

.STORM WATER MANAGEMENT AND POLLUTION CONTROL RESOLUTION OF ANDERSON COUNTY, TENNESSEE

WHEREAS, uncontrolled storm water drainage and discharge may have a significant, adverse impact on the health, safety, and general welfare of Anderson County and the quality of life of its citizens by carrying pollutants into the receiving waters: and

WHEREAS, Anderson County is required by Federal and State of Tennessee law and regulations, particularly Title 33 United States Code (U.S.C.), 40 Code of Federal Regulations (CFR) Chapter I, Part 122.32 through 122.35, and Tennessee Code Annotated Section 68-221-1101 et seq. to obtain a National Pollutant Discharge Elimination System (NPDES) Permit from the Tennessee Department of Environment and Conservation (TDEC) for storm water discharges from the Anderson County Separate Storm Sewer System, hereafter referred to as the Anderson County MS4.

WHEREAS, the NPDES Permit requires Anderson County to impose controls to reduce the discharge of pollutants in storm water to the maximum extent practical using management practices, control techniques, and system design and engineering methods, and such other provisions which are determined to be appropriate for the control of such pollutants.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COMMISSIONERS OF ANDERSON COUNTY, TENNESSEE, that the general law of the County be revised to include the following:

ARTICLE 1. GENERAL PROVISIONS

1.1 Title

This resolution shall be known and may be cited as the *Storm Water Management and Pollution Control Resolution of Anderson County, Tennessee.*

1.2 Purpose

Inadequate management of storm water runoff from development or land disturbance activities that results in increased flow volumes and velocities, increased erosion and sedimentation in surface water bodies and conveyance structures, pollution of receiving waters, overloading of existing drainage facilities and structures, undermines floodplain management in downstream communities, reduces groundwater recharge rates and threatens public health and safety. Detrimental effects may be reflected in any or all of the following:

- a. Changes to natural ecosystems through the deposition of sediment and pollutants which affect the quantity and quality of water, the destruction of habitat, and loss of plant and animal life;
- b. Reduced oxygen levels because of oil, grease and organic matter;
- c. Significant health risks through increased bacterial concentrations;
- d. Erosion and slumping of streambanks, resulting in widening of streams;
- e. Increased erosion rates; and
- f. Increased incidence and frequency of flooding, resulting in damage to roads, streets, and public and private property, and an increased risk of endangerment to the public welfare.
- g. Increased water treatment costs as existing water sources become more impaired.

Current and future growth will contribute to and increase the need for improvement and maintenance of the existing drainage system. Future problems can be minimized through prudent storm water management practices. A comprehensive and reasonable program is needed to protect the integrity of the municipal drainage system for the good of all citizens of Anderson County. Recognizing that every parcel of property contributes to and benefits from a properly designed and maintained drainage system, this resolution is designed to outline a systematic program designed to ensure that new development and redevelopment, and land disturbing activities are conducted in such a manner to regulate water quantity and protect water quality and thereby minimize current and future negative impacts to the citizens of Anderson County. This resolution sets general policy and storm water program direction and is supported and reinforced by existing administrative policies and regulations.

This resolution in conjunction with the *Anderson County Zoning Resolution*, and *Subdivision Regulations* establishes the legal framework needed to regulate building construction, storm drainage structures and facilities, grading, excavation, clearing, and other land altering activities. The primary objective of this resolution is to ensure that the proper level of planning, design, and operational care are maintained to minimize the potential for personal injury and property damage associated with past, current, and future development and land management activities in Anderson County. The provisions and specifications herein are intended to assist developers, engineers, contractors, and property owners with the selection, use, and design of drainage structures and to specify the requirements, exceptions, and application requirements for land disturbance and building permits. The technical guidance provided herein will insure that development and facility management within Anderson County is conducted using approved practices that prevent excessive erosion and control the quantity and quality of storm water runoff. Specific goals and objectives of this storm water program as specified by Tennessee Code Annotated 68-221-1105 are as follows:

- A. Exercise general regulation over the planning, location, construction, and operation and maintenance of storm water facilities located within County jurisdiction;
- B. 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;
- C. Establish standards to regulate the quantity of storm water discharged and to regulate storm water quality as may be necessary to protect water quality;
- D. Review and approve plans and plats for proposed subdivisions, mobile home parks, planned unit developments (PUDs), and commercial or industrial developments;
- E. Issue permits for storm water discharges, or for the construction, alteration, extension, or repair of storm water facilities;
- F. Suspend or revoke permits when it is determined that the permittee has violated any applicable requirement, specification, or condition of the permit; and
- G. Regulate and prohibit discharges into storm water facilities of sanitary, industrial, or commercial sewage or waters that have otherwise been contaminated.
- H. Expend funds to remediate or mitigate the detrimental effects of contaminated land or other sources of storm water contamination, whether public or private.

These regulations also provide the framework for Anderson County to participate in the National Flood Insurance Program (NFIP). It is further the purpose of this resolution to enable Anderson County to comply with the NPDES Permit and applicable regulations (40 CFR 122.32-35) for storm water discharges.

The provisions and specifications contained herein do not replace the need for professional engineering judgment nor precludes the use of information not presented in resolution. The user assumes full responsibility for determining the appropriateness of applying information presented herein. Careful consideration should be given to site-specific conditions, project requirements, and engineering experience to ensure that criteria and procedures are properly applied and adapted.

1.3 Authority

The Anderson County Storm Water Coordinator and designated representatives of the Anderson County Storm Water Program with approval from the Anderson County Mayor and the Board of Commissioners shall establish technical guidelines and administer the terms and conditions of this resolution.

The Storm Water Coordinator and/or authorized designee shall have the authority to review and approve site development plans, issue land disturbance permits, and to inspect new and existing private drainage systems/structures within Anderson County, and may order corrective actions to said private drainage systems as necessary.

1.4 Jurisdiction

The provisions of this resolution shall apply to the unincorporated areas of Anderson County, to all persons, property owners, corporations, and other entities exercising land development or land management. The provisions of this resolution shall require all such persons or entities to provide for storm water management measures that control flooding, pollution, and erosion in compliance with this resolution at a minimum.

1.5 Right of Entry

The Anderson County Storm Water Coordinator or designated representative may enter any property which discharges or impacts water quality or water quantity, or is believed to discharge or impact water quality or water quantity, to the storm water system or natural drainage way. Authorized representatives of the County have the right to enter any property during all reasonable hours to monitor, remove foreign objects or blockages, and to inspect for compliance with the provisions of this resolution.

1. Designated Anderson County Government staff shall have right-of-entry on or upon the property of any person subject to this resolution and any permit/document issued hereunder. County staff shall be provided ready access to all parts of the premises for the purposes of inspection, monitoring, inventory, records examination and copying, and the performance of any other duties necessary to determine compliance with the requirements of this resolution.
2. Where a property, site or facility has security measures that require proper identification and clearance before entry onto the premises, the person(s) shall make the necessary arrangements

with security personnel so that upon presentation of suitable identification, the County personnel will be permitted to enter without delay.

3. Designated County personnel shall have the right to setup such devices as necessary to conduct sampling and/or monitoring of the storm water operations or discharges from any given property.
4. Any temporary or permanent obstruction to a site shall be removed by the property owner upon written or verbal request by the designated representative of the County. The costs of clearing such access shall be borne by the owner or responsible party.
5. The Storm Water Coordinator or authorized designee may inspect facilities to ensure compliance with this resolution. Such inspection shall be made with the consent of the owner, manager, or signatory official. If such consent is refused, denied or not promptly addressed, the County may pursue legal action to gain access to the property.
6. The Department of Public Works has the right to determine and impose inspection schedules necessary to enforce the provisions of this resolution. Inspections may include, but are not limited to the following:
 - a. An initial inspection before land development activities are started.
 - b. Erosion control inspections as necessary to ensure effective control of erosion and sedimentation; and
 - c. A final inspection when all work, including storm management facilities has been completed.

1.6 Conflict

All other resolutions and parts of other resolutions inconsistent or conflicting with any part of this resolution are hereby repealed to the extent of such inconsistency or conflict. If any provisions of this resolution and any other provisions of law impose overlapping or contradictory regulations, or contain any restrictions covering any of the same subject matter, that provision which is more restrictive or imposes higher standards or requirements shall govern.

1.7 Grandfather Clause

Any developer or owner of a parcel of land who has received approval of a final plat for a subdivision, mobile home park, PUD, or commercial/industrial complex will be allowed to conduct land development activities in accordance with the approved plan(s) which may, or may not meet all of the requirements and specifications outlined in this resolution.

1.8 Pre-Existing Conditions

Land development activities that have been completed prior to enactment of this resolution are exempted from the requirements and conditions specified herein unless the storm water runoff or erosion from the property poses a public safety risk or nuisance (i.e. flooding or erosion across a road), an unnecessary frequently occurring maintenance liability to the County (blockage of culverts, cross-

drains, or drainage ditches) or is directly impacting waters of the State or U.S. Pre-existing drainage and erosion problems that meet the criteria listed above will be addressed in a two step process:

1. Property owner will be notified by certified letter of the problem(s) associated with the property and provided with sixty calendar days (60) to make corrections and/or improvements to the property alleviate the problem(s).
2. If no action has been undertaken to correct the problem within the sixty (60) day period then the case will be referred to the Board of Storm Water and Environmental Appeals (BSEA) to determine if further legal action is warranted in accordance with the provision of Article 15 and Article 16 of this resolution. The property owner will be notified of the meeting date and time and will be provided with an opportunity to present his/her case before the BSEA.

Drainage and runoff related conflicts, disputes, and problems between individual property owners will not be the responsibility of Anderson County unless there is a direct impact to county property or right-of-ways or the problem negatively impacts the overall function of the drainage system.

1.9 Fees

The following fees shall be charged for the review of site development plans, plats, inspections, and other activities associated with the implementation and enforcement of the requirements outlined in this resolution.

I-3 (Heavy Industrial) Site Plan Review	\$200 plus \$100 per acre*
Commercial Site Plan Review	\$200 plus \$100 per acre*
Planned Unit Development	\$100 plus \$50 per unit*
Condo Planned Unit Development	\$100 plus \$50 per unit*
Mobile Home Park	\$100 plus \$100 per acre*
Preliminary Plat Review	\$100
Final Plat Review	\$50
Board of Storm Water & Environ. Appeals	\$50
Land Disturbance Permit	\$25 plus \$25 per acre disturbed over 1 acre
Storm Water & Erosion Control Inspection	\$30 per inspection
Notice of Violation	\$50

*There will be no charge for a Land Disturbance Permit. Land Disturbance Permit fee is included in the cost of the plan/plat review.

