

STORMWATER MANAGEMENT

SECTION

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14-1401 General provisions

- (1) Purpose. It is the purpose of this chapter to:
 - a. Protect, maintain, and enhance the environment of Anderson County and the public health, safety and the 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;
 - b. Enable Anderson County to comply with the National Pollution Discharge Elimination System permit (NPDES) and applicable regulations, 40 CFR § 122 as applicable for stormwater discharges;
 - c. Allow the County to exercise the powers granted in Tennessee Code Annotated § 68-221-1105, which provides that, among other powers cities have with respect to stormwater facilities, is the power by resolution to:
 - i. Exercise general regulation over the planning, location, construction, and operation and maintenance of stormwater facilities in the County, whether or not owned and operated by the County;
 - ii. Adopt any rules and regulations deemed necessary to accomplish the purposes of this statute, including the adoption of a system of fees for services and permits;
 - iii. Establish standards to regulate the quantity of stormwater discharged and to regulate stormwater contaminants as may be necessary to protect water quality;

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

(2) Administering entity. Anderson County shall administer the provisions of this chapter.

(3) Stormwater management resolution. The intended purpose of this resolution is to safeguard property and public welfare by regulating stormwater drainage and requiring temporary and permanent provisions for its control. It should be used as a planning and engineering tool for permit compliance and to facilitate the necessary control of stormwater.

14-1402. Definitions. For the purpose of this chapter, the following definitions shall apply:

Words used in the singular shall include the plural, and the plural shall include the singular; words used in the present tense shall include the future tense. The word “shall” is mandatory and not discretionary. The word “may” is permissive. Words not defined in this section shall be construed to have the meaning given by common and ordinary use as defined in the latest edition of Webster’s Dictionary.

1. **Administrative or Civil Penalties** - Under the authority provided in Tennessee Code Annotated § 68-221-1106, Anderson County declares that any person violating the provisions of this chapter may be assessed a civil penalty by the County of not less than fifty dollars (\$50.00) and not more than five thousand dollars (\$5,000.00) per day for each day of violation. Each day of violation shall constitute a separate violation.
2. **Analytical monitoring**-Test Procedures for the Analysis of Pollutants - Test procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304 (h) of the Clean Water Act (the "Act"), as amended, under which such procedures may be required. Pollutant parameters shall be determined using sufficiently sensitive methods in Title 40 C.F.R. § 136, as amended, and promulgated pursuant to Section 304 (h) of the Act. The chosen methods must be sufficiently sensitive as required in state rule 0400-40-03-.05(8).
3. **Aquatic Resource Alteration Permit (ARAP)** physical alterations to properties of the waters of the state require an ARAP or a §401 Water Quality Certification (§401 certification). ARAP means a permit issued pursuant to T.C.A. § 69-3-108 of the Act, which authorizes the alteration of properties of waters of the state that result from activities other than discharges of wastewater through a pipe, ditch, or other conveyance.

4. **As built plans (record drawings)** mean drawings depicting conditions as they were actually constructed.
5. **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. BMPs also include treatment requirements, operating procedures; and practices to control plant site runoff, spillage, leaks, sludge or waste disposal, or drainage from raw material storage. BMPs include source control practices (non-structural BMPs), and engineered structures designed to treat runoff.
 - Structural BMPs are facilities that help prevent pollutants in stormwater runoff from leaving the site.
 - Non-structural BMPs are techniques, activities and processes that reduce pollutants at the source.
6. **BMP Manual** provides technical guidance including additional policies, criteria, standards, specifications, constants, and information for the proper implementation of the requirements of the National Pollution Discharge Elimination System permit (NPDES) and applicable regulations, 40 CFR § 122 as applicable for stormwater discharges.
7. **Borrow Pit** is an excavation from which erodible material (typically soil) is removed to be fill for another site. There is no processing or separation of erodible material conducted at the site. Given the nature of activity and pollutants present at such excavation, a borrow pit is considered a construction activity.
8. **Buffer Zone or Water Quality Riparian Buffer is a permanent strip of natural perennial vegetation, adjacent to a stream, river, wetland, pond, or lake that contains dense vegetation made up of grass, shrubs, and/or trees. The purpose of a water quality riparian buffer is to maintain existing water quality by minimizing risk of any potential sediments, nutrients or other pollutants reaching adjacent surface waters and to further prevent negative water quality impacts by providing canopy over adjacent waters. Stream buffers are measured from the top of bank, not the centerline on the stream.**
9. **Channel** means a natural or artificial watercourse with a definite bed and banks that conveys continuously or periodically flowing water.
10. **Clearing** refers to removal of vegetation and disturbance of soil prior to grading or excavation in anticipation of construction activities. Clearing may also refer to wide area land disturbance in anticipation of non-construction activities. Clearing, grading, and excavation do not refer to clearing of vegetation along existing or new roadways, highways, dams, or power lines for sight distance or other maintenance and/or safety concerns, or cold planing, milling, and/or removal of concrete and/or bituminous asphalt roadway pavement surfaces. The clearing of land for agricultural purposes is exempt from federal stormwater NPDES permitting in accordance with Section 401(1)(1) of the 1987 Water Quality Act and state stormwater NPDES permitting in accordance with the Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.).
11. **Commencement of construction:** the initial disturbance of soils associated with clearing, grading, excavating or other construction activities.

