# STORMWATER ORDINANCE

CITY OF CROSSVILLE, TENNESSEE

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#### STORMWATER ORDINANCE

An Ordinance adopting regulations pertaining to stormwater facilities.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CROSSVILLE, TENNESSEE AS FOLLOWS:

SECTION I. That Title 14, Chapter 8, be added to the Crossville Municipal Code as follows:

# TITLE 14 CHAPTER 8 STORMWATER

Section 1. General provisions.

- (1). <u>Purpose</u>. It is the purpose of this ordinance to:
  - (a) Protect, maintain, and enhance the environment of the City of Crossville,
    Tennessee and the public health, safety and the general welfare of the citizens of
    the city, by controlling discharges of pollutants to the city's municipal separate
    stormwater system and to maintain and improve the quality of the receiving waters
    into which the stormwater outfalls flow, including, without limitation, lakes, rivers,
    streams, ponds, wetlands, and groundwater of the city.
  - (b) Enable the City of Crossville, Tennessee to comply with the National Pollution Discharge Elimination System permit (NPDES) and applicable regulations, 40 CFR Section 122.26 for stormwater discharges.
  - (c) Allow the City of Crossville, Tennessee to exercise the powers granted in <u>Tennessee Code Annotated</u> Section 68-221-1105, which provides that, among other powers municipalities have with respect to stormwater facilities, is the power by ordinance or resolution to:
    - (1) Exercise general regulation over the planning, location, construction, and operation and maintenance of stormwater facilities in the municipality, whether or not owned and operated by the municipality;
    - (2) Adopt any rules and regulations deemed necessary to accomplish the purposes of this statute, including the adoption of a system of fees for services and permits;
    - (3) Establish standards to regulate the quantity of stormwater discharged and to regulate stormwater contaminants as may be necessary to protect water quality;
    - (4) Review and approve plans and plats for stormwater management in proposed subdivisions or commercial developments;
    - (5) Issue permits for stormwater discharges, or for the construction, alteration, extension, or repair of stormwater facilities;
    - (6) Suspend or revoke permits when it is determined that the permittee has violated any applicable ordinance, resolution, or condition of the permit;
    - (7) Regulate and prohibit discharges into stormwater facilities of sanitary, industrial, or commercial sewage or waters that have otherwise been contaminated; and

- (8) Expend funds to remediate or mitigate the detrimental effects of contaminated land or other sources of stormwater contamination, whether public or private.
- (2). <u>Administering entity</u>. The City of Crossville shall administer the provisions of this ordinance.

#### Section 2. 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) "As built plans" means drawings depicting conditions as they were constructed.
- (2) "Aquatic buffer" A strip of undisturbed native vegetation, either original or re-established, that borders streams, wetlands, and springs.
- (3) "Aquatic construction buffer" A strip of undisturbed native vegetation, either original or reestablished, that borders streams, wetlands, and springs that is maintained during construction and until the site is stabilized.
- (4) "Aquatic corridor" An area of land and water which is important to the integrity and quality of a stream, wetland, and spring. An aquatic corridor consists of the actual body of water and the adjacent aquatic buffer.
- (5) "Best management practices" or "BMPs" are physical, structural, and/or managerial practices that, when used singly or in combination, prevent or reduce pollution of water, that have been approved by the City of Crossville, and that have been incorporated by reference into this ordinance as if fully set out therein.

[NOTE: See Section 4(1)(a)(2) for recommended BMP manual.]

- (6) "Channel" means a natural or artificial watercourse with a definite bed and banks that conducts flowing water continuously or periodically.
- (7) "Contaminant" means any physical, chemical, biological, or radiological substance or matter in water.
- (8) "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.
- (9) "Development"" Any man-made change, involving construction or reconstruction, to improved or unimproved real estate, including but not limited to, buildings or other structures, mining, dredging, filling, grading, clearing, paving, excavation, drilling operations, or other land disturbances.
- "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.
- (11) "Easement" means an acquired privilege or right of use or enjoyment that a person, party, firm, corporation, municipality or other legal entity has in the land of another.
- (12) "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.