1.10 Severability

If any provision of this resolution or its application to any person, entity, or property is held invalid, the remainder of the resolution or the application of the provision to other persons or property shall not be affected. Should any section, subsection, clause or provision of this resolution be declared by court of competent jurisdiction to be unconstitutional or invalid, such decision shall not affect the validity of the resolution as a whole or any part thereof other than the part declared to be unconstitutional or invalid, each section, clause, and provision being declared severable.

1.11 Enactment

This resolution shall take effect fifteen (15) days after the date of its passage.

ARTICLE 2. DEFINITIONS

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

1-Year Storm – A storm event that is expected to be equaled or exceeded once a year.

2-Year Storm – A storm event that is expected to be equaled or exceeded once in a 2-year period. Statistically, a flood that has a fifty (50) percent chance of being equaled or exceeded in any given year.

5-Year Storm – A storm event that is expected to be equaled or exceeded once in a 5-year period. Statistically, a flood that has a twenty (20) percent chance of being equaled or exceeded in any given year.

10-Year Storm – A storm event that is expected to be equaled or exceeded once in a 10-year period. Statistically, a flood that has a ten (10) percent chance of being equaled or exceeded in any given year.

25-Year Storm – A storm event that is expected to be equaled or exceeded once in a 25-year period. Statistically, a flood that has a four (4) percent chance of being equaled or exceeded in any given year.

50-Year Storm – A storm event that is expected to be equaled or exceeded once in a 50-year period. Statistically, a flood that has a two (2) percent chance of being equaled or exceeded in any given year.

100-Year Storm – A storm event that is expected to be equaled or exceeded once in a 100-year period. Statistically, a flood that has a one (1) percent chance of being equaled or exceeded in any given year. Often referred to as a “base flood”.

Aquatic Resources Alteration Permit (ARAP) – Permit issued by the Tennessee Department of Environment and Conservation for physically altering waters (streams and wetlands) of the state.

Base Flood Elevation (BFE) – Elevation of the 100-year flood at a given location.

Best Management Practices (BMPs) – A series of proven administrative, managerial, and engineering controls, maintenance procedures, and other management practices designed to prevent or reduce pollution of the waters of the United States. BMPs may include structural devices or nonstructural practices.

Blue Line Stream – Any stream shown on the 7.5 minute (1:24,000) Quadrangle Maps produced by the United States Geological Survey or any water body or wet weather conveyance determined to be “Waters of the State”.

Buffer – An area including trees, shrubs, and herbaceous vegetation that exists or is established to protect and separate a stream, waterway, lake, reservoir, pond or other body of water from buildings

and/or structures and other land uses that alter the habitat, geomorphology, water quality, and hydrology.

CFR – Code of Federal Regulations.

Channel – A natural or artificial watercourse of perceptible extent, with definite bed and banks to confine and conduct continuously or periodically flowing water. Channel flow is that water which is flowing within the confines of the channel.

Clean Water Act or the Act – The Federal Water Pollution Control Act, as amended, codified in 33 U.S.C. 1251 et. seq.

Covenants for Permanent Maintenance of Storm Water Facilities – A document executed by the Property Owner and recorded with the Anderson County Register of Deeds guaranteeing perpetual and proper maintenance of storm water facilities.

Cross Drain – A pipe used to convey storm water from one side of an Anderson County road to another.
Culvert – A man-made conveyance for storm water flow. A culvert may be comprised of a pipe or other structure.

Detention – The practice of storing storm water runoff by collecting it as a temporary pool of water and providing for a gradual (attenuated) release. The primary objective of detention is to control peak discharge rates but may also be designed to provide water quality benefits (i.e. sediment retention).

Development – Any man-made change to improved or unimproved real estate that alters the hydrologic or hydraulic conditions of any property. Development includes but is not limited to land clearing, topographic alterations (grading), utility construction projects, mining, dredging, and construction of new buildings, roads, or parking facilities.

Development Certification – As-built field verified plans signed and sealed by a registered professional engineer licensed to practice in the State of Tennessee, showing contours, elevations, grades, drainage and hydraulic structures, and detention basin volumes.

Discharge – To 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.

Disturbed Area – Portion of any site that has been altered from existing conditions. Disturbed areas may include but are not limited to the following: providing access to a site, clearing of vegetation, grading, earth moving, providing utilities and other services such as parking facilities, storm water management and erosion control systems, potable water and wastewater systems, altering land forms, or construction or demolition of a structure on the a given parcel of land.

Drainage System – The system of pipes, channels, culverts, ditches, streams, rivers, and lakes that convey storm water from public and private land through Anderson County.

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

Easement – An acquired privilege or right of use or enjoyment that a person, party, firm, corporation, municipality or other legal entity has in the land of another.

Erosion – The removal and transport of soil particles by the action of water, wind, or ice, whether naturally occurring or acting in conjunction with or promoted by man-made activities or effects.

Erosion Prevention and Sediment Control Plan – A written plan (including drawings or other graphic representations) that is designed to minimize the accelerated erosion and sediment runoff at a site during construction activities. An erosion prevention and sediment control plan must be included as part of a site development plan.

FEMA – Federal Emergency Management Agency that administers the NFIP.

Flood – Water from a river, stream, watercourse, channel, lake or other body of water that temporarily overflows and inundates adjacent lands.

Flood Fringe – That portion of the 100-year floodplain lying outside the floodway.

Flood Insurance Rate Map (FIRM) – The official map on which FEMA has delineated both the areas of special flood hazard and the risk premium zones.

Flood Insurance Study (FIS) – The official report provided by FEMA that contains elevations of the base flood, floodway widths, flood velocities, and flood profiles.

Floodplain – For a given flood event, that area of land temporarily covered by water which adjoins a watercourse. Floodplains are typically assigned a recurrence interval (i.e. the 100yr floodplain) which defines the magnitude of the flood event that causes the inundation.

Floodway – That portion of a stream channel and adjacent floodplain required for the passage or conveyance of a 100-year flood discharge without cumulatively increasing the 100-year water surface elevation by more than 1 foot. This is the portion of special flood hazard area characterized by significant depth and velocities.

Floodway Encroachment – Any obstruction, fill, construction, improvement, or other alteration that changes the hydraulic characteristics of the regulatory floodway.

Grading – Any clearing, excavating, filling or other disturbance of natural terrain.

Hydraulic – Pertaining to, involving, moved or operated by a fluid, especially water under pressure or under a gravity-driving force.

Hydrologic – Pertaining to the scientific study of the properties, distribution, and effects of water on the earth's surface, in the soil and underlying rocks, and the atmosphere.

Illicit Discharge – Any discharge to the municipal separate storm sewer system that is not composed entirely of storm water and not specifically exempted in Section 15.2 of this resolution.

Impervious – Any surface or structure that does not allow the passage of water through the surface of the ground or ground covering or a substantial reduction in the capacity for water to pass through the surface or the ground or ground covering.

Maintenance Agreement – A document recorded in the land records that acts as a property deed restriction and provides for long-term maintenance of storm water management facilities.

Municipal Separate Storm Sewer System (MS4) – A conveyance or system of conveyances (including roads with drainage systems, streets, catch basins, manholes, curbs, gutters, ditches, pipes, channels, lakes, ponds, creeks, sinkholes, swales, and storm drains) designed or used for the collection, storage, and conveyance of storm water. Sanitary and combined sewers are not included in the definition of a MS4.

National Pollutant Discharge Elimination System (NPDES) – The program administered by the U.S. Environmental Protection Agency to eliminate or reduce the discharge of pollutants to the waters of the United States.

Notice of Violation – A written notice detailing any violations of this ordinance and any action expected of the violator(s).

Outfall – The discharge point of a storm water system where the contents are released.

Peak Flow – The maximum instantaneous rate of flow of water at a particular point resulting from a storm event.

Peak Flow Attenuation – Reduction of the peak discharge from a storm event.

Person – Means any individual, partnership, co-partnership, firm, company, trust, estate, governmental entity, or any other legal entity, or their legal representatives, agents, or assigns. The masculine gender shall include the feminine, the singular shall include the plural where indicated by context.

Predevelopment Condition – Refers to runoff conditions that exist onsite immediately before the planned development activities occur. Pre-development is not intended to be interpreted as that period before any human-induced land disturbance activity has occurred as outlined by EPA in the Federal Register, Volume 64, No. 235 dated December 8, 1999.

Retention – A practice designed to store storm water runoff by collection as a permanent pool of water without release except by means of evaporation, infiltration, or attenuated release when runoff volume exceeds storage capacity of the permanent pool.

Runoff – The water resulting from precipitation that is not absorbed by the soil resulting in the discharge of the water into a natural or man-made conveyance.

Sediment – Soil that has been disturbed or eroded and transported naturally by water, wind, or gravity, or mechanically by any person.

Shall means mandatory; may means discretionary.

Significant Redevelopment – Development improvements that have a value of greater than 50% of the current assessed value, increases the floor area by more than 25% or more, any change in the impervious surface area, redirects the flow of storm water in any way, or changes the flow of storm water in any way

Sinkhole – A naturally occurring depression in the earth’s surface usually underlain by a hole, fissure, or other opening in the ground that allows the sinkhole to function as a natural conduit for storm water runoff. Sinkholes are generally denoted as closed contours on a topographic map.

Sinkhole Lip Elevation – The highest closed contour elevation of a sinkhole. If the flood elevation is below the sinkhole lip, water will flow away from the sinkhole.

Sinkhole No-Fill Line – The outside line of the area in a sinkhole where new construction is prohibited. The no-fill line is determined by the contour elevation that defines the storage equal to sixty percent (60%) of the floodplain storage volume.

Site Development Plan – A plan that includes the drawings and other documents that comprise all the information and specifications for the programs, drainage systems, structures, BMPs, concepts and techniques intended to maintain or restore the quality and/or quantity of storm water runoff to pre-development levels.

Special Flood Hazard Area (SFHA) – The land in the floodway and floodplain subject to flooding as a result of a 100-year storm event.

Storm Water – Refers to water induced or created from precipitation whether rain, snow, or ice and either stored, collected, detained, absorbed, or discharged.

Storm Water Management Facility – A storm water management control device, structure, or system of such physical components designed to treat, detain, store, convey, absorb, conserve, protect, or otherwise control storm water. Storm water management facilities include vegetative or structural measures, or both.

Storm Water Management – Refers to the collection, conveyance, storage, treatment and disposal of storm water in a manner that meets the objectives of this resolution and its terms, including, but not limited to measures that control the increase in volume and rate of storm water runoff and water quality impacts caused or induced by man-made changes to the land.

Storm Water Master Plan – An engineering and planning study for the drainage system of a watershed that consists of a plan for storm water management within the watershed. Storm water master plans can address flooding problems, water quality issues, potential storm water capital improvements, land use patterns, and regulatory issues for existing and future conditions.

