

## ORDINANCE 11-03

### **AN ORDINANCE ESTABLISHING RULES AND REGULATIONS FOR STORM WATER MANAGEMENT WITHIN THE CITY OF SPRINGFIELD BY RESCINDING ORDINANCE 04-25 ESTABLISHING RULES AND REGULATIONS FOR STORM WATER MANAGEMENT AND REPLACING IT WITH NEW RULES AND REGULATIONS FOR STORM WATER MANAGEMENT TO READ AS SET FORTH IN “EXHIBIT A” ATTACHED**

**WHEREAS**, the City of Springfield must comply with the National Pollutant Discharge Elimination System (NPDES) regulations for small municipal separate storm sewer systems; and

**WHEREAS**, the State of Tennessee has issued the City of Springfield an NPDES General Permit for Discharges from Small Municipal Separate Storm Sewer Systems; and

**WHEREAS**, such permit requires the City of Springfield to implement a storm water quality management program to reduce the amount of pollutants conveyed by storm water runoff to the municipal separate storm sewer system; and

**WHEREAS**, furthermore the City of Springfield must enact a Storm Water Management Ordinance in order to comply with the terms of its permit.

**NOW, THEREFORE, BE IT ORDAINED** by the Board of Mayor and Aldermen of Springfield, Tennessee as follows:

**Section 1.** The City of Springfield hereby establishes rules and regulations for storm water management by rescinding Ordinance 04-25 in its entirety and replacing it with new rules and regulations for storm water management to read as set forth in “Exhibit A” attached.

**Section 2.** This ordinance shall become effective immediately upon passage on third and final reading.

**Section 3.** All ordinances, resolutions, and policies in conflict herewith are hereby rescinded to the extent of the conflict only.

Passed 1<sup>st</sup> reading March 15, 2011

Passed 2<sup>nd</sup> reading April 19, 2011

Passed 3<sup>rd</sup> reading May 17, 2011

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Billy P. Carneal, Mayor

Attest:

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Jane Shugart Murphy, City Recorder

ORDINANCE 11-03  
EXHIBIT A

# STORM WATER MANAGEMENT ORDINANCE

City of Springfield

May 17, 2011

CITY OF SPRINGFIELD STORM WATER MANAGEMENT ORDINANCE  
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## **Land Disturbance Permit Applicable Ordinance Sections**

### **Land Disturbance Activities Greater Than 10,000 Square Feet and Less Than One Acre**

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### **Land Disturbance Activities Greater Than One Acre**

Section 6.2 – Land Disturbance Activity

Section 6.2.1 – Land Disturbance Permit

Section 6.2.2 – Best Management Practices for Land Disturbance Activities

Section 6.2.3 – Data Required in the Application for a Land Disturbance Permit

Section 6.2.4 – Implementation of Land Disturbance Permit

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Section 6.4 – Storm Water Quality Management Practices

Section 6.5 – Waterway Buffer

Section 9.1 – Allowable Storm Water Discharges

## CITY OF SPRINGFIELD

### STORM WATER MANAGEMENT ORDINANCE

#### **Section 1 – Title and Purpose**

This ordinance shall be known as the “*Storm Water Management Ordinance*” for the City of Springfield, Tennessee (City).

Whereas, inadequate management of runoff from development in a watershed increases storm water peak flows, volumes, and velocities, erodes and/or silts stream channels, pollutes water, overloads existing drainage facilities, undermines floodplain management in downstream communities, reduces groundwater recharge, and threatens public health and safety. More specifically, storm water runoff can convey pollutants into and cause higher velocities in receiving waters. The potential impacts of these pollutants and higher velocities include:

1. Changing natural ecosystems through sediment and pollutant deposits which affect the quantity and quality of flowing water, destruction of habitats, and loss of plant and animal life;
2. Posing significant health risks through increased bacteria;
3. Accelerating eutrophication of receiving waters by introducing excessive nutrient loads;
4. Increasing metal deposits creating toxicity for aquatic life;
5. Reducing oxygen levels because of oil, grease and organic matter; and
6. Affecting animal and plant life, adversely, due to changing temperatures of receiving waters.

Whereas, uncontrolled storm water runoff can increase the incidence of flooding and of floods that occur, endangering roads, other public and private property and human life.

Whereas, altered land surfaces can change the rate and volume of runoff. These changes may result in the following:

1. Erosion and slumping of stream banks, resulting in widening of streams;
2. Undercutting root systems;
3. Increased erosion rates; and
4. Uniform and shallow streambeds, providing less varied aquatic habitats.

Whereas, adverse water quality and quantity consequences described above may result in substantial economic losses. Potential losses include, but are not limited to, increased wastewater and water treatment costs, diminished property values, increased flood damages, as well as state and federal fines associated with water quality violations.

Whereas, many future problems can be avoided through proper storm water management whereby a comprehensive and reasonable program of regulations is fundamental to the public health, safety, and welfare and to protection of the citizens and environment.

Whereas, every parcel of real property, both public and private, either uses or benefits from maintenance of the City's storm water system. Whereas, current and anticipated growth will contribute to and increase the need for improvement and maintenance of the City's storm water system.

This ordinance will allow the City to comply with the National Pollutant Discharge Elimination System (NPDES) permit and applicable regulations (40 CFR § 122.26) and to exercise the powers granted in Tennessee Code Annotated, Title 68, Chapter 221 for storm water discharges. The ordinance is intended to manage the manner in which storm water is addressed in areas of new development, redevelopment, and significant redevelopment through the course of construction and post-construction to maintain or benefit water quantity, water quality and effects on the quality of life and character of the City. This ordinance sets general policy, storm water management program direction, and is supported and enforced through other more detailed regulations, design criteria, ordinances, and other accepted materials.

## **Section 2 – Jurisdiction**

2.1 The Storm Water Management Ordinance shall govern all properties within the corporate limits of the City of Springfield, Tennessee.

### **2.2 Exemptions From Article**

The following development activities are exempt from the provisions of this article and requirements of providing storm water management.

2.2.1 Agricultural land management activities.

2.2.2 Additions or modifications to existing detached single-dwellings.

2.2.3 Developments that do not disturb more than 10,000 square feet of land use or results in excavation or fill of less than 500 cubic yards of material. This exception may not be applied for contiguous properties that may have been subdivided and/or are attributed to multiple separate owners. ***This exemption does not apply to any discharge of sediment or other form of water pollution that may leave a small site.***

### **2.3 Interpretation**

This ordinance shall be held to be the minimum requirements for the promotion of health, safety, and general welfare for the citizens of the City of Springfield.

### **2.4 Conflict with Public and Private Provisions**

2.4.1 Public Provisions – This ordinance is not intended to interfere with, abrogate, or annul any other ordinance, rule or regulation, statute, or other provision of law. Where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule, regulation, or other provision of law, whichever provisions are more restrictive or impose higher standards shall control.

2.4.2 Private Provisions – This ordinance is not intended to abrogate any easement, covenant, or any other private agreement or restriction; provided that where these restrictions are more restrictive or impose higher standards that such easement, covenant, or other private agreement or restriction, the requirements of this ordinance shall govern.

Where any private provision exceeds the standards set forth herein, such shall be considered a private contract between the parties of interest, and as such is beyond the jurisdiction of the City.

### **2.5 Codification and Distribution**

Subsequent to the adoption of any amendment to this ordinance, such amendment shall be incorporated into the text of this ordinance in the following manner.



- 2.5.1 Replacement pages shall be prepared incorporating the new or changed language. Each such new or replacement page shall have the amendment number and shall be dated so as to indicate the date of the last revision of the page.
- 2.5.2 Each adopted amendment shall be numbered consecutively and printed on pages separate from any other amendment and in a manner that fully states any language deleted from this ordinance and any language added and the place in the text of each such change.

### **Section 3 – Definitions**

For the purpose of this ordinance, unless specifically defined below, words or phrases shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most effective application. Words in the singular shall include the plural, and words in the plural shall include the singular. Words used in the present tense shall include the future tense. The word “shall” connotes mandatory and not discretionary; the word “may” is permissive.

See Appendix A for definitions that apply in the interpretation of this ordinance and in any regulations promulgated hereunder, unless specifically stated otherwise.

## **Section 4 – Authority**

### **4.1 Authority of Departments**

The Director of Public Works or his designee shall administer the provisions of this ordinance. This may include but is not limited to plan review, incentives negotiation, plan approval, storm water facilities maintenance, administration and enforcement.