12. **Common plan of development or sale** is broadly defined as any announcement or documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot. A common plan of development or sale identifies a situation in which multiple areas of disturbance are occurring on contiguous areas. This applies because the activities may take place at different times, on different schedules, by different operators.
13. **Control measure** refers to any Best Management Practice (BMP) or other method used to prevent or reduce the discharge of pollutants to waters of the state.
14. **CWA** means the Clean Water Act of 1977 or the Federal Water Pollution Control Act (33 U.S.C. 1251, et seq.)
15. **Design storm** is a storm event as defined by Precipitation-Frequency Atlas of the United States. Atlas 14. Volume 2. Version 3.0. U.S. Department of Commerce. National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Springs, Maryland or its digital product equivalent. The estimated design rainfall amounts, for any return period interval (i.e., 1,-yr, 2-yr, 5-yr, 25-yr, etc.,) in terms of either depths or intensities for any duration, can be found by accessing the data available at https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html . The design storm events for Anderson County are:
16. **Discharge or discharge of a pollutant** refers to the addition of pollutants to waters from a source.
17. An **ecoregion** is a relatively homogeneous area defined by similarity of climate, landform, soil, potential natural vegetation, hydrology, or other ecologically relevant variables. Ecoregions can be determined for specific stream segments by using Tennessee's Online Water Quality Assessment Data viewer <http://tdeconline.tn.gov/dwr>.
18. **Exceptional Tennessee Waters** are surface waters designated by the Tennessee Department of Environment and Conservation as having the characteristics set forth at Tennessee Rules, Chapter 0400-40-03-.06(4). Characteristics include waters within parks or refuges; scenic rivers; waters with threatened or endangered species; waters that provide specialized recreational opportunities; waters within areas designated as lands unsuitable for mining; waters with naturally reproducing trout; waters with exceptional biological diversity and other waters with outstanding ecological or recreational value.
19. **Hot spot** means an area where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater. Examples might include operations producing concrete or asphalt, auto repair shops, auto supply shops, large commercial parking areas and restaurants.
20. **Improved sinkhole** is a natural surface depression that has been altered in order to direct fluids into the hole opening. Improved sinkhole is a type of injection well regulated under the Underground Injection Control (UIC) program of the Tennessee Department of Environment and Conservation. Underground injection constitutes an intentional disposal of waste waters in

natural depressions, open fractures and crevices, such as those commonly associated with weathering of limestone. More information regarding an Underground Injection Control Permit can be found on TDEC's DWR webpage at <https://www.tn.gov/content/tn/environment/permit-permits/water-permits1/underground-injection-control-permit.html>

21. **Level 1** - Fundamentals of Erosion Prevention and Sediment Control training and certification program administered by University of Tennessee Water Resources Research Center (<https://tnepsc.org/index.asp>).
22. **Level 2** - Design Principles for Erosion Prevention and Sediment Control for Construction Sites training and certification program administered by University of Tennessee Water Resources Research Center (<https://tnepsc.org/index.asp>).
23. **Linear Project** is a land disturbing activity as conducted by an underground/overhead utility or highway department, including, but not limited to, any cable line or wire for the transmission of electrical energy; any conveyance pipeline for transportation of gaseous or liquid substance; any cable line or wire for communications; or any other energy resource transmission ROW or utility infrastructure, e.g., roads and highways. Activities include the construction and installation of these utilities within a corridor. Linear project activities also include the construction of access roads, staging areas and borrow/spoil sites associated with the linear project. Land disturbance specific to the development of residential and commercial subdivisions is not considered a linear project.
24. **Monitoring** refers to tracking or measuring activities, progress, results, etc., and can refer to non-analytical monitoring for pollutants by means other than 40 C.F.R. § 136 (and other than state- or federally established protocols in the case of biological monitoring and assessments), such as visually or by qualitative tools that provide comparative values or rough estimates.
25. **Municipality** means any incorporated County or town, county, metropolitan or consolidated government, or special district of this state empowered to provide storm water facilities.
26. **Operator** means any person who owns, leases, operates, controls, or supervises a source. Including, but not limited to, an owner or operator of any "facility or activity" subject to regulation under the NPDES program.
27. **Permanent Stabilization** means that all soil disturbing activities at the site have been completed and one of the three following criteria is met:
 - A perennial, preferably native, vegetative cover with a uniform (i.e., evenly distributed, without large bare areas) density of at least 70 percent has been established on all unpaved areas and areas not covered by permanent structures, and all slopes and channels have been permanently stabilized against erosion.
 - Equivalent permanent stabilization measures such as the use of riprap; permanent geotextiles; hardened surface materials including concrete, asphalt, gabion baskets have been employed.