Storm Water Pollution Prevention Plans – Means a written site-specific plan to eliminate or reduce and control the pollution of storm water through designed facilities, natural or constructed, and best management practices.

Stream – Means all waters of the State on the surface of the ground except wet weather conveyances; streams include but are not limited to creeks, rivers, canals, and tributaries. Typically, streams are defined on USGS maps by solid blue lines and intermittent streams are depicted as dashed blue lines.

Surface Water – means water bodies and any water temporarily residing on the surface of the ground, including lakes, reservoirs, rivers, ponds, streams, puddles, and channelized flow and runoff.

Swale – A natural or manmade depression or wide shallow ditch used to route or filter runoff.

Variance – Refers to any modification or deviation from the minimum storm water management requirements contained in this resolution and where strict adherence to the requirement would result in unnecessary hardship and not fulfill the intent of this Resolution.

Watershed – The land area that contributes runoff to a particular point along a waterway.

Water Quality – Refers to the characteristics that are related to the physical, chemical, biological, and/or radiological integrity of storm water.

Waters of the State – is defined in the Tennessee Water Quality Control Act and 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.

Waters of the United States – Waterways that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce as defined in 40 CFR Section 122.2.

Wetland – Any area that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, or similar areas and can be present in woodland areas.

Wet Weather Conveyance – Wet weather conveyances are man-made or natural water courses, including natural water courses that have been modified by channelization, that flow only in direct response to precipitation runoff in their immediate locality, the channels of which are above the groundwater table and do not support fish or aquatic life and are not suitable for drinking water supplies. TDEC Rule 1200-4-3-02(7) requires that waters designated as wet weather conveyances shall be protective of wildlife and humans that may come in contact with them and maintain standards applicable to all downstream waters. No other use classification or water quality criteria apply to these waters.

ARTICLE 3. PROGRAM DESCRIPTION

The primary objectives of the Anderson County Storm Water Program are to improve public safety, to control the rate of storm water flow, to minimize increases in the peak discharge volumes caused by development within Anderson County, to control erosion associated with new site development, to minimize any detrimental effect on water quality by the completed facility, and to avoid such effects during construction. All land disturbing activities shall employ storm water and erosion and sediment control Best Management Practices (BMPs) to minimize erosion to the maximum extent practical by preventing sediment from being transported from the site by storm water runoff, vehicular traffic, or construction related activities. The proper and effective application of these BMPs remains the responsibility of the owner, operator, and/or developer.

3.1 Policy Statements

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

1. The Anderson County Storm Water Program is intended to establish guidelines, criteria, and procedures for storm water management activities within the jurisdictional boundaries of the County.
2. If available, each individual project shall be evaluated for consistency with the applicable storm water master plan for the watershed, sub-basin(s), or drainage system, in which the project is located. Individual project evaluation will determine if storm water management practices can adequately serve the property and limit impacts to downstream public and private properties.
3. No construction shall be performed in a manner that will negatively impact storm water runoff adjacent to the site or in close proximity by flow restrictions, increased runoff, or by diminishing channel or conveyance storage capacities.
4. New land development or construction activities shall not adversely impact upstream or downstream flooding. Offsite improvements may be required in conjunction with new development to mitigate increases in peak flow or volume.
5. Unwarranted acceleration of erosion due to land development shall be prohibited.
6. New construction shall not be permitted until temporary or permanent erosion prevention and sedimentation control structures and/or practices have been placed or constructed and are shown to be operational to the satisfaction of the Storm Water Coordinator or designated representative.
7. The County reserves the right to require more stringent storm water management or erosion prevention and sedimentation control practices on properties that drain to sensitive drainage ways, sinkholes, areas that are known to have a history of flooding or drainage problems, or water bodies that have been listed on the State of Tennessee 303(d) list of impaired waters.
8. The County reserves the right to require maintenance or modification of storm water management structures that are not operating properly.
9. The County encourages regional storm water detention, serving large tracts of land or multiple property owners that may be consistently and efficiently managed and maintained. These types of practices will be encouraged in order to replace or reduce the implementation of on-site storm water detention and/or retention, as appropriate and supported technically by a storm water master plan.
10. Redevelopment of properties with existing on-site storm water management structures may be permitted by the County if downstream public and private properties and "Waters of the State" are adequately protected from storm water impacts.
11. Construction in floodplains should be completed in a manner that protects or enhances storm water quality and promotes conservation of the land and natural vegetation (i.e. trees and forests), greenways, buffer zones, floodplain preservation and hazard mitigation. Land development activities conducted within a floodplain or special flood districts shall be consistent the requirements specified in Articles 7 and 8 of the *Anderson County Zoning Resolution*.

12. Homebuilders and/or developers must comply with the approved Site Development Plan for the development or property on which they are developing and assume sole responsibility for storm water management and the control of erosion on their construction site(s) or lot.
13. The County will only be responsible for the maintenance of large drainage systems or conveyances located on County property, right-of-ways, or drainage easements under County jurisdiction. County maintenance activities will be limited to those necessary to maintain a functioning drainage system. The Highway Department should be consulted regarding the sizing and location of proposed culverts located within any County right-of-way.

3.2 Administration

Administration of storm water management activities is carried out primarily by five local government agencies: the Anderson County Department of Public Works which includes the Storm Water Section and the Building and Codes Enforcement Section, the Anderson County Highway Department, the Anderson County Regional Planning Commission (ACRPC), and the Board of Storm Water and Environmental Appeals. The requirements for permitting and determination of activities exempted from plan review and permitting will be the responsibility of the Storm Water Section. Procedures for enforcement of storm water regulations and inspection including as-built certification for drainage structures and other construction activities will also fall under the jurisdiction of the Storm Water Section.

3.3 Guidance Documents

The County provides guidance for the requirements and provisions of this resolution through the adoption technical, design, and regulatory guidance documents. These documents are intended to provide further detail and guidance pertaining to the implementation and compliance with the provisions of this resolution and to provide for standards and consistency in the same. These documents are not intended to substitute or replace proper engineering or legal judgment and as such provide for minimum standard of care. These documents will be subject to amendment as may be deemed necessary to serve the purpose and intent of this resolution. In the absence of any of these documents, then the remaining provisions of this resolution shall govern.

- **Storm Water Management Manual.** The Anderson County Storm Water Section has adopted or established policies, criteria, specifications, and standards for the proper implementation of the requirements of this resolution. These policies, criteria, specifications will be outlined in a *Storm Water Management Manual*. The manual shall describe design procedures and establish minimum requirements for the hydrologic and hydraulic analysis and design of storm water drainage systems. The manual may address any and all other storm water management issues that are deemed necessary to meet the intent of this resolution. The Storm Water Coordinator may approve policies or procedures that are not included in the aforementioned manual as long as the designer can demonstrate that the proposed policies or procedures meet or exceed the performance of those recommended in the Anderson County *Storm Water Management Manual* or this resolution.
- **TDEC Erosion and Sediment Control Manual.** Anderson County adopts as its best management practices (BMPs) manual the *TDEC Erosion and Sediment Control Manual* until an Anderson County BMP Manual is developed. The Anderson County BMP Manual will

supersede the TDEC Manual at that time. In the interim, the TDEC Manual will provide a description of acceptable BMPs including the specific design performance criteria and operation and maintenance requirements for each storm water practice. The TDEC Manual can be downloaded from the TDEC website (<http://www.tdec.net/>). For any instance where there may be conflicting design specifications between the *Storm Water Management Manual* and the *TDEC Erosion and Sediment Control Manual*, the more stringent criteria or requirement shall take precedence.

- **Storm Water Master Plans.** The Storm Water Coordinator shall have the authority to prepare, or have prepared storm water master plans for watersheds, sub-basins, and drainage systems located in Anderson County. For those areas that have been or will be selected for master planning, storm water master plans shall serve to guide development as it affects the quantity and quality of storm water runoff from the contributing drainage area. All development within a watershed for which a master plan exists shall be conducted in accordance with the general and specific recommendations in the master plan or the terms of this resolution, whichever is more stringent.

The Storm Water Coordinator shall have the authority to approve and adopt drainage studies that define floodway and floodplain boundaries and associated elevations where such studies are based on the best available data. Upon adoption, the drainage studies may be used as the basis for determining compliance with the *Anderson County Zoning Resolution, Subdivision Regulations*, and this resolution.

In the absence of a storm water master plan, a system of uniform requirements shall be applied to each individual project site. In general, these uniform requirements will be based on the criterion that post-development storm water peak runoff rate and volume must not differ significantly from pre-development conditions without any negative impact to water quality. Additional requirements may be required for sites located in close proximity to sinkholes, drainage wells, an established floodplain, or any site that discharges to a designated water of the State listed on the 303(d) list of impaired waters.

ARTICLE 4. SITE DEVELOPMENT REQUIREMENTS

Storm water management activities associated with land development projects require either a land disturbance or building permit or both. Land disturbance permits will be issued in accordance with the provisions of this resolution. Building and land disturbance permits are issued separately and function independently of one another. Additional permits may be required by state or federal agencies for specific activities such as stream crossings or alterations, or the disturbance of wetlands. Building and/or land disturbance permits will not be issued until copies of applicable permits are submitted to the Department of Public Works for inclusion in the project file.

Except for exempted activities, a building or land disturbance permit cannot be issued until a Site Development Plan or conceptual drawing (for roads and driveways) has been submitted and approved by the Department of Public Works and/or the ACRPC. It should also be noted that final approval for a proposed subdivision, mobile home park, commercial development, or PUD will not be granted until the appropriate plan has been approved without condition. Conditional final approval may be sufficient for issuance of a land disturbance permit if the project does not require coverage under the state's general permit; however, no building permits will be issued until the Site Development Plan has been given

final approval. The Department of Public Works reserves the right and authority to require a land disturbance permit for any exempted activity if it is believed that the particular project is located in a particularly sensitive area, it poses an unusual level of risk to surrounding properties, or discharges to a body of water listed on the State's 303(d) list of impaired waters.

4.1 Land Disturbance Permit Requirements

A. Administrative and structural controls are required for all land disturbing activities conducted within Anderson County to minimize and control erosion and sediment and/or facilitate the removal of pollutants from storm water runoff that could impede or alter the natural biological functions or hydrology of any receiving water located within the County. A land disturbance permit is required for any land disturbance activity that will disturb 1 acre or more of land and any new connection to a county road or street. Land disturbance activities include clearing, grubbing, grading, filling, and excavation activities. If the land disturbing activity is subject to coverage (>1 acre) under the State of Tennessee Multi-sector Permit for Construction Activities, then a copy of the "Notice of Coverage" and the Storm Water Pollution Prevention Plan will be submitted to the County concurrent with the land disturbance permit application.

