

**RESOLUTION OF THE MONTGOMERY COUNTY BOARD OF COMMISSIONERS
ESTABLISHING THE STORMWATER MANAGEMENT REGULATIONS
OF MONTGOMERY COUNTY, TENNESSEE**

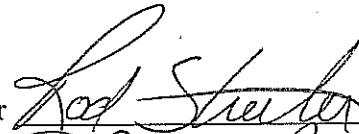
WHEREAS, the State of Tennessee National Pollutant Discharge Elimination System General Permit for Discharges from Small Municipal Separate Storm Sewer System permit, dated August 31, 2010 and applicable to Montgomery County, states as one of its requirements that Montgomery County, Tennessee shall develop and implement a set of requirements to regulate stormwater discharges to the waters of the State of Tennessee; and

WHEREAS, on June 15, 2011, Tennessee Department of Environment & Conservation accepted Montgomery County's Notice of Intent and issued a Notice of Coverage to Montgomery County under the State of Tennessee's National Pollutant Discharge Elimination System General Stormwater Discharge Permit for Small Municipal Separate Storm Sewer Systems.

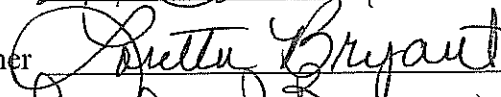
NOW, THEREFORE, BE IT RESOLVED by the Montgomery County Board of Commissioners assembled in Regular Session on this 11th day of February, 2013, that the included Stormwater Management Regulations of Montgomery County, Tennessee shall take effect and be enforced from and after the date of its adoption, the public welfare requiring it.

Duly passed and approved this 11th day of February, 2013.

Sponsor



Commissioner

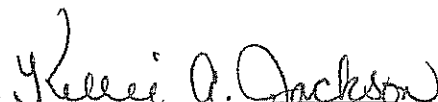


Approved



County Mayor

Attested


County Clerk



MONTGOMERY COUNTY, TENNESSEE STORMWATER MANAGEMENT REGULATIONS

Section 1	Purpose and General Provisions
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Section 3	Waivers
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1. PURPOSE AND GENERAL PROVISIONS.

1.1. The provisions of this Resolution shall constitute and be known as the “Stormwater Management Regulations of Montgomery County, Tennessee”.

1.2. Purpose. It is the purpose of this Resolution to:

1.2.1. Protect, maintain, and enhance the environment of Montgomery County and the public health, safety and general welfare of the citizens of the County, by controlling discharges of pollutants to the County’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 County;

1.2.2. Enable Montgomery County to comply with the National Pollutant Discharge Elimination System Permit and applicable regulations, 40 CFR 122.26 for stormwater discharges;

1.2.3. Allow Montgomery County 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 resolution to:

- 1.2.3.1. Exercise general regulation over the planning, location, construction, and operation and maintenance of stormwater facilities in Montgomery County, whether or not owned and operated by the County;
 - 1.2.3.2. Adopt any rules and regulations deemed necessary to accomplish the purposes of this resolution, including the adoption of a system of fees for services and permits;
 - 1.2.3.3. Establish standards to regulate the quantity of stormwater discharged and to regulate stormwater contaminants as may be necessary to protect water quality;
 - 1.2.3.4. Review and approve plans and plats for stormwater management in proposed subdivisions or commercial developments;
 - 1.2.3.5. Issue permits for stormwater discharges, or for the construction, alteration, extension, or repair of stormwater facilities;
 - 1.2.3.6. Suspend or revoke permits when it is determined that the permittee has violated any applicable resolution, regulation, or condition of the permit;
 - 1.2.3.7. Regulate and prohibit discharges into stormwater facilities of sanitary, industrial, or commercial sewage or waters that have otherwise been contaminated; and
 - 1.2.3.8. Expend funds to remediate or mitigate the detrimental effects of contaminated land or other sources of stormwater contamination, whether public or private.
- 1.3. Administering entity. The Clarksville Montgomery County Regional Planning Commission and the Montgomery County Building Commissioner shall administer the provisions of this Resolution.
- 1.4. Limitation. The application of this Resolution and the provisions expressed herein shall not be deemed a limitation of any other pertinent resolution, regulation or law or repeal of any other powers granted by State statute.
- 1.5. Severability. If any term, requirement or provision of this Resolution or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Resolution or the application of such terms, requirements and provisions to persons or circumstances other than those to which it is held invalid or unenforceable, shall not be affected thereby and each term, requirement or provision of this Resolution shall be valid and be enforced to the fullest extent permitted by law.

- 1.6. Liability. The application of this Resolution and the provisions expressed herein shall not create a liability on the part of, or a cause of action against, Montgomery County or any officer or employee thereof for any administrative decision made thereunder.
- 1.7. Requirements. The requirements of the Resolution shall be considered minimum requirements, and where any provision of this Resolution imposes restrictions or requirements different from those imposed by any other resolution, rule, regulation or other provision of law, whichever provisions are more restrictive or impose higher protective standards for human health or the environment shall take precedence.

2. DEFINITIONS.

- 2.1. Definition conventions. 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. In the event of conflicting definitions, the Building Commissioner shall determine which definition will apply. Words not defined in this section shall be construed to have the meaning found in the most recently adopted versions of the following documents (listed in order of precedence):
 - 2.1.1. The Montgomery County, Tennessee Zoning Resolution;
 - 2.1.2. The Clarksville and Montgomery County Subdivision Regulations;
 - 2.1.3. Webster’s Dictionary (the meaning given by common and ordinary usage as defined in the latest edition).
- 2.2. “As built plans” means drawings depicting conditions as they were actually constructed.
- 2.3. “Best Management Practices” (“BMPs”) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the state. Best management practices also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.
- 2.4. “Borrow Pit” means an excavation from which erodible material (typically soil) is removed to be fill for another site. There is no processing or separation of erodible material conducted at the site. Given the nature of activity and pollutants present at such excavation, a borrow pit is considered a construction activity for the purpose of this resolution.