- (13) "Erosion and sediment control plan" means a written plan (including drawings or other graphic representations) that is designed to minimize the accelerated erosion and sediment runoff at a site during construction activities.
- "Floodway" The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.
- (15) "Floodplain" For a given flood event, that area of land temporarily covered by water which adjoins a watercourse.
- (16) "Hotspot" ("priority area") means an area where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater.
- (17) "Illicit connections" means illegal and/or unauthorized connections the municipal separate stormwater system whether or not such connections result in discharges into that system.
- (18) "Illicit discharge" means any discharge to the municipal separate storm sewer system that is not composed entirely of stormwater and not specifically exempted under Section 3(3).
- (19) "Impervious Area" Impermeable surfaces, such as pavement or rooftops, which prevent the percolation of water into the soil.
- "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.
- (21) "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.
- (22) "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.
- (23) "Municipal separate storm sewer system (MS4)" means the conveyances owned or operated by the municipality for the collection and transportation of stormwater, including the roads and streets and their drainage systems, catch basins, curbs, gutters, ditches, manmade channels, and storm drains.
- (24) "National Pollutant Discharge Elimination System permit" or "NPDES permit" means a permit issued pursuant to 33 U.S.C. 1342. A permit program that controls water pollution by regulating point sources that discharge pollutants into waters of the United States.
- (25) "Native Vegetation" Indigenous plants to The Cumberland Plateau.
- (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) "Peak flow" means the maximum instantaneous rate of flow of water at a particular point resulting from a storm event.

- (29) "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.
- (30) "Planting Plan" A re-vegetative plan approved by the City of Crossville
- (31) "Priority area" means "hot spot" as defined in Section 2(16)
- (32) "Runoff" means that portion of the precipitation on a drainage area that is discharged from the area into the MS4.
- (33) "Sediment" means solid material, both mineral 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 and disrupt the natural flow of the stream.
- "Soils Report" means a study of soils on a subject property with the primary purpose of characterizing and describing the soils. The soils report may be prepared using NRCS land use data.
- (36) "Stabilization" means providing adequate measures, vegetative and/or structural, that will prevent erosion from occurring.
- (37) "Stormwater" means stormwater runoff, snow melt runoff, surface runoff, street wash waters related to street cleaning or maintenance, infiltration and drainage.
- (38) "Stormwater management" means the programs to maintain quality and quantity of stormwater runoff to pre-development levels.
- (39) "Stormwater management facilities" means the drainage structures, conduits, ditches, combined sewers, sewers, retention basins, detention basins, rain gardens and all device appurtenances by means of which stormwater is collected, transported, pumped, treated, held or disposed of.
- (40) "Stormwater runoff" means flow on the surface of the ground, resulting from precipitation.
- "Stream" All perennial and/or intermittent stream waterways and wetlands as identified on a 7.5-minute USGS quadrangle map, or as determined by a federal or state agency or the City of Crossville.
- (42) "Structural BMP" means devices that are constructed to provide control of stormwater runoff.
- (43) "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.
- "TDEC 303(d) List" The list is a compilation of the streams and lakes in Tennessee that are "water quality limited" or are expected to exceed water quality standards in the next two years and need additional pollution controls. Water quality limited streams are those that have one or more properties that violate water quality standards. They are considered impaired by pollution and not fully meeting designated uses. Additionally, the 303(d) List prioritizes impacted streams for specialized studies called Total Maximum Daily

  Load (TMDL).

  <a href="http://www.state.tn.us/environment/wpc/publications/303d2006.pdf">http://www.state.tn.us/environment/wpc/publications/303d2006.pdf</a>
- (45) "Total Maximum Daily Load (TMDL)" MDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. The Clean Water Act, section 303, establishes water

- quality standards and TMDL programs. In the State of Tennessee, TMDLs are established by TDEC. <a href="http://tennessee.gov/environment/wpc/tmdl/">http://tennessee.gov/environment/wpc/tmdl/</a>
- (46) "Unapproved Species" Invasive species of plants, such as Kudzu, as designated by the City of Crossville.
- "Watercourse" means a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water.
- (48) "Watershed" means all the land area that contributes runoff to a particular point along a waterway.
- "Wetlands" An area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetland determination shall be made by the Army Corp of Engineers and/or the Tennessee Department of Environment and Conservation, and/or other qualified professionals.

# Section 3. Land disturbance permits.

(1). When required. Every person disturbing less than one (1) acre of land and not part of a larger development must obtain a land disturbance permit. Any land disturbance less than 400 square feet is exempt. The individual will be required to follow the policy on disturbances less than one (1) acre and not part of a larger common plan of development.