- For construction projects on land used for agricultural or silvicultural purposes, permanent stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural or silvicultural use.
28. **Point source** (or Outfall) means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include introduction of pollutants from non-point source agricultural and silvicultural activities, including stormwater runoff from orchards, cultivated crops, pastures, range lands, forest lands or return flows from irrigated agriculture or agricultural stormwater runoff. In short, outfall is a point where runoff leaves the site as a concentrated flow in a discrete conveyance.
 29. **Pollutant** means sewage, industrial wastes, or other wastes.
 30. **Priority Construction** means those construction activities discharging directly into, or immediately upstream of, waters the state recognized as impaired for siltation or Exceptional Tennessee Waters.
 31. A **rainfall event** is defined as any occurrence of rain preceded by 10 hours without precipitation that results in an accumulation of 0.01 inches or more. Instances of rainfall occurring within 10 hours of each other will be considered a single rainfall event.
 32. **Registered Engineer and Registered Landscape Architect** An engineer or landscape architect certified and registered by the State Board of Architectural and Engineer Examiners pursuant to Section 62-202, Tennessee Code Annotated, to practice in Tennessee.
 33. **Runoff coefficient** means the fraction of total rainfall that will appear at the conveyance as runoff. Runoff coefficient is also defined as the ratio of the amount of water that is not absorbed by the surface to the total amount of water that falls during a rainstorm.
 34. **Sediment** means solid material, both inorganic (mineral) and organic, that is in suspension, is being transported; or has been moved from the site of origin by wind, water, gravity or ice as a product of erosion.
 35. **Sediment basin** A temporary basin consisting of an embankment constructed across a wet weather conveyance, an excavation that creates a basin or by a combination of both. A sediment basin typically consists of a forebay cell, impoundment, permanent pool, primary spillway, secondary or emergency spillway and surface dewatering device. The size and shape of the basin depends on the location, size of drainage area, incoming runoff volume and peak flow, soil type and particle size, land cover, and receiving stream classification (i.e., waters with unavailable parameters, Exceptional TN Waters, or waters with available parameters).
 36. **Sedimentation** means the action or process of forming or depositing sediment.
 37. **Significant Contributor** is defined as a source of pollutants where the volume, concentration, or mass of a pollutant in a stormwater discharge can cause or threaten to cause pollution, contamination, or nuisance that adversely impact human health or the environment and cause or contribute to a violation of any applicable water quality standards for receiving water.

38. **Soil or Topsoil** means the unconsolidated mineral and organic material on the immediate surface of the earth that serves as a natural medium for the growth of plants.
39. **Steep Slope or Steep Grade** means a natural or created slope of 35% grade or greater.
40. **Stormwater** means rainfall runoff, snow melt runoff, and surface runoff and drainage.
41. **Stormwater control measure or SCM** means permanent practices and measures designed to reduce the discharge of pollutants from new development projects or redevelopment projects.
42. **Stream** as defined by TCA 69-3-103(38) "stream" means a surface water that is not a wet weather conveyance.
43. **Stormwater associated with industrial activity** is defined in 40 C.F.R. 122.26(b)(14) and incorporated here by reference. Most relevant to the County is 40 C.F.R. 122.26(b)(14)(x), which relates to construction activity including clearing, grubbing, grading, filling and excavation activities, including borrow pits containing erodible material. Disturbance of soil for the purpose of crop production is exempt from NPDES permit requirements, but stormwater discharges from agriculture-related activities that involve construction of structures (e.g., barn construction, road construction, pond construction) are considered associated with industrial (construction) activity. Maintenance to the original line and grade, hydraulic capacity; or to the original purpose of the facility (e.g., re-clearing, minor excavation performed around an existing structure necessary for maintenance or repair and repaving of an existing road) is not considered a construction activity.
44. Construction **Stormwater discharge-related activities** means activities that cause, contribute to or result in point source stormwater pollutant discharges. These activities may include excavation, site development, grading and other surface disturbance activities; and activities to control stormwater including the siting, construction and operation of best management practices (BMPs).
45. **Stormwater Pollution Prevention Plan (SWPPP)** is a written site-specific plan required by the Tennessee Construction General Permit (CGP) that includes a narrative pollution prevention plan and graphical erosion and sediment control plan. In its basic form, the plan contains a site map, a description of construction activities that could introduce pollutants to stormwater runoff, a description of measures or practices to control these pollutants, and erosion and sediment control plans and specifications. The SWPPP should be prepared in accordance with the Tennessee Erosion and Sediment Control Handbook (latest edition).
46. **Take of an endangered species** means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct.
47. **Tennessee Erosion and Sediment Control (TDESC) Handbook** is a guidance issued by the Division of Water Resources for the purpose of developing Stormwater Pollution Prevention Plans and Erosion and Sediment Control Plans required by the Construction General Permit CGP.
48. **Temporary stabilization** is achieved when vegetation or non-erodible surface has been established on the area of disturbance and construction activity has temporarily ceased. Under

certain conditions, temporary stabilization is required when construction activities temporarily cease.