B. Exemptions

Land disturbance permits shall be required for all land disturbing activities with the following exemptions:

1. Construction within a subdivision, mobile home park, or a commercial/industrial park where there exists an approved site development plan so long as the construction is performed in a manner consistent with the approved plan.
2. Finish grading or excavation below finished grade for retaining walls, swimming pools, human or animal cemeteries.
3. Construction of accessory structures related to single family residences or duplex dwellings (if the total area disturbed is less than 1 acre).
4. Additions or modifications to single family residences, duplex dwellings or their accessory structures (if the total area disturbed is less than 1 acre).
5. Agricultural practices such as plowing, cultivation, construction of agricultural structures, nursery operations, tree cuttings at or above ground surface, and logging operations leaving the stump, ground cover, and root mat intact.
6. Grading associated with maintenance, landscaping, excavation, or placement of fill/topsoil (if the total area disturbed is less than 1 acre and less than 5 feet in depth).

Land disturbance permit exemptions do not relieve the owner, contractor, or other legal representative of the responsibility to employ acceptable and effective erosion and sediment control measures. Land disturbance permit exemptions may be revoked if erosion from the proposed land disturbing activities is adversely impacting surrounding property owners or will create an undue burden on existing storm water drainage systems.

C. Suspension or revocation of land disturbance permits

A land disturbance permit may be suspended or revoked upon submission of a certified letter to the owner or authorized representative stating that one of the following violations has been committed and the owner fails to correct the violation within the time limit specified on the Notice of Violation (NOV):

1. violation(s) of the conditions of the site development plan approval;
2. errors and/or omissions in the site development plan or associated calculations, analyses, or reports;
3. failure of the erosion and sediment control measures whether by design or lack of maintenance;
4. construction not in accordance with approved plans; or
5. noncompliance with the requirements of a NOV or stop work order(s)

4.2 Plan Submittal Requirements

This section describes the plan submittal requirements for land disturbing activities conducted in Anderson County. The level of detail of the required plan is dependent on the size, nature, and complexity of the individual project. This section will outline those requirements and provide the applicant with the information that must be included in the plan in order to be reviewed by the Department of Public Works.

4.2.1 Notification of Ingress/Egress on County Roads

The Storm Water Section shall be notified of all proposed connections to County roads and streets. A land disturbance permit will be issued for all connections. The land disturbance permit must be acquired before land disturbance activities are initiated. The submittal requirements for a driveway or road connection will be as follows:

1. Submit a Driveway or Road Access Notification Form (available from the Department of Public Works).
2. Submit a drawing showing the approximate location of the proposed driveway and any relevant drainage structures (i.e. check dams, ditches, etc.). Storm water runoff should be directed to natural pre-existing drainage features to the maximum extent possible. If a culvert is proposed within the County right-of-way, then the County Highway Department should be consulted to ensure that the culvert is properly sized for the pre-existing drainage system. The Notification Form submitted to the Department of Public Works must have a signature from the Road Superintendent if a culvert/tile is to be installed within the county right-of-way. A land disturbance permit will not be issued until approval from the Highway Department is received.
3. Once the Notification Form and drawing have been submitted, a representative from the Storm Water Section will conduct an onsite review to insure that adequate controls are included in the proposed plan. If the proposed controls are adequate to sufficiently control runoff and erosion,

a land disturbance permit can be issued for work to start. If the proposed controls are deemed insufficient, then the applicant will be contacted regarding recommended changes to the proposed plan.

4. Upon completion of the construction activities, a final review of the completed driveway or road connection will be completed by the Storm Water Section to confirm that the proposed drainage control and erosion control structures were installed in accordance with the requirements of the approved plan.

4.2.2 Site Development Plans

As part of the permit process, any development conducted within the jurisdiction of Anderson County that meets the following criteria will be required to submit a Site Development Plan before the issuance of a land disturbance and/or building permit and the commencement of land disturbing activities:

1. Site development activities that will result in the disturbance of one (1) or more acres of land;
2. Site development activities of less than one (1) acre of land if such activity is part of a larger common plan that will cumulatively result in the disturbance of more than one acre of land (i.e. subdivisions, PUDs, commercial/industrial complexes, mobile home parks);
3. Site development activities of less than one (1) acre, if in the discretion of the Storm Water Coordinator such activity poses a unique threat to water quality, public health, or safety; and
4. The property will be used as a rock quarry, mine, or borrow pit.

Except for **exempted activities** listed below, a land disturbance and/or building permit cannot be issued until the Site Development Plan has been reviewed and approved by the Department of Public Works. The following activities are exempt from Site Development Plan requirements:

1. Any emergency activity that is immediately necessary for the protection of life, property, or natural resources.
2. Existing nursery and agricultural operations conducted as a permitted main or accessory use.
3. Any logging or agricultural activity that is consistent with an approved farm conservation plan or a timber management plan prepared or approved by the Anderson County Forestry Office or Agricultural Extension Service.

Additionally, any activity that results in the disturbance of 1 acre or more will require that the property owner, developer, or other responsible party submit a Notice of Intent (NOI) to the Tennessee Department of Environment and Conservation (TDEC) for inclusion on their Tennessee Multi-sector Permit for Construction Activities. Copies of the letter verifying “Notice of Coverage” and the Storm Water Pollution Prevention Plan (SWPPP) must be submitted to the Department of Public Works before a land disturbance and/or building permit will be issued.

4.2.3.1 Site Development Plan Requirements

The Site Development Plan is a detailed plan submitted for review as part of the land disturbance permit process. Site Development Plans shall be prepared by a registered professional engineer in compliance with *Tennessee Code Annotated*, Title 62, Chapters 2 and 18, using acceptable engineering standards and practices. The Site Development Plan shall include a section devoted to storm water management and a section on erosion prevention and sediment control. A Site Development Plan must be submitted with the preliminary plat for all projects requiring approval by the ACRPC. The information provided in the Site Development Plan must include the following information, at a minimum:

1. A complete plan for the proposed development at a scale of no less than 1" (one inch) = 50' (fifty feet). It is recommended that proposed land development activities and associated drainage and erosion prevention structures be shown on a series of maps similar to the example presented in the sample Storm Water Pollution Prevention Plan provided in Appendix E of the TDEC Erosion and Sediment Control Handbook. Plans or drawings should include at a minimum, a site location map, a drainage/soils map, a structural control map, and a final structures plan.
2. Address and legal description of the subject property including the tax map and parcel number of the subject property.
3. Name, address, and telephone number of the contractor and any subcontractor(s) who shall perform any site development activities and who will implement the storm water management plan and erosion and sediment control plan.
4. A statement and/or description of the land disturbing activities including the size of the area that will be impacted and the proposed starting and completion dates of the land disturbing activities.
5. Existing and proposed building on the property.
6. Existing and proposed impervious surfaces.
7. Delineation of sinkholes, wetlands, environmentally sensitive areas, and any water quality buffer zones required in accordance with Section 7.3 of this resolution.
8. Where the property contains a sinkhole, the applicant shall obtain an Underground Injection Control (UIC) permit from the TDEC Division of Water Supply. A 50 ft minimum undisturbed buffer zone must be maintained adjacent to the sinkhole depression area.
9. The applicant shall obtain from any state or federal agency any other applicable environmental permits that pertain to the property or the proposed development activities. The inclusion of these permits does not preclude the Department of Public Works from imposing additional development requirements and conditions commensurate with this resolution.
10. Existing and proposed site contours at an interval of no greater than 5 ft (five feet). Contours shall be based on the horizontal datum NAD83 and the vertical datum NGVD88. Contours shall extend to the centerline of all roads bordering the site.

11. Plan view drawing showing existing and proposed storm water drainage structures on and in the immediate vicinity of the site including inlets, catch basins, culverts, cross drains, headwalls, detention/retention ponds, ditches, streams, storm water quality infrastructure or devices and outlet facilities, with size, type, and invert elevations. The next drainage structure immediately downstream in every direction that will receive runoff from the site shall also be included. These off-site structures may be shown on a vicinity map with a scale no less than 1" = 2,000'.
12. At least one benchmark located, with the proper elevation indicated (horizontal datum NAD83 and vertical NGVD88 to be used exclusively).
13. Temporary erosion and sediment control measures to be implemented during construction including but not limited to sediment basins, sediment traps, outlet protection devices, rock check dams, temporary seeding, mulching, geo-textiles, and silt fence.
14. Final site stabilization measures proposed for all disturbed areas on the site including but not limited to ditches, channels, detention/retention facilities, sinkholes, and areas of excavation or fill.
15. Hydrologic and hydraulic calculations for the appropriate design storms. Calculation shall include, but not limited to, curb and gutter sections, inlets, pipes, culverts, bridges, and ditches.
16. Storm water detention pond design calculations including inflow and outflow hydrographs, storage computations, and details of all outlet features including any spillway and overflow structures.
17. Floodplain areas require the following information; existing and proposed floodplain and floodway boundaries, floodplain elevations and the lowest floor elevations for all buildings. Supporting calculations shall be submitted as appropriate.
18. Detailed engineering drawings of swales, ditches, inlets, head walls, detention pond or sinkhole outlet structures and overflow structures, and temporary and permanent erosion control measures. All drawings should provide a sufficient level of detail such that the structure(s) can be properly constructed by the contractor responsible for the installation.
19. A preliminary construction schedule indicating the proposed construction milestones and staging. The preliminary construction schedule must include the following information, at a minimum:
 - a. Completion date for installation of erosion control structures;
 - b. Initial site inspection by County prior to onset of land disturbing activities;
 - c. Site clearing and grubbing;
 - d. Site grading and excavation;
 - e. Slope stabilization;
 - f. Installation of storm drainage systems;
 - g. Second inspection by the County;
 - h. Establishment of permanent vegetative cover; and
 - i. Final site inspection by the County.

20. If the site development plan includes streets that will be dedicated to the County then a complete set of roadway plans must be submitted including profiles, grades, drainage structures, utility easements, and other pertinent information such a greenways, buffer zones, pedestrian space, and street lighting if applicable.
21. A copy of the Covenants for Permanent Maintenance of Storm Water Facilities. These covenants must be recorded with the Anderson County Register of Deeds office before any building permits are issued for the development.
22. Legal documentation for any drainage easements.
23. A copy of the SWPPP submitted to TDEC for review and approval.
24. An itemized cost estimate for the construction and/or installation of storm water, erosion, and sediment control measures including labor, materials, equipment, and any operation and maintenance costs associated with the proposed BMPs.
25. Any and all applicable fees as set by the Department of Public Works and approved by the Anderson County Board of Commissioners.

Some requirements listed above will not be applicable to all plans. Omission of any applicable requirement will deem the plan incomplete and shall be returned to the applicant for completion before being reviewed.