- 2.5. "Brownfield Development" means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.
- 2.6. "Buffer Zone (also, Buffer or Water Quality Buffer Zone)" means a setback from karst features, rivers, streams, intermittent streams, brooks, wet weather conveyances, ponds, wetlands, springs, reservoirs, lakes or other waterbodies consisting of dense undisturbed vegetation, including trees, shrubs and herbaceous vegetation; enhanced or restored vegetation; or the re-establishment of native vegetation which exists or is established to protect those waters or karst features. All buffer design requirements are determined by the Building Commissioner.
- 2.7. "Building Commissioner" means the Montgomery County, Tennessee Building Commissioner. Where the Building Commissioner is cited in this resolution it is understood to be either the Building Commissioner or the Stormwater Coordinator.
- 2.8. "Construction General Permit" means the General NPDES Permit for Discharges of Stormwater Associated with Construction Activities issued by the Tennessee Department of Environment and Conservation.
- 2.9. "Channel" means a natural or artificial watercourse with a definite bed and banks that conducts flowing water continuously or periodically.
- 2.10. "Common plan of development or sale" means any announcement or documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot. A common plan of development or sale identifies a situation in which multiple areas of disturbance are occurring on contiguous areas. This applies because the activities may take place at different times, on different schedules, by different operators.
- 2.11. "County" means Montgomery County, Tennessee.
- 2.12. "Contaminant" means any physical, chemical, biological, or radiological substance or matter in water.
- 2.13. "Design Storm" means a hypothetical storm event of a given frequency interval, duration and intensity used in the analysis of storm water facility.
- 2.14. "Develop (Development)" means:
- 2.14.1. Any man-made change to improved or unimproved real estate, including but not limited to clearing, tree removal, grubbing, stripping, mining, dredging, filling,

grading, paving, excavation, construction, demolition or drilling operations or the storage of equipment or materials;

2.14.2. 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;

2.14.3. The division of a lot, tract or parcel of land into two (2) or more lots, plots, sites, tracts, parcels or other divisions by plat or deed;

2.14.4. Redevelopment.

2.15. "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.

2.16. "Easement" means an acquired privilege or right of use or enjoyment that a person, party, firm, corporation, municipality, County or other legal entity has in the land of another.

2.17. "Erosion" means the removal of soil particles by the action of water, wind, ice or other geological agent, whether naturally occurring or acting in conjunction with or promoted by human activities or effects.

2.18. "Erosion prevention and sediment control plan (EPSC Plan)" means a written plan (including drawings or other graphic representations) that is designed to minimize the erosion and sediment runoff at a site during development activities.

2.19. "Hotspot" means an area where land use or activities have the potential to generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater. The following land uses and activities are deemed stormwater hot spots, but that term is not limited to only these land uses:

2.19.1. vehicle salvage yards and recycling facilities;

2.19.2. vehicle service and maintenance facilities;

2.19.3. vehicle and equipment cleaning facilities;

2.19.4. fleet storage areas (bus, truck, etc.);

2.19.5. industrial sites (included on Standard Industrial Classification code list);

2.19.6. marinas (service and maintenance);

- 2.19.7. public works storage areas;
 - 2.19.8. facilities that generate or store hazardous waste materials;
 - 2.19.9. commercial container nursery;
 - 2.19.10. restaurants and food service facilities; and,
 - 2.19.11. other land uses and activities as designated by the Building Commissioner.
- 2.20. "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.
- 2.21. "Illicit discharge" means any discharge to the municipal separate storm sewer system that is not composed entirely of stormwater and not specifically exempted under Section 7.2.
- 2.22. "Impaired waters" means any segment of surface waters that has been identified by the Tennessee Department of Environment and Conservation as failing to support classified uses.
- 2.23. "Injection Well (also, Class V Injection Well, drainage well, improved sinkhole)" means a natural surface depression that has been altered in order to direct fluids into a subsurface formation or stratum. Any discharge of stormwater or other fluid to an improved sinkhole or other injection well as defined by Tennessee Department of Environment and Conservation (TDEC) must be authorized by permit or rule as a Class V underground injection well under the provisions of TDEC Rule 1200-4-6.
- 2.24. "Inspector" means a person that has successfully completed (has a valid certification from) the "Fundamentals of Erosion Prevention and Sediment Control Level I" course or approved equivalent course. An inspector performs and documents the required inspections, paying particular attention to time-sensitive permit requirements such as stabilization and maintenance activities. An inspector may also have the following responsibilities:
- 2.24.1. oversee the requirements of other construction-related permits, such as Aquatic Resources Alteration Permit (ARAP) or Corps of Engineers permit for construction activities in or around waters of the state;
 - 2.24.2. update field SWPPPs;
 - 2.24.3. conduct pre-construction inspection to verify that undisturbed areas have been properly marked and initial measures have been installed; and

- 2.24.4. Inform the permit holder of activities that may be necessary to gain or remain in compliance with the Construction General Permit and other environmental permits.
- 2.25. “Karst (also, karst topography)” means a terrain underlain by limestone or dolomite in which the topography is formed chiefly by the dissolution of rock, and which may be characterized by geologic structures including but not limited to sinkholes, sinking streams, closed depressions, subterranean drainage, springs and caves.
- 2.26. “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. Maintenance shall not include actions taken solely for the purpose of enhancing aesthetics.
- 2.27. “Municipal separate storm sewer system (MS4)” means the conveyances owned or operated by the County 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, and where the context indicates, it means the municipality that owns the separate storm sewer system.
- 2.28. “National Pollutant Discharge Elimination System permit” or “NPDES permit” means a permit issued pursuant to 33 U.S.C. 1342.
- 2.29. “Peak flow” means the maximum instantaneous rate of flow of water at a particular point resulting from a storm event.
- 2.30. “Person” means any and all persons, natural or artificial, including any individual, firm, association, partnership, trust, estate and any municipal or private corporation organized or existing under the laws of this or any other state or country.
- 2.31. “Redevelopment” means development improvements that have a value greater than 50% of the current assessed value and/or changes the impervious surface area more than 10,000 square feet, redirects the flow of stormwater in any way, modifies the storm sewer system, changes the stormwater characteristics.
- 2.32. “Remediated sinkhole (repaired sinkhole, closed sinkhole, filled sinkhole)” means a sinkhole that has been closed using accepted engineering standards and practices.
- 2.33. “Runoff” means that portion of the precipitation on a drainage area that is discharged from the area into the municipal separate storm sewer system.

- 2.34. "Sediment" means solid material, both inorganic and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth's surface either above or below sea level.
- 2.35. "Sinkhole" means a closed depression characterized by inward drainage (inlets) accepting runoff from the surrounding area and having no visible surface outlet. The Tennessee Department of Environment and Conservation (TDEC) defines the limit of a sinkhole as the highest closed contour of the depression. For the purposes of this resolution, the assumption is made that any closed depression is a sinkhole. A sinkhole determination may be appealed to TDEC. If TDEC determines that the feature is not a sinkhole, the County will defer to TDEC's written decision.
- 2.36. "Stabilization" means providing adequate measures, vegetative and/or structural, that will prevent erosion from occurring.
- 2.37. "Stormwater" means stormwater runoff, snow melt runoff, surface runoff, street wash waters related to street cleaning or maintenance, infiltration and drainage.
- 2.38. "Stormwater Concept Plan" means a concept drawing and supporting documentation that describes how erosion and storm water runoff will be handled during and after construction for projects that disturb more than one half (1/2) acre but less than one (1) acre.
- 2.39. "Stormwater Coordinator" means the County official appointed by the Building Commissioner to manage the stormwater program.
- 2.40. "Stormwater maintenance agreement" (also, maintenance agreement or development agreement)" means an agreement that provides for the long term maintenance of stormwater infrastructure in a condition that presents no danger to the public health, safety, environment, or general welfare because of unsafe conditions or improper maintenance.
- 2.41. "Stormwater management facilities" means the drainage structures, conduits, ponds, ditches, combined sewers, sewers, and all device appurtenances by means of which stormwater is collected, transported, pumped, treated or disposed of.
- 2.42. "Stormwater management plans (grading, drainage and erosion control plans, land disturbance plans, development plans)" means the set of drawings and other documents that comprise all the information and specifications for the programs, drainage systems, structures, best management practices, concepts and techniques intended to maintain or restore quality and quantity of stormwater runoff at a site.
- 2.43. "Stormwater Pollution Prevention Plan (SWPPP)" means a written plan that includes site map(s), an identification of construction/contractor activities that could cause pollutants in the stormwater, and a description of measures or practices to control

these pollutants. All SWPPP's shall be prepared and updated in accordance with Section 3 of the General NPDES Permit for Discharges of Stormwater Associated with Construction Activities. All SWPPPs must be approved by the Building Commissioner before construction begins.