### **4.2 Right-of-Entry**

4.2.1 Designated City staff shall have right-of-entry, at reasonable times, on or upon the property of any person subject to this ordinance and 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 ordinance.

4.2.2 Where a property, site or facility has security measures in force, which require proper identification and clearance before entry into its premises, the person shall make necessary arrangements with its security personnel so that, upon presentation of suitable identification, City staff will be permitted to enter without delay for the purposes of performing specific responsibilities.

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

4.2.4 The responsible person at the written or verbal request of City staff shall promptly remove any temporary or permanent obstruction to safe and easy access to the areas to be inspected and/or monitored. The costs of clearing such access shall be borne by the responsible person.

4.2.5 The Director of Public Works or his designee may inspect the facilities of any user in order to ensure compliance with this ordinance. Such inspection shall be made with the consent of the owner, manager, or signatory official. If such consent is refused, denied or not promptly addressed, the Director of Public Works or his designee may seek issuance of an administrative search warrant.

4.2.6 The City has the right to determine and impose inspection schedules necessary to enforce provisions of this ordinance. Inspections may include, but are not limited to, the following:

1. An initial inspection prior to storm drainage plan approval;
2. A "bury" inspection prior to burial of any underground drainage structure;
3. Pre-construction of erosion and sediment control **best management practices** (BMPs) to ensure conformance with erosion and sediment control plan and proper installation;

4. Erosion control inspections, as necessary, to ensure effective control and maintenance of erosion and sedimentation; and,
5. A final inspection when all work, including installation of storm management facilities, has been completed.

## **Section 5 – Appeals**

- 5.1** *The Director of Public Works shall appoint a three (3) to five (5) member storm water appeal committee that shall be charged with addressing appeals to violations of this ordinance.*
- 5.2** *In order to have an appeal considered, the applicant shall submit a written request as outlined in Section 10.11 of this ordinance. The storm water appeal committee shall have the authority to grant appeals to violations of this ordinance provided they are consistent with the objectives and policies identified in this ordinance. The storm water appeal committee does not have the authority to permit actions by the applicant that are based in lack of proper planning or implementation of site development as defined in this ordinance and other measures applied to the City.*
- 5.3** *The storm water appeal committee will be made available to review accepted request(s) for appeals on an as-needed basis. The decisions of the storm water appeal committee are final and conclusive, but may be reviewed through appropriate court actions. The storm water appeal committee shall make its findings within five (5) business days after the appeal hearing.*
- 5.4** *If the City prevails, on behalf of the storm water appeal committee's action, in any administrative or civil proceeding initiated under this chapter, the City shall be entitled to seek reimbursement for all costs incurred in connection with said proceeding. Such reimbursable expenses may include, but are not limited to, costs of investigation, administrative overhead, out-of-pocket expenses, costs of administrative hearings, and costs of suit.*

**5.5 Meetings with the storm water appeal committee and deliberations and records shall be open to the public. The storm water appeal committee may elect to provide for public comment on relevant issues. The format and duration of the public comment shall be left to the discretion of the water appeal committee.**

## **Section 6 – Objectives, Policy Statements and Minimum Requirements**

### **6.1 Objectives**

The objectives of this ordinance are:

- 6.1.1 To protect human life and health;
- 6.1.2 To minimize the need for rescue and relief efforts associated with flooding;
- 6.1.3 To eliminate any non-allowable discharges and illegal connections to the City's Municipal Separate Storm Sewer System that impact water quality;
- 6.1.4 To help maintain a stable tax base by providing for the sound use and development of flood-prone areas in such a manner as to maximize beneficial use without increasing flood hazard potential or diminishing the quality of the natural storm water resources;
- 6.1.5 To ensure that potential homebuyers are notified that property is in a flood area and generally increase the public awareness of flooding potential;
- 6.1.6 To minimize prolonged business interruptions;
- 6.1.7 To minimize damage to public facilities and utilities such as water and gas mains; electric, telephone, and sewer lines; and streets and bridges located in floodplains;
- 6.1.8 To ensure a functional public and private storm water quantity and quality management system that will not result in excessive maintenance costs;
- 6.1.9 To encourage the use of natural and aesthetically pleasing design that maximizes preservation of natural areas;
- 6.1.10 To guide the construction of storm water management facilities by incorporating master plans that address storm water quantity and quality;
- 6.1.11 To encourage preservation of floodplains, floodways and open spaces to protect and benefit the City's quality of life and natural resources; and,
- 6.1.12 To encourage community stewardship of the City's water resources and their impacts on community character and quality of life.

## 6.2 Land Disturbance Activity

All land disturbing activities shall be in compliance with and permitted under this ordinance. If one acre or more is disturbed, an application shall be applied for under the "State of Tennessee General NPDES Permit for Storm Water Discharges Associated with Construction Activity". If a Tennessee construction site General Permit is applied for, a copy of the Notice of Intent (NOI) and storm water pollution plan shall be sent to the Director of Public Works or his designee.

It shall be unlawful for any person to conduct or permit to be conducted land disturbing activity upon land owned or controlled by them without a permit issued under this ordinance and, if one acre or more is disturbed, a General Permit for Storm Water Discharges Associated with Construction Activity from the Tennessee Department of Environment and Conservation. For purposes of this ordinance, the phrase land disturbing activity is defined as follows:

Land disturbing activity is any land change which may result in soil erosion from water and wind and the movement of sediments into community waters or onto lands and roadways within the community, including, but not limited to, clearing, dredging, grading, excavating, transporting and filling of, land except that the term shall not include the following:

1. Surface mining as is defined in Tennessee Code Annotated Section 59-8-202;
2. Such minor land disturbing activities as home gardens and individual home landscaping, home repairs, home maintenance work, and other related activities which result in minor soil erosion;
3. Construction of single-family residences when built separately on lots within subdivisions which have been approved and recorded in the office of the Robertson County Register of Deeds, and when applicable, for subdivisions of ten or more lots have been issued a permit under this ordinance; provided that excavation is limited to trenches for the foundation, basements, service and sewer connections, and minor grading for driveways, yard areas, and sidewalks;
4. Individual service and sewer connections for single or two family residences;
5. Agricultural practices involving the establishment, cultivation or harvesting of products in the field or orchard, preparing and planting of pasture land, farm ponds, dairy operations, and livestock and poultry management practices, and the construction of farm buildings.
6. Any project carried out under the technical supervision of the Natural Resources Conservation Service of the United States Department of Agriculture;
7. Construction, installation, or maintenance of electrical, telephone and cable television lines and poles;
8. Installation, maintenance and repair of any underground public utility lines when such activity occurs on an existing hard surface road, street or sidewalk which is hard surfaced and such street, curb, gutter or sidewalk construction has been approved;
9. ***Activities which result in a disturbance of less than 10,000 square feet or excavation or filling activities of 500 cubic yards or less unless such land***



***disturbing activity is part of a larger common plan of development that affects one or more acres of land.; and,***

10. Construction, repair or rebuilding of tracks or other related facilities of a railroad company.

***The exemptions listed above do not apply to any discharge of sediment or other form of water pollution that may leave the site.***

These activities may be undertaken without a permit; however, the persons conducting these excluded activities shall remain responsible for conducting these activities in accordance with provisions of this ordinance and other applicable regulations including responsibility for controlling sedimentation and runoff.

Adjacent and downstream properties shall be protected from damage or loss resulting from excessive storm water runoff, soil erosion or deposition upon private property or public streets of sedimentation or debris conveyed by storm water runoff from the site of the land disturbance.

#### 6.2.1 Land Disturbance Permit

No land disturbing activity, whether temporary or permanent, shall be conducted within the City until a land disturbance permit has been issued by the Director of Public Works or his designee, allowing such activity pursuant to provisions of this ordinance, or pursuant to a General Permit for Storm Water Discharges Associated with Construction Activity issued by the Tennessee Department of Environment and Conservation. Such permits shall be available for inspection by the Director of Public Works or his designee on the job site at all times during which land disturbance activities are in progress. Such permits shall be required in addition to any other required permits.

Land disturbance permits shall be required from the City for the following land disturbance activities that do not meet the exemptions in Section 6.2.

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

#### 6.2.2 Best Management Practices for Land Disturbing Activities

The minimum standards for controlling erosion and sedimentation from land disturbance activities shall be set forth in the latest version of the Tennessee Erosion and Sediment Control Handbook as developed and amended from time to time by the Tennessee Department of Environment and Conservation.

