or redevelopment;
- (ii) a map drawn to scale showing the location and boundaries of such limitations;
- (iii) calculations showing the volume of runoff managed by runoff reduction stormwater control practices and the volume of runoff managed by 80% TSS Removal BMPs; and,
- (iv) calculations showing compliance with the 80% TSS Removal performance standard.

(7) Maintenance and repair plan required.

The design and planning of all permanent stormwater management facilities shall include detailed maintenance and repair procedures to ensure their continued performance. These plans will identify the parts or components of a stormwater 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.

18-506. Buffer Zones

The goal of the water quality buffer is to preserve undisturbed vegetation that is native to the streamside habitat in the area of the project. Vegetated, preferably native, water quality buffers protect water bodies by providing structural integrity and canopy cover, as well as stormwater infiltration, filtration and evapotranspiration. Buffer width depends on the size of a drainage area. Streams or other waters with drainage areas less than one (1) square mile will require buffer widths of thirty (30) feet minimum. Streams or other waters with drainage areas greater than one (1) square mile will require buffer widths of sixty (60) feet minimum. The sixty (60) feet

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 thirty (30) feet at any measured location. The MS4 must develop and apply criteria for determining the circumstances under which these averages will be available. A determination that standards cannot be met may not be based solely on the difficulty or cost associated with implementation. Every attempt should be made for development and redevelopment activities not to take place within the buffer zone. If water quality buffer widths as defined above cannot be fully accomplished on-site, the MS4 must develop and apply criteria for determining the circumstances under which alternative buffer widths will be available. A determination that water quality buffer widths cannot be met on site may not be based solely on the difficulty or cost of implementing measures, but must include multiple criteria, such as: type of project, existing land use and physical conditions that preclude use of these practices.

Buffer Zone Requirements

(a) “Construction” applies to all streams adjacent to construction sites, with an exception for streams designated as impaired or Exceptional Tennessee waters, as designated by the Tennessee Department of Environment and Conservation. A 30-foot natural riparian buffer zone adjacent to all streams at the construction site shall be preserved, to the maximum extent practicable, during construction activities at the site. The water quality buffer zone is required to protect waters of the state located within or immediately adjacent to the boundaries of the project, as identified using methodology from Standard Operating Procedures for Hydrologic Determinations (see rules to implement a certification program for Qualified Hydrologic Professionals, TN Rules Chapter 0400-40-17). Buffer zones are not primary sediment control measures and should not be relied on as such. Rehabilitation and enhancement of a natural buffer zone is allowed, if necessary, for improvement of its effectiveness of protection of the waters of the state. The buffer zone requirement only applies to new construction sites. The riparian buffer zone should be preserved between the top of stream bank and the disturbed construction area. The thirty (30) feet 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 (fifteen) 15 feet at any measured location.

Buffer zone requirements for discharges into impaired or high quality waters:

A sixty (60) foot natural riparian buffer zone adjacent to the receiving stream designated as impaired or high quality waters shall be preserved, to the maximum extent practicable, during construction activities at the site. The water quality buffer zone is required to protect waters of the state (e.g., perennial and intermittent streams, rivers, lakes,

wetlands) located within or immediately adjacent to the boundaries of the project, as identified on a 7.5-minute USGS quadrangle map, or as determined by the director. Buffer zones are not sediment control measures and should not be relied upon as primary sediment control measures. Rehabilitation and enhancement of a natural buffer zone is allowed, if necessary, for improvement of its effectiveness of protection of the waters of the state. The buffer zone requirement only applies to new construction sites. The riparian buffer zone should be established 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 25 feet at any measured location.

(b) “Permanent” new development and significant redevelopment sites are required to preserve water quality buffers along waters within the MS4. Buffers shall be clearly marked on site development plans, Grading Permit applications, and/or concept plans. Buffer width depends on the size of a drainage area. Streams or other waters with drainage areas less than 1 square mile will require buffer widths of 30 feet minimum. Streams or other waters with drainage areas greater than 1 square mile will require buffer widths of 60 feet minimum. 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.

18-507. Permanent stormwater management: operation, maintenance, and inspection.