- 2.44. "Waste site" means an area where waste material from a construction site is deposited. When the material is erodible, such as soil, the site must be treated as a construction site.
- 2.45. "Watercourse" means a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water. For the purposes of this resolution, the assumption is made that any natural watercourse that conveys flow for any duration during any frequency storm is classified as a stream unless otherwise classified Tennessee Department of Environment and Conservation in writing.
- 2.46. "Waters (also, waterbodies, waters of the state)" means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.
- 2.47. "Wetland(s)" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted to life in saturated soil conditions. Wetlands include, but are not limited to, swamps, marshes, bogs, and similar areas.
- 2.48. "Wet weather conveyances" are man-made or natural watercourses, including natural watercourses that have been modified by channelization, that flow only in direct response to precipitation runoff in their immediate locality and whose channels are above the groundwater table and are not suitable for drinking water supplies; and in which hydrological and biological analyses indicate that, under normal weather conditions, due to naturally occurring ephemeral or low flow, there is not sufficient water to support fish or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months. (Rules and Regulations of the State of Tennessee, Chapter 1200-4-3-.04(3)).

3. WAIVERS.

- 3.1. General. No waivers will be granted for any development. All development activity shall provide for stormwater management as required by this resolution. However, alternatives to the 2010 NPDES General Permit for Discharges from Small Municipal Separate Storm Sewer Systems primary requirement for on-site permanent stormwater management may be considered by the Building Commissioner, if:

- 3.1.1. Management measures cannot be designed, built and maintained to infiltrate, evapotranspire, harvest and/or use, at a minimum, the first inch of every rainfall event preceded by 72 hours of no measurable precipitation. This first inch of rainfall must be 100% managed with no discharge to surface waters.
- 3.1.2. It can be demonstrated by an approved engineering study that the proposed development is not likely to impair attainment of the objectives of this Resolution.
- 3.2. Downstream damage, etc. prohibited. In order to receive consideration, the applicant must demonstrate to the satisfaction of the Building Commissioner that the proposed alternative will not lead to any of the following downstream conditions:
 - 3.2.1. Deterioration of existing culverts, bridges, dams, and other structures;
 - 3.2.2. Degradation of biological functions or habitat;
 - 3.2.3. Accelerated stream bank or streambed erosion or siltation;
 - 3.2.4. Increased threat of flood damage to public health, life or property.
- 3.3. Development permits not to be issued where alternatives requested. No development permit shall be issued where an alternative has been requested until the alternative is approved. If no alternative is approved, the plans must be resubmitted with a stormwater management plan that meets the primary requirement for on-site stormwater management.

4. **STORMWATER SYSTEM DESIGN: CONSTRUCTION AND PERMANENT STORMWATER MANAGEMENT.**

- 4.1. County Stormwater design or Best Management Practices manuals.
 - 4.1.1. Adoption. The County adopts as its stormwater design and best management practices manuals for stormwater management, construction and permanent, the following publications, which are incorporated by reference in this resolution as if fully set out herein:
 - 4.1.1.1. Tennessee Department of Environment and Conservation Erosion Prevention and Sediment Control Handbook; most current edition.
 - 4.1.1.2. Tennessee Guide to the Selection & Design of Stormwater Best Management Practices; most current edition.
 - 4.1.1.3. The Nashville-Davidson County Metropolitan Stormwater Management Manual Volume 2 (Procedures); most current edition.

- 4.1.1.4. The Nashville-Davidson County Metropolitan Stormwater Management Manual Volume 4 (Best Management Practices); most current edition.
- 4.1.1.5. A collection of Best Management Practices approved by the Building Commissioner for use in the County that comply with the goals of the County MS4 permit and/or the Construction General Permit.
- 4.1.2. The County's best management practices manual(s) include a list of acceptable best management practices, including the specific design performance criteria and operation and maintenance requirements for each stormwater practice. These include County approved best management practices for permanent stormwater management including green infrastructure best management practices.
- 4.1.3. The County manual(s) may be updated and expanded from time to time, at the discretion of the Montgomery County Commission, upon the recommendation of the Building Commissioner based on improvements in engineering, science, monitoring and local maintenance experience, or changes in federal or state law or regulation.
- 4.1.4. Stormwater facilities that are designed constructed and maintained in accordance with these best management practices criteria will be presumed to meet the minimum water quality performance standards. In the event of conflict between manuals, the Building Commissioner shall determine which requirements will apply.
- 4.2. Land development. This section shall be applicable to all land development, including, but not limited to, site plan applications, subdivision applications, development applications and grading applications. These standards apply to any new development or redevelopment that involves one acre or more.
- 4.3. Projects of less than one acre. Projects or developments of less than one acre of total land disturbance may be required to obtain development authorization under this resolution if:
 - 4.3.1. the Building Commissioner has determined that the stormwater discharge from a site is causing, contributing to, or is likely to contribute to a violation of a state water quality standard;
 - 4.3.2. the Building Commissioner has determined that the stormwater discharge is, or is likely to be a significant contributor of pollutants to waters of the state;
 - 4.3.3. changes in state or federal rules require sites of less than one acre that are not part of a larger common plan of development or sale to obtain a stormwater permit;