4.2.3.2 Liability

No construction, whether by private or public action, shall be performed in a manner that will negatively impact storm water quality or quantity. Unwarranted acceleration of erosion due to land development activities must be controlled. Land disturbing activities shall not be permitted until temporary or permanent erosion prevention and sediment control measures have been placed or constructed and are operational. A failure to utilize due diligence to control storm water runoff and/or erosion that results in damage or drainage problems to surrounding properties, county rights-of-way or existing drainage structures will require corrective action by the property owner. The owner of said property shall be liable for the costs of the corrective action(s) and repairs required to correct the problem.

4.2.3.3 Review and Approval of Site Development Plans

The Department of Public Works will review each Site Development Plan to determine if it is in conformance with the provisions of this resolution. For any site development activities that do not require approval by the ACRPC (e.g. subdivisions, mobile home parks, etc.), the applicant will be notified verbally or in writing after the plan review is completed. The applicant will be provided with one of the following responses:

1. Approval of the Site Development Plan;
2. Approval of the Site Development Plan subject to such reasonable conditions as may be necessary to secure the objectives of this resolution;

3. Denial of the Site Development Plan with an explanation of deficiencies or recommended changes to the plan.

If conditional approval of the Site Development Plan is granted, the applicant will be required to submit a revised plan that addresses the conditions identified in the review process. A land disturbance permit may be issued under conditional approval and work will be allowed to proceed as long as the work conforms to the conditions set forth in the review. The applicant will have seven (7) calendar days to submit the revised site development plan or the Department of Public Works reserves the right to place a "Stop Work Order" on the property until such time as the Site Development Plan is revised and given final approval.

No building permits shall be issued until the required Site Development Plan is approved by the Department of Public Works or the ACRPC and the portion of the property required for storm water facilities is recorded as a permanent drainage easement and/or any required Covenants for Permanent Maintenance of Storm Water Facilities have been recorded in the Anderson County Register of Deeds office.

ARTICLE 5. LAND DISTURBANCE PERMIT APPLICATION PROCESS

Applications for land disturbance permits are made to the Department of Public Works. Each major component or step of the submittal and review process is briefly described below.

5.1 Initial Receipt and Re-submittals

All land disturbance permit applications must be accompanied by a Site Development Plan Information Form. All Site Development Plans must also include a completed Site Development Plan Checklist. Copies of these documents are available in the Department of Public Works. The checklist will assist the applicant in the preparation of a complete package and thereby ensure a timely review. Some requirements of the checklist will not be applicable to all projects. These should be marked as not applicable (N/A). Omission of any required items shall render the plans or application incomplete and they will be returned to the applicant or responsible party. The checklist does not relieve the applicant of the responsibility for the procurement of applicable State and Federal permits before initiating any land disturbing activities. Applications for a land disturbance permit will not be accepted for review without each of these components.

5.2 Staff Review

A representative from the Department of Public Works will complete a review of the permit application to determine if all basic information has been included for review. Should the permit application be determined to be incomplete, the application will be returned to the applicant along with a request for any additional information. When all basic information has been supplied, the Storm Water Coordinator will conduct a technical evaluation of the plan(s). The technical evaluation will be based on the technical criteria outlined in this resolution.

5.3 Staff Recommendation

If in the opinion of the Storm Water Coordinator, the work described in the permit application, including drawings, conforms to the requirements of these regulations and other pertinent regulatory guidance, a land disturbance permit shall be issued and a recommendation for approval shall be given to the Building Commissioner who may then issue a building permit.

However, if the application, including the drawings describes work that does not conform to the requirements of this resolution or other pertinent regulatory guidance, the application will not be approved. The plans will be stamped “returned for correction” and will be returned to the applicant with an explanation of the required corrections or additions that are required for approval upon re-submittal.

5.4 Revisions to Approved Plans

If changes are made or changes are anticipated that would constitute a revision of the plans already approved, the plans shall be revised and resubmitted for re-approval. The resubmission shall include a letter stating why the change(s) are required, the land disturbance permit number, and the completed Submittal Information Form.

ARTICLE 6. BONDING REQUIREMENTS

In order to ensure that land development activities comply with the requirements of this resolution, the Department of Public Works and the ACRPC shall have the authority to require a performance bond in accordance with Article IV of the Anderson County Subdivision Regulations. The applicant shall provide three itemized cost estimates for all labor, equipment, and materials required to construct structural BMPs proposed in the site development plan. In the event of a discrepancy or dispute over the estimated costs for these measures, the County reserves the right to solicit an independent estimate from a third party or alternate vender. The amount of the performance bond will be set at 120% of the highest cost estimate. The performance bond shall be in the form of a letter of irrevocable credit, which names ACRPC.

1. A performance bond is required for any subdivision, mobile home park, commercial or industrial complex, or planned unit development. The ACRPC or the Storm Water Coordinator may require bonding if land development activities are suspected to have a high probability of adversely impacting county rights-of-way or other property, when sites drain to sinkholes, when the site is used for a borrow pit, a detention pond is required, or there is construction of a joint permanent easement or public road.
2. A performance bond is not required for single-family residential development unless it is determined that the development poses a risk to surrounding properties or could potentially have an adverse impact on downstream conditions.
3. The ACRPC may refuse brokers or financial institutions the right to provide bonding based on past performance, ratings of the financial institution, or other appropriate sources of reference information.

The performance bond will only be released in full after an “As-Built Certification” completed by a registered professional engineer has been submitted and approved by the Storm Water Coordinator. The

as-built certification will provide documentation stating that the structural BMPs and overall drainage system have been installed and are functioning in accordance with the approved plan and other applicable provisions of this resolution. The development certification must show that all roadway lines, grades, contour elevations, drainage structures or facilities have been installed and field verified by a licensed professional land surveyor. The Storm Water Coordinator or qualified designee will make a final inspection of the structural BMPs to ensure that it is in compliance with the approved Site Development Plan. Provisions for a partial pro-rata release of the performance bond based on the completion of various development milestones can be made at the discretion of the ACRPC.

ARTICLE 7. STORM WATER SYSTEM DESIGN AND MANAGEMENT STANDARDS

7.1 General Design Criteria

- A. The standard method of drainage computation shall be in accordance with Technical Release 55 titled "Urban Hydrology for Small Watersheds" published by the United States Department of Agriculture. The required hydrologic and hydraulic calculations shall be in accordance with the National Resource Conservation Service (formerly the Soil Conservation Service) unit hydrograph procedures using AMC II curve numbers and Type II rainfall distribution.
- B. The storm water runoff from new subdivision or land development activities shall regulate the peak runoff from the site to maintain pre-development discharge rates for the 1-yr, 2-yr, 5-yr, and 10-yr storm events. The Storm Water Coordinator and the ACRPC reserve the right to require more stringent design requirements based on site-specific conditions.
- C. The storm water system shall be designed to accommodate a 1-yr through 10-year return frequency 24-hour duration storm, except for sites/facilities that have the potential to flood public roads. A 25-year storm water runoff control plan shall be used to prevent flooding of local roads and collectors, and a 50-year storm runoff control plan shall be used to prevent flooding of state highways and interstates. A 100-year design storm event shall be used to prevent flooding of all new structures and have no adverse impact on existing structures (i.e. dwellings).
- D. For sites or projects that are part of a drainage basin that encompasses a drainage area of greater than 1 square mile, the flow for a 100-year storm event shall be computed. Drainage areas of less than 1 square mile must model a 50-year storm. This requirement is intended to provide a mechanism to ensure that the drainage system adequately accounts for all storm water runoff passing through a given site whether it is generated from the site or part of the existing drainage system/basin. Such flow may not exceed the capacity of facilities designed to comply with the requirements of lesser floods as noted in Item C of this section, and shall be contained in the public right-of-way or a permanent drainage easement on the property being improved or developed. Pipes and culverts designed for a 100-year storm shall be constructed of reinforced concrete if such pipes or culverts lie in public lands or easements. Pipe materials other than reinforced concrete may be used on privately owned lands if there exists industrial, commercial, or engineering standards for use of such pipes in the application.

7.2 Requirements for Floodplains and Special Flood Hazard Areas

Development within any floodplain or flood prone area shall be conducted in accordance with Articles 7 and 8 of the *Anderson County Zoning Resolution*. When existing or documented flooding problems are present, the Storm Water Coordinator has the authority to condition the approval of a permit based upon compliance with additional site-specific requirements including but not limited to detention, conveyance structures, or other storm water management BMPs to minimize adverse impacts of the proposed development on other properties or on the subject development.

7.2.1 Alterations of floodplain and drainage channels

No alterations of floodplain land and drainage channels will be allowed without written approval from the ACRPC. The following conditions must be met before approval may be granted:

1. The construction of a bridge, abutment, levee, earthen berm, building or other structure which alters a floodplain area shall only be permitted based on a plan prepared by a registered and licensed professional engineer. The plan must show existing and proposed elevations, existing and proposed drainage channels, existing and proposed structures and must certify that the alteration and construction proposed will not increase the degree of flooding in surrounding area.
2. The minimum finished floor elevation for any structure intended for human occupancy shall be a minimum of two foot above the flood protection elevation (100-year flood elevation). Structures not intended for human occupancy and other related facilities such as electrical equipment, water service, and sanitary sewer connections shall be at least equal to or higher than the flood protection elevation or must be flood proofed.
3. Any excavation, backfilling, or re-routing of an existing conveyance must be approved by the Department of Public Works. The owner or developer will be required to apply for any applicable permits from TVA, U.S. Army Corp of Engineers, or the State of Tennessee.
4. Any approved alteration of a floodplain will be noted on the official zoning map as matter of record. This notation will be made upon approval from the ACRPC that such alteration has been completed in accordance with the approved plan.

7.2.2 Development within floodways

In general, construction that alters the conveyance and/or storage capacity of the regulated floodplain is prohibited between the floodway elevation and the 100-yr floodplain elevation. Any bridge or abutment that is constructed will require a drainage study by a registered professional engineer licensed to practice in the State of Tennessee that demonstrates that there will not be a rise of more than 0.1 ft in the 100-year floodplain within 0.5 miles (upstream or downstream) of the proposed development. Additional permit requirements from TDEC, USACOE, or TVA may be required for any structure that is constructed within the floodway or floodplain..

7.3 Water Quality Buffer Zones

TDEC recommends that Phase II communities implement a water quality buffer zone policy to protect and maintain native vegetation in riparian areas by implementing specifications for the establishment,

protection, and long-term maintenance of water quality buffer zones along intermittent and perennial stream waterways and wetlands in or adjacent to new development and significant redevelopment. A water quality buffer zone is a strip of undisturbed vegetation, either original or re-established that borders streams and rivers, ponds and lakes, wetlands, and seeps. Buffer zones are most effective when storm water runoff is flowing through the buffer zone as shallow sheet flow rather than in concentrated form such as in channels, gullies, or wet weather conveyances.