Every person disturbing more than one (1) acre of land or if the site is part of a larger common plan of development will be required to obtain a land disturbance permit from the City of Crossville. The individual will be required to follow the stormwater ordinance and the policy for disturbances greater than one (1) acre of land or if the site is part of a larger common plan of development.

- (2). <u>Building permit</u>. No building permit shall be issued until the applicant has obtained a land disturbance permit where the same is required by this ordinance.
- (3). Exemptions. The following activities are exempt from the permit requirement:
  - (a) Any emergency activity that is immediately necessary for the protection of life, property, or natural resources.
  - (b) Existing nursery and agricultural operations conducted as a permitted main or accessory use.
  - (c) Any logging or agricultural activity that is consistent with an approved farm conservation plan or a timber management plan prepared or approved by the USDA Natural Resources Conservation Service.
- (4). Application for a land disturbance permit.
  - (a) Each application shall include all of the information on the application as mandated by the City of Crossville.
  - (b) Each application shall be accompanied by:
    - (1) A copy of TDEC Notice of Intent (NOI) Section 4(3) with a TDEC tracking number.
    - (2) A Stormwater Pollution Prevention Plan (SWPPP) Section 4(2), providing for stormwater management during the land disturbing activity and after the activity has been completed.
    - (3) Each application for a land disturbance permit shall be accompanied by payment of land disturbance permit and other stormwater management fees, which shall be established by The City of Crossville.

# (5). Review and approval of application.

- (a) The City of Crossville will review each application for a land disturbance permit to determine its conformance with the provisions of this ordinance. Within 30 days after receiving an application, the City of Crossville shall provide one of the following responses in writing:
  - (1) Approval of the permit application;
  - (2) Approval of the permit application, subject to such reasonable conditions as may be necessary to secure substantially the objectives of this ordinance, and issue the permit subject to these conditions; or
  - (3) Denial of the permit application, indicating the reason(s) for the denial.
- (b) If the City of Crossville has granted conditional approval of the permit, the applicant shall submit a revised plan that conforms to the conditions established by the City of Crossville. However, the applicant shall be allowed to proceed with his land disturbing activity so long as it conforms to conditions established by the City of Crossville.
- (6). <u>Permit duration</u>. Every land disturbance permit shall expire and become null and void within one year of issuance. Extensions may be requested.
- (7). <u>Notice of construction</u>. The applicant must notify the City of Crossville in advance of the commencement of construction. Regular inspections of the stormwater management system construction may be conducted by the City of Crossville.

#### (8). <u>Performance bonds</u>.

- (a) The City of Crossville may, at its discretion, require the submittal of a performance security, performance bond, or Irrevocable Letter of Credit prior to issuance of a permit in order to ensure that the stormwater practices are installed by the permit holder as required by the approved stormwater management plan. The amount of the installation performance security or performance bond shall be the total estimated construction cost of the structural BMPs approved under the permit plus any reasonably foreseeable additional related costs, e.g., for damages or enforcement. [Or plus a certain percentage of the total estimated costs.] The performance security shall contain forfeiture provisions for failure to complete work specified in the stormwater management plan. The applicant shall provide an itemized construction cost estimate complete with unit prices which shall be subject to acceptance, amendment or rejection by the City of Crossville. Alternatively the City of Crossville shall have the right to calculate the cost of construction cost estimates.
- (b) The performance security, performance bond, or Irrevocable Letter of Credit shall be released at the discretion of the City of Crossville. The City of Crossville may make a final inspection of the structural BMP to ensure that it is in compliance with the approved plan and the provisions of this ordinance.
- (9) <u>Easement to property.</u> The City of Crossville has the right to ingress and egress on project site to inspect, enforce, and mitigate on the site.

#### Section 4. Stormwater system design and management standards.

#### (1) Stormwater design or BMP manual.

(a) Adoption. The municipality adopts as its stormwater design and best management practices (BMP) manual the following publications, which are incorporated by reference in this ordinance as is fully set out herein:

- (I) TDEC Sediment and Erosion Control Manual http://www.state.tn.us/environment/wpc/sed\_ero\_controlhan\_dbook/
- (2) Stormwater BMP Selection Guide Manual for Tennessee http://eerc.ra.utk.edu/divisions/wrrc/BMP/bmp.htm
- (3) Aquatic Construction Buffer Ordinance, Section (9)
- (4) TDEC Post Construction Manual
- (5) Water Resources Habitat Conservation Plan
- (2) Storm Water Pollution Prevention Plan requirements (SWPPP).