- 4.3.4. any new development or redevelopment, regardless of size, that is defined by the Building Commissioner to be a hotspot land use; or
- 4.3.5. minimum applicability criteria set forth in Section 4.2 above if such activities are part of a larger common plan of development, even multiple, that is part of a separate and distinct land development activity that may take place at different times on different schedules.
- 4.4. Stormwater concept plans. A stormwater concept plan shall be submitted for all land development or redevelopment that involves more than one half (1/2) acre but less than one acre for review and approval by the Building Commissioner.
- 4.5. Watershed development studies. The Building Commissioner shall have the authority to require the submission of a watershed development study. A watershed development study shall provide all information necessary to show that development will not degrade water quality, result in downstream damage or cause increased downstream flooding (no increase in the base flood elevation). All watershed development studies must be approved by the Building Commissioner and are subject to review by an independent engineer at the developer's expense.
- 4.6. Hydrologic and hydraulic studies. The Building Commissioner shall have the authority to require the submission of hydrologic and hydraulic studies of a watershed or flood hazard area for determining compliance with the intent of this resolution, the Clarksville Montgomery County Subdivision Regulations and/or the Montgomery County Zoning Resolution. All hydrologic and hydraulic studies must be approved by the Building Commissioner and are subject to review by an independent engineer at the developer's expense.
- 4.7. Other Permit Submission. Development permittees must provide the following documentation to the Building Commissioner before a development permit will be issued:
 - 4.7.1. Proof of coverage under the Construction General Permit (Notice of Coverage);
 - 4.7.2. A Storm Water Pollution Prevention Plan approved by the State of Tennessee;
 - 4.7.3. Any erosion prevention and sediment control plans approved by the State of Tennessee;
 - 4.7.4. Copies of any additional applicable local, state or federal permits (i.e.: ARAP, etc.);
 - 4.7.5. A copy of the signed Notice of Termination (following project completion).

- 4.8. Stormwater Pollution Prevention Plan (SWPPP) for Construction Stormwater Management: Permit applicants must prepare a stormwater pollution prevention plan for all construction activities that complies with section 4.11 below. The purpose of this plan is to identify construction/contractor activities that could cause pollutants in the stormwater, and to describe measures or practices to control these pollutants during project construction.
- 4.9. Stormwater Pollution Prevention Plan requirements. The erosion prevention and sediment control plan component of the SWPPP 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 plan shall be sealed by a registered professional engineer or landscape architect licensed in the state of Tennessee. In addition to the requirements listed in Section 3 of the Construction General Permit, the SWPPP shall at least include the following:
- 4.9.1. Project description: Briefly describe the intended project and proposed land disturbing activity including number of units and structures to be constructed and infrastructure required.
 - 4.9.2. A topographic map with contour intervals of two (2) feet showing present conditions and proposed contours resulting from land disturbing activity.
 - 4.9.3. All existing drainage ways, including intermittent and wet-weather. Include any designated floodways or flood plains.
 - 4.9.4. A general description of existing land cover. Individual trees and shrubs do not need to be identified.
 - 4.9.5. 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 are required to be submitted for approval by the Building Commissioner. The plan must include the sequence of implementation for tree protection measures.
 - 4.9.6. Approximate limits of proposed clearing, grading and filling.
 - 4.9.7. Approximate flows of existing stormwater leaving any portion of the site.
 - 4.9.8. A general description of existing soil types and characteristics and any anticipated soil erosion and sedimentation problems resulting from existing characteristics.

- 4.9.9. Location, size and layout of proposed stormwater and sedimentation control improvements.
- 4.9.10. Existing and proposed drainage network.
- 4.9.11. Proposed drain tile or waterway sizes.
- 4.9.12. 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.
- 4.9.13. The projected sequence of work represented by the grading, drainage and erosion control plans as related to other major items of construction, beginning with the initiation of excavation and including the construction of any sediment basins or retention/detention facilities or any other structural best management practices.
- 4.9.14. 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.
- 4.9.15. Specific details for: the construction of stabilized construction entrance/exits, concrete washouts, and sediment basins for controlling erosion; road access points; eliminating or keeping soil, sediment, and debris on streets and public ways at a level acceptable to the County. Soil, sediment, and debris brought onto streets and public ways must be removed by the end of the work day to the satisfaction of the County. Failure to remove the sediment, soil or debris shall be deemed a violation of this resolution.
- 4.9.16. Proposed structures: location and identification of any proposed additional buildings, structures or development on the site.
- 4.9.17. A description of on-site measures to be taken to recharge surface water into the groundwater system through runoff reduction practices.
- 4.9.18. Specific details for construction waste management. Construction site operators shall control waste such as discarded building materials, concrete truck washout, petroleum products and petroleum related products, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water

quality. When the material is erodible, such as soil, the site must be treated as a construction site.

- 4.10. General design performance criteria for permanent stormwater management: the following performance criteria shall be addressed for permanent stormwater management at all development sites:

4.10.1. Site design standards for all new development and redevelopment require, in combination or alone, management measures that are designed, built and maintained to infiltrate, evapotranspire, harvest and/or use, at a minimum, the first inch of every rainfall event preceded by 72 hours of no measurable precipitation. This first inch of rainfall must be 100% managed with no discharge to surface waters.

4.10.2. Limitations to the application of runoff reduction requirements include, but are not limited to:

4.10.2.1. Where a potential for introducing pollutants into the groundwater exists, unless pretreatment is provided;

4.10.2.2. Where pre-existing soil contamination is present in areas subject to contact with infiltrated runoff;

4.10.2.3. Presence of sinkholes or other karst features.

4.10.3. Pre-development infiltrative capacity of soils at the site must be taken into account in selection of runoff reduction management measures.

4.10.4. Incentive standards for redevelopment sites. A 10% reduction in the volume of rainfall to be managed for any of the following types of development. Such credits are additive such that a maximum reduction of 50% of the standard in the paragraph above is possible for a project that meets all 5 criteria:

4.10.4.1. Redevelopment;

4.10.4.2. Brownfield redevelopment;

4.10.4.3. High density (>7 units per acre);

4.10.4.4. Vertical Density, (Floor to Area Ratio of 2, or more than 18 units per acre);
and

4.10.4.5. Mixed use and Transit Oriented Development (within one-half mile of transit).

- 4.10.5. For projects that cannot meet 100% of the runoff reduction requirement unless subject to the incentive standards, the remainder of the stipulated amount of rainfall must be treated prior to discharge with a technology documented to remove 80% total suspended solids and maintain a discharge rate that does not cause damage to receiving drainages, waters or downstream structures. The treatment technology must be approved by the Building Commissioner and designed, installed and maintained to continue to meet this performance standard.
- 4.10.6. To protect stream channels from degradation, specific channel protection criteria shall be provided as prescribed in the County best management practices manuals.
- 4.10.7. Stormwater discharges to critical areas with sensitive resources (as defined by the Tennessee Department of Environment and Conservation) may be subject to additional performance criteria, or may need to utilize or restrict certain stormwater management practices.
- 4.10.8. Stormwater discharges from hot spots may be subject to additional performance criteria, and may require the application of specific structural best management practices and pollution prevention practices. In addition, stormwater from a hot spot land use may not be infiltrated.
- 4.10.9. Prior to or during the site design process, applicants for development permits shall consult with the Building Commissioner to determine if they are subject to additional stormwater design requirements.
- 4.10.10. The calculations for determining peak flows as found in the County best management practices manual shall be used for sizing all stormwater facilities.
- 4.10.11. Stormwater discharges from new development and redevelopment sites must be managed such that post development hydrology does not exceed pre-development hydrology at the site.
- 4.11. Minimum volume control requirements. In accordance with Section 1.2.3.3, the County may establish standards to regulate the quantity of stormwater discharged, therefore:
 - 4.11.1. Stormwater designs shall meet the multi-stage storm frequency storage requirements as identified in the County best management practices manual.
 - 4.11.2. If hydrologic or topographic conditions warrant greater control than that provided by the minimum control requirements, the Building Commissioner may impose any and all additional requirements deemed necessary to control the volume, timing, and rate of runoff.