Buffer zones protect the physical and ecological integrity of water bodies from surrounding upland activities in the following ways:

- Filtering excess amounts of sediment, organic material, nutrients, and chemicals;
- Providing flood protection;
- Reducing storm water velocities;
- Protecting channel bank areas from scour and erosion;
- Providing shade for cooling adjacent water which allows waters to hold a greater level of dissolved oxygen; and
- Providing leaf litter and large woody debris important to aquatic organisms.

7.3.1 Design Standards for Buffer Zones

A water quality buffer zone is required along all perennial and intermittent stream waterways and wetlands as identified on a 7.5-minute USGS quadrangle map, or as determined by TDEC or the Anderson County Department of Public Works. The buffer width shall be calculated as follows:

- A) In areas where a floodway profile has been computed as part of an approved flood study, the buffer zone shall be the width of the floodway plus at least fifty (50) feet perpendicular from the edge of the floodway or each side of the waterway, one hundred (100) feet perpendicular from the top of the bank on each side of the waterway, whichever is greater.
- B) In areas where a floodway profile has not been computed as part of an approved flood study, the buffer zone shall be at least fifty (50) feet perpendicular from the top of the bank on each side of the waterway.
- C) When delineated wetland or critical areas extend beyond the edge of the required buffer zone width, the buffer zone shall be adjusted so that the buffer zone consists of the extent of the delineated wetland plus 25 feet extending perpendicular beyond the wetland edge.

7.3.2 Buffer Zone Management and Maintenance

- A. Management of the water quality buffer zone includes specific limitations on alteration of the natural conditions. The following practices and activities are restricted within the water quality buffer zone, except with prior approval by the Anderson County Department of Public Works:
 1. Clearing or grubbing of existing vegetation;
 2. Soil disturbance by grading, stripping, or other practices;
 3. Filling or dumping; and
 4. Use, storage, or application of pesticides, herbicides, and fertilizers.
- B. Individual trees within the buffer zone may be removed if they are in danger of falling, causing damage to dwellings or other structures, or causing blockage of the stream. The root structure should be left in place where feasible to maintain soil stability.

- C. All site development plans and plats prepared for recording shall:
 - 1. Show the extent of any water quality buffer zone on the subject property by meets and bounds and be labeled as “Water Quality Buffer Zone”;
 - 2. Provide a note of reference stating, “There shall be no clearing, grading, construction or disturbance of soil and/or native vegetation except as permitted by the Anderson County Department of Public Works”; and
 - 3. Provide a note to reference any protective covenants governing all water quality buffer zones stating, “Any water quality buffer zone shown hereon is subject to protective covenants which may be found in the land records and which restrict disturbance and use of these areas.”
- D. All water quality buffer zones must be protected during development activities. Prior to the initiation of development activities, ensure adequate visibility of the water quality buffer zone (s) by staking and flagging. Permanent boundary markers in the form of signage approved by the Anderson County Department of Public Works shall be installed prior to the completion of land development activities.
- E. Streambanks and other areas within the buffer zone must be left in a stabilized condition upon completion of development activities. The vegetative condition of the entire streamside buffer must be monitored and landscaping or stabilization performed to repair erosion, damaged vegetation, or other problems identified. Only native vegetation may be used in conjunction with stabilization activities. TVA provides a guide for the selection of native vegetation at the following website: www.tva.com/river/landshore/stabilization/plantsearch.htm,
- F. All water quality buffer zones shall be maintained through a declaration of protective covenant, which is required to be submitted for approval to the ACRPC or Department of Public Works. The covenant shall be recorded in the land records and shall run with the land and continue in perpetuity.
- G. All lease agreements must contain a notation regarding the presence and location of protective covenants for water quality buffer zones, and shall include information on the management and maintenance requirements.

7.3.3 Waivers and Variances

This water quality buffer zone policy shall apply to all development except sites or development activities covered by a plat previously approved by the ACRPC. A variance may be granted for a specific project or activity if it can be demonstrated that strict compliance with the buffer zone policy would result in practical difficulty or financial hardship. Requests for a variance or waiver shall be submitted to the Public Works Department. The application shall include specific reasons justifying the variance and any other information necessary to evaluate the proposed variance request. The Anderson County Board of Storm Water and Environmental Appeals will evaluate the request and provide the final ruling regarding acceptance or denial of the variance request.

7.4 Storm Water Detention

Increasing urbanization within Anderson County is resulting in radical changes to the topography, ground cover, and in some cases, the storm water drainage systems. These changes will continue to have adverse effects on the environment, primarily through increased storm water runoff and non-point

source pollution that impacts storm water quality. To minimize adverse storm water impacts, Anderson County has chosen to regulate storm water discharges with the primary objective of maintaining post-development peak runoff volumes at or near pre-development levels. This policy is primarily concerned with maintaining pre-development conditions for flood storage, flow and velocity. It should also be applied under certain conditions for the purpose of maintaining adequate capacity of an existing outfall or drainage system by combining public and private efforts to correct existing deficiencies for flooding and erosion.

Detention basins (also known as detention ponds) are the most common BMP employed to meet storm water detention requirements. Detention ponds can be utilized on small and large developments, can be easily designed and constructed, and are long lasting and durable if properly constructed and maintained. Detention ponds can also provide some water quality benefits by capturing sediment, nutrients, toxic materials, floatable materials, oxygen demanding substances, and oil and grease. Detention and/or retention basins must be designed to have adequate storage and outlet control structures to limit the peak discharge rate for the post-development conditions to be no greater than the peak discharge rate for predevelopment conditions for the 1-year, 2-year, 5-year, and 10-year storm events.

Storm water detention facilities must be designed and located in accordance with any applicable storm water master plan that may have been developed or adopted by the County.

7.5 Requirements for Developments Draining to a Sinkhole

- A. Site development on property that includes a sinkhole will require an Underground Injection Permit from the Tennessee Department of Environment and Conservation prior to site development plan approval.
- B. Sites with a sinkhole located entirely within the property boundaries require calculations showing that 100-year 24-hour storm event will not result in flooding of any surrounding structures assuming plugged conditions (0 cubic feet per second outflow) for the sinkhole.
- C. Sites with a sinkhole(s) located partially within the property boundaries require calculations showing that there will be no rise in the water surface elevations between the 100-year predevelopment and the 100-year post-development design storm. A rise in the 100-year water surface is only permitted with the consent of all property owners that have shared ownership of the sinkhole otherwise the drainage plan must include appropriately designed retention structures to store the additional runoff generated as a result of the proposed development.
- D. No development will be allowed within 50 feet (minimum) of the sinkhole or within 5 feet of the elevation corresponding to the highest closed contour line, whichever is greater. This area shall be designated as a drainage easement and properly noted on the final plat or site plan submitted to Department of Public Works for review.
- E. In drainage basins or sub-basins where there is a documented historical draw down time for the sinkhole or the region being drained, it may be acceptable to include detention or retention structures in the drainage plan. The draw down time of the detention pond must be a minimum of one and a half times the draw down time for the area in question before consideration will be given to the use of a detention pond instead of a retention pond/basin.

- F. Any excavation in a sinkhole must be approved by the Storm Water Coordinator or authorized representative from the Department of Public Works.

7.6 Disclaimer

Conformance with this resolution is a minimum requirement and does not relieve the design engineer from applying sound engineering judgment and taking measures that exceed the requirements of this resolution as necessary. This resolution does not imply a warranty or the assumption of responsibility on the part of Anderson County for the suitability, fitness or safety of any structure with respect to flooding or structural integrity. This resolution is a regulatory instrument only, and is not to be interpreted as an undertaking by Anderson County to design any structure or facility.

ARTICLE 8. EROSION AND SEDIMENT CONTROL

All land development activities shall be conducted in such a manner that soil erosion and resulting sedimentation are minimized to the maximum extent practical. Erosion and sediment control structures shall be designed to control a 2-yr, 24-hour storm event in accordance with general TDEC specifications. Under no circumstances are land development activities allowed to increase erosion from any particular site due to inadequately installed or maintained erosion control structures. Site-specific variables such as topography, soil type(s), and vegetation shall be considered when designing and developing a Site Development Plan. The disturbed area shall be limited to the smallest practical area for the shortest possible period of time. New development and areas of significant redevelopment shall be required to fulfill the provisions of this resolution and pertinent sections of the *Zoning Resolution* or *Subdivision Regulations*. Discharge velocity shall be controlled to prevent erosion and sedimentation immediately downstream from the point of discharge. Any temporary or permanent detention or erosion control structures shall be sized to control runoff and erosion for the duration of the construction period.

All land disturbing activities which result in changes to the land by grading, filling, excavating, removal or placement of topsoil, trees or vegetative covering thereon shall be undertaken with due care to control or eliminate the erosion of soils. Any of the following measures shall be undertaken as necessary to control erosion and sedimentation:

1. Development should be fitted to the topography and type of soil to minimize erosion potential.
2. Erosion and sediment control measures shall be coordinated with the required steps in construction and appropriate control measures shall be installed before the start of land disturbing activities.
3. Land shall be developed in increments of workable size so that adequate controls can be installed and maintained during the construction period. Operations shall be staged so that the area being developed is not exposed for a period greater than 14 days without stabilization and so that the first disturbed areas are completely controlled before the next section is opened.
4. Provisions shall be made to accommodate the increase in runoff resulting from changes to the soil and surface conditions during development. Runoff shall be intercepted and safely

conveyed to storm drains, a sediment pond or trap, or a detention/retention pond at a rate and peak volume that will not erode or flood surrounding properties. The permanent drainage system(s) for the development shall be made fully functional as quickly as possible during construction.