49. **Treatment chemicals** are polymers, flocculants or other chemicals used to reduce turbidity in stormwater discharges by chemically bonding to suspended silts and other soil materials and causing them to bind together and settle out. Common examples of anionic treatment chemicals are **polyacrylamide-chitosan (PAM-CS)**.
50. **Turbidity** is the cloudiness or haziness of a fluid caused by individual particles (suspended solids) that are generally invisible to the naked eye, similar to smoke in air.
51. **Waste site** is an area where material from a construction site is disposed of. When the material is erodible, such as soil, the site must be treated as a construction site.
52. **Waters** (or waters of the state) means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof, except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.
53. **Waters with unavailable parameters** means any segment of surface waters that has been identified by the TDEC as impaired or failing to support one or more classified uses. Unavailable parameters exist where water quality is at, or fails to meet, the levels specified in water quality criteria in Rule 0400-40-03-.03, even if caused by natural conditions. In the case of a criterion that is a single response variable or is derived from measurement of multiple response variables, the unavailable parameters shall be the agents causing water quality to be at or failing to meet the levels specified in criteria. Resources to be used in making this determination include biennial compilations of impaired waters, databases of assessment information, updated GIS coverages (<https://tdeconline.tn.gov/dwr/>), and the results of recent field surveys. GIS coverages of the streams and lakes not meeting water quality standards, plus the biennial list of waters with unavailable parameters, can be found at <https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-quality-reports---publications.html>.
54. **Water quality riparian buffer** means a permanent strip of natural perennial vegetation adjacent to a stream, river, wetland, pond, or lake that contains dense vegetation made up of grass, shrubs, and/or trees. The purpose of a water quality riparian buffer is to maintain existing water quality by minimizing the risk of any potential sediments, nutrients, or other pollutants reaching adjacent surface waters and to further prevent negative water quality impacts by providing canopy over adjacent waters.
55. A **one-week period** is a synonym of a calendar-week; typically, a period from Sunday through Saturday
56. **Water quality treatment volume (WQTV)** is a portion of the runoff generated from impervious surfaces at a new development or redevelopment project by the 1-year 24-hour design storm. The WQTV is further determined by the type of treatment provided.
57. **Wet weather conveyances** are man-made or natural watercourses, including natural watercourses that have been modified by channelization, that meet the following:

- The conveyance carries flow only in direct response to precipitation runoff in its immediate locality.
- The conveyance’s channels are at all times above the groundwater table.
- The flow carried by the conveyance is not suitable for drinking water supplies.
- Hydrological and biological analyses indicate that, due to naturally occurring ephemeral or low flow under normal weather conditions, 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. (Tennessee Rules, Chapter 0400-40-3-.04(3)).

14-1403. Construction Stormwater Management

1. MS4 Stormwater Construction BMP Manual.

- a. Adoption. Anderson County adopts as its MS4 stormwater construction BMP manual(s) the following publication(s), which is incorporated by reference in this resolution as if fully set out herein:
 - i. TDEC Erosion and Sediment Control Handbook (2012 or most current edition)
 - ii. TN Permanent Stormwater Management and Design Guidance Manual (2014 or most current edition)
 - iii. County of Knoxville BMP manual (2018 or most current edition)
- b. Anderson County has adopted, for use in designing Stormwater Control Measures, construction design storm events. The construction design storm events adopted by the County are as follows:

Storm Event	1-yr, 24-hr	2-yr, 24-hr	5-yr, 24-hr	10-yr, 24-hr	100-yr, 24-hr
Precipitation Depth	2.74"	3.28"	4.01"	4.62"	7.06"

- c. Requirements for design storm for all waters as well as special conditions for unavailable parameters waters or exceptional Tennessee waters must be consistent with those of the current Tennessee Construction General Permit (TNR100000).
2. The municipality has adopted, for use in designing EPSC measures, the design storm requirements from the current Tennessee Construction General Permit for all waters as well as special conditions for unavailable parameters or Exceptional Tennessee Waters.
 3. Waste Control Construction site operators are required to minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to stormwater.
 4. Priority Construction

- a. Priority in construction shall be, at a minimum, those construction activities discharging directly into, or immediately upstream of, waters the state recognized as unavailable condition for siltation or Exceptional Tennessee Waters.
- b. Requirements for all priority construction activities must include preconstruction meetings with construction site operators for priority construction activities.

