

Appendix A

Case References

Appendix A – Case References

Example Judicial Decisions Arising From Natural Water and Water Course Drainage Cases in Tennessee

Natural Water Courses

Obstruction and detention:

Cox v. Howell, 65 S.W. 868, 108 Tenn. 130, 58 L.R.A. 487 (Tenn.1901)

The owner of land, across or over which a stream of water flows, has a right to have it flow over his land in its natural channel, without unreasonable detention, undiminished in quantity, and unimpaired in quality, except so far as it inseparable from a reasonable use of the water of the stream for the ordinary and useful purposes of life by those above him on the stream.

Pollution:

Sumner v. O'Dell, 12 Tenn. App. 496 (Tenn.App. 1930)

Whether or not the pollution of the waters of a stream is an actual injury to a lower riparian proprietor depends upon whether it is the result of such reasonable use of the stream as the upper owner is entitled to make, or an unreasonable use in excess of his rights.

Surface Waters

Obstruction or repulsion of flow:

Zollinger v. Carter, 837 S.W. 2d 613, appeal denied (Tenn. App. 1992)

Wrongful interference with natural drainage of surface water which causes injury to adjoining landowner constitutes actionable nuisance.

Blackwell v. Butler, 582 S.W.2d 760 (Tenn. App. 1978)

Common enemy rule in regard to natural flow of drainage and obstruction of surface waters does not apply in Tennessee.

Woodlawn Memorial Park of Nashville, Inc. v. L & N Railroad Co., Inc., 377 F. Supp. 932 (D.C.Tenn. 1972)

Under law of Tennessee, all lands are of necessity burdened with servitude of receiving and discharging all waters which flow down to them from higher lands.

Rule that lands lying at a lower level are burdened with servitude of receiving all waters which naturally flow down to them from lands adjoining, and upon a higher level, has been adopted and applied in Tennessee, not only to living streams, springs, etc., but also to surface water, and waters falling as rain or snow upon such higher lands.

Under law of Tennessee, proprietor may protect his lands from injurious effects of surface water if, in thus relieving himself, he respects the rights of others.

Carland v. Aurin, 53 S.W. 940, 103 Tenn. 555, 48 L.R.A. 862, 76 Am.St.Rep. 699 (Tenn. 1899)

A landowner, whether in country or city, has an easement for drainage of surface water in its natural flow over the lower lands of a neighboring owner, and if the latter places an obstruction of any character upon his land that arrests this drainage, and thereby causes injury to the former, an action lies for the damages

Drainage or discharge:

William B. Shearron, et al, v. The Tucker Corporation, et al., appeal upheld (Tenn.App. 2000)

The plaintiff sued the developer of a subdivision adjacent to their property for digging a drainage ditch that caused frequent flooding. The defendant filed counterclaims, including an allegation that the plaintiffs and the previous owners of his property had conspired to breach the agreement to sell the property to the developer. The developer also argued that the city had taken steps to alleviate the flooding. The trial court found that the developer had created a permanent nuisance by changing the natural flow of water across his property, and dismissed the developer's counter claims. On appeal, the appellate court affirmed the trial court's finding of a nuisance, but concluded that the circumstances created both a temporary and a permanent nuisance, and remanded for recalculation of damages based on this holding. The Appellate Court noted in its opinion that, "It is well-settled that if a property owner changes the natural flow of water across his land in a manner that causes flooding on adjacent property, he is liable for creating a nuisance" (see, Zollinger v. Carter (Tenn. App. 1992)). The Appellate Court cited Bennett v. Cumberland Hardwoods, Inc., (Tenn. App. 1992), in upholding that both a temporary nuisance and a permanent nuisance were created by interference with the natural flow of water, resulting in flooding on the plaintiff's property. The trial court's dismissal of Defendant's breach of contract claims was upheld.

Miller v. City of Brentwood, 548 S. W.2d 878 (1976, abridged opinion, April 1, 1977).

Plaintiffs, property owners in a subdivision, sued the City of Brentwood, Tennessee, alleging that the city, by granting building permits for construction which reduced the absorption of rainfall into the earth, authorized and permitted an increase in the "runoff" of water. They alleged this overtaxed a drainage ditch passing by and/or through their properties, located in the lower portion of the subdivision, thereby causing flooding and damage to their property. The lower court held that the city had caused the increased flooding of plaintiffs' properties and thereby created an actionable nuisance, entitling plaintiffs to appropriate injunctive relief. On appeal the Court of Appeals of Tennessee, Middle Section, reversed the lower court's decree, vacated all relief granted, and dismissed the plaintiffs' suit. Excerpts from the opinion given by the Court of Appeals include:

Even if it be accepted that part of plaintiffs' troubles arise from construction authorized by the city, this does not establish plaintiffs' rights against the city.

The right of action, if any, for plaintiffs' injuries is directly against those who caused the problem, i.e., the owners of property which is producing the unnatural amount of surface water.

No right of action is recognized against a municipality for issuing a permit for construction in accordance with existing laws and regulations. Correspondingly, there is no authority for the Courts to enjoin the issuance of a permit, otherwise lawful, for the reason that its use might result in a private injury.

It is the conclusion of this Court that no right of action whatever exists against the city in the present circumstances.

Chrisman v. Hill Home Development, Inc., et al, appeal denied (Tenn. App. 1997)

While the respective role of each defendant was essentially admitted on drainage nuisance liability and design negligence, the appellate court held the statutes of repose and limitations applicable: [T]he statute of limitations for damages to real property is three (3) years from the accrual of the cause of action (T.C.A. ' 28-3-105. Allied with the delimiting period is one of repose, T.C.A. ' 28-3-202, which provides that all actions to

recover damages for engineering negligence must be brought within four years after the substantial completion of the project. Summary judgment was granted to plaintiffs.

Britton v. Claiborne County, 898 S.W.2d 220, rehearing denied, and appeal denied (Tenn. App. 1994)

Where property owners are damaged by runoff from drainage ditch as result of a private individual construction of property improvement, right of action for damaged property owners, if any, was directly against those who caused problem.

Winn v. Tucker Corp., 848 S.W.2d 64 (Tenn.App. 1992)

Contractors who built drainage ditch that diverted natural flow of water onto landowners' land could not escape liability for damage to land by alleging that city had approved plan for ditch and had later participated in remedial measures to correct problems.

Zollinger v. Carter, 837 S.W. 2d 613, appeal denied (Tenn.App. 1992)

If owner of higher lands alters natural condition of property so that surface waters collect and pour in concentrated form or in unnatural quantities upon lower lands, owner will be responsible for all damages caused thereby to possessor of lower lands.

An Act of God defense did not apply to absolve landowner of liability for flooding of adjacent residences due to change in surface water drainage caused by landowner's development; feature of landowner's construction work was an intervening cause to the heavy and unusual rainfall.

Brown v. City of Kingsport, 711 S.W.2d 607 (Tenn.App. 1986)

Upper riparian owners have a legal duty of care not to interfere with natural surface water runoff which would expose others to an unreasonable risk of harm.

Gregory v. Jenkins, 665 S.W.2d 397 (Tenn.App. 1983)

Dominant tenement may not channelize natural flow of water into small pathway so that it enters upon lands of servient tenement with unnatural destructive force.

Butts v. City of South Fulton, 565 S.W.2d 879 (Tenn.App. 1977)

Wrongful interference with natural drainage of surface water causing injury to adjoining landowner constitutes actionable nuisance.

Woodlawn Memorial Park of Nashville, Inc. v. L & N Railroad Co, Inc., 377 F.Supp. 932 (D.C.Tenn. 1972)

If proprietor of higher lands alters natural condition of his property, and collects surface and rainwater together at bottom of his estate and pours it in a concentrated form and in unnatural quantities upon land below, he will be responsible under law of Tennessee for all damage thereof caused to possessor of lower lands.

Kind v. Johnson City, 478 S.W.2d 63, 63 Tenn.App. 666 (Tenn.App. 1970)

Wrongful interference with natural drainage of surface water causing injury to adjoining landowner constitutes actionable nuisance.

Slatten v. Mitchell, 124 S.W.2d 310, 22 Tenn.App. 547, (Tenn.App. 1939)

The proprietor of higher land may not alter natural condition of his property so as to collect surface water at bottom of his estate and pour it in unnatural quantities on land below, but may protect his lands from injurious effects of surface water if in doing so he respects rights of others.

Louisville & N.R. C. v. Hays, 79 Tenn. 382, 11 Lea 382, 47 Am.Rep. 291 (Tenn. 1883)

All lands are of necessity burdened with the servitude of receiving and discharging all waters which flow down to them from lands on a higher level; the owner of the lower

land is liable when he, without grant or prescription, by artificial means, dams up the water and causes it to overflow the higher lands, and the owner of the higher lands, when he collects the water and pours it in a concentrated form or unnatural quantities upon the lower lands. This rule embraces rain and surface water as well as running streams.