The best management practices shall meet the requirements and standards of the latest Tennessee Construction Permit and shall include:

1. For common drainage locations that serve an area with 10 or more acres disturbed at one time, a temporary (or permanent) sediment basin that provides storage for a calculated volume of storm water runoff from a 2-year, 24-hour storm from each acre drained, until final stabilization of the site; and
2. Management practices and controls to prevent waste, including discarded building materials, concrete truck wash out, asphaltic concrete mix, chemicals, litter and sanitary waste from entering the storm drainage system and waters of the state.

#### 6.2.3 Data Required in the Application for a Land Disturbance Permit

Any application for a land disturbance permit, for areas greater than one acre, a copy of the notice of intent for coverage under the General Permit for Storm Water Discharges Associated with Construction Activity issued by the Tennessee Department of Environment and Conservation and a copy of the storm water pollution prevention plan shall be submitted to the Director of Public Works.

For application for a land disturbance permit, ***the application shall include, at a minimum, requirements contained in Article 2 of the Subdivision Regulations and Chapter 14 of the Zoning Ordinance.***

#### 6.2.4 Implementation of Land Disturbance Permit

To implement the objectives presented above, the following general policy statements shall apply:

1. The Director of Public Works or his designee shall issue a Land Disturbance Permit (permit) for plans that meet the guidelines of this ordinance and any other provision given authority under Section 7 of this ordinance. A fee ***as described in Chapter 14 of the Zoning Ordinance*** shall accompany the application for a permit.
2. Technical, administrative, or procedural matters may be modified, as needed, to meet the objectives and policies defined in this ordinance, so long as such modifications as to technical, administrative, or procedural matters are not contrary or beyond the intent of the objectives and policies of this ordinance.
3. Approved permits must be displayed in a conspicuous location on all active construction sites.
4. A Professional Engineer licensed in the State of Tennessee shall stamp all proposed plans for construction in the City of Springfield. This shall include all proposed improvements or modifications to the existing or new storm water infrastructure, erosion prevention and sediment control

practices, and other related improvements or modifications. The engineer who prepares the erosion and sediment control plans must have the Tennessee Department of Environment and Conservation Level I and II erosion and sediment control certifications **by June 30, 2005**.

5. The City may require more stringent erosion prevention and sedimentation control practices on properties, within sensitive watersheds proximate to "Waters of the State" or that discharge to impaired streams, for land disturbance activities less than one acre. This may include measures that limit or eliminate, with a greater pollutant reduction than standard **best management practices** (BMPs), the potential for sediment or other form of pollutants from entering sensitive areas or impaired streams as designated by the Tennessee Department of Environment and Conservation.

### **6.3 Flood Damage Prevention and Control**

It is the purpose of this ordinance to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas. This ordinance is designed to:

1. Restrict or prohibit uses which are vulnerable to water or erosion hazards, or which cause damaging increases in erosion, flood heights or velocities;
2. Require that land uses vulnerable to floods, including community facilities, be protected against flood damage;
3. Control alteration of natural floodplains, stream channels, and natural protective barriers which accommodate floodwaters;
4. Control filling, grading, dredging and other development which may increase erosion or flood damage; and,
5. Prevent or regulate construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards.

#### **6.3.1 General Performance Criteria for Storm Drainage Plan**

Unless granted a waiver or judged by the City, the following performance criteria shall be addressed for storm water management at all sites:

1. All storm drainage plans shall control the peak flow rates and volumes of storm water runoff associated with design storms as specified in this ordinance and the Subdivision Regulations. Where feasible, storm drainage plans should seek to utilize pervious areas for storm water treatment and to infiltrate storm water treatment and to infiltrate storm water runoff from driveways, sidewalks, rooftops, parking lots, and landscaped areas to the maximum extent practical to provide treatment for both water quality and quantity;
2. Protect stream channels from degradation, specific channel protection criteria shall be provided as prescribed in the Subdivision Regulations;

3. Storm water runoff to critical areas with sensitive resources may be subject to additional performance criteria, or may need to utilize or restrict certain storm water management practices;
4. Storm water runoff from areas with potential to contribute significant pollutants may require the application of specific structural **best management practices** (BMPs) and storm water pollution prevention practices;
5. Prior to or during the site design process, applicants for land disturbance permits shall consult with the Director of Public Works or his designee to determine if they are subject to additional storm water design requirements;
6. Calculations for determining peak flows as found in the Subdivision Regulations shall be used for sizing all storm water facilities;
7. Sinkhole and drainage well plans must meet the requirements as found in the Subdivision Regulations; and,
8. If hydrologic or topographic conditions warrant greater control than that provided by the minimum control requirements, the Director of Public Works or his designee may impose any and all additional requirements deemed necessary to control the quality, volume, timing, and rate of storm water runoff.

#### 6.3.2 Storm Drainage Plan Requirements

The storm drainage plan shall include sufficient information to allow the Director of Public Works or his designee to evaluate the environmental characteristics of the project site, 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 runoff generated at the project site. The basic storm drainage plan requirements are included in the Subdivision Regulations. In addition to requirements contained in the Subdivision Regulations, the storm drainage plan shall include the following:

1. Proposed land use with tabulation of the percentage of surface area to be adapted to various uses (green spaces, pervious areas, etc.); drainage patterns; locations of utilities, roads and easements; the limits of clearing and grading;
2. Proposed structural **best management practices** (BMPs) with maintenance plans;

3. Written description of the site plan and justification of proposed changes in natural conditions may also be required at the request of the Public Works Director or his designee; and,
4. Soils Information: If a storm water **best management practice** (BMP) 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.

#### 6.4 Storm Water Quality Management Practices

Increased pollutant concentrations and loads impact the ability of the waters of the state to meet designated use goals. To minimize these storm water quality impacts, onsite storm water quality best management practices are mandatory for all developments subject to review by the Department of Public Works. The extent and type of management practices implemented must be proportionate to the land use, potential pollutant discharge and proximity to regional storm water quality management practices. The City encourages that a series of best management practices be implemented that optimize the use of required green and open spaces, especially along buildings and within or along parking lots. The storm water controls must be designed to limit the discharge of storm water pollutants from the site to or below pre-development levels to the maximum extent practicable (MEP).

Storm water discharges from Hot Spots (priority area) may require the application of specific structural storm water quality management practices and pollution prevention practices.

Storm water management practices are to be applied to all new development **and redevelopments**. They are intended to benefit storm water quality by controlling frequent storm event flooding, erosion and non-point pollutant loading. ***While detention practices are not required on all sites, due to land use, contributing area and other factors, they may be required for sites designated by the Public Works Director or his designee such as residential subdivisions and large developments. Ponds for storm water quality control for commercial and industrial developments are not recommended.***

Supportive data must be submitted to justify the type of detention facility selected. If the facility is designed to retain (volume control) all or a significant portion of runoff, then appropriate soils analyses findings shall be submitted to the Department of Public Works. This submittal shall also discuss the impacts the facility will have on local karst topography as found through a geological investigation of the site. The facility may be designed to infiltrate runoff to groundwater rather than transmit it downstream under conditions up to a ten-year storm event. The facility must be able to bypass all other events up to a recurrence interval of 100 years with peak discharge rates equivalent to or less than pre-development conditions for all

recurrence intervals up to and including the 100-year event. If data are not supportive that the facility can retain a significant portion of the runoff then the facility must be sized to detain runoff.

The required detention volume shall be that volume necessary to attenuate the post-development runoff volume to a level described above. If sedimentation occurs during construction, the facility must be restored to the original design dimensions after construction has been completed, all disturbed areas have been stabilized and certified as part of as-built submittal.

***Structural storm water quality best management practices (BMPs) for industrial and commercial developments shall be designed to treat the small frequent storm water quality events and be designed to bypass all larger storm events, unless the facility is designed to serve as both a storm water quantity and quality management practice. Structural water quality best management practices for industrial and commercial developments and other developments, designated by the Director of Public Works or his designee, must be designed to capture the first flush of runoff (1.1 inches).***

The latest addition of the Metropolitan Nashville and Davidson County Stormwater Management Manual (SWMM) should be used as a reference for design of storm water quality best management practices. The SWMM should also be used to identify maintenance requirements that shall be included in the required maintenance agreement for each storm water facility and best management practice.