4.12. Permanent stormwater management plan requirements. The permanent stormwater management plan shall include sufficient information to allow the Building Commissioner 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:

4.12.1. Topographic base map of the site which extends a minimum of 100 feet beyond the limits of the proposed development and indicates:

4.12.1.1. 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;

4.12.1.2. Current land use including all existing structures, locations of utilities, roads, and easements;

4.12.1.3. All other existing significant natural and artificial features;

4.12.1.4. 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.

4.12.2. Proposed structural and non-structural best management practices;

4.12.3. A written description of the site plan and justification of proposed changes in natural conditions may also be required;

4.12.4. Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in the County management practices manuals. These calculations must show that the proposed stormwater management measures are capable of controlling runoff from the site in compliance with this Resolution and the guidelines of the County best management practices manuals. Such calculations shall include:

4.12.4.1. A description of the design storm frequency, duration and intensity where applicable;

4.12.4.2. Time of concentration;

4.12.4.3. Soil curve numbers or runoff coefficients including assumed soil moisture conditions;

4.12.4.4. Peak runoff rates and total runoff volumes for each watershed area;

4.12.4.5. Infiltration rates, where applicable;

4.12.4.6. Culvert, stormwater sewer, ditch and/or other stormwater conveyance capacities;

4.12.4.7. Flow velocities;

4.12.4.8. Data on the increase in rate and volume of runoff for the design storms referenced in the County best management practices manual; and

4.12.4.9. Documentation of sources for all computation methods and field test results.

4.13. 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. The soils report shall be prepared by a qualified soils engineer, who shall be directly involved in the soil characterization either by performing the investigation or by directly supervising employees conducting the investigation.

4.14. Maintenance and repair plan: The design and planning of all permanent stormwater management facilities shall include detailed maintenance and repair procedures to ensure their continued performance. These plans will identify the parts or components of a stormwater management facility that need to be maintained and the equipment and skills or training necessary. Provisions for the periodic review and evaluation of the effectiveness of the maintenance program and the need for revisions or additional maintenance procedures shall be included in the plan.

5. **PERMANENT STORMWATER MANAGEMENT: OPERATION, MAINTENANCE, AND INSPECTION.**

5.1. 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. Final plans shall not be approved and certificates of occupancy shall not be granted until corrections to all best management practices have been made and accepted by the County.

5.2. Soil stabilization requirements.

5.2.1. Any area of land from which the natural vegetative cover has been either partially or wholly cleared by development activities shall be stabilized. Temporary or permanent soil stabilization at the construction site (or a phase of the project) must be completed not later than fourteen (14) days after the construction activity in that portion of the site has temporarily or permanently ceased. In the following situations, and with approval of the Building Commissioner, temporary stabilization measures are not required:

5.2.1.1. Where the initiation of stabilization measures is precluded by snow cover or frozen ground conditions, adverse soggy ground conditions or dry weather, stabilization measures shall be initiated as soon as practicable; or

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

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

5.2.3. Erosion control blanket/matting, sod or hydroseeding must be used to permanently stabilize areas of concentrated flow, slopes steeper than 2.5:1, with a height of ten feet or greater and cuts and fills in proximity to a riparian area or floodplain.

5.2.4. The following criteria shall apply to stabilization efforts:

5.2.4.1. Seeding 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.

5.2.4.2. 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.

5.2.4.3. 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.

- 5.2.4.4. 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.
- 5.3. Inspection of stormwater management facilities. Periodic inspections of facilities shall be performed, documented, and reported in accordance with this resolution, as detailed in Section 6.
- 5.4. Records of installation and maintenance activities. Parties responsible for the operation and maintenance of a stormwater management facility shall make records of the installation of the stormwater facility, and of all maintenance and repairs to the facility, and shall retain the records for at least three (3) years. These records shall be made available to the County during inspection of the facility and at other times upon request.
- 5.5. 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 Resolution, the County, 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 County shall notify in writing the party responsible for maintenance of the stormwater management facility. Upon receipt of that notice, the responsible person shall have thirty (30) days to effect maintenance and repair of the facility in an approved manner. In the event that corrective action is not undertaken within that time, the County may take necessary corrective action. The cost of any action by the County under this section shall be charged to the responsible party.

6. EXISTING LOCATIONS AND ONGOING DEVELOPMENTS.

- 6.1. On-site stormwater management facility maintenance agreement. The owner of property where a stormwater management facility is located 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 and their lessees and assigns, including but not limited to, homeowner associations or other groups or entities.
- 6.2. Maintenance agreement terms. The maintenance agreements shall:

- 6.2.1. Assign responsibility for the maintenance and repair of the stormwater facility to the owners of the property upon which the facility is located and be recorded as such on the plat for the property by appropriate notation.
- 6.2.2. Provide for a periodic inspection by the property owners in accordance with the requirements of Subsection 6.2.5 below for the purpose of documenting maintenance and repair needs and to ensure compliance with the requirements of this resolution. The property owners will arrange for this inspection to be conducted by a registered professional engineer licensed to practice in the State of Tennessee, who will submit a signed written report of the inspection to the Building Commissioner. It shall also grant permission to the County to enter the property at reasonable times and to inspect the stormwater facility to ensure that it is being properly maintained.
- 6.2.3. Provide that the minimum maintenance and repair needs include, but are not limited to: the removal of silt, litter and other debris, the cutting of grass, cutting and vegetation removal, and the replacement of landscape vegetation, in detention and retention basins, and inlets and drainage pipes and any other stormwater facilities. It shall also provide that the property owners shall be responsible for additional maintenance and repair needs consistent with the needs and standards outlined in the County best management practices manual.
- 6.2.4. Provide that maintenance needs must be addressed in a timely manner, on a schedule to be determined by the Building Commissioner.
- 6.2.5. Provide that if the property is not maintained or repaired within the prescribed schedule, the County may enter the property and perform the maintenance and repair at its expense, and bill the same to the property owner. The maintenance agreement shall also provide that the Building Commissioner's cost of performing the maintenance shall be a lien against the property.
- 6.3. Existing problem locations – no maintenance agreement.
 - 6.3.1. Notification of problems to owners. The Building Commissioner shall in writing notify the owners of existing locations and developments of specific drainage, erosion or sediment problems affecting or caused by such locations and developments, and the specific actions required to correct those problems. The notice shall also specify a reasonable time for compliance. Discharges from existing Best Management Practices that have not been maintained and/or inspected in accordance with this resolution shall be regarded as illicit.
 - 6.3.2. Inspection of existing facilities. The County may, to the extent authorized by state and federal law, enter and inspect private property for the purpose of determining if there are illicit non-stormwater discharges, and to verify that all stormwater management facilities are functioning within design limits. These

inspection programs may be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type which are more likely than the typical discharge to cause violations of the County'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 best management practices.