Appendix B

Model Stormwater Ordinance

MODEL STORMWATER ORDINANCE

Prepared by:

John Chlarson, P.E.
Public Works and Engineering Consultant

And

Sidney D. Hemsley, J.D.
Senior Legal Consultant

Municipal Technical Advisory Service
The University of Tennessee

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MODEL STORMWATER ORDINANCE

Section 1. General provisions. (1). Purpose. It is the purpose of this ordinance to:

- (a) Protect, maintain, and enhance the environment of the City of _____ and the public health, safety and the general welfare of the citizens of the city, by controlling discharges of pollutants to the city's stormwater system 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 _____ to comply with the National Pollution Discharge Elimination System permit (NPDES) and applicable regulations, 40 CFR §122.26 for stormwater discharges.
- (c) Allow the City of _____ to exercise the powers granted in Tennessee Code Annotated §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). Administering entity. The _____ **(stormwater utility)** shall administer the provisions of this ordinance.

[NOTE: Many municipalities will not establish a stormwater utility to administer this ordinance.

The public works or other department of the municipality could be designated by the municipal governing body to perform such functions. In such cases the ordinance will need to be modified accordingly.]

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 actually constructed.
- (2) *"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 _____, and that have been incorporated by reference into this ordinance as if fully set out therein.

[NOTE: See § 5(1) for recommended BMP manual.]

- (3) *"Channel"* means a natural or artificial watercourse with a definite bed and banks that conducts flowing water continuously or periodically.
- (4) *"Community water"* means any and all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wetlands, wells and other bodies of surface or subsurface water, natural or artificial, lying within or forming a part of the boundaries of the City of _____.

- (5) “*Contaminant*” means any physical, chemical, biological, or radiological substance or matter in water.
- (6) “*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.
- (7) “*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.
- (8) “*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.
- (9) “*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 anthropogenic activities or effects.
- (10) “*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.
- (11) “*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.

- (12) “*Illicit connections*” means illegal and/or unauthorized connections to the municipal separate stormwater system whether or not such connections result in discharges into that system.
- (13) “*Illicit discharge*” means any discharge to the municipal separate storm sewer system that is not composed entirely of stormwater and not specifically exempted under §3(3).
- (14) “*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.
- (15) “*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.
- (16) “*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.
- (17) “*Municipal separate storm sewer system (MS4)*” (“*Municipal separate stormwater system*”) 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, man-made channels, and storm drains.

- (18) “*National Pollutant Discharge Elimination System permit*” or “*NPDES permit*” means a permit issued pursuant to 33 U.S.C. 1342.
- (19) “*Off-site facility*” means a structural BMP located outside the subject property boundary described in the permit application for land development activity.
- (20) “*On-site facility*” means a structural BMP located within the subject property boundary described in the permit application for land development activity.
- (21) “*Peak flow*” means the maximum instantaneous rate of flow of water at a particular point resulting from a storm event.
- (22) “*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.
- (23) “*Priority area*” means “hot spot” as defined in § 2(11).
- (24) “*Runoff*” means that portion of the precipitation on a drainage area that is discharged from the area into the municipal separate stormwater system.
- (25) “*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.

- (26) “*Sedimentation*” means soil particles suspended in stormwater that can settle in stream beds and disrupt the natural flow of the stream.
- (27) “*Soils Report*” means a study of soils on a subject property with the primary purpose of characterizing and describing the soils. The soils report shall be prepared by a qualified soils engineer, who shall be directly involved in the soil characterization either by performing the investigation or by directly supervising employees.
- (28) “*Stabilization*” means providing adequate measures, vegetative and/or structural, that will prevent erosion from occurring.
- (29) “*Stormwater*” means stormwater runoff, snow melt runoff, surface runoff, street wash waters related to street cleaning or maintenance, infiltration and drainage.
- (30) “*Stormwater management*” means the programs to maintain quality and quantity of stormwater runoff to pre-development levels.
- (31) “*Stormwater management facilities*” means the drainage structures, conduits, ditches, combined sewers, sewers, and all device appurtenances by means of which stormwater is collected, transported, pumped, treated or disposed of.
- (32) “*Stormwater management plan*” means the set of drawings and other documents that comprise all the information and specifications for the programs, drainagesystems, structures, BMPs, concepts and techniques intended to maintain or restore quality and quantity of stormwater runoff to pre-development levels.
- (33) “*Stormwater runoff*” means flow on the surface of the ground, resulting from precipitation.

- (34) “*Stormwater utility*” means the stormwater utility created by ordinance of the city to administer the stormwater management ordinance, and other stormwater rules and regulations adopted by the municipality.
- (35) “*Structural BMPs*” means devices that are constructed to provide control of stormwater runoff.
- (36) “*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.
- (37) “*Watercourse*” means a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water.
- (38) “*Watershed*” means all the land area that contributes runoff to a particular point along a waterway.

Section 3. Land disturbance permits. (1). When required.

- (a) Every person will be required to obtain a land disturbance permit from the _____ (**stormwater utility**) in the following cases:

- (1) Land disturbing activity disturbs one (1) or more acres of land;

[NOTE: Municipalities have the option of generally requiring land disturbance permits for activities of less than one (1) acre. However, the general one (1) acre requirement is consistent with the size of the land disturbance for which a TDEC permit is also required.]

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

- (3) Land disturbing activity of less than one (1) acre of land, if in the discretion of the _____ **(stormwater utility)** such activity poses a unique threat to water, or public health or safety;
 - (4) The creation and use of borrow pits.
- (2). Building permit. 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 _____ **(appropriate federal or state agency)**.
 - (d) Additions or modifications to existing single family structures.
- (4). Application for a land disturbance permit.
 - (a) Each application shall include the following:
 - (1) Name of applicant;
 - (2) Business or residence address of applicant;
 - (3) Name, address and telephone number of the owner of the property of record in the office of the assessor of property;

- (4) Address and legal description of subject property including the tax reference number and parcel number of the subject property;
 - (5) Name, address and telephone number of the contractor and any subcontractor(s) who shall perform the land disturbing activity and who shall implement the erosion and sediment control plan;
 - (6) A statement indicating the nature, extent and purpose of the land disturbing activity including the size of the area for which the permit shall be applicable and a schedule for the starting and completion dates of the land disturbing activity.
 - (7) Where the property includes a sinkhole, the applicant shall obtain from the Tennessee Department of Environment and Conservation appropriate permits.
 - (8) The applicant shall obtain from any other state or federal agency any other appropriate environmental permits that pertain to the property. However, the inclusion of those permits in the application shall not foreclose the _____
(stormwater utility) from imposing additional development requirements and conditions, commensurate with this ordinance, on the development of property covered by those permits.
- (b) Each application shall be accompanied by: (1) a sediment and erosion control plan as described in §5(5).

- (2) A stormwater management plan as described in §5(4), 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 set by resolution or ordinance.
- (5). Review and approval of application.
 - (a) The _____ (**stormwater utility**) will review each application for a land disturbance permit to determine its conformance with the provisions of this ordinance. Within ____ days after receiving an application, the _____ (**stormwater utility**) 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 _____ (**stormwater utility**) has granted conditional approval of the permit, the applicant shall submit a revised plan that conforms to

the conditions established by the _____ (**stormwater utility**).

However, the applicant shall be allowed to proceed with his land disturbing activity so long as it conforms to conditions established by the

_____ (**stormwater utility**).

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

(6). Permit duration.

Every land disturbance permit shall expire and become null and void if substantial work authorized by such permit has not commenced within one hundred eighty (180) calendar days of issuance, or is not complete within eighteen (18) months from the date of the commencement of construction.

(7). Notice of construction.

The applicant must notify the _____ (**stormwater utility**) ten (10) working days in advance of the commencement of construction. Regular inspections of the stormwater management system construction shall be conducted by the _____ (**stormwater utility**). All inspections shall be documented and written reports prepared that contain the following information:

- (1) The date and location of the inspection;
- (2) Whether construction is in compliance with the approved stormwater management plan;
- (3) Variations from the approved construction specifications;
- (4) Any violations that exist.

(8). Performance bonds.

- (a) The _____ (**stormwater utility**) may, at its discretion, require the submittal of a performance security or performance bond 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 _____ (**stormwater utility**). Alternatively the _____ (**stormwater utility**) shall have the right to calculate the cost of construction cost estimates.
- (b) The performance security or performance bond shall be released in full only upon submission of as-built plans and written certification by a registered professional engineer licensed to practice in Tennessee that the structural BMP has been installed in accordance with the approved plan and other applicable provisions of this ordinance. The _____ (**stormwater utility**) will make a final inspection of the structural BMP to ensure that it is in compliance with the

approved plan and the provisions of this ordinance. Provisions for a partial pro-rata release of the performance security or performance bond based on the completion of various development stages can be made at the discretion of the _____ **(stormwater utility)**.

Section 4. Waivers. (1). General. Every applicant shall provide for 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 _____ **(stormwater utility)** for approval.

(2). Conditions for waiver. 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 _____ **(stormwater utility)**.
- (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). Downstream damage, etc. prohibited. In order to receive a waiver, the applicant must demonstrate to the satisfaction of the _____ **(stormwater utility)** 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). Land disturbance permit not to be issued where waiver requested. No land disturbance permit shall be issued where a waiver has been requested until the waiver is granted. If no waiver is granted, the plans must be resubmitted with a stormwater management plan.

Section 5. 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:

- (1) TDEC Sediment and Erosion Control Manual
- (2) TDEC Manual for Post Construction

[NOTE: The municipality has great latitude with respect to the BMP manuals that it wishes to adopt. The above manuals are recommended but are not mandatory.]