(1) As built plans. All applicants are required to submit actual as built plans for any structures located on-site after final construction is completed. The plan must show the final design specifications for all stormwater management facilities and must be sealed by a registered professional engineer licensed to practice in Tennessee. A final inspection by the city is required before any portion of a performance, surety, security or bond will be released. The city shall have the discretion to adopt provisions for a partial pro-rata release of the performance security or performance bond on the completion of various stages of development. In addition, occupation permits shall not be granted until corrections to all BMP’s have been made and accepted by the city. At a minimum, as-built plans must include the invert elevation, top of casting elevation, slope, location, and material of all pipes, drainage inlets/outlets, junctions, etc. Size and material of all outlet dissipation pads, ditch size, slope, and materials. Top of berm elevations on all drainage facilities, volume of all detention/retention facilities and location and description of all permanent stormwater BMPs.

(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 stabilize. Stabilization measures shall be initiated as soon as possible in portions of the site where construction activities have temporarily or permanently ceased. Temporary or permanent soil stabilization at the construction site (or a phase of the project) must be completed no later than (14) days after the construction activity in that portion of the site has temporarily or permanently ceased. In the following situations, temporary stabilization measures are not required:

(i) where the initiation of stabilization measures is precluded by snow cover or frozen ground conditions or adverse soggy ground conditions, stabilization measures shall be initiated as soon as practicable; or

(ii) where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within (14) days.

(b) Permanent stabilization with perennial vegetation (using native herbaceous and woody plants where practicable) or other permanently stable, non-eroding surface shall replace any temporary measures as soon as practicable. Unpacked gravel containing fines (silt and clay sized particles) or crusher runs will not be considered a non-eroding surface.

(c) The following criteria shall apply to re-vegetation efforts:

(i) Reseeding must be done with an 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 over ninety percent (90%) of the seeded area.

(ii) Replanting with native woody and herbaceous vegetation must be accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until the plantings are established and are capable of controlling erosion.

(iii) Any area of revegetation must exhibit survival of a minimum of seventy-five percent (75%) of the cover crop throughout the year immediately following revegetation. Revegetation must be repeated in successive years until the minimum seventy-five percent (75%) survival for one (1) year is achieved.

(iv) In addition to the above requirements, a landscaping plan must 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 at the site and what practices will be employed to ensure that adequate vegetative cover is preserved.

(3) Inspection of stormwater management facilities. Periodic inspections of facilities shall be performed, documented, and reported in accordance with this chapter, as detailed in §16-506.

(4) Records of installation and maintenance activities. Parties responsible for the operation and maintenance of a stormwater management facility shall make records of the installation of the stormwater facility, and of all maintenance and repairs to the facility, and shall retain the records for at least three (3) years. These records shall be made available to the city during inspection of the facility and at other reasonable times upon request.

(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 stormwater facilities under this chapter, the city, 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 stormwater management facility becomes a danger to public safety or public health, the city shall notify in writing the party responsible for maintenance of the stormwater management facility. Upon receipt of that notice, the responsible person shall have thirty (30) days to effect maintenance and repair of the facility in an approved manner. In the event that corrective action is not undertaken within that time, the city may take necessary corrective action. The cost of any action by the city under this section shall be charged to the responsible party and/or a lien placed on the property by the City.

18-508. Existing locations and ongoing developments.

(1) On-site stormwater management facilities maintenance agreement:

(a) Where the stormwater facility is located on property that is subject to a development agreement, and the development agreement provides for a permanent stormwater maintenance agreement that runs with the land, the owners of property must execute an *Inspection and Maintenance Agreement* that shall operate as a deed restriction binding on the current property owners and all subsequent property owners and their lessees and assigns, including but not limited to, homeowner associations or other groups or entities.

(b) The maintenance agreement shall:

(1) Assign responsibility for the maintenance and repair of the stormwater facility to the owners of the property upon which the facility is located and be recorded as such on the plat for the property by appropriate notation.

(2) Provide for a periodic inspection by the property owners in accordance with the requirements of subsection (5) below for the purpose of documenting maintenance and repair needs and to ensure compliance with the requirements of this ordinance. The property owners will arrange for this inspection to be conducted by a registered professional engineer licensed to practice in the State of Tennessee, who will submit a signed written report of the inspection to the administrator. It shall also grant permission to the city to enter the property at reasonable times and to inspect the stormwater facility to ensure that it is being properly maintained.