TDEC SWPPP - as required by Tennessee Department of Environment and Conservation

(3) Notice of Intent (NOI).

TDEC NOI -as required by Tennessee Department of Environment and Conservation

#### Section 5. Post Construction.

(1) As built plans. All applicants are required to submit as built plans for any permanent water quality structures located on-site after final construction is completed. The plan must show the final design specifications for all permanent water quality structures and must be sealed by a registered professional engineer licensed to practice in Tennessee. A final inspection by the City of Crossville is required before any performance security or performance bond will be released. The City of Crossville shall have the discretion to adopt provisions for apartial pro-rata release of the performance security or performance bond on the completion of various stages of development.

(2). Landscaping and stabilization requirements.

- Any area of land from which the natural vegetative cover has been either partially or wholly cleared by development activities shall be re-vegetated according to a schedule approved by the City of Crossville. The following criteria shall apply to re-vegetation efforts:
  - (1) 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 and permanently stabilize the affected areas.
  - (2) Replanting with native woody and herbaceous vegetation must be accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion and permanently stabilize the affected areas or until the plantings are established.
- (b) 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). <u>Inspection of stormwater management facilities</u>. Periodic inspections of facilities may be performed as provided for in Sections 5(4) and 7(3).
- (4). <u>Failure to meet or maintain design or maintenance standards</u>. If a responsible party fails or refuses to meet the design or maintenance standards required for stormwater facilities under this ordinance, the City of Crossville, 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 of Crossville shall notify in writing the party responsible for maintenance of the stormwater management facility and they shall be given a timeframe to repair the facility. In the event that corrective action is not undertaken within that time, the City of Crossville may take necessary corrective action. The cost of any action by the City of Crossville under this section shall be charged to the responsible party.

#### Section 6. Waivers.

- (1). <u>General</u>. Every applicant shall provide for post construction stormwater management as required by this ordinance, unless a written request is filed to waive this requirement. Requests to waive the stormwater management plan requirements shall be submitted to the City of Crossville for approval.
- (2). <u>Conditions for waiver</u>. The minimum requirements for stormwater management may be waived in whole or in part upon written request of the applicant, provided that at least one of the following conditions applies:
  - (a) It can be demonstrated that the proposed development is not likely to impair attainment of the objectives of this ordinance.
  - (b) Alternative minimum requirements for on-site management of stormwater discharges have been established in a stormwater management plan that has been approved by the City of Crossville.
  - (c) Provisions are made to manage stormwater by an off-site facility. The off-site facility must be in place and designed to provide the level of stormwater control that is equal to or greater than that which would be afforded by on-site practices. Further, the facility must be operated and maintained by an entity that is legally obligated to continue the operation and maintenance of the facility.
- (3). <u>Downstream damage, etc. prohibited</u>. In order to receive a waiver, the applicant must demonstrate to the satisfaction of the City of Crossville that the waiver will not lead to any of the following conditions downstream:
  - (a) Deterioration of existing culverts, bridges, dams, and other structures;
  - (b) Degradation of biological functions or habitat;
  - (c) Accelerated streambank or streambed erosion or siltation;
  - (d) Increased threat of flood damage to public health, life or property.
- (4). <u>Land disturbance permit not to be issued where waiver requested</u>. No land disturbance permit shall be issued where a waiver has been requested until the waiver is granted. If no waiver is granted, the plans must be submitted.

#### Section 7. Existing locations and developments.

- (1). Requirements for all existing locations and 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 the BMP manual and on a schedule acceptable to the City of Crossville.
  - (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 be controlled to the extent reasonable to prevent pollution of local waters
- (2). Requirements for existing problem locations. The City of Crossville shall in writing notify the owners of existing locations and developments of specific drainage, erosion or sediment problem affecting such locations and developments, and may recommend action to correct those problems. The notice shall also specify a reasonable time for compliance.
- (3).Inspection of existing facilities. The City of Crossville may, to the extent authorized by state and federal law, establish inspection programs to verify that all stormwater management facilities, including those built before as well as after the adoption of this ordinance, are functioning within design limits. These inspection programs may be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type which are more likely than the typical discharge to cause violations of the municipality'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 BMPs.
- (4). <u>Corrections of problems subject to appeal</u>. Corrective measures imposed by the stormwater utility under this section are subject to appeal under Section 12 of this ordinance.