***A permanent Certificate of Occupancy will not be issued until a Storm Water Management Agreement has been executed with the City.***

Care must be taken to ensure that any required detention or storm water quality facilities do not become nuisances or health hazards. Storm water quality management facilities generally require more maintenance than storm water quantity facilities. Storm water quality detention facilities should be designed to require minimal maintenance and maintenance responsibility must be clearly stated on the plans.

Failure to maintain a storm water management facility as described in the maintenance agreement may result in a fine in accordance with Section 10 – Enforcement.

All detention facilities located in residential ***subdivision*** developments shall be within public utility and drainage easements and shall be maintained by the Department of Public Works. Detention facilities located in condominium developments, apartment or townhouse complexes, PUDs, industrial, commercial, or institutional developments shall be within public utility and drainage easements and maintained by the property owner or homeowner's association. A maintenance agreement must be executed before the development plan is approved.

## **6.5 Waterway Buffer**

New development and significant redevelopment adjacent to the floodplain or floodway of storm water conveyance (waterways), with a drainage area greater than 40 acres, shall include waterway buffers (buffers) on proposed plans. The buffer along waterways shall be an area where the surface is left in a natural state and not disturbed by construction or any other activity such as mowing or maintenance of the buffer except as allowed in Section 6.5.3.

6.5.1 In areas where a floodplain and floodway have been determined and accepted by the Department of Public Works the buffer shall be the width of the floodway plus at least 50 feet perpendicular from the floodway on each side of the waterway.

6.5.2 In areas where a floodplain and floodway have not been determined and accepted by the Department of Public Works and if the waterway on the United States Geological Quadrangle map is a “blue line” or intermittent “blue line” stream with a drainage area greater than 40 acres, the buffer shall be at least 25 feet perpendicular from each side of the stream bank of the waterway under “bank full” conditions. Ponds connected to community waters shall have a 25 foot buffer from the elevation of normal pool. Wetlands shall have a 25 foot buffer from the delineation line.

6.5.3 In order to maintain the functional value of the buffer area, indigenous vegetation may be removed as follows:

6.5.3.1 Dead, diseased, or dying trees that are in danger of falling and causing damage to dwellings or other structures may be removed at the discretion of the landowner.

6.5.3.2 Debris in the buffer area that is caused by storm damage may be removed.

6.5.3.3 Invasive plant species may be removed if they are replaced by native species that are equally effective in retarding storm water runoff, preventing erosion, and filtering nonpoint source pollution from storm water runoff. A buffer restoration plan must be approved by the City.

## **6.6 Existing NPDES Storm Water Permits**

***For industrial sites that have an existing storm water permit, a copy of the notice of coverage shall be submitted to the Director of Public Works or his designee.***

## **Section 7 – Rule-Making Authority**

- 7.1** The Director of Public Works or his designee shall have authority to implement this ordinance by appropriate regulations, guidance or other related materials. In this regard, technical, administrative, or procedural matters may be modified as needed to meet the objectives and policies defined in this ordinance, so long as such modifications as to technical, administrative, or procedural matters are not contrary or beyond the intent of the objectives and policies defined in the ordinance.
- 7.2** Documents referenced in this ordinance may be updated periodically to reflect the most current and effective practices and shall be made available to the public. However, the failure to update the appropriate regulations, guidance or other related materials shall not relieve any applicant from the obligation to comply with the Storm Water Management Ordinance, and shall not prevent the Director of Public Works or his designee from imposing the most current and effective practices.
- 7.3** Regulations, guidance or other related materials that may be given authority by this ordinance may include, but are not limited to: Best Management Practice (BMP) manuals, design regulations and requirements, submittal checklists, review checklists, inspection checklists, certifications, storm water management technical manuals and operation and maintenance manuals. The document(s) may include information deemed appropriate by the Director of Public Works or his designee including guidance and specifications for the preparation of storm water management plans, storm drainage plans, selecting environmentally sound practices for managing storm water, minimum specifications and requirements, more complete definitions and performance standards.
- 7.4** The above referenced documents shall not in any way require specific commercially available products. However, they may refer to performance specifications, class of devices, construction, or management practice.



## **Section 8 – Maintenance Requirements**

- 8.1** The maintenance responsibilities for permanent storm water runoff control facilities shall be determined based upon the type of ownership of the property that is controlled by the facilities as discussed in Section 6.4.
- 8.2** Single entity ownership – Where the permanent storm water runoff control facilities are designed to manage runoff from property in a single entity ownership as defined below, the maintenance responsibility for the storm water control facilities shall be with the single entity owner.
- 8.2.1 The stated responsibilities of the entity in terms of owning and maintaining the facilities shall be submitted with the storm water management plan for determination of their adequacy. Approval of the storm water management plan shall be conditioned upon the approval of these terms. These terms shall be in writing, shall be in recordable form, and shall, in addition to any other terms deemed necessary by the City, contain a provision permitting inspection at any reasonable time by the Director of Public Works or his designee of all such facilities deemed critical to the public welfare. The entity shall also execute a storm water management facilities agreement with the City.
- 8.2.2 A single entity shall be defined as an association, public or private corporation, partnership firm, trust, estate or any other legal entity allowed to own real estate exclusive of an individual lot owner.
- 8.2.3 Upon approval and prior to execution of the storm water management facilities agreement, the facility owner(s) shall demonstrate the ability to garner and apply the financial resources necessary for long-term maintenance requirements. The funding mechanism shall be in a form approved by the City. The City will only approve funding mechanism(s) for long-term maintenance responsibilities that can be demonstrated to be permanent or transferable to another entity with equivalent longevity.
- 8.2.4 Unless made specifically clear in the preliminary stages of site design and construction plan review procedure, it will be assumed that all storm water detention, retention, treatment or storage facilities and/or devices shall be owned, operated and maintained by a single entity as defined above.
- 8.3** Municipal ownership – Where the City has accepted an offer of dedication of the permanent storm water management facilities, the City shall be responsible for maintenance.
- 8.4** Construction maintenance bond – The City may require the posting of a maintenance bond to secure the structural integrity of said facilities as well as the functioning of said facilities in accordance with the design and specifications as depicted on the approved storm water management plan for a term of 18 months from the date of acceptance of dedication. A cash contribution can be used as the financial mechanism in lieu of a maintenance bond although the contribution must be equivalent to the amount that would be estimated for the maintenance bond.

- 8.5** Construction performance bond – The City may require the posting of a construction performance bond to secure final grading, stabilization of all disturbed areas, and removing sediment from storm water management facilities in accordance with the design and specifications as depicted on the approved storm water management plan for a term of 18 months from the date of acceptance of dedication. A cash contribution can be used as the financial mechanism in lieu of a maintenance bond although the contribution must be equivalent to the amount that would be estimated for the maintenance bond.

## **Section 9 – Allowable Storm Water Discharges**

Pursuant to the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) program administered by the Tennessee Department of Environment and Conservation (TDEC), non-storm water discharges to the City's MS4 are defined as illegal. Non-storm water discharge means any discharge to the Municipal Separate Storm Sewer System except as permitted by Section 9.1.

### **9.1 Allowable Discharges**

Certain non-storm water discharges are allowable, as defined below, into the City's MS4 unless the Director of Public Works or his designee has identified them as a source of pollutants to the "Waters of the State of Tennessee". The following non-storm water discharges into the Municipal Separate Storm Sewer System are allowed:

1. Discharges from emergency fire fighting activities;
2. Rising ground waters;
3. Uncontaminated groundwater infiltration to separate storm sewer systems (as defined by 40 CFR35.2005(20));
4. Uncontaminated pumped ground water discharges from potable water sources as required for system maintenance;
5. Potable de-chlorinated water line flushing;
6. Foundation drains and pumps;
7. Air conditioning condensate;
8. Landscape irrigation;
9. Irrigation water;
10. Lawn watering;
11. Uncontaminated springs;
12. Water from crawl space pumps;
13. Uncontaminated footing drains and pumps;
14. Individual residential car washing;
15. Flows from riparian habitats and wetlands;
16. De-chlorinated swimming pool discharges;
17. Street wash waters resulting from normal street cleaning operations;
18. Discharges approved at the discretion of the Director of Public Works or his designee as being necessary to protect public health and safety; and
19. Dye testing for illicit discharges is an allowable discharge if approved by the Director of Pubic Works or his designee.