5. Land development permit

This section shall be applicable to all land development, including, but not limited to, site plan applications, subdivision applications, land disturbance applications and grading applications. These standards apply to qualifying new development or redevelopment site(s), when required. Every person/entity will be required to obtain a land disturbance permit from the County in the following cases:

- a. One (1) acre or more;
 - i. New development that involves land development activities of one (1) acre or more;
 - ii. Redevelopment that involves other land development activity of one (1) acre or more;
- b. Projects of less than one acre of total land disturbance may also be required to obtain authorization under this resolution if:
 - i. Anderson County 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; or is likely to be a significant contributor of pollutants to water of the state,
 - ii. 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;
 - iii. any new development or redevelopment, regardless of size, that is defined by the County to be a hot spot land use; or
 - iv. the minimum applicability criteria set forth in item (a) above if such activities are part of a larger common plan of development, (see "common plan of development" definition).
 - v. The creation and use of borrow pits, that are not permitted under the Tennessee Multi Sector Permit (TMSP), where material is excavated and relocated offsite, and fill sites where materials or earth is deposited by mechanized methods resulting in an increased elevation or grade.
 - vi. As determined by the County for single or duplex residential lots of any size, lots that have karst features, adjoining lakes or streams, slopes exceeding fifteen percent (15%), floodplains or streams to cross are required to submit an erosion control and stormwater management plan. Depending on site specific conditions

the requirement that the plan be developed by a qualified licensed professional engineer or landscape architect may be waived by the Stormwater Administrator

- vii. Minimal plan requirements shall include pre- and post-stormwater runoff directions, construction access, erosion/sediment control measures, swales, BMPs, and vegetative soil stabilization.
- viii. If unpermitted construction activity is on-going, the County will issue and immediate stop-work order. If, in addition to the County's permit, a TDEC permit was required but was not obtained, the violator will also be reported to TDEC.

6. Land disturbance Permit

Persons seeking the issuance of any Anderson County Land Disturbance Permit must provide proof of coverage under the Tennessee Construction General Permit (CGP) (if applicable) when requested; and a copy of the Stormwater Pollution Prevention Plan (SWPPP) to the County when requested.

- a. Copies of additional applicable local, state or federal permits (i.e.: ARAP, UIC, approved hydrologic determination, etc.) must also be provided to the County.
 - b. The County has the authority to withhold local permits prior to receiving copies of the aforementioned permits.
 - c. In circumstances where no such permits have been required, the County may still require a SWPPP as part of the land disturbance permit application.
7. Building Permit. No building permit shall be issued until the applicant has first obtained a Land Disturbance Permit where required by this resolution.
8. Construction site operators are required to implement appropriate erosion prevention and sediment control measures and best management practices. EPSC requirements shall meet the Tennessee's CGP design storm(s), be consistent with the TDEC ESC Handbook best management practices and with the requirements of this resolution.
9. Where site assessments are required by the CGP, the operator shall provide a copy of the assessment to the County.
10. Twice-Weekly inspections of the site and the BMP's/SCM's must be performed by an individual who has either received certification under the Level I Fundamentals of Erosion Prevention and Sediment Control course or has other credentials identified as equivalent within this resolution.
11. 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 stabilized. Stabilization measures shall be initiated as soon as possible in portions of the site where construction activities have temporarily or permanently ceased. Temporary or permanent soil stabilization at the construction site (or a phase of the project) must be completed not later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. In the following situations, temporary stabilization measures are not required:

- i. where the initiation of stabilization measures is precluded by snow cover or frozen ground conditions, stabilization measures shall be initiated as soon as practicable; or
 - ii. where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 14 days.
 - b. For steep slopes of 35% or more, stabilization measures shall be initiated within 7 days. Construction buffer zones. Construction buffer zones shall be those water quality buffers and buffer zones as defined in 14-1402 above and shall meet the requirements in this resolution and, where appropriate in the TN CGP. The criteria for the width of the construction buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than the required minimum width at any measured location. If the new development or redevelopment site encompasses both sides of a stream, buffer averaging can be applied to both sides, but must be applied independently. Water quality riparian buffer widths are measured from the top of bank also referred to as the "ordinary high-water mark." Construction buffers are not primary sediment control measures and shall not be relied on as such. Stormwater discharges must enter the water quality riparian buffer zone as sheet flow, not as concentrated flow, where site conditions allow. The designer/operator must comply with the vegetation requirements and the permissible land uses set forth for buffers in the TN CGP. Where it is not practicable to maintain a construction water quality riparian buffer, BMPs providing equivalent protection to a receiving stream as a natural water quality riparian buffer must be used.
 - c. In arid, semiarid, and drought-stricken areas where initiating vegetative stabilization measures immediately is infeasible, alternative stabilization measures such as properly anchored mulch, soil binders or matting must be employed.
 - d. Cut or fill slopes designed at 2:1 (horizontal:vertical) or greater inclination must include written recommendations from a geotechnical engineer; proposed developments with these slopes must adhere to the recommendations made by a professional engineer licensed in the state of Tennessee.
- 12. Notice of Termination (NOT) the operator shall provide the County with a copy of the NOT when it is issued by TDEC.
- 13. As built plans (record drawings). All applicants are required to submit actual as built plans certified by the design engineer 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 certification by the design engineer certifying that SCM's will function within original design parameters as constructed shall be included. A final inspection by the County is required before any performance security or performance bond will be released. The County 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/SCM's have been made and accepted by the County. No bonds or securities shall be released by the County until the

department has accepted the as-built plans. The warranty period for any infrastructure to be accepted by the County for maintenance shall not commence until the County has accepted the as built plans.