## Section 8. Illicit discharges.

- (1). <u>Scope</u>. This section shall apply to all water generated on developed or undeveloped land entering the municipality's separate storm sewer system.
- (2). <u>Prohibition of illicit discharges</u>. 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. 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:
    - (1) Water line flushing or other potable water sources,
    - (2) Landscape irrigation or lawn watering with potable water,
    - (3) Diverted stream flows,
    - (4) Rising ground water,
    - (5) Groundwater infiltration to storm drains,
    - (6) Pumped groundwater,
    - (7) Foundation or footing drains,
    - (8) Crawl space pumps,
    - (9) Air conditioning condensation,
    - (10) Springs,
    - (11) Non-commercial washing of vehicles,
    - (12) Natural riparian habitat or wet-land flows,
    - (13) Swimming pools (if dechlorinated typically less than one PPM chlorine),
    - (14) Fire fighting activities, and
    - (15) Any other uncontaminated water source.

- (b) Discharges specified in writing by the City of Crossville as being necessary to protect public health and safety.
- (c) Dye testing is an allowable discharge if the City of Crossville has so specified in writing.

### (3). <u>Prohibition of illicit connections</u>.

- (a) The construction, use, maintenance or continued existence of illicit connections to the separate municipal storm sewer system is prohibited.
- (b) This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
- (4). Reduction of 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 compliance with the provisions of this section.
- (5). Notification of spills. Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting in, or may result in, illicit discharges or pollutants discharging into 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 of Crossville no later than the next business day.

# Section 9. Aquatic Construction Buffer

- (1). Objective. It is the objective of this ordinance to protect the physical and ecological integrity of waterways from surrounding upland activities. Aquatic buffers protect such integrity in the following ways:
  - (a) Filtering excess amounts of sediment, organic material, nutrients, and other chemicals;
  - (b) Providing flood protection;
  - (c) Reducing storm water runoff velocities;
  - (d) Protecting channel bank areas from scour and erosion;
  - (e) Providing shade for cooling adjacent water, which allows waters to hold a great level of dissolved oxygen; and
  - (f) Providing leaf litter and large woody debris important to aquatic organisms.

Aquatic buffers are most effective when storm water runoff is flowing into and through the buffer as shallow sheet flow, rather than in a concentrated form. Therefore, it is critical that the design of any development include best management practices, to the maximum extent practical, that will result in storm water runoff flowing into and through the aquatic buffer as shallow sheet flow.

(2). <u>Applicability.</u> This ordinance shall apply to all new developments, modifications to existing developments, and/or redevelopments within the City of Crossville, Tennessee except for the following:

Development, modifications to existing development, and/or redevelopment which prior to the effective date of this ordinance:

- (1) Is covered by a valid, unexpired site plan which has been issued a land disturbance permit; or
- (2) Is covered by a valid, unexpired building permit
- (3). Width requirements for aquatic construction buffers. The aquatic buffer widths shall be calculated as follows:
  - (a) Aquatic construction buffer zone requirements for discharges into impaired or high quality 303d listed streams must follow the Tennessee General Construction Permit requirement for these streams. (Refer to State of Tennessee NPDES Permit Section 4.4.2.)

http://www.state.tn.us/environment/wpc/stormh2o/

- (b) The width of Aquatic Construction Buffer Zone for a stream should be an average of 25 feet from the disturbed area to the stream bank.
- (c) The aquatic construction buffer adjacent to delineated wetlands and springs shall extend an average of twenty-five (25) feet perpendicular beyond the edges of the delineated wetlands and springs.
- (4). <u>Design standards for aquatic construction buffers.</u>
  - (a) The aquatic construction buffer area is a mature strip of undisturbed native vegetation (either original or re-established) that can provide erosion control to the stream during construction.