## **9.2 Illicit Discharge and Illegal Dumping**

The following direct or indirect discharges into Community Waters or Waters of the State are prohibited and shall be unlawful:

1. Sewage dumping or dumping of sewage sludge;
2. Chlorinated swimming pool discharge;
3. Discharge of any polluted household wastewater, such as but not limited to laundry wash water and dish water, except to a sanitary sewer or septic system;
4. Leaking sanitary sewers and connections, which shall have remained uncorrected for seven days or more;
5. Leaking water lines shall have remained uncorrected for seven days or more;
6. Commercial, industrial or public wash discharge;
7. Garbage or sanitary waste disposal;
8. No dead animals or animal fecal waste shall be directly discharged into Community Waters;
9. No non-storm water discharges shall be directly discharged into Community Waters except pursuant to a permit issued by the State of Tennessee or the City;
10. No dredged or spoil material shall be directly or indirectly discharged or discarded into Community Waters
11. No solid waste shall be directly or indirectly discharged or discarded into Community Waters
12. No chemical waste shall be directly or indirectly discharged or discarded into Community Waters

## **9.3 Prohibition of Pollutant Discharge Not Covered by the NPDES Program**

A permit is a license to conduct an activity which is regulated by the Clean Water Act, Water Pollution Control Act (T.C.A. § 69-3-101, et seq) or this ordinance. Every person who is or who is planning to carry out any of the activities requiring a permit shall obtain such a permit prior to carrying out such activities. It shall be unlawful for any person to carry out any of the following activities except in accordance with the conditions of a valid permit:

1. Alteration of the physical, chemical, radiological, biological, or bacteriological properties of any waters of the state or community waters;
2. Construction, installation, modification, or operation of any treatment works or part, thereof, or any extension or addition thereto;
3. Increase in volume or strength of any wastes in excess of permissive discharges specified under any existing permit;
4. Development of natural resource or construction, installation, or operation of any establishment or any extension or modification thereof or addition thereto; the operation of which will or is likely to cause an increase in the discharge of wastes into waters of the state or community waters or would otherwise alter the physical, chemical, radiological, biological, or bacteriological properties of any waters of the state or community waters in any manner not already lawfully authorized;

5. Construction or use of any new outlet for the discharge of any wastes into waters of the state;
6. Discharge of sewage, industrial wastes or other wastes into waters of the state, or a location from which it is likely that the discharged substance will move into waters of the state;
7. Discharge of sewage, industrial wastes or other wastes into a well, sinkhole, or a location that is likely that the discharged substance will move into a well or sinkhole, or the underground placement of fluids and other substances which do or may affect the waters of the state.

#### **9.4 Accidental Discharges**

In the event of any discharge of a hazardous substance in amounts which could cause a threat to public drinking supplies, a “significant spill”, or any other discharge which could constitute a threat to human health or the environment, the owner or operator of the facility shall give notice to the Director of Public Works or his designee and the field office of the Tennessee Department of Environment and Conservation as soon as practicable, but in no event later than the close of business on the day following the accidental discharge or the discharger becomes aware of the circumstances. If an emergency response by governmental agencies is needed, the owner or operator should also call 911 immediately to report the discharge. A written report must be provided within five days of the time the discharger becomes aware of the circumstances, unless this requirement is waived by the Director of Public Works or his designee for good cause shown on a case-by-case basis, containing the following particulars: 1) description of the discharge, 2) exact times and dates of discharge of discharge, and 3) steps being taken to eliminate and prevent recurrence of the discharge.

The discharger shall take all reasonable steps to minimize any adverse impact to the Community Waters or Waters of the State, including such accelerated or additional monitoring as necessary to determine the nature and impact of the discharge. It shall not be a defense for the discharger in an enforcement action that it would have been necessary to halt or reduce the business or activity of the facility in order to maintain water quality and minimize any adverse impacts that the discharge may cause.

It shall be unlawful for any person to fail to comply with provisions of this section.

#### **9.5 Storm Sewer Connections**

No person shall uncover, make any connections with or opening into, use, alter, or disturb any storm drain or appurtenances thereof without first obtaining a written permit from the Director of Public Works or his designee.

The owner or his agent shall make application on a special form furnished by the City. The permit application shall be supplemented with plans, specifications, and or other information considered pertinent to the Director of Public Works or his designee. A permit shall be issued only after meeting all applicable ordinances, state statutes and regulations, and federal statutes and regulations.

All costs and expenses incidental to the reinstallation, installation or connection, to the storm drain shall be borne by the owner. The owner shall indemnify the City from any loss or damage that may directly or indirectly be occasioned.

Storm drain connections may be used only when they are found, on examination and test by the Director of Public Works or his designee, to meet all requirements of this ordinance.

No user shall continue to use connections to storm drains after being notified by the Director of Public Works or his designee to cease using these connections due to the introduction of non-storm water discharges, except those allowed under Section 9.1, into the storm drains.

Prior to connection to an existing system, the Director of Public Works or his designee must inspect new storm drains. The connection shall be made under the supervision of the Director of Public Works or his designee.

## **Section 10 – Enforcement**

The City may institute appropriate actions or proceedings at law or equity for the enforcement of this ordinance. Any court of competent jurisdiction shall have the right to issue restraining orders, temporary or permanent injunctions, and other appropriate forms of remedy or relief. Each day of noncompliance is considered a separate offense; and nothing herein contained shall prevent the City from taking such other lawful action as is necessary to prevent or remedy any violation, including application for injunctive relief. Any of the following enforcement remedies and penalties shall be available to the City in response to violations of this ordinance. If the person, property, facility has or is required to have a storm water discharge permit from the Tennessee Department of Environment and Conservation, the City shall alert the appropriate state authorities of the violation.

- 10.1** Notice of violation (NOV) – Whenever designated City staff shall find that any person, company or facility owning or occupying a premises has violated or is violating this ordinance or order issued hereunder, the enforcement official may serve, by personal service, or by registered or certified mail, upon said person a written NOV. Within thirty (30) days of the receipt of this notice, or shorter period as may be prescribed in the NOV, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, which shall include specific required actions, shall be submitted to the Director of Public Works or his designee. Submission of this plan shall in no way relieve liabilities for violations occurring before or after receipt of the NOV.
- 10.2** Revocation of permit – The Director of Public Works or his designee may revoke and require the return of a permit or certificate by notifying the permit holder in writing, stating the reason for the revocation. Permits or certificates shall be revoked for any substantial departure from the approved application plans, or specifications; refusal or failure to comply with the requirements of state or local law; or for false statements or misrepresentations made in securing the permit or certificate. Any permit or certificate mistakenly issued in violation of any applicable state or local law may also be revoked.
- 10.3** Compliance order – If any person, company or facility shall violate the provisions of this ordinance, the Director of Public Works or his designee, may give notice to the owner or to any person in possession of the subject property, ordering that all unlawful conditions existing thereupon be abated within a schedule defined from the date of such notice.
- 10.3.1 The enforcement official shall have the authority to establish elements of a storm water pollution prevention plan, and to require any business to adopt and implement such a plan, as may be reasonably necessary to fulfill the purposes of this chapter. The enforcement official may establish the requirements of best management practices for any premises.

10.3.2 The notice and order may be given provided, that if, in the opinion of the Director of Public Works or his designee, the unlawful condition is such that it is of imminent danger or peril to the public, then an authorized City representative may, without notice, proceed to abate the same, and the cost thereof shall be charged against the property. The City, as described further in this subsection, may recover the cost of such actions from the property owner.

**10.4** Civil Penalties – Any person, company, facility who has been found to have been in violation of any provision of this ordinance, may be assessed a civil penalty not to exceed the amount presented in this subsection.

10.4.1 The penalty may be assessed for each day beyond schedules applied in compliance orders or other schedules issued to the property owner or other person responsible for unauthorized activity defined in this ordinance.

10.4.2 In determining the amount of the penalty the Director of Public Works or his designee shall consider the following:

- 10.4.2.1 Harm done to public health or environment;
- 10.4.2.2 Whether the civil penalty imposed will be substantial economic deterrent to the illegal activity;
- 10.4.2.3 Economic benefit gained by the violation;
- 10.4.2.4 Amount of effort put forth by the violator to remedy the violation;
- 10.4.2.5 Any unusual or extraordinary enforcement costs incurred by the City;
- 10.4.2.6 Amount of penalty;
- 10.4.2.7 Any equities of the situation which outweigh the benefit of imposing any penalty or damage assessment; and,
- 10.4.2.8 Costs of enforcement to the City.