5. Preservation and Re-establishment of Vegetation: Preserving or re-establishing vegetative cover is the most effective form of erosion control. Temporary or permanent vegetation should be planted as soon as possible on all denuded areas (including stockpiles of fill or topsoil). Stabilization practices may include temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips (see Sect. 7.3), preservation of mature vegetation, and other appropriate measures. TDEC regulations require that stabilization measures be initiated within 7 days after construction or land disturbance activities have been temporarily or permanently terminated. The only exceptions are for cases where snow cover, frozen ground, or excessively wet conditions preclude initiation of stabilization or where land disturbance activities will be resumed on that portion of the site within 15 days. Non-vegetative cover such as straw, mulch, or wood chips, or erosion control matting may be used to control erosion during the poor growing season. Stockpiles and excavated soil piles should be seeded and mulched or covered with a waterproof cover (e.g. tarp).
6. Sediment basins shall be installed and maintained to collect sediment from storm water runoff before being discharged. **A temporary sediment basin is required for all land disturbing activities that are completed within a drainage area encompassing 10 or more acres in accordance with TDEC requirements. Note that the drainage area for a particular development project may extend beyond the boundaries of the parcel being developed.** TDEC requires that the sediment basin be sized to accommodate a minimum of 3,600 cubic feet of storage per acre drained (~134 cubic yards per acre). For sites with a drainage area of <10 acres temporary sediment traps should be included in the design of the drainage and erosion control system. The temporary structure may be converted to a permanent detention/retention facility at the conclusion of the project or at the point that the site has been stabilized (re-vegetated) such that erosion is no longer a primary concern. Consult the TDEC Erosion and Sediment Control Handbook for specific design requirements for sediment basins and traps. Discharge velocity shall be controlled to prevent erosion and sedimentation immediately downstream from the point of discharge. Energy dissipating structures/devices (e.g. check dams or rip rap) shall be incorporated into the drainage system as necessary. Storm sewer inlets with debris guards and micro-slit basins to trap sediment and avoid possible damage by blockage shall be incorporated into the design of the drainage system.
7. Sediment Barriers: Sediment barriers function as leaky dams causing muddy water to pool behind them and allow the sediment to settle out before the water drains through the barrier. A single row of silt fence is needed for every 100 feet of slope length. Install silt fence on the down slope sides of the site parallel to the contour of the land. Two rows of Type C silt fence should be installed along creeks and streams with a minimum of 6 ft between rows. All silt fence or other structures must be installed outside any required water quality buffer zone. Consult the TDEC Erosion and Sediment Control Handbook for silt fence specifications and proper installation requirements.
8. Streets, parking lots, driveways, and other paved areas shall be surfaced as quickly as reasonably achievable.

9. A gravel construction entrance built to the specifications outlined in the TDEC Erosion and Sediment Control Handbook must be constructed to minimize tracking of soil into the street or road. If site conditions warrant (i.e. excessively wet conditions), a tire wash should be included at the exit to minimize soil being transported into the road.
10. Soil tracked into the roads or off the site **must be cleaned up daily without exception.**

ARTICLE 9. NOTICE OF CONSTRUCTION AND INPECTIONS

The applicant must notify the Department of Public Works at least 24 hours in advance of the commencement of land disturbing activities. The Storm Water Coordinator or qualified designee will conduct inspections of the construction site to ensure compliance with requirements of the approved drawing(s) or Site Development Plan. These inspections will include a pre-construction inspection that will be completed before any land disturbing activities are started to ensure that the storm water and erosion and sediment control structures are installed and functional. The frequency of the inspections will be determined by the Storm Water Coordinator based on the size, complexity, environmental risk, and estimated duration of the project. At a minimum, site inspections will be conducted once a month for all projects. Site inspections will be documented and placed in the project file. Site inspection reports will contain the following information:

1. The date and location of the inspection;
2. Whether construction is in compliance with the approved site development plan;
3. Variations from the approved plan;
4. Problems with flooding or water quality (pollution);
5. Any violations that exist and a timeframe for implementation of corrective action.

Additionally, self-inspections must be performed by the contractor, subcontractor, or other responsible party. Sediment and erosion control structures must be inspected at least once a week and within 24 hours after any storm event exceeding 0.5 inches of rainfall. Documentation of weekly inspections must be maintained onsite and readily available for inspection by the Storm Water Section. The inspection sheet must document the date and time of all inspections, and any deficiencies and/or repairs that were completed to ensure the functionality of the structures. An inspection sheet is available from the Department of Public Works or the TDEC Construction Storm Water Inspection Report may be used. A copy of the completed inspection sheets should be submitted to the Department of Public Works monthly. A failure to submit the required inspection sheets will be a violation of the land disturbance or building permit requirements and may be cause for revocation of the permits or the issuance of a "Stop Work Order."

ARTICLE 10. CONSTRUCTION PROCEDURES

A person, firm, or corporation required to obtain a land disturbance permit in accordance with this resolution must do so before starting any work covered under the permit. A failure to comply with this

requirement may result in actions to include a stop work order, notice of violation, and/or civil penalties in accordance with Article 16 of this resolution.

10.1 Posting of Permit

Work requiring a grading permit shall not be initiated until the permit holder or his/her agent has posted the grading and/or building permit in a conspicuous place near the front of the property. The permit shall be clearly visible and must be protected from the weather. The permit shall remain posted until the following criteria have been met:

1. The Building and Codes Enforcement Department has issued a certificate of occupancy, if applicable; and
2. The Storm Water Coordinator has completed a final inspection of the storm water drainage system and granted approval of the system(s).

10.2 Effect of Permit

A land disturbance or building permit issued pursuant to this section shall be construed to be a license to proceed with the work and shall not be construed as authority to violate, cancel, alter, or set aside any of the provisions of these regulations, nor shall issuance of a permit prevent the Storm Water Coordinator or the Building and Codes Enforcement Section from requiring a correction of errors in plans or to require additional measures beyond the scope of the approved plans to ensure that the provisions of this resolution and the applicable section(s) of the *Zoning Resolution* and/or *Subdivision Regulations* are met.

10.3 Expiration of Land Disturbance Permits

Work authorized by a land disturbance permit must be initiated within six (6) months after the date that the permit was issued or the grading permit shall be invalid and a new permit will be required. If the work authorized by a permit is not completed within the timeframe submitted in the permit application or twelve (12) months from the date of issuance then the permit shall be invalid. A permit may be extended for a period not to exceed thirty days if the permit holder can demonstrate reasonable cause. Request for extension shall be submitted to the Department of Public Works in writing. The Storm Water Coordinator or authorized designee will provide the permit holder with verbal and written notification of any permit extension.

10.4 Post-Construction Requirements

For any land development activity that requires a land disturbance permit, a registered professional engineer, land surveyor, or landscape architect shall submit to the Department of Public Works certification that the storm water management system has been completed and is operational in accordance with the approved Site Development Plan. Any deviations from the approved plans shall be noted on the as-built drawings and certification submitted to the Department of Public Works. As-Built Certification Forms are available from the Department of Public Works. To insure the adequacy of storm water detention facilities and other drainage structures, the as-built drawing submitted for

approval shall include at a minimum final topographic elevations including invert elevations of outlet control structures. Hydrologic and hydraulic calculations may be required for As-Built Certifications.

For any new or substantially improved structure that is subject to minimum floor elevation requirements under these or other regulations, a registered professional engineer and/or registered land surveyor must certify the lowest floor elevation (including basement); or if the structure has been flood proofed, and the elevation to which the structure was flood proofed. The certification must be provided to the Building and Codes Enforcement Section on a FEMA Elevation Certificate.

A final inspection by the Storm Water Coordinator or authorized designee is required before any performance bond is released. A Certificate of Occupancy will not be granted until all BMPs have been inspected and released.

ARTICLE 11. MAINTENANCE OF STORM WATER FACILITIES

11.1 Ownership and Maintenance of Storm Water Drainage Systems

- A. Drainage structures that convey water solely from the property on which they are located shall be maintained by the property owner.
- B. The County shall be responsible for the maintenance of all regional detention or retention facilities designed or constructed with public monies.
- C. The County shall be responsible for the maintenance of all storm water drainage structures within the public road right-of-way.
- D. At the discretion of the Storm Water Coordinator with concurrence from the Road Superintendent, the County may perform storm water maintenance activities beyond the public road right-of-way where conditions exist that compromise the natural or engineered function of publicly owned or maintained storm water drainage systems and a drainage easement has been dedicated to the County.

11.2 Maintenance of Pre-existing Private Storm Water Drainage Facilities

- A. All private storm water drainage systems in existence within the jurisdiction of Anderson County on the effective date of this resolution shall be maintained by the owner(s) thereof in such a manner as to maintain and enhance the public health, safety and general welfare. Maintenance requirements must be sufficient to assure that such systems are safe and will not result in injury or harm to persons or property, to reduce and minimize the impact of such systems on land and stream channel erosion, to assist in the attainment and maintenance of water quality standards, to reduce local flooding, and to maintain, as nearly as possible, the pre-development runoff characteristics of the area. All maintenance of such systems shall be at the sole cost and expense of the property owner(s).
- B. It shall be unlawful for the owner of any property upon which a pre-existing private storm water drainage system is located, to fail to maintain such system in a manner that the system creates a danger to public health, safety, and general welfare.

- C. The County may take all legal actions necessary to correct any dangers to the public health, safety or general welfare including actions that are necessary to remove from the property objectionable conditions. The County is hereby authorized to bill the property owner(s) for all costs associated with the cleanup or corrective action in accordance with Section 16.4 of this resolution.

11.3 Maintenance of New Private Storm Water Drainage Systems

- A. The property owner is responsible for maintaining storm water and/or water quality facilities located on their property. Prior to issuance of a building or land disturbance permit, the property owner shall execute and record a legal document entitled "Covenants for Permanent Maintenance of Storm Water Facilities" in the office of the Anderson County Register of Deeds. The location of the facility, the recorded location of the Covenants document, and a note stating the owners' responsibility shall be shown on the final plat that is recorded in the Anderson County Register of Deeds office.
- B. The Covenants shall specify minimum maintenance requirements and intervals to be performed by the property owner.
- C. In order to provide access to the storm water facility by personnel, vehicles, and equipment, the property owner will provide a twenty (20) foot wide access with an easement from a public road if no other access is available.
- D. The Covenants shall grant Anderson County permission to enter the property to inspect storm water facilities. If it is determined that a storm water facility is not functioning properly or as designed then the County will notify the property owner in writing. If the property owner fails to repair or maintain the facility within the allotted time, the Public Works director may authorize the work to be performed by the County for its direct and related expenses.
- E. Sediment removal and disposal shall be performed in accordance with all local, state, and federal laws. Guidelines for sediment removal and disposal are provided in the TDEC Erosion and Sediment Control Manual.
- F. Failure to maintain private storm water drainage systems in accordance with the schedule, terms, and conditions of the Covenants shall constitute a violation of this resolution.

11.4 Reimbursement of Maintenance Costs

- A. The Storm Water Coordinator or qualified designee shall make a preliminary investigation to determine the existence of a danger to the public health, safety, or general welfare (including a meeting with the property owner or other responsible party). Upon determination that a danger to the public health, safety, or general welfare exists, the Storm Water Coordinator or qualified designee shall provide written notice to the owner or the person in possession, charge or control of such property stating that the conditions existing on the property constitute a violation of this resolution. The written notice shall further state that the owner or person in charge or control of the property will be granted a hearing with the Board of Storm Water and Environmental Appeals within ten (10) working days if he/she believes that the preliminary findings are in error.
- B. After the preliminary notice and hearing, a final notice will be provided which states the facts in support of the determination and shall set forth the action(s) that need to be taken to eliminate the

objectionable conditions and provide a timetable for the corrective action(s) to be completed. The notice shall further state that unless the objectionable conditions are voluntarily removed or remedied within the specified period of time, the Storm Water Coordinator may take appropriate actions to eliminate the problem and may bill the property owner for all costs incurred.