6.3.3. Owner/Operator Inspections - General. The owners and/or the operators of stormwater best management practices shall:

6.3.3.1. Perform routine inspections to ensure that the best management practices are properly functioning.

6.3.3.2. These inspections shall be conducted on an annual basis at a minimum. These inspections shall be conducted by a person familiar with control measures implemented at a site. Owners or operators shall maintain documentation of these inspections. The Building Commissioner may require submittal of this documentation.

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

6.3.3.3.1. Facility type,

6.3.3.3.2. Inspection date,

6.3.3.3.3. Latitude and longitude and nearest street address,

6.3.3.3.4. Best management practices owner information (e.g. name, address, phone number, fax, and email),

6.3.3.3.5. A description of best management practices condition including: vegetation and soils; inlet and outlet channels and structures;

embankments, slopes, and safety benches; spillways, weirs, and other control structures; and any sediment and debris accumulation,

6.3.3.3.6. Photographic documentation of the best management practices, and

6.3.3.3.7. Specific maintenance items or violations that need to be corrected by the best management practices owner along with deadlines and reinspection dates.

6.3.4. Owners or operators shall maintain documentation of these inspections. The Building Commissioner may require submittal of this documentation.

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

6.4.1. Denuded areas must be vegetated or covered under the standards and guidelines specified in Sections 5.2.4.1, 5.2.4.2 and 5.2.4.3 on a schedule acceptable to the Building Commissioner.

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

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

6.4.4. Trash, junk, rubbish, etc. shall be cleared from drainage ways.

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

6.4.5.1. Ponds

6.4.5.1.1. Detention pond

6.4.5.1.2. Extended detention pond

6.4.5.1.3. Wet pond

6.4.5.1.4. Alternative storage measures

6.4.5.2. Constructed wetlands

6.4.5.3. Infiltration systems

- 6.4.5.3.1. Infiltration/percolation trench
- 6.4.5.3.2. Infiltration basin
- 6.4.5.3.3. Drainage (recharge) well
- 6.4.5.3.4. Porous pavement
- 6.4.5.4. Filtering systems
 - 6.4.5.4.1. Catch basin inserts/media filter
 - 6.4.5.4.2. Sand filter
 - 6.4.5.4.3. Filter/absorption bed
 - 6.4.5.4.4. Filter and buffer strips
- 6.4.5.5. Open channel
 - 6.4.5.5.1. Swale

6.5. Corrections of problems subject to appeal. Corrective measures imposed by the Building Commissioner under this section are subject to appeal under Section 12 of this resolution.

7. **ILLICIT DISCHARGES.**

- 7.1. Scope. This section shall apply to all water generated on developed or undeveloped land entering the County's separate storm sewer system.
- 7.2. Prohibition of illicit discharges. No person shall introduce or cause to be introduced into the municipal separate storm sewer system any discharge that is not composed entirely of stormwater or any discharge that flows from stormwater facility that is not inspected in accordance with section 6 shall be an illicit discharge. Non-stormwater discharges shall include, but shall not be limited to, sanitary wastewater, commercial car wash wastewater, radiator flushing disposal, spills from roadway accidents, carpet cleaning wastewater, effluent from septic tanks, improper oil disposal, laundry wastewater/gray water, improper disposal of auto and household toxics. The commencement, conduct or continuance of any non-stormwater discharge to the municipal separate storm sewer system is prohibited except as described as follows:
 - 7.2.1. Uncontaminated discharges from the following sources:

- 7.2.1.1. Water line flushing or other potable water sources;
- 7.2.1.2. Landscape irrigation or lawn watering with potable water;
- 7.2.1.3. Diverted stream flows;
- 7.2.1.4. Rising groundwater;
- 7.2.1.5. Groundwater infiltration to storm drains;
- 7.2.1.6. Pumped groundwater;
- 7.2.1.7. Foundation or footing drains;
- 7.2.1.8. Crawl space pumps;
- 7.2.1.9. Air conditioning condensation;
- 7.2.1.10. Springs;
- 7.2.1.11. Non-commercial washing of vehicles;
- 7.2.1.12. Natural riparian habitat or wetland flows;
- 7.2.1.13. Swimming pools (if dechlorinated - typically less than one PPM chlorine);
- 7.2.1.14. Firefighting activities;
- 7.2.1.15. Any other uncontaminated water source.
- 7.2.2. Discharges specified in writing by the County as being necessary to protect public health and safety.
- 7.2.3. Dye testing is an allowable discharge if the County has so specified in writing.
- 7.2.4. Discharges authorized by the Construction General Permit, which comply with Section 3.5.9 of the same:
 - 7.2.4.1. dewatering of work areas of collected stormwater and groundwater (filtering or chemical treatment may be necessary prior to discharge);
 - 7.2.4.2. waters used to wash vehicles (of dust and soil, not process materials such as oils, asphalt or concrete) where detergents are not used and detention and/or filtering is provided before the water leaves site;

- 7.2.4.3. water used to control dust in accordance with Construction General Permit section 3.5.5;
 - 7.2.4.4. potable water sources including waterline flushings from which chlorine has been removed to the maximum extent practicable;
 - 7.2.4.5. routine external building wash-down that does not use detergents or other chemicals;
 - 7.2.4.6. uncontaminated groundwater or spring water; and
 - 7.2.4.7. Foundation or footing drains where flows are not contaminated with pollutants (process materials such as solvents, heavy metals, etc.).
- 7.3. Prohibition of illicit connections. The construction, use, maintenance or continued existence of illicit connections to the municipal separate storm sewer system is prohibited. This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
- 7.4. 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 best management practices necessary to prevent the further discharge of pollutants to the municipal separate storm sewer system. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of stormwater associated with industrial activity, to the extent practicable, shall be deemed in compliance with the provisions of this section. Discharges from existing best management practices that have not been maintained and/or inspected in accordance with this resolution shall be regarded as illicit.
- 7.5. Notification of spills. Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting in, or may result in, illicit discharges or pollutants discharging into, the municipal separate storm sewer system, the person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials the person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, the person shall notify the County in person or by telephone, fax, or email, no later than the next business day. Notifications in person or by telephone shall be confirmed by written notice addressed and mailed to the County within three (3) business days of the telephone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the

owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three (3) years.