10.4.3 The maximum civil penalties will be determined by the type of offense. The penalties listed below indicate the maximum that may be imposed for a first offense.

10.4.3.1 Development without permit – \$5,000 – To engage in any development, use, construction, remodeling, or other activity of any nature upon land or improvements thereon subject to the jurisdiction of this ordinance without all required permits, certificates, or other forms of authorization as set forth in this ordinance.

10.4.3.2 Development inconsistent with permit – \$5,000 – To engage in any development, use, construction, remodeling, or other activity of any nature in any way inconsistent with any approved plan, permit, certificate, or other form of authorization granted for such activity.



10.4.3.3 Violation by act or omission – \$5,000 – To violate, by act or omission, any term, variance, modification, condition, or qualification placed by the City or its agent departments upon any required permit, certificate, or other form of authorization of the use, development, or other activity upon land or improvements thereon.

10.4.3.4 Illicit Discharge – \$5,000 – Any person, company or facility who is found to have improperly disposed of any substance that is not defined in Section 9 or causes the City to be in noncompliance with any applicable environmental permit.

10.4.3.5 Household Products – \$500 – Any person, company or facility who is found to have improperly disposed of any substance not included in Section 9 that was purchased over-the-counter for household use, in quantities considered normal for household purposes, which, upon discharge to the municipal separate storm sewer system or drainage network, would have an adverse impact on water quality or cause the City to be in noncompliance with any applicable environmental permit.

10.4.4 In the event there are penalties assessed by the State against the City caused by any person, company or facility, said person, company or facility shall be assessed the equivalent amount of civil penalty. This shall include, but is not limited to, penalties for improper disposal or illegal dumping, or illicit connection into the municipal separate storm sewer system.

**10.5** Any person, company or facility who undertakes any development activity requiring a storm water management plan hereunder without first submitting the plan for review and approval shall pay to the City, in addition to any permit or inspection fee, an administrative fee of up to \$5,000.

**10.6** Any violator may be required to clean and/or restore land to its condition prior to the violation.

**10.7** If corrective action, including maintenance delinquency, is not taken in the time specified or within a reasonable time if no time is specified, the City may take the corrective action, and the cost of the corrective action shall be the responsibility of the owner and the developer. The cost of the abatement and restoration shall be borne by the owner of the property and the cost therefore shall be invoiced to the owner of the property. If the invoice is not paid within ninety (90) days, the enforcement official shall have the authority to place a lien upon and against the property. If the lien is not satisfied within ninety (90) days, the enforcement official is authorized to take all legal measures as are available to enforce the lien as a judgment, including, without limitation, enforcing the lien in an action brought for a money judgment, by delivery to the assessor or a special assessment against the property.

- 10.8** Any violation of this Ordinance or of any condition, order, requirement, or remedy adopted pursuant hereto may be restrained, corrected, abated, mandated, or enjoined by other appropriate proceeding pursuant to state law.
- 10.9** In addition to any other remedies provided in this chapter, any violation of this chapter may be enforced by civil action brought by the City Attorney. Monies recovered under this subsection shall be paid to the City to be used exclusively for costs associated with implementing or enforcing the provisions of this ordinance. In any such action, the City may seek, as appropriate, any or all of the following remedies:
- 10.9.1 A temporary and/or permanent injunction;
  - 10.9.2 Assessment of the violator for the costs of any investigation, inspection, or monitoring survey which lead to the establishment of the violation, and for the reasonable costs of preparing and bringing legal action under this subsection;
  - 10.9.3 Costs incurred in removing, correcting, or terminating the adverse effects resulting from the violation;
  - 10.9.4 Compensatory damages for loss or destruction to water quality, wildlife, fish and aquatic life.
- 10.10** The Director of Public Works or his designee may order the abatement of any discharge from any source to the storm water conveyance system when, in the opinion of the Director of Public Works or his designee, the discharge causes or threatens to cause a condition which presents an imminent danger to the public health, safety, or welfare, or the environment, or a violation of a NPDES permit. In emergency situations where the property owner or other responsible party is unavailable and time constraints are such that service of a notice and order to abate cannot be effected without presenting an immediate danger to the public health, safety, or welfare, or the environment or a violation of a NPDES permit, the City may perform or cause to be performed such work as shall be necessary to abate said threat or danger. The costs of any such abatement shall be borne by the owner and shall be collectable in accordance with the provisions of this subsection
- 10.11** Upon issuance of a citation or notice of violation of this article it shall be conclusive and final unless the accused violator submits a written notice of appeal ***to the storm water appeal in compliance with Section 5 of this Ordinance.***

## **Section 11 – Severability**

- 11.1** Should any article, section, subsection, clause or provision of this Comprehensive Storm Water Management Ordinance be declared by a court of competent jurisdiction to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole or any part thereof other than the part declared to be unconstitutional or invalid, each article, section clause and provision being declared severable.
- 11.2** If any provisions of this ordinance and any other provisions of law impose overlapping or contradictory regulations, or contain any restrictions covering any of the same subject matter, that provision which is more restrictive or imposes higher standards or requirements shall govern.

## Appendix A Definitions

**100-Year Flood Event** – See Base Flood

**Accidental Discharge** – A discharge prohibited by this ordinance into the community waters or to waters of the state that occurs by chance and without planning or consideration prior to occurrence.

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

**Appeal** – A request for a review of the Director of Public Works' interpretation of any provision of these regulations.

**Architect** – An architect duly registered, licensed or otherwise authorized by the State of Tennessee to practice in the field of building architecture.

**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”.

**Bikeway** – A facility that is explicitly provided for non-motorized bicycle travel.

**Blue Line Stream** – Streams that are represented on the United States Department of the Interior Geological Survey (USGS) 1:24,000 quadrangle maps.

**BMP – Best Management Practice** – This may refer collectively or specifically to a structural or non-structural practice intended to address water quantity or quality as best available. Best management practices also 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 United States/State. BMPs 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.

**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.

**Bond** – An instrument with a clause or irrevocable letter of credit, with a sum of money fixed as a penalty, binding the parties to pay the same: conditioned,

however, that the payment of the penalty may be avoided by the performance by some one or more parties of certain acts.

**Bridge** – A man made conveyance of storm water flows.

**Building** – Any structure built for support, shelter, or enclosure for any occupancy of persons, animals or chattels, or storage; or moveable property of any kind; including mobile homes.

**Channel** – A natural or artificial watercourse of perceptible extent, with definite bed and banks to confine and conduct continuously or periodically flowing water. Channel (bankfull) flow is that quantity of water that is flowing within the limits of the defined channel.

**Community Waters** – Community waters includes any and all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wetlands, wells, and other bodies of surface and subsurface water, natural or artificial, lying within or forming a part of the boundaries of the City of Springfield the waters into which the Springfield storm water system outfalls flow.

**Construction Plan** – The maps or drawings accompanying a subdivision plat and showing the specific location and design of improvements to be installed in the subdivision in accordance with requirements of the Planning Commission.

**Contractor** – An individual, firm or corporation with whom an owner or authorized agent has executed a work agreement.

**Cross-Drain** – A culvert used to convey flow under a road or other obstruction between channels or surface flow.

**Critical Area** – A site subject to erosion or sedimentation as a result of cutting, filling, grading, or other disturbance of the soil; a site difficult to stabilize due to exposed subsoil, steep slope, extent of exposure, and other conditions.

**Critical Design-Storm Period** – Refers to the time frame in which detention volume must be controlled with the pre-development flow volume as a maximum limit. It assumes a design period for a NRCS (formerly SCS) type II design storm. This is a watershed specific parameter that may be specified by the Director of Public Works, but may be assumed as 10 to 14 hours for small and medium watersheds (order of less than 10 square miles) and 10 to 18 hours for large watersheds (order of 10 to 40 square miles).

**Critical Service Roads** – Roads designated city evacuation routes, or other access to police, fire, emergency medical services, hospitals, or shelters.

**Culvert** – A man-made conveyance of storm water flows. This may include a pipe or other constructed conveyance.

**Cut Area** – Consists of the excavation and grading of an area (site, roadway, borrow pit, waterways, ditches, benches, etc.), which in turn lowers or rearranges the elevation of the existing area.

**Design/Condition of Service Manuals** – The manuals adopted by Robertson County and the City of Springfield, Tennessee for design and specifications of road, water mains, sanitary sewers, storm drains, culverts, and any amendments thereto.