- (b) This manual includes a list of acceptable BMPs including the specific design performance criteria and operation and maintenance requirements for each stormwater practice. The manual may be updated and expanded from time to time, at the discretion of the governing body of the municipality, upon the

recommendation of the _____ (**stormwater utility**), based on improvements in engineering, science, monitory and local maintenance experience. Stormwater facilities that are designed, constructed and maintained in accordance with these BMP criteria will be presumed to meet the minimum water quality performance standards.

- (2). General performance criteria for stormwater management. Unless granted a waiver or judged by the _____ (**stormwater utility**) to be exempt, the following performance criteria shall be addressed for stormwater management at all sites:
- (a) All site designs shall control the peak flow rates of stormwater discharge associated with design storms specified in this ordinance or in the BMP manual and reduce the generation of post construction stormwater runoff to pre-construction levels. These practices should seek to utilize pervious areas for stormwater treatment and to infiltrate stormwater runoff from driveways, sidewalks, rooftops, parking lots, and landscaped areas to the maximum extent practical to provide treatment for both water quality and quantity.
 - (b) To protect stream channels from degradation, specific channel protection criteria shall be provided as prescribed in the BMP manual.
 - (c) Stormwater discharges to critical areas with sensitive resources (i.e., cold water fisheries, shellfish beds, swimming beaches, recharge areas, water supply reservoirs) may be subject to additional performance criteria, or may need to utilize or restrict certain stormwater management practices.

- (d) Stormwater discharges from “hot spots” may require the application of specific structural BMPs and pollution prevention practices.
 - (e) Prior to or during the site design process, applicants for land disturbance permits shall consult with the _____ (**stormwater utility**) to determine if they are subject to additional stormwater design requirements.
 - (f) The calculations for determining peak flows as found in the BMP manual shall be used for sizing all stormwater facilities.
- (3). Minimum control requirements.
- (a) Stormwater designs shall meet the multi-stage storm frequency storage requirements as identified in the BMP manual unless the _____ (**stormwater utility**) has granted the applicant a full or partial waiver for a particular BMP under § 4.
 - (b) If hydrologic or topographic conditions warrant greater control than that provided by the minimum control requirements, the _____ (**stormwater utility**) may impose any and all additional requirements deemed necessary to control the volume, timing, and rate of runoff.
- (4). Stormwater management plan requirements. The stormwater management plan shall include sufficient information to allow the _____ (**stormwater utility**) to evaluate the environmental characteristics of the project site, the potential impacts of all proposed development of the site, both present and future, on the water resources, and the effectiveness and acceptability of the measures proposed for managing stormwater

generated at the project site. To accomplish this goal the stormwater management plan shall include the following:

- (a) Topographic Base Map: A 1" = _____ topographic base map of the site which extends a minimum of ____ feet beyond the limits of the proposed development and indicates:
 - (1) Existing surface water drainage including streams, ponds, culverts, ditches, sink holes, wetlands; and the type, size, elevation, etc., of nearest upstream and downstream drainage structures;
 - (2) Current land use including all existing structures, locations of utilities, roads, and easements;
 - (3) All other existing significant natural and artificial features;
 - (4) Proposed land use with tabulation of the percentage of surface area to be adapted to various uses; drainage patterns; locations of utilities, roads and easements; the limits of clearing and grading;
 - (5) Proposed structural BMPs;
 - (6) A written description of the site plan and justification of proposed changes in natural conditions may also be required.
- (b) Calculations: Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in the BMP manual. These calculations must show that the proposed stormwater management measures are capable of controlling runoff from the site in

compliance with this ordinance and the guidelines of the BMP manual. Such calculations shall include:

- (1) A description of the design storm frequency, duration, and intensity where applicable;
 - (2) Time of concentration;
 - (3) Soil curve numbers or runoff coefficients including assumed soil moisture conditions;
 - (4) Peak runoff rates and total runoff volumes for each watershed area;
 - (5) Infiltration rates, where applicable;
 - (6) Culvert, stormwater sewer, ditch and/or other stormwater conveyance capacities;
 - (7) Flow velocities;
 - (8) Data on the increase in rate and volume of runoff for the design storms referenced in the BMP manual; and
 - (9) Documentation of sources for all computation methods and field test results.
- (c) Soils Information: If a stormwater management control measure depends on the hydrologic properties of soils (e.g., infiltration basins), then a soils report shall be submitted. The soils report shall be based on on-site boring logs or soil pit profiles and soil survey reports. The number and location of required soil borings or soil

pits shall be determined based on what is needed to determine the suitability and distribution of soil types present at the location of the control measure.

- (d) **Maintenance and Repair Plan:** The design and planning of all stormwater management facilities shall include detailed maintenance and repair procedures to ensure their continued performance. These plans will identify the parts or components of a stormwater management facility that need to be maintained and the equipment and skills or training necessary. Provisions for the periodic review and evaluation of the effectiveness of the maintenance program and the need for revisions or additional maintenance procedures shall be included in the plan. A permanent elevation benchmark shall be identified in the plans to assist in the periodic inspection of the facility.
- (e) **Landscaping Plan:** The applicant must present a detailed plan for management of vegetation at the site after construction is finished, including who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved. Where it is required by the BMP, this plan must be prepared by a registered landscape architect licensed in Tennessee.
- (f) **Maintenance Easements:** The applicant must ensure access to the site for the purpose of inspection and repair by securing all the maintenance easements needed. These easements must be binding on the current property owner and all subsequent owners of the property and must be properly recorded in the land record.

(g) Maintenance Agreement:

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

(2) The maintenance agreement shall:

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

(b) Provide for a periodic inspection by the property owner for the purpose of documenting maintenance and repair needs and ensure compliance with the purpose and requirements of this ordinance. The property owner will arrange for this inspection to be conducted by a registered professional engineer licensed to practice in the State of Tennessee who will submit a sealed report of the inspection to the

_____ (**stormwater utility**). It shall also grant permission to the city to enter the property at reasonable times and to inspect the stormwater facility to ensure that it is being properly maintained.

- (c) Provide that the minimum maintenance and repair needs include, but are not limited to: the removal of silt, litter and other debris, the cutting of grass, grass cuttings and vegetation removal, and the replacement of landscape vegetation, in detention and retention basins, and inlets and drainage pipes and any other stormwater facilities. It shall also provide that the property owner shall be responsible for additional maintenance and repair needs consistent with the needs and standards outlined in the BMP manual.
- (d) Provide that maintenance needs must be addressed in a timely manner, on a schedule to be determined by the _____ (**stormwater utility**).
- (e) Provide that if the property is not maintained or repaired within the prescribed schedule, the _____ (**stormwater utility**) shall perform the maintenance and repair at its expense, and bill the same to the property owner. The maintenance agreement shall also provide that the _____ stormwater utility's cost of performing the maintenance shall be a lien against the property.

- (3) The municipality shall have the discretion to accept the dedication of any

existing or future stormwater management facility, provided such facility meets the requirements of this ordinance, and includes adequate and perpetual access and sufficient areas, by easement or otherwise, for inspection and regular maintenance. Any stormwater facility accepted by the municipality must also meet the municipality's construction standards and any other standards and specifications that apply to the particular stormwater facility in question.

- (h) Sediment and Erosion Control Plans: The applicant must prepare a sediment and erosion control plan for all construction activities that complies with §5(5) below.

(5). Sediment and erosion control plan requirements. The sediment and erosion control plan shall accurately describe the potential for soil erosion and sedimentation problems resulting from land disturbing activity and shall explain and illustrate the measures that are to be taken to control these problems. The length and complexity of the plan is to be commensurate with the size of the project, severity of the site condition, and potential for off-site damage. The plan shall be sealed by a registered professional engineer licensed in the state of Tennessee. The plan shall also conform to the requirements found in the BMP manual, and shall include at least the following:

- (a) Project Description - Briefly describe the intended project and proposed land disturbing activity including number of units and structures to be constructed and infrastructure required.
- (b) A topographic map with contour intervals of five (5) feet or less showing present conditions and proposed contours resulting from land disturbing activity.

- (c) All existing drainage ways, including intermittent and wet-weather. Include any designated floodways or flood plains.
- (d) A general description of existing land cover. Individual trees and shrubs do not need to be identified.
- (e) Stands of existing trees as they are to be preserved upon project completion, specifying their general location on the property. Differentiation shall be made between existing trees to be preserved, trees to be removed and proposed planted trees. Tree protection measures must be identified, and the diameter of the area involved must also be identified on the plan and shown to scale. Information shall be supplied concerning the proposed destruction of exceptional and historic trees in setbacks and buffer strips, where they exist. Complete landscape plans may be submitted separately. The plan must include the sequence of implementation for tree protection measures.
- (f) Approximate limits of proposed clearing, grading and filling.
- (g) Approximate flows of existing stormwater leaving any portion of the site.
- (h) A general description of existing soil types and characteristics and any anticipated soil erosion and sedimentation problems resulting from existing characteristics.
- (i) Location, size and layout of proposed stormwater and sedimentation control improvements.
- (j) Proposed drainage network.
- (k) Proposed drain tile or waterway sizes.