(3) 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, cutting and vegetation removal, and the replacement of landscape vegetation, in detention and retention basins, and inlets and drainage pipes and any other stormwater facilities. It shall also provide that the property owners shall be responsible for additional maintenance and repair needs consistent with the needs and standards outlined in the MS4 BMP manual.

(4) Provide that maintenance needs must be addressed in a timely manner, on a schedule to be determined by the administrator.

(5) Provide that if the property is not maintained or repaired within the prescribed schedule, the administrator shall perform the maintenance and repair at its expense, and bill the same to the property owner. The maintenance agreement shall also provide that the administrator's cost of performing the maintenance shall be a lien against the property.

(2) Existing problem locations – no maintenance agreement.

(a) The administrator shall in writing notify the owners of existing locations and developments of specific drainage, erosion or sediment problems affecting or caused by such locations and developments, and the specific actions required to correct those problems. The notice shall also specify a reasonable time for compliance. Discharges from existing BMP's that have not been maintained and/or inspected in accordance with this ordinance shall be regarded as illicit.

(b) Inspection of existing facilities. The city may, to the extent authorized by state and federal law, enter and inspect private property for the purpose of determining if there are illicit non-stormwater discharges, and to establish inspection programs to verify that all stormwater management facilities 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's NPDES stormwater permit; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to: reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in drainage control facilities; and evaluating the condition of drainage control facilities and other BMP's.

(3) Owner/Operator Inspections. The owners and/or the operators of stormwater management practices shall:

(a) Perform routine inspections to ensure the BMPs are properly functioning. These inspections shall be conducted on an annual basis, at a minimum. These inspections shall be conducted by a person familiar with control measures implemented at a site. Owners or operators shall maintain documentation of these inspections. The administrator may require submittal of this documentation.

(b) Perform comprehensive inspection of all stormwater management facilities and practices. These inspections shall be conducted once every five years, at a minimum. Such inspections must be conducted by either a professional engineer or landscape architect, licensed in the State of Tennessee. Complete inspection reports for these five year inspections shall include:

(i) Facility type,

(ii) Inspection date,

(iii) Latitude and longitude and nearest street address,

(iv) BMP owner information (e.g. name, address, phone number, fax, and email),

(v) A description of current BMP conditions including, but not limited to: green infrastructure practices, grassy areas, forested areas, buffer areas, growing vegetation and soil properties; inlet and outlet channels and structures; embankments, slopes, and safety benches; spillways, weirs, and other control structures; and any sediment and debris accumulation,

(vi) Photographic documentation of BMPs, and

(vii) Specific maintenance items or violations that need to be corrected by the BMP owner along with deadlines and reinspection dates.

(c) Owners or operators shall maintain documentation of these inspections. The administrator may require submittal of this documentation.

(4) Requirements for all existing locations and ongoing developments. The following requirements shall apply to all locations and development at which land disturbing activities have occurred previous to the enactment of this ordinance:

(a) Denuded areas must be vegetated or covered under the standards and guidelines specified in 16-505 (2)(c)(i), (ii), (iii) and on a schedule acceptable to the administrator.

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

(c) Drainage ways shall be properly covered in vegetation or secured with rip-rap, channel lining, etc., to prevent erosion.

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

(e) Stormwater runoff shall, at the discretion of the administrator be controlled to the maximum extent practicable to prevent its pollution. Such control measures may include, but are not limited to, the following:

(i) Ponds

(1) Detention pond

(2) Extended detention pond

(3) Wet pond

(4) Alternative storage measures

(ii) Constructed wetlands

(iii) Infiltration systems

(1) Infiltration/percolation trench

(2) Infiltration basin

(3) Drainage (recharge) well

(4) Porous pavement

(iv) Filtering systems

(1) Catch basin inserts/media filter

(2) Sand filter

(3) Filter/absorption bed

(4) Filter and buffer strips

(v) Open channel

(1) Swale

(5) Corrections of problems subject to appeal. Corrective measures imposed by the administrator under this section are subject to appeal under section 16-510 of this chapter.