- 7.6. No illegal dumping allowed. No person shall dump or otherwise deposit outside an authorized landfill, convenience center or other authorized garbage or trash collection point, any debris, trash or garbage of any kind or description on any private or public property, occupied or unoccupied, inside the County.
- 7.7. Alteration or blockage of drainages. No person may modify the size, location composition or capacity of a surface or subsurface drainage without written authorization of the Building Commissioner.

8. WATER QUALITY BUFFERS

- 8.1. Applicability. Water quality buffer requirements apply to all areas of land development or re-development containing waters of the state. Buffers are required along all waters of the state or as deemed necessary by the Building Commissioner. Buffers must be established, maintained and protected, and shall remain undisturbed for the length of the water body. Buffer zones are not primary sediment control measures and should not be relied on as such. Rehabilitation and enhancement of a natural buffer zone is allowed, if necessary for improvement of its effectiveness of protection of the waters of the state. These requirements are in addition to, and do not replace or supersede, any other applicable buffer requirements established by the State and Federal Governments.
- 8.2. Buffers along drainages. The Building Commissioner may require water quality buffers to be established along wet weather conveyances or other drainages to prevent pollutive discharges into waters of the state.
- 8.3. Water quality buffer requirements.
 - 8.3.1. River and stream buffers. The buffer shall be measured horizontally from the top of bank. Top of bank shall mean the highest elevation of land which confines water flowing in a stream to the channel.
 - 8.3.1.1. All land development or re-development activity subject to this resolution shall establish and maintain a permanent 30 foot buffer along all rivers or streams with drainage areas less than 1 square mile. If approved by the Building Commissioner, the 30 foot criterion for the width of the buffer can be established on an average width basis, as long as the minimum width of the buffer zone is more than 15 feet at any measured location.
 - 8.3.1.2. All land development or re-development activity subject to this resolution shall establish and maintain a permanent 60 foot buffer along all rivers or

streams with drainage areas greater than 1 square mile or that have been designated as impaired. If approved by the Building Commissioner, the 60 foot criterion for the width of the buffer can be established on an average width basis, as long as the minimum width of the buffer zone is more than 30 feet at any measured location.

8.3.2. Ponds and lakes. All land development or re-development activity subject to this resolution shall establish and maintain a permanent 30 foot buffer along all ponds and lakes.

8.3.3. Wetlands. All land development or re-development activity subject to this resolution shall establish and maintain a permanent 60 foot wide undisturbed buffer adjacent to all wetlands. The buffer width shall be measured around the outer edge of the identified wetland. Native vegetation shall be undisturbed in this buffer. For those wetlands where the designation or extent of the wetland is in dispute, Montgomery County will rely on wetland determinations that are approved by the US Army Corps of Engineers or the Tennessee Department of Environment and Conservation.

8.3.4. Sinkholes. No structures or land disturbing activities are allowed within the area surrounding a sinkhole that is delineated by the 100 year flood zone contour line (hachure), determined assuming plugged conditions (zero cubic feet per second discharge). Subsurface Sewage Disposal System secondary disposal fields (duplicate area disposal fields) may be allowed within the 100 year flood zone contour line (hachure) if approved by the Tennessee Department of Environment and Conservation. Storm water flowing into a sinkhole from a construction or development site must be treated to prevent pollutant introduction into the sinkhole.

8.3.5. Class 5 Injection Wells. No structures or land disturbing activities are allowed within the area surrounding a Class 5 Injection Well that is delineated by the 100 year flood zone contour line (hachure), determined assuming plugged conditions (zero cubic feet per second discharge).

8.4. Forbidden activities within a water quality buffer. The following activities are forbidden within buffers without prior written permission from the Building Commissioner.

8.4.1. Burning.

8.4.2. Dredging, filling or dumping.

8.4.3. Using, storing, applying or disposing of pesticides, herbicides, fertilizers or any hazardous materials.

8.4.4. Storage of bulk materials

- 8.4.5. Removal of vegetation with the exception of vegetation that poses a threat to property or personal safety, or which would create a significant blockage to stream flow. Any vegetation removal requires written approval from the Building Commissioner.
- 8.4.6. Development, construction or placement of structures with the exception of structures or projects that are approved by the Tennessee Department of Environment and Conservation, the Tennessee Wildlife Resources Agency, the U.S. Army Corps of Engineers.
- 8.5. Water Quality Buffer Delineation. Water quality buffers shall be marked along the length of the feature with approved permanent signage placed along the outer edge of buffer at intervals of 200 feet or less.
- 8.6. The following note must be included on the Final Plat if there is a designated water quality buffer: **“Water Quality Buffer. There shall be no clearing, grading, construction or disturbance of soil and/or native vegetation within a designated water quality buffer unless permitted by the Montgomery County Building Commissioner.”**

9. ENFORCEMENT.

- 9.1. Enforcement authority. The Building Commissioner shall have the authority to issue notices of violation and citations, and to impose the civil penalties provided in this section. Measures authorized include:
 - 9.1.1. Verbal Warnings – At a minimum, verbal warnings must specify the nature of the violation and required corrective action.
 - 9.1.2. Written Notices – Written notices must stipulate the nature of the violation and the required corrective action, with deadlines for taking such action.
 - 9.1.3. Citations with Administrative Penalties – The Building Commissioner has the authority to assess monetary penalties, which may include civil and administrative penalties.
 - 9.1.4. Stop Work Orders – Stop work orders that require construction activities to be halted, except for those activities directed at cleaning up, abating discharge, and installing appropriate control measures.
 - 9.1.5. Withholding of Plan Approvals or Other Authorizations – Where a facility is in noncompliance, the Building Commissioner’s own approval process affecting the facility’s ability to discharge to the MS4 can be used to abate the violation.

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

9.2. Notification of violation:

- 9.2.1. Verbal warning. Verbal warning may be given at the discretion of the inspector when it appears the condition can be corrected by the violator within a reasonable time, which time shall be approved by the inspector.
- 9.2.2. Written notice. Whenever the Building Commissioner finds that any permittee or any other person discharging stormwater has violated or is violating this resolution or a permit or order issued hereunder, the Building Commissioner 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 Building Commissioner. 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.
- 9.2.3. Consent orders. The Building Commissioner 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 subsections 9.2.4 and 9.2.5 below.
- 9.2.4. Show cause hearing. The Building Commissioner may order any person who violates this Resolution 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.
- 9.2.5. Compliance order. When the Building Commissioner finds that any person has violated or continues to violate this Resolution or a permit or order issued thereunder, he may issue an order to the violator directing that, following a specific time period, adequate structures or devices be installed and/or procedures

implemented and properly operated. Orders may also contain such other requirements as might be reasonably necessary and appropriate to address the noncompliance, including the construction of appropriate structures, installation of devices, self-monitoring, and management practices.

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

9.2.6.1. Comply forthwith; or

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

9.2.7. Suspension, revocation or modification of permit. The Building Commissioner may suspend, revoke or modify the permit authorizing the land development project or any other project of the applicant or other responsible person within the County. A suspended, revoked or modified permit may be reinstated after the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein, provided such permit may be reinstated upon such conditions as the Building Commissioner may deem necessary to enable the applicant or other responsible person to take the necessary remedial measures to cure such violations.