- (l) Approximate flows leaving site after construction and incorporating water run-off mitigation measures. The evaluation must include projected effects on property adjoining the site and on existing drainage facilities and systems. The plan must address the adequacy of outfalls from the development: when water is concentrated, what is the capacity of waterways, if any, accepting stormwater off-site; and what measures, including infiltration, sheeting into buffers, etc., are going to be used to prevent the scouring of waterways and drainage areas off-site, etc.
- (m) The projected sequence of work represented by the grading, drainage and sedimentation and erosion control plans as related to other major items of construction, beginning with the initiation of excavation and including the construction of any sediment basins or retention facilities or any other structural BMP's.
- (n) Specific remediation measures to prevent erosion and sedimentation run-off. Plans shall include detailed drawings of all control measures used; stabilization measures including vegetation and non-vegetation measures, both temporary and permanent, will be detailed. Detailed construction notes and a maintenance schedule shall be included for all control measures in the plan.
- (o) Specific details for: the construction of rock pads, wash down pads, and settling basins for controlling erosion; road access points; eliminating or keeping soil, sediment, and debris on streets and public ways at a level acceptable to the _____ **(stormwater utility)**. Soil, sediment, and debris brought

onto streets and public ways must be removed by the end of the work day by machine, broom or shovel to the satisfaction of the _____

(stormwater utility). Failure to remove the sediment, soil or debris shall be deemed a violation of this ordinance.

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

(q) A description of on-site measures to be taken to recharge surface water into the ground water system through infiltration.

Section 6. Post Construction. (1). As built plans. All applicants are required to submit actual as built plans for any structures located on-site after final construction is completed. The plan must show the final design specifications for all stormwater management facilities and must be sealed by a registered professional engineer licensed to practice in Tennessee. A final inspection by the _____ **(stormwater utility)** is required before any performance security or performance bond will be released. The _____ **(stormwater utility)** shall have the discretion to adopt provisions for a partial pro-rata release of the performance security or performance bond on the completion of various stages of development. In addition, occupation permits shall not be granted until corrections to all BMP's have been made and accepted by the _____ **(stormwater utility)**.

(2). Landscaping and stabilization requirements.

(a) Any area of land from which the natural vegetative cover has been either partially or wholly cleared by development activities shall be revegetated according to a schedule approved by the _____ **(stormwater utility)**. The

following criteria shall apply to revegetation 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 until such time as the cover crop is established over ninety percent (90%) of the seeded area.
 - (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 until the plantings are established and are capable of controlling erosion.
 - (3) Any area of revegetation must exhibit survival of a minimum of seventy-five percent (75%) of the cover crop throughout the year immediately following revegetation. Revegetation must be repeated in successive years until the minimum seventy-five percent (75%) survival for one (1) year is achieved.
- (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). Inspection of stormwater management facilities. Periodic inspections of facilities shall be performed as provided for in §5(4)(g)(2)(b).

- (4). Records of installation and maintenance activities. Parties responsible for the operation and maintenance of a stormwater management facility shall make records of the installation of the stormwater facility, and of all maintenance and repairs to the facility, and shall retain the records for at least ___ years. These records shall be made available to the _____ (**stormwater utility**) during inspection of the facility and at other reasonable times upon request.
- (5). Failure to meet or maintain design or maintenance standards. If a responsible party fails or refuses to meet the design or maintenance standards required for stormwater facilities under this ordinance, the _____ (**stormwater utility**), 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 _____ (**stormwater utility**) shall notify in writing the party responsible for maintenance of the stormwater management facility. Upon receipt of that notice, the responsible person shall have ___ days to effect maintenance and repair of the facility in an approved manner. In the event that corrective action is not undertaken within that time, the _____ (**stormwater utility**) may take necessary corrective action. The cost of any action by the _____ (**stormwater utility**) under this section shall be charged to the responsible party.

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 _____ **(stormwater utility)**.
- (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-rapp, 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. Such control measures may include, but are not limited to, the following:
 - (1) Ponds
 - (a) Detention pond
 - (b) Extended detention pond
 - (c) Wet pond
 - (d) Alternative storage measures
 - (2) Constructed wetlands
 - (3) Infiltration systems
 - (a) Infiltration/percolation trench
 - (b) Infiltration basin
 - (c) Drainage (recharge) well
 - (d) Porous pavement

- (4) Filtering systems
 - (a) Catch basin inserts/media filter
 - (b) Sand filter
 - (c) Filter/absorption bed
 - (d) Filter and buffer strips
- (5) Open channel
 - (a) swale

- (2). Requirements for existing problem locations. The _____ (**stormwater utility**) shall in writing notify the owners of existing locations and developments of specific drainage, erosion or sediment problem affecting such locations and developments, and the specific actions required to correct those problems. The notice shall also specify a reasonable time for compliance.
- (3). Inspection of existing facilities. The _____ (**stormwater utility**) 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). Corrections of problems subject to appeal. Corrective measures imposed by the stormwater utility under this section are subject to appeal under § 11 of this ordinance.

Section 8. Illicit discharges. (1). Scope. This section shall apply to all water generated on developed or undeveloped land entering the municipality's separate storm sewer system.

- (2). Prohibition of illicit discharges. No person shall introduce or cause to be introduced into the municipal separate storm sewer system any discharge that is not composed entirely of stormwater. 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 _____ **(stormwater utility)** as being necessary to protect public health and safety.
 - (c) Dye testing is an allowable discharge if the _____ **(stormwater utility)** has so specified in writing.
- (3). Prohibition of illicit connections.
- (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 stormwater, 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 _____ (**stormwater utility**) in person or by telephone or facsimile no later than the next business day. Notifications in person or by telephone shall be confirmed by written notice addressed and mailed to the _____ (**stormwater utility**) within three (3) business days of the telephone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least _____ years.

Section 9. Enforcement

- (1). Enforcement authority. The director of the _____ (**stormwater utility**) or his designees 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 director of the _____ (**stormwater utility**) 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 director 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) Consent Orders. The director 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 director may order any person who violates this ordinance or permit or order issued hereunder, to show cause why a proposed enforcement action should not be taken. Notice shall be served on the person specifying the time and place for the meeting, the proposed enforcement action and the reasons for such action, and a request that the violator show cause why this proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least ten (10) days prior to the hearing.
- (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) Cease and Desist Orders. When the director 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). Conflicting standards. 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 10. Penalties. (1). Violations. Any person who shall commit any act declared unlawful under this ordinance, who violates any provision of this ordinance, who violates the provisions of any permit issued pursuant to this ordinance, or who fails or refuses to comply with any lawful communication or notice to abate or take corrective action by the _____ (**stormwater utility**), shall be guilty of a civil offense.

- (2). Penalties. Under the authority provided in Tennessee Code Annotated §68-221-1106, the municipality declares that any person violating the provisions of this ordinance may be assessed a civil penalty by the _____ (**stormwater utility**) 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.

[NOTE: In City of Chattanooga v. Davis, 54 S.W. 3d 248 (Tenn. 2001), the Tennessee Supreme Court held that municipal civil penalties or fines in excess of \$50 violate Article VI, § 14, of the Tennessee Constitution, if their purpose is punitive rather than remedial. Article VI, § 14 of the Tennessee Constitution provides that, “No fine shall be laid on any citizen of this state that shall exceed Fifty Dollars, unless it shall be assessed by a jury of his peers....” The determination of whether a civil penalty or fine is punitive or remedial is determined on a case by case basis by a “totality of circumstances.” The distinction between punitive and a remedial civil penalties or fines is so difficult to draw that as a practical matter, most municipal courts are not asked to levy, or do not levy, civil penalties or fines of over \$50.

However, it is questionable whether City of Chattanooga v. Davis applies to administrative penalties that exceed \$50. The Chancery Court for Davidson County in Dickson v. State, No. 00-2823-1, filed December 5, 2001, held that the answer was no with respect to two fines totaling \$15,000 levied by the Tennessee Petroleum Underground Storage Tank Board Petroleum Tank Storage Board. It reasoned that Davis applied only to civil penalties levied by a court, and that an administrative agency is not a court. Tennessee Code Annotated, § 68-221-1106 appears to contemplate that the civil penalty for stormwater ordinance violations be levied by a municipal official or entity rather than a court.]

(3). Measuring civil penalties. In assessing a civil penalty, the director of the

_____ (**stormwater utility**) may consider:

- (a) The harm done to the public health or the environment;
- (b) Whether the civil penalty imposed will be a substantial economic deterrent to the illegal activity;
- (c) The economic benefit gained by the violator;
- (d) The amount of effort put forth by the violator to remedy this violation;
- (e) Any unusual or extraordinary enforcement costs incurred by the municipality;
- (f) The amount of penalty established by ordinance or resolution for specific categories of violations; and
- (g) Any equities of the situation which outweigh the benefit of imposing any penalty or damage assessment.

(4). Recovery of damages and costs. In addition to the civil penalty in subsection (2) above, the 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.

(5). 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.

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

Section 11. Appeals. Pursuant to Tennessee Code Annotated §68-221-1106(d), any person aggrieved by the imposition of a civil penalty or damage assessment as provided by this ordinance may appeal said penalty or damage assessment to the municipality's governing body.