14. Equipment manufacturer startups. No bonds or securities shall be released until any equipment to be maintained by the County passes any specified manufacturer startup procedure. The warranty period shall not commence prior to the equipment passing any specified manufacturer startup procedure.

14-1404. Permanent stormwater management: design and construction inspection.

- (1) In order to comply with the Anderson County’s permanent stormwater standards for new development and redevelopment projects, design and install SCMs as established by Tennessee Rule 0400-40-10-.04 and comply with other requirements of Tennessee Rule 0400-40-10-.04. Note that for design purposes, total suspended solids (TSS) may be used as the indicator for the reduction of pollutants.
- (2) SCMs must be designed to provide full treatment capacity within 72 hours following the end of the preceding rain event for the life of the new development or redevelopment project. The designer may select from the most appropriate alternatives listed in the County’s BMP Manual.
- (3) Designs shall be based on the 24-hour design storm adopted by the County:

The County has adopted, for use in designing water quality SCMs, the design storm requirements as established in Tennessee Rule 0400-40-10-.04. The Post Construction/Permanent water quality design storm is a 1-year, 24 storm event for water quality SCMs. See definition of Design Storm Event for the municipality’s rainfall amounts for each return period interval.

- 1 year: 2.74"
- 2 year: 3.28"
- 5 year: 4.01"
- 10 year: 4.62"
- 25 year: 5.51"
- 50 year: 6.26"
- 100 year: 7.06"

- (4) Water Quality Riparian Buffers. Post Construction/Permanent water quality riparian buffers shall be those buffers defined in 14-1402 above and shall meet the requirements described in this resolution. The criteria for the width of the post construction/permanent buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than the required minimum width at any measured location. If the new development or redevelopment site encompasses both sides of a stream, buffer averaging can

be applied to both sides but must be applied independently. Water quality riparian buffer widths are measured from the top of bank also referred to as the “ordinary high-water mark.” Stormwater discharges should enter the post construction/permanent water quality riparian buffer as sheet flow, not as concentrated flow, where site conditions allow.

Post Construction/Permanent buffers for waters with available parameters for siltation or habitat alteration or unassessed waters:

- a. Average buffer width: 30 feet.
- b. Minimum buffer width: 15 feet

Post Construction/Permanent buffers for Exceptional Tennessee Waters or waters with unavailable parameters for siltation or habitat alteration:

- a. Average buffer width: 60 feet.
- b. Minimum buffer width: 30 feet

The designer/operator must comply with the vegetation requirements and the permissible land uses set forth for buffers in the MS4 permit.

14-1405. Permanent SCM maintenance and inspection.

- (1) As built plans. All applicants are required to submit actual as built plans for any structures located on-site within 90 days after final construction is completed. The plan must show the final design specifications for all stormwater management facilities and must be sealed by either a registered professional engineer or landscape architect licensed to practice in Tennessee. A sealed certification by the design engineer that all SCM’s will function within design parameters as constructed shall accompany the as built plans. A final inspection by the Anderson County staff is required before any performance security or performance bond will be released. The County 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 stormwater management facilities have been made and accepted by the County.
- (2) In addition to the certified as built drawings, the County shall be provided with a permanent stormwater management plan for the site and all stormwater management facilities (e.g., SCM’s). Occupation permits shall not be granted until the permanent stormwater management plan has been approved and accepted by the County.
- (3) Inspection of stormwater management facilities. Periodic inspections of facilities shall be performed, documented, and reported in accordance with this chapter, as detailed in §14-1406.
- (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 five (5) years. These records shall be made

available to the County during inspection of the facility and at other reasonable times upon request.

- (5) Failure to meet or maintain design or maintenance standards. If a responsible party fails or refuses to meet the design or maintenance standards required for stormwater facilities under this chapter, the County, after notice as specified in the Enforcement Response Plan, 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) In the event that the stormwater management facility becomes a danger to public health/public safety-the County may take such immediate corrective action as deemed necessary.

14-1406. Permanent SCM's: new development, existing locations, and ongoing developments.