18-509. Illicit discharges.

(1) Scope. This section shall apply to all water generated on developed or undeveloped land entering the city's separate storm sewer system.

(2) Prohibition of illicit discharges. No person shall introduce or cause to be introduced into the municipal separate storm sewer system any discharge that is not composed entirely of stormwater or any discharge that flows from stormwater facility that is not inspected in accordance with section 16-506 shall be an illicit discharge. Non-stormwater discharges shall include, but shall not be limited to, sanitary wastewater, commercial car wash wastewater, lawn mowing debris, lawn care chemicals, grease, soap, cleaning chemicals, radiator flushing disposal, spills from vehicle accidents, carpet cleaning wastewater, effluent from septic tanks, improper oil disposal, laundry wastewater/gray water, improper disposal of auto and household toxics. The commencement, conduct or

continuance of any non-stormwater discharge to the municipal separate storm sewer system is prohibited except as described as follows:

(a) Uncontaminated discharges from the following sources:

- (i) Water line flushing or other potable water sources;
- (ii) Landscape irrigation or lawn watering with potable water;
- (iii) Diverted stream flows;
- (iv) Rising ground water;
- (v) Groundwater infiltration to storm drains;
- (vi) Pumped groundwater;
- (vii) Foundation or footing drains;
- (viii) Crawl space pumps;
- (ix) Air conditioning condensation;
- (x) Springs;
- (xi) Non-commercial washing of vehicles;
- (xii) Natural riparian habitat or wetland flows;
- (xiii) Swimming pools (if dechlorinated - typically less than one PPM chlorine);
- (xiv) Firefighting activities;
- (xv) Any other uncontaminated water source.

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

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

(d) Discharges authorized by the Construction General Permit (CGP), which comply with Section 3.5.9 of the same:

- (i) dewatering of work areas of collected stormwater and ground water (filtering or chemical treatment may be necessary prior to discharge);
- (ii) waters used to wash vehicles (of dust and soil, not process materials such as oils, asphalt or concrete) where detergents are not used and detention and/or filtering is provided before the water leaves site;
- (iii) water used to control dust in accordance with CGP section 3.5.5;
- (iv) potable water sources including waterline flushings from which chlorine has been removed to the maximum extent practicable;
- (v) routine external building washdown that does not use detergents or other chemicals;
- (vi) uncontaminated groundwater or spring water; and
- (vii) foundation or footing drains where flows are not contaminated with pollutants (process materials such as solvents, heavy metals, etc.).

(3) Prohibition of illicit connections. The construction, use, maintenance or continued existence of illicit connections to the municipal separate storm sewer system is prohibited. 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 stormwater pollutants by the use of best management practices. 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 BMP's necessary to prevent the further discharge of pollutants to the municipal separate storm sewer system. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of stormwater associated with industrial activity, to the extent practicable, shall be deemed in compliance with the provisions of this section. Discharges from existing BMP's that have not been maintained and/or inspected in accordance with this ordinance shall be regarded as illicit.

(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, the municipal 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

immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, the person shall notify the city in person or by telephone, fax, or email, no later than the next business day. Notifications in person or by telephone shall be confirmed by written notice addressed and mailed to the city 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 the actions taken to prevent its recurrence. Such records shall be retained for at least three (3) years.

(6) No illegal dumping allowed. No person shall dump or otherwise deposit outside an authorized landfill, convenience center or other authorized garbage or trash collection point, any trash or garbage of any kind or description on any private or public property, occupied or unoccupied, inside the city.

(7) Hot Spots. The administrator is authorized to regulate hot spots. Upon written notification by the administrator, the property owner or designated facility manager of a hot spot area shall, at their expense, implement necessary controls and/or best management practices to prevent discharge of contaminated stormwater to the municipal separate storm sewer system. The administrator may require the facility to maintain inspection logs or other records to document compliance with this paragraph.

18-510. Enforcement.