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

(2). Public hearing. Upon receipt of an appeal, the municipality's governing body shall hold a public hearing within thirty (30) days. Ten (10) days prior notice of the time, date, and location of said hearing shall be published in a daily newspaper of general circulation. Ten (10) days notice by registered mail shall also be provided to the aggrieved party, such notice to be sent to the address provided by the aggrieved party at the time of appeal. The

decision of the governing body of the municipality shall be final.

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

Appendix C

Model Stormwater Utility Ordinance

MODEL STORMWATER UTILITY ORDINANCE

Prepared by:

John Chlarson, P.E.
Public Works and Engineering Consultant

And

Sidney D. Hemsley, J.D.
Senior Legal Consultant

Municipal Technical Advisory Service
The University of Tennessee

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MODEL STORMWATER UTILITY ORDINANCE

ORDINANCE NO.

WHEREAS, The Federal Clean Water Act, 33 U.S.C. 1251 et seq., requires certain political entities, such as the city, to implement stormwater management programs within prescribed time frames, and the Environmental Protection Agency, pursuant to the Federal Clean Water Act, 33 U.S.C. 1251 et seq., has published rules for stormwater outfall permits;

WHEREAS, Tennessee Code Annotated, § 68-221-1101, provides that the purpose of the stormwater management statute is to facilitate municipal compliance with the Water Quality Act of 1977, and applicable EPA regulations, particularly those arising from § 405 of the Water Quality Act of 1987, and § 402(p) of the Clean Water Act of 1977, and to enable municipalities to regulate stormwater discharges, establish a system of drainage facilities, construct and operate a system of stormwater management and flood control facilities, and to “fix and require payment of fees for the privilege of discharging stormwater,”

WHEREAS, Tennessee Code Annotated, § 68-221-1105 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, and 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;
- (8) Expend funds to remediate or mitigate the detrimental effects of contaminated land or other sources of stormwater contamination, whether public or private; and

WHEREAS, The city desires to develop a stormwater utility to be responsible for the operation, construction and maintenance of stormwater facilities; for stormwater system planning, and for review of stormwater development plans for compliance with stormwater management codes.

NOW THEREFORE, BE IT ENACTED BY THE _____ OF THE CITY OF _____, TENNESSEE, THAT:

Section 1. Legislative findings and policy. The _____
_____ (governing body of the city) finds, determines and declares that the stormwater system which provides for the collection, treatment, storage and disposal of stormwater provides benefits and services to all property within the incorporated city limits.

Such benefits include, but are not limited to: the provision of adequate systems of collection, conveyance, detention, treatment and release of stormwater; the reduction of hazards to property and life resulting from stormwater runoff; improvements in general health and welfare through reduction of undesirable stormwater conditions; and improvements to the water quality in the stormwater and surface water system and its receiving waters.

Section 2. Creation of stormwater utility. For those purposes of the Federal Clean Water Act and of Tennessee Code Annotated, § 68-221-1101 et seq., there is created a stormwater utility which shall consist of a manager or director and such staff as the municipality's governing body shall authorize.

[NOTE: Organizational variations are possible depending upon the wants, needs and capabilities of individual municipalities. For example, the stormwater utility could be made a stand-alone department, or placed under an existing department].

The stormwater utility, under the legislative policy, supervision and control of the governing body of the city, shall:

- (1) Administer the acquisition, design, construction, maintenance and operation of the stormwater utility system, including capital improvements designated in the capital improvement program;
- (2) Administer and enforce this ordinance and all regulations and procedures adopted relating to the design, construction, maintenance, operation and alteration of the utility stormwater system, including, but not limited to, the quantity, quality and/or velocity of the stormwater conveyed thereby;
- (3) Advise the municipality's governing body and other city departments on matters relating to the utility;

- (4) Prepare and revise a comprehensive drainage plan for adoption by the municipality's governing body;
- (5) Review plans and approve or deny, inspect and accept extensions and connections to the system;
- (6) Enforce regulations to protect and maintain water quality and quantity within the system in compliance with water quality standards established by state, regional and/or federal agencies as now adopted or hereafter amended;
- (7) Annually analyze the cost of services and benefits provided, and the system and structure of fees, charges, civil penalties and other revenues of the utility.

Section 3. Definitions. For the purpose of this ordinance, 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) "Base rate" means the stormwater user's fee for a detached single family residential property in the city.
- (2) "Construction" means the erection, building, acquisition, alteration, reconstruction, improvement or extension of stormwater facilities; preliminary planning to determine the economic and engineering feasibility of stormwater facilities; the engineering, architectural, legal, fiscal and economic investigations and studies, surveys, designs, plans, working drawings, specifications, procedures, and other action necessary in the construction of

stormwater facilities; and the inspection and supervision of the construction of stormwater facilities;

(3) “Developed property” means real property which has been altered from its natural state by the creation or addition of impervious areas, by the addition of any buildings, structures, pavement or other improvements.

(4) “Equivalent residential unit” or “ERU” means the average square footage of a detached single family residential property determined pursuant to this ordinance.

(5) “Exempt property” means all properties of the federal, state, county, and city governments, and any of their divisions or subdivisions, and property that does not discharge stormwater runoff into the stormwater or flood control facilities of the municipality.

(6) “Fee” or “Stormwater user’s fee” means the charge established under this ordinance and levied on owners or users of parcels or pieces of real property to fund the costs of stormwater management and of operating, maintaining, and improving the stormwater system in the municipality. The stormwater user’s fee is in addition to any other fee that the municipality has the right to charge under any other rule or regulation of the municipality.

(7) “Fiscal year” means July 1 of a calendar year to June 30 of the next calendar year, both inclusive.

(8) “Impervious surface” means a surface which is compacted or covered with material that is resistant to infiltration by water, including, but not limited to, most conventionally surfaced streets, roofs, sidewalks, patios, driveways, parking lots, and any other oiled, graveled, graded, compacted, or any other surface which impedes the natural infiltration of surface water.

(9) “Impervious surface area” means the number of square feet of horizontal surface covered by buildings, and other impervious surfaces. All building measurements shall be made between exterior faces of walls, foundations, columns or other means of support or enclosure.

(10) “Other developed property” means developed property other than single-family residential property. Such property shall include, but not be limited to, commercial properties, industrial properties, parking lots, hospitals, schools, recreational and cultural facilities, hotels, offices, and churches.

(11) “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.

(12) “Property owner” means the property owner of record as listed in the county’s assessment roll. A property owner includes any individual, corporation, firm, partnership, or group of individuals acting as a unit, and any trustee, receiver, or personal representative.

(13) “Single family residential property” means a developed property which serves the primary purpose of providing a permanent dwelling unit to a single family. A single family detached dwelling or a townhouse containing an accessory apartment or second dwelling unit is included in this definition.

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

(15) "Stormwater management fund" or “fund” means the fund created by this ordinance to operate, maintain, and improve the city’s stormwater system.

(16) “Stormwater management” means the planning, design, construction, regulation,

improvement, repair, maintenance, and operation of facilities and programs relating to water, flood plains, flood control, grading, erosion, tree conservation, and sediment control.

(17) "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.

(18) "User" shall mean the owner of record of property subject to the stormwater user's fee imposed by this ordinance.

Section 4. Funding of stormwater utility. Funding for the stormwater utility's activities may include, but not be limited to, the following:

- (1) Stormwater user's fees.
- (2) Civil penalties and damage assessments imposed for or arising from the violation of the city's stormwater management ordinance.
- (3) Stormwater permit and inspection fees.
- (4) Other funds or income obtained from federal, state, local, and private grants, or revolving funds, and from the Local Government Public Obligations Act of 1986 (Tennessee Code Annotated, title 9, chapter 21).

To the extent that the stormwater drainage fees collected are insufficient to construct needed stormwater drainage facilities, the cost of the same may be paid from such city funds as may be determined by the municipality's governing body.

Section 5. Stormwater fund. All revenues generated by or on behalf of the stormwater utility shall be deposited in a stormwater utility fund and used exclusively for the stormwater utility.

Section 6. Operating budget. The municipality's governing body shall adopt an operating budget for the stormwater utility each fiscal year. The operating budget shall set forth for such fiscal year the estimated revenues and the estimated costs for operations and maintenance, extension and replacement and debt service.

Section 7. Stormwater user's fees established. There shall be imposed on each and every developed property in the city, except exempt property, a stormwater user's fee, which shall be set from time to time by ordinance or resolution, and in the manner and amount prescribed by this ordinance.

Prior to establishing or amending user's fees, the municipality shall advertise its intent to do so by publishing notice in a newspaper of general circulation in the city at least thirty (30) days in advance of the meeting of the municipality's governing body which shall consider the adoption of the fee or its amendment.

Section 8. Equivalent residential unit (ERU). (1) Establishment. There is established for purposes of calculating the stormwater user's fee the equivalent residential unit (ERU).

(2) Definition. The ERU is the average square footage of a detached single family residential property.

(3) Setting the ERU. The ERU shall be set by the municipality's governing body from time to time by ordinance or resolution.