10. PENALTIES.

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

10.2. Penalties. Under the authority provided in Tennessee Code Annotated § 68-221-1106, the County declares that any person violating the provisions of this Resolution may be assessed a civil penalty by the Building Commissioner 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.

10.3. Measuring civil penalties. In assessing a civil penalty, the Building Commissioner may consider:

- 10.3.1. The harm done to the public health or the environment;
 - 10.3.2. Whether the civil penalty imposed will be a substantial economic deterrent to the illegal activity;
 - 10.3.3. The economic benefit gained by the violator;
 - 10.3.4. The amount of effort put forth by the violator to remedy this violation;
 - 10.3.5. Any unusual or extraordinary enforcement costs incurred by the County;
 - 10.3.6. The amount of penalty established by resolution for specific categories of violations; and
 - 10.3.7. Any equities of the situation which outweigh the benefit of imposing any penalty or damage assessment.
- 10.4. Recovery of damages and costs. In addition to the civil penalty in subsection 10.2 above, the County may recover:
- 10.4.1. All damages proximately caused by the violator to the County, which may include any reasonable expenses incurred in investigating violations of, and enforcing compliance with, this Resolution, or any other actual damages caused by the violation.
 - 10.4.2. The costs of the County's maintenance of stormwater facilities when the user of such facilities fails to maintain them as required by this Resolution.
- 10.5. Referral to TDEC. Where the County has used progressive enforcement to achieve compliance with this resolution, and in the judgment of the County has not been successful, the County may refer the violation to TDEC. For the purposes of this provision, "progressive enforcement" shall mean two (2) follow-up inspections and two (2) warning letters. In addition, enforcement referrals to TDEC must include, at a minimum, the following information:
- 10.5.1. Construction project or industrial facility location;
 - 10.5.2. Name of owner or operator;
 - 10.5.3. Estimated development project or size or type of industrial activity (including the Standard Industrial Classification code, if known);

- 10.5.4. Records of communications with the owner or operator regarding the violation, including at least two follow-up inspections, two warning letters or notices of violation, and any response from the owner or operator.
- 10.6. Other remedies. The County may bring legal action to enjoin the continuing violation of this Resolution, and the existence of any other remedy, at law or equity, shall be no defense to any such actions.
- 10.7. Remedies cumulative. The remedies set forth in this section shall be cumulative, not exclusive, and it shall not be a defense to any action, civil or criminal, that one (1) or more of the remedies set forth herein has been sought or granted.

11. STORMWATER BOARD OF APPEALS

- 11.1. Creation. There is hereby created a **Storm Water Board of Appeals** that shall consist of five members and two alternate members appointed by the County Mayor. The Board shall be comprised of the following members
- 11.1.1. Three members and one alternate members from the community at large with an interest in land development and/or land disturbing activities;
- 11.1.2. One member and one alternate member that have no interest in land development and/or land disturbing activity; and,
- 11.1.3. One technical member who shall be a civil engineer registered in the State of Tennessee.
- 11.2. Appointment. Appointees shall serve for a term of two (2) years. To be eligible to serve, appointees shall have been residents of Montgomery County for not less than one year. Appointees shall notify the County Mayor within ten (10) working days of a change in their residency status, if the change of residency is outside of Montgomery County. The County Mayor may allow the non-resident appointee to complete his/her term or shall nominate a replacement within sixty (60) days. The terms of office of the initial appointees shall be staggered as follows:
- 11.2.1. One technical member, two lay members, and one alternate for a term of two (2) years, and
- 11.2.2. Two lay members and one alternate for a term of one (1) year
- 11.3. Organization. Within sixty (60) days after its appointment, the Board shall organize itself by election of one of its members as chairman and another as vice chairman. The Montgomery County Building Commissioner shall appoint a secretary to the Board

who shall be the custodian of the minutes and records of the proceedings of the Board. The County Attorney shall serve as legal adviser to the Board.

- 11.4. Compensation. All appointees to the Board shall serve without compensation and may be removed from membership on the Board by the County Mayor for continued absence from meetings of the Board, physical disability or other just cause.
- 11.5. Replacement of Members. Replacement of any appointed member of the Board resigning or dismissed from the Board shall be appointed by the County Mayor. Any member appointed as a replacement shall serve only for the remainder of the term of the member replaced, unless subsequently reappointed for an additional term.
- 11.6. Procedures. The Board shall adopt such rules of procedure, as it may deem necessary, to conduct its business in conformance with this Resolution.
- 11.7. Meetings. The Board, in open meeting, shall hear all appeals, under the provisions of this Resolution. The Board shall meet every three months. The chairman shall determine the day and time of the Board meetings. In the event no appeals have been filed and there is no business pending, the chairman may cancel the meeting ten (10) days before its scheduled date. In every case, the Board shall meet within thirty (30) days after a notice of appeal has been received. Notification of the hearing shall be sent to the appellant and shall appear in the newspaper of general circulation in Clarksville at least ten (10) working days before the date set for the hearing.
- 11.8. Quorum, Voting and Conflict of Interest. Three (3) members of the Board shall constitute a quorum. A majority vote of members present shall be required for actions by the Board. No member of the Board shall act in any case in which they have a personal interest. An alternate member shall replace any member who has a conflict of interest or is unable to attend.

12. APPEALS

- 12.1. Pursuant to Tennessee Code Annotated § 68-221-1106(d), any person aggrieved by the imposition of a civil penalty, damage assessment and/or administrative expenses as provided by this resolution may appeal said civil penalty or damage assessment and/or administrative expense to the Montgomery County Stormwater Board of Appeals.
 - 12.1.1. Appeals to be in writing. The appeal shall be in writing and filed with the Montgomery County Building and Codes Clerk within thirty (30) days of the date that the notice of the civil penalty, damage assessment and/or administrative expense is served in any manner authorized by law.
 - 12.1.2. Public hearing. Upon receipt of an appeal, the Stormwater Board of Appeals 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.

- 12.1.3. If a petition for review of such civil penalty, damage assessment and/or administrative expense is not filed within thirty (30) days following the notice of civil penalty, damages, and/or administrative expenses is served in any manner authorized by law, the violator shall be deemed to have consented to the damage assessment or civil penalty and it shall become final.

12.2. Any alleged violator may appeal a decision of the Stormwater Board of Appeals pursuant to the provisions of Tennessee Code Annotated, Title 27, Chapter 8.

- 12.2.1. If an appeal of a civil penalty, damage assessment and/or of administrative expenses that was approved by the Storm Water Board of Appeals is not filed within sixty (60) days following the determination of the Stormwater Board of appeals, the violator shall be deemed to have consented to the civil penalty, damages, and/or administrative expenses and the decision of the Stormwater Board of Appeals shall become final.