If an aquatic construction buffer area must be removed during construction then an appropriate width aquatic buffer must be replaced. A planting plan shall be required. Such a planting plan shall be submitted to the City of Crossville for approval and will comply with the following:

- (1) All planting plans shall be drawn at a scale of not less than 1'' = 20' for small tracts and 1'' = 50' for large tracts on  $24'' \times 36''$  sheets;
- (2) A minimum of two (2) complete sets of planting plans shall be submitted at the time of application. Also, one (1) reduced copy of a complete planting plan on a sheet(s) no larger than 11" x 17" shall also be submitted.
- (3) The planting plan shall include a "plant schedule" which lists the number and common and botanical name(s) of all existing and proposed plantings. The "plant schedule" shall also list the height, spread, and where applicable, the caliper of all new plantings at the time of planting.
- (b) Establishment of a aquatic construction buffer must adhere to the following conditions and be shown on the planting plan:
  - (1) Stream banks must be planted with native vegetation that represents both woody (trees and shrubs) and herbaceous species appropriate to the site. Density shall depend on the re-vegetation technique to be used and existing site conditions;
  - (2) No trees shall be planted in a utility district easement;
  - (3) No species may comprise more than one third (1/3) of the total planted trees or shrubs;
  - (4) Seedlings/trees must be guaranteed at a seventy-five percent (75%) survivorship; and
  - (5) Invasive species must be removed.

# (5). Management and maintenance of aquatic construction buffers.

- (a) Management of the aquatic construction buffer during construction includes specific limitations on alteration of the natural conditions. The following practices and activities are restricted within the aquatic construction buffer, except with prior approval by the City of Crossville:
  - (1) Clearing or grubbing of existing vegetation; and
  - (2) Use, storage, or application of pesticides, herbicides, and fertilizers.
- (b) The following structures, practices, and activities are permitted in the aquatic construction buffer subject to the prior approval by the City of Crossville and the following specific design or maintenance features:
  - (1) Crossings (Road and Utilities), provided the following criteria are followed:
    - (i) Aquatic Resource Alteration Permit must be obtained from Tennessee Department of Environment and Conservation if a stream crossing is necessary.
    - (ii) The width of the crossing should be minimum width and as perpendicular to the stream as possible.
  - (2) Paths and Greenways, provided the design and location are approved by the City of Crossville.
  - (3) Individual trees within the aquatic construction buffer may be removed if in danger of falling, causing damage to dwellings or other structures, causing blockage of the stream, standing in the path of a proposed water or sewer main, or the roots of the tree are penetrating or in danger of penetrating a sewer line at a joint or pipe connection. The root wad or stump should be left in place, where feasible, to maintain soil stability.
  - (4) Removal of invasive species and replacement with approved native species.
- (c) Aquatic construction buffers shall count toward open space reservation requirements.
- (d) Aquatic construction buffers shall be left in a stabilized condition upon completion of the development and construction. The vegetative condition of the entire aquatic construction buffer must be monitored and landscaping or stabilization performed to repair erosion, damaged vegetation, or other problems identified. Only native vegetation may be used in conjunction with stabilization activities.

Subsequent permits, such as grading, and building, may be withheld if, after written notification, required landscaping or landscaping to be preserved is not properly maintained.

All landscaping or stabilization activities within the aquatic construction buffer must have prior approval by the City of Crossville. In addition, performing work in and around waters of the state may require coverage under a state and possibly a federal permit.

- (6). <u>Water pollution hazards.</u> The following land uses and/or activities are designated as potential water pollution hazards. Adequate containment systems to prevent runoff must be set up and these materials must be set back from any water body by the distance indicated below:
  - (a) Storage of hazardous substances one hundred fifty (150) feet;
  - (b) Above or below ground petroleum storage facilities one hundred fifty (150) feet;
  - (c) Land application of biosolids one hundred (100) feet, or a distance as required by 40CFR 503, whichever is greater.

(7). <u>Conflict with other regulations.</u> Where the standards and management requirements of this aquatic construction buffer ordinance are in conflict with other laws, regulations, or ordinances regarding streams, steep slopes, credible soils, wetlands, floodplains, timber harvesting, land disturbance activities, Water Resource Habitat Conservation Plan, City of Crossville Aquatic Construction Buffer Map, or other environmental protective measures, the more restrictive requirements shall apply.

#### Section 10. Enforcement

(1). <u>Enforcement authority</u>. The City of Crossville shall have the authority to issue notices of violation and citations, and to impose the civil penalties provided in this section.