**Design Specifications** – Written description of a technical nature of materials, equipment, construction systems, standards, and workmanship required for a project intended for local governing body's ownership or maintenance.

**Detention** – The temporary delay of storm water runoff prior to discharge into receiving waters.

**Developer** – Any individual, firm, corporation, association, partnership, or trust involved in commencing proceedings to effect development of land for himself or others. This includes any legal or engineering representative of the "developer".

**Development** – Any man-made change to improved or unimproved real estate, including but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavating, drilling operations, or permanent storage of materials (as defined as materials of like nature stored in whole or in part for more than six months).

**Director of Engineering** – Refers to the City of Springfield, Tennessee City Engineer and designated staff.

**Director of Public Works** – Refers to the City of Springfield, Tennessee Director of Public Works and designated staff.

**Drainage Basin** – A part of the surface of the earth that is occupied by and provides surface water runoff into a storm water management system (MS4 of Waters of the State), which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

**Drainage Well** – A bored, drilled, driven, dug or naturally occurring shaft or hole with a depth greater than the largest surface dimension; used to drain surface fluid, primarily storm runoff, into a subsurface or karst formation. Also known as "dry well" or "sinkhole".

**Easement** – Authorization by a property owner for the use by another, for a specified purpose, of any designated part of his/her property.

**Engineer** – An engineer certified and registered by the State Board of Architectural and Engineer Examiners pursuant to Tennessee Code Annotated, to practice in Tennessee.

**Equal Degree of Encroachment** – The delineation of floodway limits so that floodplain lands on both sides of a stream are capable of conveying a proportionate share of flood flows. This is determined by considering hydraulic conveyance of the floodplain along both sides of a stream for a significant reach.

**EP & SC** – Erosion prevention and sediment control; see “erosion prevention” and “sediment control”.

**Erosion** – The disintegration or wearing away, of soil particles, caused by the action of flowing water or impact of precipitation on the particles.

**Erosion and Sediment Control Plan** – A written plan, including drawings or other graphic representations, for the control of soil erosion and sedimentation resulting from a land disturbing activity.

**Erosion Prevention** – Practices implemented to prevent, through shielding, binding or other mechanism(s), the suspension of soil particles in storm water runoff, often associated with erosion prevention and sedimentation control.

**Escrow** – A fiduciary agreement with the governing body in lieu of actual performance and intended to secure performance. An escrow amount may be provided as a bond subject to agreement of the governing body.

**Excavation** – See cut area.

**Existing Grade** – The slope or elevation of an existing ground surface prior to cutting or filling.

**Existing Construction** – Any construction related activity, for which the “start of construction”, commenced before the effective date of these regulations.

**Fill Area** – Consists of placing of approved materials in an area to create an embankment for a roadway, building structure, etc., which in turn raises the elevation of the existing area.

**Finished Grade** – The final slope or elevation of the ground surface, after cutting or filling.

**Flood or Flooding** – Water from a river, stream, watercourse, lake, or other body of standing water that temporarily overflows and inundates adjacent lands, not ordinarily covered by water, and which may affect other lands and activities through increased surface water levels and/or increased groundwater level.

**Flood Frequency** – The statistically determined average for how often a specific flood level or discharge may be equated or exceeded.

**Flood Insurance Rate Map (FIRM)** – An official map of the City of Springfield, on which the Federal Emergency Management Agency has delineated both the areas of special flood hazard and the risk premium zones applicable to the City.

**Flood Insurance Study** – The official report provided by the Federal Emergency Management Agency. The report contains elevations of the base flood, floodway widths, flood velocities, and flood profiles.

**Floodplain** – The relatively flat or lowland area adjoining a river, stream, watercourse, lake or other body of standing water which has been or may be covered temporarily by floodwater. For purposes of this ordinance, the floodplain is defined as the 100-year floodplain having a one percent chance of being equated or exceeded in any given year.

**Floodproofing** – A combination of structural provisions, changes, or adjustments to properties and structures, subject to flooding, primarily for the reduction or elimination of flood damages to properties, water and sanitary facilities, structures, and contents of buildings in a flood hazard area.

**Floodway** – That portion of the stream channel and adjacent floodplain required for the passage or conveyance of a 100-year peak flood discharge. The floodway boundaries are placed to limit encroachment in the floodplain so that a 100-year peak flood discharge can be conveyed through the floodplain without materially increasing (less than one foot) the water surface elevation at any point and without producing hazardous velocities or conditions. This is an area of significant depth and velocity and due consideration should be given to effects of fill, loss of cross sectional flow area, and resulting increased water surface elevations.

**Floodway Fringe** – That portion of the floodplain lying outside the floodway boundaries.

**Floor** – The top surface of an enclosed area in a building (including basement), i.e., top of slab in concrete slab construction or top of wood flooring in wood frame construction. The term does not include the floor of a garage used solely for parking vehicles.



**Functionally Dependent Facility** – A facility that cannot be used for its intended purpose unless it is located or carried out in proximity to water, such as a docking or port facility necessary for the loading and unloading of cargo or passengers, shipbuilding, or ship repair. The term does not include long-term storage, manufacture, sales, or service facilities.

**Grading (land disturbance)** – Any operation or occurrence by which the existing site elevations are changed; or where any ground cover, natural, or man-made, is removed; or any watercourse or body of water, either natural or man-made, is relocated on any site, thereby creating an unprotected area (soil particles directly exposed to precipitation and storm water runoff). This includes stripping, cutting, filling, stockpiling, or any combination thereof, and shall apply to the land in its cut or filled condition. Grading activities may only be performed with a Land Disturbance Permit.

**Greenway Easement** – Property that has been designated for use by the City in support of greenway activities. This may include, but does not require, the use of trails or walkways to provide access to the general public. A greenway that is not defined with an easement may have restricted access (i.e. – Not accessible to the general public).

**High Quality Waters** – High quality waters are surface waters of the State of Tennessee that are identified by the Tennessee Department of Environment and Conservation as high quality waters. Characteristics of high quality waters are that they generally provide habitat for ecologically significant populations of certain aquatic or semi-aquatic plants or animals; waters that provide specialized recreational opportunities; waters that possess outstanding scenic or geological values; or waters where existing conditions are better than water quality standards.

**Highest Adjacent Grade** – The highest natural elevation of the ground surface, prior to construction, next to the proposed walls of a structure.

**Historic Structure Designation** – Any structure that is: listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register; certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historical district or a district preliminarily determined by the Secretary to qualify as a registered historic district; or listed individually on a state or local inventory of historic places which have been approved by the Secretary of the Interior.

**Hot Spot (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.

***Illicit (illegal) Connection*** – An unauthorized connection to the municipal separate storm sewer system whether or not such connection results in discharges into the system.

***Illicit Discharge*** – Any discharge to the municipal separate storm sewer system that is not entirely composed of storm water and not specifically exempted under Section 9.4.

***Impervious Surface*** – A term applied to any ground or structural surface that water cannot penetrate or through which water penetrates with great difficulty.

***Land Development Plan*** – An element of the general plan, which sets out a plan, or scheme of future land usage.

***Land Surveyor*** – A land surveyor certified and registered by the State Board of Land Surveying Examiners pursuant to Tennessee Code Annotated, to practice in Tennessee.

***Landscape Architect*** – A landscape architect duly registered, licensed or otherwise authorized by the State of Tennessee to practice in the field of landscape architecture.

***Land Surveyor*** – A land surveyor duly registered, licensed or otherwise authorized by the State of Tennessee to practice in the field of land surveying.

***Lowest Floor*** – The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or storage and in an area other than the basement area, is not considered a building's lowest floor, provided that such an enclosure is not built so as to render the structure in violation of the elevation design requirements of these regulations.

***Maintenance*** – Any activity necessary to keep a storm water management facility in good working order so it will function as designed. Maintenance shall include complete reconstruction of a storm water management facility if reconstruction is required in order to restore the facility to its original operational design parameters. Maintenance shall also include the correction of any problem on the site, where the storm water management facility is located, that directly impair the functions of the storm water management facility.

***Maintenance Agreement*** – A document recorded in the land records that acts as a property deed restriction, and which provides for access to the site for inspection by City staff and which provides for long-term maintenance of the storm water management facilities.

**Master Plan** – Any study or plan prepared by or accepted by the City of Springfield that identifies solutions to water quantity or quality issues. Also known as Basin Study or Plan, Flood Management Study or Plan, or Water Quality Management Study or Plan.