(4) Source of ERU. The municipality's governing body shall have the discretion to determine the source of the data from which the ERU is established, taking into consideration the general acceptance and use of such source on the part of other stormwater systems, and the reliability and general accuracy of the source. The municipality's governing body shall have the discretion to determine the impervious surface area of other developed property through property tax assessor's rolls or site examination, mapping information, aerial photographs, and other reliable information.

Section 9. Property classification for stormwater user's fee. (1) Property classifications. For purposes of determining the stormwater user's fee, all properties in the city are classified into one of the following classes:

- (a) Single family residential property;
- (b) Other developed property;
- (c) Exempt property.

(2) Single family residential fee. The municipality's governing body finds that the intensity of development of most parcels of real property in the municipality classified as single family residential is similar and that it would be excessively and unnecessarily expensive to determine precisely the square footage of the improvements (such as buildings, structures, and other impervious areas) on each such parcel. Therefore, all single family residential properties in the city shall be charged a flat stormwater management fee, equal the base rate, regardless of the size of the parcel or the improvements.

(3) Other developed property fee. The fee for other developed property (i.e., non-single-family residential property) in the municipality shall be the base rate multiplied by the numerical factor obtained by dividing the total impervious area (square feet) of the property by one ERU. The impervious surface area for other developed property is the square footage for the buildings and other improvements on the property. The minimum stormwater management fee for other developed property shall equal the base rate for single family residential property.

(4) Exempt property. There shall be no stormwater user's fee for exempt property.

[Note: Appendix A contains an outline of how to calculate the stormwater user's fee based on this ordinance.

Various methods and formulas for setting the ERU are used in the United States. They range from simple to complicated, generally depending on how many and what types of property classifications, and which types of measurement to determine impervious areas, a municipality wishes to use. The method contained in this ordinance is among the simplest, and is based on two categories of developed property: single family residential, and all other developed property. An outstanding publication that lays out the various methods, and their advantages and disadvantages, is **Establishing a Stormwater Utility in Florida**, published by the Florida Association of Stormwater Utilities. Although this publication is obviously related to stormwater utilities in that state, it is highly useful for stormwater related issues in any state. MTAS has a copy of the publication. It is also available on the internet and from the publisher.]

Section 10. Base Rate. The municipality's governing body shall, by ordinance or resolution, establish the base rate for the stormwater user's fee. The base rate shall be calculated to insure adequate revenues to fund the costs of stormwater management and to provide for the operation, maintenance, and capital improvements of the stormwater system in the city.

Section 11. Adjustments to stormwater user's fees. The stormwater utility shall have the right on its own initiative to adjust upward or downward the stormwater user's fees with respect to any property, based on the approximate percentage on any significant variation in the volume or rate of stormwater, or any significant variation in the quality of stormwater, emanating from the property, compared to other similar properties. In making determinations of the

similarity of property, the stormwater utility shall take into consideration the location, geography, size, use, impervious area, stormwater facilities on the property, and any other factors that have a bearing on the variation.

Section 12. Property owners to pay charges. The owner of each non-exempt lot or parcel shall pay the stormwater user's fees and charges as provided in this ordinance.

[NOTE: This section makes property owners liable for the stormwater user's fees. See Appendix B for an analysis of the question of whether the "user" is the land owner or the occupant of the property within the meaning of Tennessee Code Annotated, § 68-221-1107(a). There are other alternatives:

Make utility customers liable for the stormwater user's fee, and collect the fee from those customers in the same manner as utility bills are collected. There are administrative difficulties inherent in that alternative in the case of municipalities that provide only some or no utilities.

Make occupants of property liable for the stormwater user's fees. There are also administrative difficulties inherent in this alternative where the municipality has no efficient method of determining the occupants of structures, such as in the case where multiple tenants are served by a single utility meter, and in the case of multi-family dwellings generally.

In addition, any alternative where occupants other than the land owner are made liable for the stormwater user's fee requires that the formulae for calculating the stormwater user's fee take into account the proportionate allocation of the fee among multiple tenants.]

Section 13. Billing procedures and penalties for late payment. (1) Rate and collection schedule. The stormwater user's fee must be set at a rate, and collected on a schedule, established by ordinance or resolution.

(2) Delinquent bills. The stormwater user's fee shall be paid in person or by mail at _____ and shall become delinquent as of _____ days following the billing. Any unpaid stormwater user's fee shall bear interest at the legal rate if it remains unpaid after _____ days following the billing.

(3) Penalties for late payment. Stormwater user's fees shall be subject to a late fee established by ordinance or resolution. The municipality shall be entitled to recover attorney's

fees incurred in collecting delinquent drainage fees. Any charge due under this ordinance which shall not be paid may be recovered at law by the municipality.

[NOTE: Tennessee Attorney General's Opinion 93-59, opines that it is not legal for a municipality to bill the stormwater user's fee on property tax bills or to make such fees a lien on property.]

(4) Mandatory statement. Pursuant to Tennessee Code Annotated § 68-221-1112, each bill that shall contain stormwater user's fees shall contain the following statement in bold:

THIS TAX HAS BEEN MANDATED BY CONGRESS.

[NOTE: Notwithstanding the statement required to be contained on the stormwater user's fee bill, the fee is probably not a tax. The distinction between fees and taxes with respect to the stormwater user's fee authorized by Tennessee Code Annotated, § 68-221-1107(a) are outlined in Tennessee Attorney's General Opinions 93-59 and 94-039.]

Section 14. Appeals of fees. (1) Generally. Any person who disagrees with the calculation of the stormwater user's fee, as provided in this ordinance, or who seeks a stormwater user's fee adjustment based upon stormwater management practices, may appeal such fee determination to the stormwater utility within thirty (30) days from the date of the last bill containing stormwater user's fees charges. Any appeal shall be filed in writing and shall state the grounds for the appeal. The stormwater utility director may request additional information from the appealing party.

(2) Adjustments. Stormwater user's fee adjustments for stormwater management practices may be considered for: reductions in runoff volume including discharge to a non-city drainage system; and properly designed constructed and maintained existing retention facilities, i.e. evaporation and recharge. Based upon the information provided by the utility and the appealing party, the stormwater utility shall make a final calculation of the stormwater drainage fee. The stormwater utility shall notify the parties, in writing, of its decision.

APPENDIX A

Calculating Stormwater User Fees

Calculating Stormwater User Fees can be done in a simple, equitable manner. The annual budget of the Stormwater Utility is divided by the total number of Equivalent Residential Units (ERU's) in the Stormwater System limits. Division of the result by 12 would yield the monthly fee per ERU. An Equivalent Residential Unit is based on the average square footage of a detached single residential family property. This average can be obtained from a variety of sources. If the average is not available through your tax assessor or another internal department, averages may be obtained from the U.S. Census Bureau, your local Area Association of Realtors, or some other credible source. Each detached single residential family property would be one (1) ERU. Other developed proposer users would divide their total amount of impervious surface area (in square feet) by the number of square feet in an ERU, to get the number of ERU's for that property. The sum of all other developed property ERU's and single family residential ERU's would be the total number of ERU's.

Annual Budget. The annual costs for the storm drainage system includes permitting, maintaining, planning, designing, reconstructing, constructing, environmentally restoring, regulating, testing, inspection of the system, management and administration, and the establishment of a reserve balance.

Equivalent Residential Unit (ERU). The average square footage of a single family residential property is equivalent to one ERU.*

Total ERU's. The Total ERU's within the limits of the stormwater utility is calculated according to the following formula:

$$\text{Total ERU's} = \text{Other Developed Property ERU's} + \text{Single Family Residential ERU's}$$

Single Family Residential User Fee. The fee that residential users within the limits of the stormwater utility pay for their share of the annual budget. The fee is calculated according to the following formula:

$$\text{Single Family Residential User Fee} = \text{Annual Budget} \div \text{Total ERU's within Stormwater Utility limits}$$

This number should be divided by 12 to establish the monthly User Fee:

$$\text{Single Family Residential User Fee} \div 12 = \text{Monthly Single Family Residential User Fee}$$

Other Developed Property User Fee. The fee that other developed property users within the limits of the stormwater utility pay for their share of the annual budget. The fee is calculated

according to the following formula:

Other Developed Property ERU's = Impervious Surface Area square feet ÷ ERU square feet

Other Developed Property User Fee = Single Family Residential User Fee x Other Developed Property ERU's

Other Developed Property User Fee ÷ 12 = Monthly Other Developed Property User Fee

Example: VolVegas Stormwater Utility Department has an annual budget of \$350,000. There are 10,000 homes in VolVegas, an apartment complex, Maxwell House Apartments, with a total impervious surface area of 5 acres, or 217,800 square feet (sq. ft.), a motel, Red Lite Inn, with a total impervious surface area of 2 acres, or 87,120 square feet, GoodDay Tire and Rubber Company with a total impervious surface area of 15 acres, or 653,400 square feet, and a SuperWallyWorld with a total impervious surface area of 10 acres, or 435,600 square feet. Per the VolVegas Area Association of Realtors, the average detached single family residential property has 1,800 square feet.