# (2). Notification of violation.

- (a) Written Notice. Whenever the City of Crossville 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 City of Crossville 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 director. 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.
- (b) <u>Consent Orders</u>. The City of Crossville 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.
- (c) Show Cause Hearing. The City of Crossville may order any person who violates this ordinance or permit or order issued thereunder, 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.
- (d) Compliance Order. When the director finds that any person has violated or continues to violate this ordinance or a permit or order issued thereunder, he may issue an order to the violator directing that, following a specific time period, adequate structures, devices, be installed 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.
- (e) <u>Cease and Desist Orders</u>. When the City of Crossville finds that any person has violated or continues to violate this ordinance or any permit or order issued hereunder, the director may issue an order to cease and desist all such violations and direct those persons in noncompliance to:
  - (1) Comply forthwith; or
  - (2) Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation, including halting operations and terminating the discharge.
- (3). <u>Conflicting standards</u>. Whenever there is a conflict between any standard contained in this ordinance and in the BMP manual adopted by the municipality under this ordinance, the strictest standard shall prevail.

#### Section 11. Penalties.

- (1). <u>Violations</u>. Any person who shall commit any act declared unlawful under this ordinance, who violates any provision of this ordinance, who violates the provisions of any permit issued pursuant to this ordinance, or who fails or refuses to comply with any lawful communication or notice to abate or take corrective action by the City of Crossville, shall be guilty of a civil offense.
- (2). Penalties. Under the authority provided in Tennessee Code Annotated Section 68-221-1106, the municipality declares that any person violating the provisions of this ordinance may be assessed a civil penalty by the City of Crossville 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). Recovery of damages and costs. In addition to the civil penalty in subsection (2) above, the municipality may recover:
  - (a) all damages proximately caused by the violator to the municipality, which may include any reasonable expenses incurred in investigating violations of, and enforcing compliance with, this ordinance, or any other actual damages caused by the violation.
  - (b) the costs of the municipality's maintenance of stormwater facilities when the user of such facilities fails to maintain them as required by this ordinance.
- (4). Other remedies. The municipality may bring legal action to enjoin the continuing violation of this ordinance, and the existence of any other remedy, at law or equity, shall be no defense to any such actions.
- (5). 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.

#### Section 12. Stormwater Board of Appeals

- (1). There is created a Board of Environmental Appeals to hear appeals filed by any person incurring a civil penalty or damage assessment imposed pursuant to Section 10 of these regulations.
- (2). The board may issue subpoenas requiring attendance of witnesses and production of such evidence as requested, administer oaths, and take testimony as the board deems necessary to fulfill its purpose.
- (3). The board shall be composed of five members appointed by the Crossville City Council.
- (4). The Crossville City Council shall select appointees so that the board will consist of individuals with an expertise as follows:
  - (a) One licensed professional engineer with civil engineering expertise.
  - (b) One Council Member.
  - (c) One representative of the development or industrial community.
  - (d) One neighborhood representative.
  - (e) One member at large.
- (5). Board members shall serve for a term of five (5) years. A board member shall continue to serve, however, until a successor has been appointed, or until the board member has been reappointed. The terms of the original board members shall be staggered so that the term of one member shall expire each year.
- (6). An appointment to succeed a board member who is unable to serve said member's full term shall be for the remainder of said member's term.
- (7). Board members may be reappointed, but they do not succeed themselves automatically.
- (8). Board members shall serve without compensation.

- (6) An appointment to succeed a board member who is unable to serve said member's full term shall be for the remainder of said member's term.
- (7) Board members may be reappointed, but they do not succeed themselves automatically.
- (8). Board members shall serve without compensation.
- (9). The board shall annually select one of its members to serve as chair and another member to serve as vice-chair of the board by a majority vote of all members.
- (10). The board shall keep complete and accurate records of the proceedings of all their meetings. The City of Crossville shall designate a person to serve as secretary to the board.
- (11) No board member shall participate in the appeal of any matter in which the member has direct personal or financial interest.
- (12). Three members of the board shall constitute a quorum, and the concurrence of a majority of the board present and voting in any matter shall be required for a determination of any matter within its jurisdiction.

# Section 13. Severability

If any provision of this ordinance or if any policy, or order thereunder of the application of such provision to any person or circumstances shall be held invalid, the remainder of this ordinance, and the application of such provision of this ordinance or of such policy, or order to persons or circumstances other than those to which it is held invalid, shall not be affected thereby.

SECTION II. That this ordinance shall take effect January 1, 2009, the public welfare requiring it.

Mayor

Councilman

Councilman

Councilman

ATTEST:

City Clerk

APPROVEDIAS TO FORM:

City Attorney

Passed 1\* Reading:

March 11, 2008

Passed 2<sup>nd</sup> Reading:

April 8, 2008

Passed 3rd Reading:

April 24, 2008