(1) On-site stormwater management facilities inspection and maintenance agreement

- a. Where the stormwater facility is located on property that is subject to a development agreement, and the development agreement provides for a permanent stormwater maintenance agreement that runs with the land, the owners of property must execute an inspection and maintenance agreement that shall operate as a deed restriction binding on the current property owners and all subsequent property owners and their lessees and assigns, including but not limited to, homeowner associations or other groups or entities.
- b. The maintenance agreement shall:
 - i. 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.
 - ii. Provide for a periodic inspection by the property owners in accordance with the requirements of subsection (5) below for the purpose of documenting maintenance and repair needs and to ensure compliance with the requirements of this resolution. The property owners will arrange for this inspection to be conducted by individual(s) approved by the County who will submit a signed written report of the inspection to the County. 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.
- 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, 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 needed to meet the intended design specification of the stormwater facility.

- d. Provide that maintenance needs must be addressed in a timely manner, on a schedule to be determined by the Anderson County staff.
- e. Provide that if the property is not maintained or repaired within the prescribed schedule, Anderson County 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 County's cost of performing the maintenance shall be a lien against the property.

(2) Existing problem locations – no maintenance agreement

- a. The County 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 SCM's that have not been maintained and/or inspected in accordance with this resolution shall be regarded as non-compliant discharges.
- b. 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 establish inspection programs to verify that all stormwater management facilities are functioning within design limits. These inspection programs may be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type which are more likely than the typical discharge to cause violations of the County's NPDES MS4 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 SCM's.

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

- a. Perform routine inspections to ensure that all SCM's are properly functioning. These inspections shall be conducted on an annual basis, at a minimum. These inspections shall be conducted by a person familiar with control measures implemented at a site.

Owners or operators shall maintain documentation of these inspections. The County may require submittal of this documentation.

- b. Perform comprehensive inspection of all stormwater management facilities and practices. These inspections shall be conducted once every five years, at a minimum. Such inspections must be conducted by individual(s) approved by the County. Complete inspection reports for these five-year inspections shall include:
 - i. Facility type,
 - ii. Inspection date,
 - iii. Latitude and longitude and nearest street address,
 - iv. BMP owner information (e.g. name, address, phone number, fax, and email),
 - v. A description of BMP 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,
 - vi. Photographic documentation of BMP's, and
 - vii. Specific maintenance items or violations that need to be corrected by the BMP owner along with deadlines and reinspection dates.
- c. Owners or operators shall maintain documentation of these inspections. The County may require submittal of this documentation.

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

- 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 County.
- b. Cuts and slopes must be properly covered with appropriate vegetation and/or retaining walls constructed.
- c. Drainage ways shall be appropriately stabilized.
- d. Trash, junk, rubbish, etc. shall be cleared from drainage ways.
- e. Stormwater runoff shall, at the discretion of the County, be treated to the maximum extent practicable to prevent its pollution. Such control measures may include, but are not limited to, the following:
 - i. Ponds
 - 1. Detention pond

- 2. Extended detention pond
- 3. Wet pond
- 4. Alternative storage measures
- ii. Constructed wetlands
- iii. Infiltration systems
 - 1. Infiltration/percolation trench
 - 2. Infiltration basin
 - 3. Drainage/recharge well
 - 4. Porous pavement
- iv. Filtering systems
 - 1. Media Filter
 - 2. Sand filter
 - 3. Filter/absorption bed
 - 4. Filter and buffer strips
- v. Open channel
 - 1. Swale

(5) Corrections of problems subject to appeal. Corrective measures imposed by the County under this section are subject to appeal under section 14-1410 of this chapter.

14-1407. Illicit discharges.

This section shall apply to all water generated on developed or undeveloped land entering the County's separate storm sewer system.

(1) 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. No person shall allow discharges that flow from a stormwater facility that is not inspected in accordance with section 14-1406. Non-stormwater discharges shall include, but shall not be limited to, sanitary wastewater, 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:

- a. Water line flushing

- b. Landscape irrigation
- c. Diverted stream flows
- d. Rising ground waters
- e. Uncontaminated ground water infiltration (Infiltration is defined as water other than wastewater that enters a sewer system, including sewer service connections and foundation drains, from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow.)
- f. Uncontaminated pumped ground water
- g. Discharges from potable water sources
- h. Air conditioning condensation
- i. Irrigation water
- j. Springs
- k. Water from crawl space pumps
- l. Footing (foundation) drains
- m. Lawn watering
- n. Individual residential car washing
- o. Flows from riparian habitats and wetlands
- p. Dechlorinated swimming pool discharges
- q. Street wash water with no soaps or solvents
- r. Discharges or flows from firefighting activities

Unless the County determines they are significant contributors of pollutants to the MS4.

(2) 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. This prohibition expressly includes SCM's connected to the system not properly inspected and maintained in accordance with this resolution.

- a. Any person responsible for a property or premises, which is, or may be, the source of an illicit discharge, may be required to implement, at the person's expense, the BMP's necessary to prevent the further discharge of pollutants to the municipal separate storm sewer system. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of stormwater associated with industrial activity, to the extent

practicable, shall be deemed in compliance with the provisions of this section. Discharges from existing SCM's that have not been maintained and/or inspected in accordance with this resolution shall be prohibited.