**Municipal Separate Storm Sewer System (MS4)** – The municipal separate storm sewer system, is the portion of public infrastructure that is not considered “Waters of the State”. Usually MS4 refers to dry-weather conveyances while “Waters of the State” are typically wet-weather conveyances. This determination is made by the Tennessee Department of Environment and Conservation.

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

**Natural Ground Surface** – The ground surface in its original state before any grading, excavating, or filling. See existing grade.

**New Construction** – Structures for which the “start of construction” commenced on or after the effective date of these regulations. The term also includes any subsequent improvements to such structures.

**NPDES MS4 Phase II Program** – National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) program is the Environmental Protection Agency storm water program that focuses on smaller communities such as Springfield, Tennessee.

**NRCS** – The National Resources Conservation Service was formally known as the Soil Conservation Service (SCS).

**One Hundred-Year Flood** – A flood that has an average frequency of occurrence of once in one hundred (100) years, determined from an analysis of floods for a particular watershed and other watersheds in the same general region. Statistically, it has a one percent chance of occurring in any given year. See “Base Flood” and “100-year flood event”.

**Owner** – Any person, group of persons, firm or firms, corporation or corporations, or any other legal entity having legal title to or sufficient proprietary interest in the real property.

**Permanent Easement** – An easement providing legal access from one or more lots to existing public highways, streets, thoroughfares, utilities or drainage facilities. Maintenance of such permanent easements shall not be the responsibility of the City or County.

**Performance Bond** – See bond.

**Permittee** – Any person, firm, or any other legal entity to whom a land disturbance, grading, building or other related permit is issued in accordance with City of Springfield regulations.

**Planning Commission** – A public planning body established pursuant to title 13, Chapters 3 or 4, Tennessee Code Annotated, to execute a partial or full planning program within authorized area limits.

**Planning Region** – For the purpose of this ordinance, the area composed of territory of the Springfield, Tennessee municipality together with the designated Springfield Planning region granted to the City by the State of Tennessee under Section 13-3-102 of Tennessee Code Annotated.

**Priority Area** – An area where land use or activities generate/may generate highly contaminated storm water runoff, with concentrations of pollutants in excess of those typically found in storm water. Priority areas also refer to areas that discharge to streams that do not meet their designated use such as 303(d) streams or that discharge to “high quality waters”.

**Public Improvement** – Any drainage ditch, roadway, sidewalk, pedestrian way, tree, lawn, off street parking area, lot improvement, storm water facility, or other facility for which the governing body may ultimately assume the responsibility for maintenance and operation, or which may affect an improvement for which the governing body’s responsibility is established.

**PUD** – Planned unit development.

**Redevelopment** – Development improvements that have a value less than 50% of the current assessed value and/or increases the floor area by less than 25%. Demolition and reconstruction is considered development and not redevelopment. Note: this is different than significant redevelopment.

**Regional Storm Water Management Facility** – A device or management practice, typically but not always a detention or retention pond. The facility may serve multiple homogenous land use areas or an area of various land uses.

**Resubdivision** – A change in a map of any approved or recorded subdivision plat altering the number of lots incorporated within the confined of the original plat.

**Retention** – The prevention of storm water runoff from directly discharging into receiving waters. Examples include systems which discharge through percolation, exfiltration, filtered bleed-down and evaporation processes.

**Right-of-Way** – A strip of land occupied or intended to be occupied by a public way, crosswalk, railroad, electric transmission line, oil or gas pipeline, water

main, sanitary or storm sewer line, or for another special use. The usage of the term “right-of-way,” for land platting purposes, shall mean that every right-of-way hereafter established and shown on a final plat is to be separate and distinct from the lots or parcels adjoining such right-of-way and shall not be included within the dimensions or areas of such lots or parcels.

**SCS** – Soil Conservation Service (see NRCS)

**Sediment** – Solid material, both mineral and organic, that is in suspension, being transported, or has been moved from its site of origin by air, water, or gravity as a product of erosion.

**Sediment Control** – Practices implemented to manage through filtering, settling or other mechanism(s) to remove suspended particles (soil, organic or mineral) from water, often associated with erosion prevention and sedimentation control.

**Significant Redevelopment** – Development improvements that have a value greater than 50% of the current assessed value, increases the floor area 25% or more, any change in the impervious surface area, redirects the flow of storm water runoff in any way, modifies the storm sewer system, or changes storm water characteristics. Demolition and reconstruction is considered development and not redevelopment. Note: this is different than redevelopment.

**Site** – All contiguous land and bodies of water in one ownership, graded or proposed for grading or development as a unit, although not necessarily at one time.

**Slope** – Degree of deviation of a surface from the horizontal, usually expressed in percent or ratio.

**Soil** – All unconsolidated mineral and organic material of any origin that overlies bedrock and that can be readily excavated.

**Soil Engineer** – A professional engineer, who is qualified, licensed and/or registered by the appropriate authority to practice applied soil mechanics and foundation engineering.

**Start of Construction** – For purposes of erosion and sediment control any alteration of the original surface area of the land, from and after the date and adoption of this ordinance.

**Storm Water** – Storm water runoff, snowmelt runoff, surface runoff, and drainage.

**Storm Water Pollution Prevention Plan (SWPPP)** – A storm water pollution prevention plan is a written site specific plan to eliminate or reduce and control

the pollution of storm water through designated facilities, sedimentation ponds, natural or constructed wetlands, and best management practices.

**Storm Water Director** – Currently defined as the City of Springfield, Tennessee Director of Public Works.

**Storm Water Management Facilities** – Facilities that include drainage structures, conduits, ditches, combined sewers, sewers, and all device appurtances by means of which storm water is collected, transported, pumped, treated or disposed of.

**Stripping** – Any activity that removes or significantly disturbs the vegetative surface cover, including clearing and grubbing operations.

**Structure** – Anything constructed or erected, the use of which requires a more or less permanent location on or in the ground. Such construction includes, but is not limited to, objects such as buildings, towers, smokestacks, overhead transmission lines, carports, and walls.

**Subdivision** – Subdivision means the division of a tract or parcel of land into two (2) or more lots, sites, or other divisions requiring new street or utility construction, or any division of less than five (5) acres for the purpose, whether immediate or future, of sale or building development, and includes resubdivision and, when appropriate to the context, relates to the process of resubdividing or to the land or area subdivided. (See Sections 13-3-401 or 13-4-301, Tennessee Code Annotated).

**Substantial Damage** – Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damage condition would equal or exceed 50 percent of the market value of the structure before the damage.

**Substantial Improvement** – Any combination of repairs, reconstruction, alteration, or improvements to a structure, taking place during the life of a structure, in which the cumulative cost equals or exceeds 50 percent of the market value of the structure. The market value of the structure should be (1) the appraised value of the structure prior to the start of the initial repair or improvement, or (2) in the case of damage, the value of the structure prior to the damage occurring. For the purposes of this definition, “substantial improvement” is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

**Tract** – A portion of land with definite and ascertainable limits of boundaries.

**Water Quality** – Those characteristics of storm water runoff that relate to physical, chemical, biological, or radiological integrity of water.

**Water Quantity** – Water quantity means those characteristics of storm water runoff that relate to the rate and volume of storm water runoff.

**Waters of the State** – Any water body determined to be in the jurisdiction of the Tennessee Department of Environment and Conservation (TDEC). Waters of the State are separate and distinct from an MS4 and private infrastructure.

**Water Body** – A channel, natural depression, slough, gulch, stream, creek, pond, reservoir, or lake in which storm water runoff and floodwater flows either regularly or infrequently. This includes major drainage ways for carrying storm runoff.

**Watershed** – The area upstream of a specified point including all overland flow that directly or indirectly connects down-slope to the specified point. This is also referred to as drainage area.

**Waterway Buffer (Buffer)** – An area separating a waterway from building and/or structures. Typically, buffers are maintained in a “natural” or vegetative state providing environmental and aesthetic benefits.

**Wetland** – Those areas that are inundated or saturated by surface or ground water at a frequency or duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typical to life in saturated soil conditions. Wetlands generally include, but are not limited to, swamps, marshes, bogs and similar areas.

**Zoning Ordinance or Resolution** – A statute, legally adopted pursuant to Title 13, Chapter 7, Tennessee Code Annotated, for the purpose of regulating, by district, land development or use for a designated area.