1 ERU = 1,800 square feet

Single Family Residential ERU's = 10,000 ERU's

Other Developed Property ERU's = $\frac{(217,800 + 87,120 + 653,400 + 435,600 \text{ sf})}{1,800 \text{ sq ft}} = \frac{1,393,920 \text{ sf}}{1,800 \text{ sq ft}}$
= 774 ERU's

Total ERU's = 774 Other Developed Property ERU's + 10,000 Single Family Residential ERU's
= 10,774 ERU's

Single Family Residential User Fee = \$350,000 annually ÷ 10,774 ERU's = \$32.49 annually/ERU

OR

(\$32.49 annually/ERU) ÷ (12 mo./year) = \$2.71 monthly/ERU = Monthly Single Family Residential User Fee

Maxwell House Apartments:

Maxwell House Apartment's ERU's: $217,800 \text{ sq ft} \div 1,800 \text{ sq ft/ERU} = 121 \text{ ERU's}$

Maxwell House Apartment's Monthly User Fee:

$\$2.71 \text{ monthly/ERU} \times 121 \text{ ERU's} = \mathbf{\$327.91 = \text{Maxwell House Apartment's Monthly User Fee}}$

Red Lite Inn:

Red Lite Inn's ERU's: $87,120 \text{ sq ft} \div 1,800 \text{ sq ft/ERU} = 48.4 \text{ ERU's}$

Red Lite Inn's Monthly User Fee:

$\$2.71 \text{ monthly/ERU} \times 48.4 \text{ ERU's} = \mathbf{\$131.16 = \text{Red Lite Inn's Monthly User Fee}}$

Super WallyWorld:

Super WallyWorld's ERU's: $435,600 \text{ sq ft} \div 1,800 \text{ sq ft/ERU} = 242 \text{ ERU's}$

Super WallyWorld's Monthly User Fee:

$\$2.71 \text{ monthly/ERU} \times 242 \text{ ERU's} = \mathbf{\$655.82 = \text{Super WallyWorld's Monthly User Fee}}$

GoodDay Tire and Rubber Company:

GoodDay Tire and Rubber Company's ERU's: $653,400 \text{ sq ft} \div 1,800 \text{ sq ft/ERU} = 363 \text{ ERU's}$

GoodDay Tire and Rubber Company's Monthly User Fee:

$\$2.71 \text{ monthly/ERU} \times 363 \text{ ERU's} = \mathbf{\$983.73 = \text{GoodDay Tire and Rubber Company's Monthly User Fee}}$

** The average square footage of a single family residential property should be determined by a recognized source.*

For example:

The U.S. Census Bureau reports the median square footage in the South is 1,648 square feet.

Or:

In Jackson, Tennessee, the average square footage for all such properties sold in 2001 was 1,932 square feet, according to the Jackson Area Association of Realtors®.

A comparable source should be used for setting ERU square footage.

APPENDIX B

Tennessee Code Annotated, § 68-221-1107(a), provides that, “All municipalities constructing, operating, or maintaining stormwater or flood control facilities are authorized to establish a graduated stormwater user’s fee which may be assessed and collected from each *user* of the stormwater facilities provided by the municipality....” It does not define “user,” providing only that, “To ensure a proportionate distribution of all costs to each user or user class, the user’s contribution shall be based on factors such as the amount of impervious area utilized by the user, the water quality of user’s stormwater runoff or the volume or rate of stormwater runoff....” It also provides that:

- “Users whose stormwater runoff is not discharged into or through the stormwater and/or flood control facilities of the municipality shall be exempted from the payment of the graduated stormwater user fee authorized by this section.”
- “The fee structure shall provide adjustments for users who construct facilities to retain and control the quantity of stormwater runoff.”

Generally, the term “user” with respect to utilities probably means the beneficial user of the utility rather than the title holder of the property. In Village of Sauget v. Cohn, 610 N.E.2d 104 (Ill. App. 5th Dist. 1993), an ordinance required that the “user” pay sewer charges, but did not define the term “user.” The Court held that the title holder of the property was not the “user,” reasoning that:

This is consistent with the Black’s Law Dictionary definition of user. Black’s defines a user as “[t]he actual exercise or enjoyment of any right, property, drugs, franchise, etc”....Because the defendant [the title holder of the property] is not the person who receives the services, he is not the person who actually exercises or enjoys the benefits provided by American Bottoms. He is, at most, an indirect beneficiary of the services, i.e., his properties are more marketable because they have indoor plumbing.” [At 108]

It is not clear from Tennessee Code Annotated, § 68-221-1107(a) that the municipality can make the landowner rather than the tenant or occupant of the property a “user” for the purposes of the stormwater user’s fee. Arguably it limits the city to the actual or beneficial user. Tennessee Code Annotated, § 68-221-1107(b), appears by implication to support that conclusion because it provides that the stormwater utility is authorized to enter into a contract with any other public or private utility (except an electrical cooperative organized under the Electric Cooperative Law) or city or town to bill and collect stormwater fees as a designated item on its utility bill, and to discontinue utility services where the stormwater utility fee is not paid. In most cases any utility bills would be in the name of the actual or beneficial user or users of the property. But that statute may reflect only a method for municipalities to collect stormwater management fees through various utility entities rather than an implication that cities must impose stormwater

management fees on the beneficial users of the stormwater utility as opposed to land owners.

An argument can also be made that Tennessee Code Annotated, § 68-221-1107(a), authorizes a city to name the property owner the “user” within the meaning of that statute. A number of cases from other jurisdictions declare that utility user fees differ from taxes in that the payment of utility service fees is voluntary while the payment of taxes is involuntary. [See Pinellas County v. State, 776 So.2d 262 (Fla. 2001); City of Gary v. Indiana Bell Telephone Co., Inc., 732 N.E.2d 149 (Ind. 2000); Bolt v. City of Lansing, 587 N.W.2d 264 (Mich. 1998); State v. City of Port Orange, 650 So.2d 1 (Fla. 1994).] But our sister State of Arkansas has held that mandatory fees levied on property owners under the state’s police powers are still user fees rather than taxes. [See Holman v. City of Dierks, 233 S.W.2d 392 (Ark. 1950); Vandiver v. Washington County, 628 S.W.2d 1 (Ark. 1982).]

In either case, a person who obtains or continues electric, water, even sewer, or most other utility services is a voluntary “user” of the service to a degree that does not typically apply to the user of a stormwater utility. In providing that the “user’s contribution [fee] shall be based on factors such as the amount of *impervious areas utilized by the user*, the water quality of user’s stormwater runoff or the volume or rate of stormwater runoff,” Tennessee Code Annotated, § 68-221-1107, contemplates that virtually all developed property will be subject to a mandatory stormwater management fee. In addition, the stormwater user’s fee connected to the impervious areas of land under that statute is more closely tied to the land than is the fee for most other utility services. The stormwater utility service is always “on” with respect to the impervious surface of the land no matter who is the beneficial user of other utility services that serve the land. The decision to develop the land on the part of its owner (or even by its occupant) may be voluntary, but any development that leads to the creation of impervious area leads to the involuntary subjection of the land to a stormwater user’s fee. The only way the owner (or occupant) of the land can voluntarily “shut-off” the stormwater utility service is perhaps to return the land to its natural state. Finally, the impervious area component of stormwater management would necessarily apply to *all* developed land, including presently-developed land for which development decisions have already been made, many years ago. Generally, the extent to which property is developed is a function of the past and future decisions of the owner of the property.

Some of the literature dealing with stormwater utilities also distinguishes between stormwater “user” fees which are billed to utility customers in much the same manner as are other utility bills, and stormwater assessment fees, which are billed to property owners. There is no general law in Tennessee authorizing cities to impose special assessments for stormwater purposes, but some cities may have provisions in their charters generally authorizing them to levy special assessments on property. Those provisions in *some* cases may be sufficient authority for a particular city to impose the stormwater user’s fee as a special assessment on property. Special assessments are generally not taxes. The question of whether a particular charter permits the stormwater user’s fee to be levied as a special assessment should be determined on a case-by-cases basis.

Appendix D

Phase II Stormwater Communities in Tennessee

Appendix D - Phase II Storm Water Communities in Tennessee **Local Government MS4s Regulated by EPA Rule & Designated by Tennessee** **September 9, 2002 (revised 12/2/2002)¹**

Introduction

This document identifies municipal separate storm sewer systems (MS4s) that will be regulated in Tennessee under the EPA Phase II storm water regulations. These are arranged below into groups according to the different categories each MS4 falls into, according to EPA regulations and specifics of Tennessee. There is a summary list at the end of this document.

“TDEC” refers the Tennessee Department of Environment and Conservation. “Division” refers to the Division of Water Pollution Control within the Department of Environment and Conservation.

A. Local governments listed in EPA rule

The following local governments were listed in appendix 6 of the EPA Phase II rule, promulgated in the federal register on December 8, 1999. All or part of the area within these jurisdictions was identified as urbanized area (UA) according to the 1990 US Census. The EPA rule mandates that all urbanized areas be regulated under the Phase II program.