(1) Enforcement authority. The administrator shall have the authority to issue notices of violation and citations, and to impose the civil penalties provided in this section. Measures authorized include:

- (a) Verbal Warnings – At a minimum, verbal warnings must specify the nature of the violation and required corrective action.
- (b) Written Notices – Written notices must stipulate the nature of the violation and the required corrective action, with deadlines for taking such action.
- (c) Citations with Administrative Penalties – The MS4 has the authority to assess monetary penalties, which may include civil and administrative penalties.
- (d) Stop Work Orders – Stop work orders that require construction activities to be halted, except for those activities directed at cleaning up, abating discharge, and installing appropriate control measures.

(e) Withholding of Plan Approvals or Other Authorizations – Where a facility is in noncompliance, the MS4's own approval process affecting the facility's ability to discharge to the MS4 can be used to abate the violation.

(f) Additional Measures – The MS4 may also use other escalated measures provided under local legal authorities. The MS4 may perform work necessary to improve erosion control measures and collect the funds from the responsible party in an appropriate manner, such as collecting against the project's bond or directly billing the responsible party to pay for work and materials.

(2) Notification of violation:

(a) Verbal warning. Verbal warning may be given at the discretion of the inspector when it appears the condition can be corrected by the violator within a reasonable time, which time shall be approved by the inspector.

(b) Written notice. Whenever the administrator finds that any permittee or any other person discharging stormwater has violated or is violating this ordinance or a permit or order issued hereunder, the administrator may serve upon such person written notice of the violation. Within ten (10) days of this notice, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted to the administrator. Submission of this plan in no way relieves the discharger of liability for any violations occurring before or after receipt of the notice of violation.

(c) Consent orders. The administrator is empowered to enter into consent orders, assurances of voluntary compliance, or other similar documents establishing an agreement with the person responsible for the noncompliance. Such orders will include specific action to be taken by the person to correct the noncompliance within a time period also specified by the order. Consent orders shall have the same force and effect as administrative orders issued pursuant to paragraphs (d) and (e) below.

(d) Show cause hearing. The administrator may order any person who violates this chapter or permit or order issued hereunder, to show cause why a proposed enforcement action should not be taken. Notice shall be served on the person specifying the time and place for the meeting, the proposed enforcement action and the reasons for such action, and a request that the violator show cause why this proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least ten (10) days prior to the hearing.

(e) Compliance order. When the administrator finds that any person has violated or continues to violate this chapter or a permit or order issued thereunder, he may issue an order to the violator directing that, following a specific time period, adequate structures or devices be installed and/or procedures implemented and properly operated. Orders may also contain such other requirements as might be reasonably necessary and appropriate to address the noncompliance, including the construction of appropriate structures, installation of devices, self-monitoring, and management practices.

(f) Cease and desist and stop work orders. When the administrator finds that any person has violated or continues to violate this chapter or any permit or order issued hereunder, the administrator may issue a stop work order or an order to cease and desist all such violations and direct those persons in noncompliance to:

(i) Comply forthwith; or

(ii) Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation; including halting operations except for terminating the discharge and installing appropriate control measures.

(g) Suspension, revocation or modification of permit. The administrator may suspend, revoke or modify the permit authorizing the land development project or any other project of the applicant or other responsible person within the city. 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 administrator may deem necessary to enable the applicant or other responsible person to take the necessary remedial measures to cure such violations.

(h) Conflicting standards. Whenever there is a conflict between any standard contained in this chapter and in the BMP manual(s) adopted by the city under this ordinance, the strictest standard shall prevail.

18-511. Penalties.

(1) Violations. Any person who shall commit any act declared unlawful under this chapter, who violates any provision of this chapter, who violates the provisions of any permit issued pursuant to this chapter, or who fails or refuses to comply with any lawful communication or notice to abate or take corrective action by the administrator, shall be guilty of a civil offense.

(2) Penalties. Under the authority provided in Tennessee Code Annotated § 68-221-1106, the city declares that any person violating the provisions of this chapter may be assessed a civil penalty by the administrator of not less than fifty dollars (\$50.00) and not more than five thousand dollars (\$5,000.00) per day for each day of violation. Each day of violation shall constitute a separate violation.