- (3) 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.
- (4) No illegal dumping allowed. No person shall dump or otherwise deposit outside an authorized landfill, convenience center or other authorized garbage or trash collection point, any trash or garbage of any kind or description on any private or public property, occupied or unoccupied, inside the Anderson County. Such illegal activity exposes runoff to contamination, generating an illicit discharge. Therefore, any individual or corporation guilty of illegal dumping may have committed a violation of this resolution.

14-1408. Enforcement.

(1) Enforcement authority. Anderson County shall have the authority to issue notices of violation and citations, and to impose civil penalties to anyone that violates this chapter, who violates the provisions of any permit issued pursuant to this chapter, or who fails or refuses to comply with any lawful communication or notice to abate or take corrective action by the County, The County's enforcement authority includes (as set forth in the County's Enforcement Response Plan (ERP)):

- (a) Verbal Warnings – At a minimum, verbal warnings must specify the nature of the violation and required corrective actions.
- (b) Written Notices – Written notices must stipulate the nature of the violation and the required corrective action, with deadlines for taking such action.
- (c) 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.

- (d) Citations with Administrative Penalties – The County has the authority to assess monetary penalties, which may include civil and administrative penalties.
- (e) Withholding of Plan Approvals or Other Authorizations – Where a facility is in noncompliance, the County’s own approval process affecting the facility’s ability to discharge to the MS4 can be used to abate the violation.
- (f) Additional Measures – The County may also use other escalated measures provided under local legal authorities. The County may perform work necessary to improve erosion control measures and collect the funds from the responsible party in an appropriate manner, such as collecting against the project’s bond or directly billing the responsible party to pay for work and materials.

(2) Notification of violation:

- (a) Verbal warning. Verbal warning may be given at the discretion of the inspector when it appears the condition can be corrected by the violator within a reasonable time, which time shall be approved by the inspector.
- (b) Written notice. Whenever Anderson County staff 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 County may serve upon such person written notice of the violation. Within ten (10) business 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 County. Submission of this plan in no way relieves the discharger of liability for any violations occurring before or after receipt of the notice of violation.
- (c) Consent orders. The County is empowered to enter into consent orders, assurances of voluntary compliance, or other similar documents establishing an agreement with the person responsible for the noncompliance. Such orders will include specific action to be taken by the person to correct the noncompliance within a time period also specified by the order. Consent orders shall have the same force and effect as administrative orders issued pursuant to paragraphs (d) and (e) below.
- (d) Show cause hearing. Anderson County may order any person who violates this chapter or permit, or order issued hereunder, to show cause why a proposed enforcement action should not be taken. Notice shall be served on the person specifying the time and place for the meeting, the proposed enforcement action and the reasons for such action, and a request that the violator show cause why this proposed enforcement action should not be taken. The notice

of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least ten (10) days prior to the hearing.

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

- (f) Cease and desist and stop work orders. When Anderson County finds that any person has violated or continues to violate this chapter or any permit or order issued hereunder, the County may issue a stop work order or an order to cease and desist all such violations and direct those persons in noncompliance to:
 - (i) Comply forthwith; or
 - (ii) Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation; including halting operations except for terminating the discharge and installing appropriate control measures.

- (g) Suspension, revocation or modification of permit. Anderson County 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 County may deem necessary to enable the applicant or other responsible person to take the necessary remedial measures to cure such violations.

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

14-1409. Penalties. Violations. Any person who shall commit any act declared unlawful under this chapter, who violates any provision of this chapter, who violates the provisions of any permit issued pursuant to this chapter, or who fails or refuses to comply with any lawful communication or notice to abate or take corrective action by the County, shall be guilty of a civil offense.

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

- (2) Measuring civil penalties. In assessing a civil penalty, Anderson County shall 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 County; The amount of penalty established by ordinance or resolution for specific categories of violations; and
 - (f) Any equities of the situation which outweigh the benefit of imposing any penalty or damage assessment.

- (3) Recovery of damages and costs. In addition to the civil penalty in subsection (2) above, the County may recover:
 - (a) 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 chapter, or any other actual damages caused by the violation.
 - (b) The costs of the County's maintenance of stormwater facilities when the user of such facilities fails to maintain them as required by this chapter.

- (4) Referral to TDEC. In accordance with the County's Enforcement Response Plan and the NPDES Permit requirements, the County may also notify TDEC of violations.

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

- (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.

14-1410. Appeals. Pursuant to Tennessee Code Annotated § 68-221-1106(d), any person aggrieved by the imposition of a civil penalty or damage assessment as provided by this chapter may appeal said penalty or damage assessment to the County'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, Anderson County's Board of Zoning 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. The decision of the governing body of the County shall be final.

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