Alcoa	Jackson	Anderson County
Bartlett	Johnson City	Blount County
Church Hill	Jonesborough	Carter County
Belle Meade	Kingsport	Hamilton County
Berry Hill	Lakesite	Hawkins County
Brentwood	Lakewood	Knox County
Bristol	Lookout Mountain	Loudon County
Clarksville	Maryville	Madison County
Collegedale	Mount Carmel	Montgomery County
East Ridge	Mount Juliet	Shelby County
Elizabethton	Oak Hill	Sullivan County
Farragut	Red Bank	Washington County
Forest Hills	Ridgeside	Williamson County
Germantown	Rockford	Wilson County
Goodlettsville	Signal Mountain	Sumner County
Hendersonville	Soddy-Daisy	

The above cities and counties must submit NPDES permit applications by March 10, 2003. The state intends to honor waiver requests for communities with an urbanized area population less than 1000.²

Counties in the above list are responsible to submit permit application material and implement complete Phase II programs only for those portions of the county that are urbanized, according to the Census Bureau’s most recent definition and data.³ The cities listed above are responsible to carry out Phase II programs in all of the city.

B. Cities and portions of counties that are located in urbanized areas (UAs) per the 2000 Census

Census 2000 enlarged most or all of Tennessee’s 1990 urbanized areas. In addition, Cleveland, Morristown and Murfreesboro have been added as urbanized areas. As a result, TDEC’s mapping indicates the following jurisdictions are partly or wholly urbanized. For this reason, they are, like the list in item A above, automatically subject to the Phase II program regulations and must apply for permit by March 10, 2003.

Urbanized area	Cities or portions of counties newly included in the urbanized area
Memphis, TN-MS-AK.....	Collierville, Millington

Nashville-Davidson.....	Gallatin, Lavergne, Smyrna, Nolensville, Franklin, Ridgetop, Greenbrier, Springfield, Millersville, Robertson County
Chattanooga.....	Walden
Knoxville.....	Sevier County, Lenoir City
Bristol.....	Bluff City
Cleveland.....	Bradley County
Morristown.....	Hamblen County
Murfreesboro.....	Rutherford

Counties in the above list are responsible to submit permit application material and implement complete Phase II programs only for those portions of the county that are urbanized. The cities listed above are responsible to carry out the Phase II program in all of the city. The division intends to honor waiver requests for local government jurisdictions in which the urbanized area population is less than 1000 in the UA.

C. Non-UA cities meeting EPA examination criteria

According to the EPA rule, TDEC must evaluate whether or not storm water discharges from the following MS4s result in or have the potential to result in exceedances of water quality standards. These are cities that have a population of 10,000 or more and population density of 1000/square mile and are not in an urbanized area.

*Brownsville	Lawrenceburg	*Athens
*Cookeville	*McMinnville	*Columbia
*Dyersburg	*Shelbyville	*Dickson
(*Greeneville)	*Union City	*Lebanon
		*Martin

(Current population and city area of Greeneville indicate density is less than 1000/square mile.)

Our evaluation uses information from routine assessments of stream water quality – see the evaluation criteria in item E below – and selects those cities for which the division has made determination that urban runoff, storm sewers and/or land development is a source of pollutants or negative affects to streams in the area of the city. The ones marked with an asterisk show those cities for which such determination has been made.

Notes: The cities in the first and second columns are ones listed in the EPA rule of December 8, 1999, and reflect 1990 census data. EPA listed four other cities in the 1999 rule -- Collierville, Millington, Murfreesboro, and Springfield. These four cities are now urbanized areas per the 2000 census, as shown in item B above. The third column shows cities that, based on the 2000 census, have a population of 10,000 or more and density of 1000/square mile.

D. Additional non-UA cities with population over 10,000

1. Cities with population over 10,000

The division examined other cities of population over 10,000, but not a density of 10,000 people/square mile. Even though population density within city boundaries is less than 1000/square mile, the density in developed areas is above or near 1000/square mile. With each of these five cities, we have found that urban runoff, storm sewers and/or land development is a source of pollutants or negative affects to streams in the area of the city. These also will be designated as Phase II cities.

*Lewisburg *Oak Ridge *Sevierville *Tullahoma *Greeneville

2. High growth areas

TDEC is evaluating areas of the state that are showing high population growth, based on the second set of criteria given in part E below.

3. High tourist populations

The division believes that storm water quality management measures are presently needed in Sevier County, Gatlinburg and Pigeon Forge, because of population growth, land development, the high number of tourists and related services. We therefore propose regulating these areas as Phase II MS4s.

E. TDEC's evaluation criteria

TDEC is using two criteria to identify non-UA MS4s which discharge storm water that results in or has the potential to result in negative impacts to water quality.⁴

The first is whether or not urban runoff, storm sewers or land development from an MS4 is contributing to impaired water quality in nearby streams. The Division of Water Pollution Control makes such assessments routinely. Our lists of impaired streams, and causes and sources of pollutants, can be found in biennial reports titled "The Status of Water Quality in Tennessee" and in biennial 303(d) list reports.

The second set of criteria – as proposed - is based primarily on population growth.⁵ If rapidly growing communities do not implement storm water management programs, the potential for negative impacts to nearby streams in the future is greater. The proposed growth criteria are the following:

- any urban cluster areas that have shown 40% or greater population growth over the previous ten years or 25% over the previous five years; or
- any urban cluster areas that have shown 25% or greater population growth over the previous ten years, or 15% for 5 years, and are adjacent to sensitive waters, are nearby (less than five miles) from an urbanized area, or are a significant contributor of pollutants to waters of the US.

F. The Designation Process

The Division will apply the first criteria above to cities of population 10,000 or greater, and the second set of criteria to urban areas (urban clusters) of population 10,000 or more. The urban cluster designations may include counties as well as cities. We will make designations by certified letter to the cities and counties in early December, 2002.⁶ Designees will have 180 days from date of certified letter to submit permit applications. Our intent is that on a yearly basis, we will evaluate whether additional communities meet the designation criteria.

G. Procedure to Comment

The criteria and process above are being presented to EPA, to the regulated community and other interested parties for review and comment. We will receive comments until October 18, 2002. Submit comments to the following address:

Robert L. Haley, III
Tennessee Division of Water Pollution Control
L & C Annex, 6th Floor
401 Church Street
Nashville, Tennessee 37243-1534

Summary list of regulated and designated small MS4s

Alcoa	Millersville
Athens	Millington
Bartlett	Mount Carmel
Belle Meade	Mount Juliet
Berry Hill	Morristown
Bluff City	Murfreesboro
Brentwood	Nolensville
Bristol	Oak Hill
Brownsville	Oak Ridge
Church Hill	Pigeon Forge
Clarksville	Red Bank
Cleveland	Ridgeside
Collegedale	Ridgetop
Collierville	Rockford
Columbia	Sevierville
Cookeville	Shelbyville
Dickson	Signal Mountain
Dyersburg	Smyrna
East Ridge	Soddy-Daisy
Elizabethton	Springfield
Farragut	Tullahoma
Forest Hills	Union City
Franklin	Walden
Gallatin	
Gatlinburg	Anderson County
Germantown	Blount County
Goodlettsville	Bradley County
Greenbrier	Carter County
Greeneville	Hamblen County
Hendersonville	Hamilton County
Jackson	Hawkins County
Johnson City	Knox County
Jonesborough	Loudon County
Kingsport	Madison County
Lavergne	Montgomery County
Lakesite	Robertson County
Lakewood	Rutherford
Lebanon	Shelby County
Lenoir City	Sullivan County
Lewisburg	Washington County
Lookout Mountain	Williamson County
McMinnville	Wilson County
Martin	Sevier County
Maryville	Sumner County

¹ This document was originally promulgated September 9, 2002. Subsequently, the division became aware that the Town of Walden is in the Chattanooga urbanized area, and Millersville is in the Nashville urbanized area, but these were not included in the list of regulated phase II communities. This revision dated 12/02/2002 is made to include Walden and Millersville.

² 40 CFR 122.32 (d). The NPDES permitting authority may waive permit coverage if your MS4 serves a population of less than 1,000 within the urbanized area and you meet the following criteria: (1) Your system is not contributing substantially to the pollutant loadings of a physically interconnected MS4 that is regulated by the NPDES storm water

program (see Sec. 123.35(b)(4) of this chapter); and (2) If you discharge any pollutant(s) that have been identified as a cause of impairment of any water body to which you discharge, storm water controls are not needed based on wasteload allocations that are part of an EPA approved or established "total maximum daily load" (TMDL) that addresses the pollutant(s) of concern.

³ 40 CFR 122.32 (a). Part (a)(1) reads in part: "If your small MS4 is not located entirely within an urbanized area, only the portion that is within the urbanized area is regulated."

⁴ 40 CFR 123.35 (b) includes the following language. In making designations of small MS4s, you [the NPDES permitting authority] must: (1)(i) Develop criteria to evaluate whether a storm water discharge results in or has the potential to result in exceedances of water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts.

⁵ 40 CFR 123.35 (b)(1) continues as follows. (ii) Guidance: For determining other significant water quality impacts, EPA recommends a balanced consideration of the following designation criteria on a watershed or other local basis: discharge to sensitive waters, high growth or growth potential, high population density, contiguity to an urbanized area, significant contributor of pollutants to waters of the United States, and ineffective protection of water quality by other programs[.]

⁶ 40 CFR 122.35 includes the following requirement. 122.35(b) "...In making designations of small MS4s, you must: (2) Apply such criteria, at a minimum, to any small MS4 located outside of an urbanized area serving a jurisdiction with a population density of at least 1,000 people per square mile and a population of at least 10,000[.]