(3) Measuring civil penalties. In assessing a civil penalty, the administrator may consider:

- (a) The harm done to the public health 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;
- (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 subsection (2) above, the city may recover:

- (a) All damages proximately caused by the violator to the city, which may include any reasonable expenses incurred in investigating violations of, and enforcing compliance with, this chapter, or any other actual damages caused by the violation.
- (b) The costs of the city's maintenance of stormwater facilities when the user of such facilities fails to maintain them as required by this chapter.

(5) Referral to TDEC. Where the city has used progressive enforcement to achieve compliance with this ordinance, and in the judgment of the city has not been successful, the city may refer the violation to TDEC. For the purposes of this provision, "progressive enforcement" shall mean two (2) follow-up inspections and/or two (2) warning notifications. In addition, enforcement referrals to TDEC must include, at a minimum, the following information:

- (a) Construction project or industrial facility location;

(b) Name of owner or operator;

(c) Estimated construction project or size or type of industrial activity (including SIC code, if known);

(d) Records of communications with the owner or operator regarding the violation, including at least two follow-up inspections, two warning letters or notices of violation, and any response from the owner or operator.

(6) Other remedies. The city may bring legal action to enjoin the continuing violation of this chapter, and the existence of any other remedy, at law or equity, shall be no defense to any such actions.

(7) 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.

18-512. Appeals.

Pursuant to Tennessee Code Annotated § 68-221-1106(d), any person aggrieved by the imposition of a civil penalty or damage assessment as provided by this chapter may appeal said penalty or damage assessment to the city's governing body.

(1) Appeals to be in writing. The appeal shall be in writing and filed with the municipal recorder or clerk within fifteen (15) days after the civil penalty and/or damage assessment is served in any manner authorized by law.

(2) Public hearing. Upon receipt of an appeal, the city's governing body, or other appeals board established by the city's governing body shall hold a public hearing within forty-five (45) days. A minimum of ten (10) days prior notice of the time, date, and location of said hearing shall be published in a daily newspaper of general circulation and/or on the City's website. The notice shall also be provided to the aggrieved party by registered mail and sent to the address provided by the aggrieved party at the time of appeal. The decision of the governing body of the City shall be final.

(3) Appealing decisions of the City's governing body. Any alleged violator may appeal a decision of the city's governing body pursuant to the provisions of Tennessee Code Annotated, title 27, chapter 8.

18-513. Maintenance

(1) Maintenance Responsibility.

City of Goodlettsville Stormwater Ordinance

Revised October 13, 2016

Warren Garrett

(a) Any Stormwater management facility or BMP which services individual property owners or subdivisions shall be privately owned with general routine Maintenance (controlling vegetative growth and removing debris), provided for by the owner(s). The City has the right, but not the duty to enter premises for Emergency repairs through a perpetual nonexclusive easement. The owner shall maintain a perpetual, non-exclusive easement, which allows for access for inspection and other Emergency Maintenance by the City.

(b) Any Stormwater management facility or BMP which services an individual subdivision in which the facility or BMP is within designated open areas or an amenity with an established homeowners association, or Inspection and Maintenance Agreement, shall be privately owned and maintained consistent with provisions of this ordinance. The City has the right, but not the duty to enter premises for Emergency repairs through a perpetual nonexclusive easement. The owner shall maintain a perpetual, nonexclusive easement, which allows for access for inspection and Emergency Maintenance by the City.

(c) Any Stormwater management facility or BMP which services commercial and industrial Development shall be privately owned and maintained consistent with the provisions of this Title. The City has the right, but not the duty to enter premises for Emergency repairs through a perpetual nonexclusive easement.

(d) All Regional Stormwater Management Facilities proposed by the owners, if accepted by the City Engineer and approved by the Board of Commissioners for dedication as a public regional facility shall be publicly owned and maintained.

(e) All other Stormwater management control facilities and BMP's shall be publicly owned and/or maintained only if accepted for Maintenance by the City through a formal agreement recorded at the Davidson/Sumner County, TN Register of Deeds. Existing or proposed drainage easements shall not constitute a formal agreement.

(f) The City Engineer may require dedication of privately owned Stormwater facilities, which discharge to the City's Stormwater System.

City of Goodlettsville Stormwater Ordinance

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