- C. If the charges and costs provided for in Article 16 of this resolution remain unpaid by the owner after a period of thirty (30) days, the County may take the necessary actions to pursue all remedies available by law, including, but not limited to, the placement of a lien on the property.
- D. Quarterly inspections must be completed and documented. An annual report must be prepared and submitted to the Department of Public Works by December 31st of each year that summarizes the findings of quarterly inspections and describes any repairs, preventative maintenance, and pertinent information related to the structure(s) on the property. The annual report must also include a section devoted to funding sources and expenditures for the past year and proposed expenditures for the coming year. If the primary funding mechanism is in the form of a bond, then a copy of the bond should be included to confirm that there is an adequate source of funding available for scheduled or proposed maintenance and repair activities.

ARTICLE 12. ACCEPTANCE OF STREETS AND ROADS

All roads and streets shall be constructed in accordance with the Subdivision Regulations of Anderson County as outlined in Article III General Requirements and Minimum Standards of Design, Section B – Streets and Roads. Newly constructed roads must be inspected and approved by the Anderson County Road Superintendent before being placed under the jurisdiction of the Anderson County Highway Department. Until such time, the property owner will assume responsibility for the maintenance and upkeep of the roads and streets.

ARTICLE 13. DRAINAGE COMPLAINTS

The Department of Public Works shall develop and implement a system to document and file complaints pertaining to storm water drainage and erosion and sediment control. A prioritization system for drainage complaints shall be developed and implemented and shall become the basis for all non-routine or non-emergency maintenance activities.

ARTICLE 14. ILLICIT/ILLEGAL DISCHARGES

One of the primary objectives of this resolution is to protect the water resources of Anderson County by regulating the types of discharges to the drainage system in order to protect the water quality of our surface water bodies (i.e. streams, creeks, rivers, lakes, etc.).

14.1 Permitted discharges

The following non-storm water discharges are permitted discharges in accordance with Section 1.4.2.3 of the TDEC Small MS4 General NPDES Permit (Permit No. TNS00000), unless the individual discharge has been determined to be a substantial contributor of pollutants to waters of the state or U.S. All other non-storm water discharges are prohibited unless the discharge is covered by a separate NPDES permit or has been determined (by TDEC) not be a substantial contributor of pollutants to waters of the state or U.S. Section 1.5 of the General Permit titled Limitations on Coverage should be reviewed to ensure that discharges from any proposed site development activities are in compliance with state requirements. A copy of the TDEC General Permit can be downloaded from the TDEC Water Pollution Control website at the following address: <http://www.state.tn.us/environment/wpc/>.

1. Water line flushing;
2. Landscape irrigation;
3. Diverted stream flows or rising groundwater;
4. Infiltration of uncontaminated groundwater [as defined in 40 CFR 35.2005 (20)];
5. Pumping of uncontaminated groundwater;
6. Discharges from potable water sources, foundation drains, uncontaminated air conditioning condensation, irrigation waters, springs, water from crawl space or basement pumps, and footing drains;
7. Lawn watering;
8. Individual non-commercial car washing on residential properties; or car washing of less than two (2) consecutive days in duration for a charity, nonprofit fund raising, or similar commercial purpose;
9. Flows from riparian habitats and wetlands;
10. De-chlorinated swimming pool discharges;
11. Incidental street wash water from street cleaning equipment designed for cleaning paved surfaces and limiting waste discharges;
12. Street deicing and washing for public safety purposes;
13. Any activity authorized by a valid NPDES permit; and
14. Any flows resulting from fire fighting operations.

14.2 Notification of Spills and Illicit Discharges

As soon as any person has knowledge of any illicit discharges to the storm water system in violation of this resolution, such person shall immediately notify the Anderson County Department of Public Works. If such person is directly or indirectly responsible for such discharge or responsible for the operation of

the system or business, then such person shall also take immediate action to ensure the containment and cleanup. A report shall be prepared and submitted to the Department of Public Works within three (3) calendar days. At a minimum, the written report shall include:

1. Date and time of the discharge
2. Location of the discharge
3. Material or substance discharged
4. Duration and rate of flow
5. Total volume discharged
6. Total volume recovered
7. Cause or reason for the discharge
8. Remediation and containment action taken
9. Material Data Safety Sheets (MSDS) for the discharged material
10. Action taken to prevent further discharges
11. Description of any environmental impact

14.3 Illegal Dumping

It shall be illegal for any person to intentionally dump liquids or solids that are considered EPA priority pollutants on the ground where there is a potential for exposure to rain or storm water runoff and the potential for the pollutant to reach a public or private storm water drainage system.

ARTICLE 15. ENFORCEMENT

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

15.1 Notice of Violation (NOV)

Whenever designated County staff find that any person, company or facility owning or occupying a premises has violated or is violating this resolution or order issued hereunder, the enforcement official may serve, by personal service, or by registered or certified mail, upon said person a written NOV. Within thirty (30) days of the receipt of this notice, or shorter period as may be prescribed in the NOV, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, which shall include specific required actions shall be submitted to the Storm Water Coordinator or his/her designee. Submission of this plan shall in no way relieve liabilities for violations occurring before or after receipt of the NOV.

15.2 Revocation of Permits

The Storm Water Coordinator, Building Commissioner, or authorized designee may revoke and require the return of any land disturbance and/or building permit for violations of this resolution. Permits may be revoked for any substantial departure from the approved Site Development Plan; refusal or failure to comply with the requirements of state or local law; or for false statements or misrepresentations made in securing the permit. Any permit mistakenly issued in violation of any applicable state or local law may also be revoked.

15.3 Stop Work Order

A “Stop Work Order” may be issued by the Storm Water Coordinator, Building Commissioner, or Codes Enforcement Officer if it is determined that any provisions of this resolution or other applicable section of the *Zoning Resolution* or *Subdivision Regulations* are being violated. The Stop Work Order shall be in writing and shall be served on owner of the business or property violating the provision, the duly authorized agent, or person responsible for the work in question, or the notice will be posted at the site of the violation or noncompliance. The “Stop Work Order” shall set forth the following:

1. The reason(s) why the work is being stopped.
2. The section(s) of the regulation or regulations being violated.
3. The right to an appeal before the Storm Water Coordinator.

A meeting may be requested to appeal the Stop Work Order by anyone upon whom an order has been served. A verbal or written request for this meeting may be submitted to the Department of Public Works within ten days of the initial notification to stop work. The purpose of the hearing will be to discuss the violation and the conditions that must be met to resume work. A verbal approval to resume work activities may be granted at the conclusion of the meeting and a written notification of the terms and conditions required to resume work will be mailed to the owner of the business or property within five (5) business days. If a mutually agreeable resolution of the stop work order cannot be reached between the Department of Public Works and the responsible party, then the stop work order may be appealed to the Board of Storm Water and Environmental Appeals in accordance with the provisions stated in Article 17 of the resolution.

If no appeal is requested within ten (10) days of service of the Stop Work Order, the stop work order shall remain in effect until compliance with the appropriate regulation or Code of Law can be demonstrated to the satisfaction of the Storm Water Coordinator or authorized representative of the Department of Public Works. A compliance review may be requested at any time after the issuance of the stop work order to demonstrate that the nonconforming condition has been corrected. Work will not resume until the compliance review has been completed and the corrective action approved by the Storm Water Coordinator or authorized representative of the Department of Public Works.

15.4 Civil Actions

In addition to any other remedies provided in this resolution, any violation may be enforced by civil action brought by the County Attorney. Monies recovered under this subsection shall be paid to the County to be used exclusively for costs associated with the implementation or enforcement of this

resolution. In any such action, the County may seek, as appropriate, any or all of the following remedies:

1. A temporary and/or permanent injunction;
2. Recovery of the costs of any investigation, inspection, or monitoring conducted to collect the information needed to determine whether or not there was a violation of this resolution. The County may also seek to recover all reasonable costs for the preparation and administrative costs associated with the legal action under this subsection;
3. The costs incurred in the removal, correction, remediation, or termination of the adverse effects resulting from the violation;
4. Compensatory damages for loss or destruction of water quality, habitat, wildlife, and/or aquatic life.

15.5 Emergency Orders and Abatements

The enforcement official may order the abatement of any discharge from any source to the storm water system if the discharge causes or threatens to cause a condition, which presents imminent danger to the public health, safety, or welfare, or the environment, or a violation of a NPDES permit. In emergency situations where the property owner or other responsible party is unavailable, the County may perform or have performed such work as may be necessary to abate the aforementioned threat or danger. The costs for any such abatement shall be the responsibility of the owner and shall be collected in accordance with the provisions of the *Zoning Resolution*, *Subdivision Regulations*, and/or this resolution.

ARTICLE 16. PENALTIES AND INJUNCTIONS

Any person(s) violating the provisions of this resolution may be assessed a civil penalty by the County of up to \$50.00 per violation. Each day of violation shall constitute a separate violation. In addition to other remedies provided by law, Anderson County may institute injunctive or other appropriate action or proceedings at law or equity for enforcement of this resolution. Noncompliance with an order to stop work issued pursuant to these regulations shall constitute a violation of this resolution and shall be grounds for civil action by the County. In addition to the civil penalty, the County may recover all damages caused by the violator, to include any reasonable expenses incurred to investigate and/or enforce violations of this resolution in accordance with TCA Section 68-221-1106.

In assessing damages, the County may also consider the following:

1. The harm done to the public health or the environment;
2. Whether the civil penalty imposed will be a substantial economic deterrent to the illegal activity;
3. The economic benefit gained by the violator;
4. The amount of effort put forth by the violator to remedy the violation;

5. Any unusual or extraordinary enforcement costs incurred by the County;
6. Any equities of the situation that outweigh the benefits of imposing any penalty or damage assessment.

The County may bring legal action in response to a continuing violation of this resolution, and the existence of any other remedy, at law or in equity, shall be no defense to any such actions.

ARTICLE 17. APPEALS PROCESS

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 Board of Storm Water and Environmental Appeals (BSEA).

1. The appeal shall be in writing and filed with the Department of Public Works within thirty (30) days after the damage assessment or civil penalty is served in any manner authorized by law. If an appeal request is not filed within thirty (30) days then the decision shall be final.
2. Upon receipt of an appeal, the BSEA shall hold a public hearing within sixty (60) days, or a later date mutually agreed upon by the parties. The time, date, and location of the hearing will be published in the local newspaper(s) ten (10) days before the scheduled hearing.
3. Any alleged violator may appeal a decision of the BSEA to the Anderson County Chancery or Circuit Court within sixty (60) days of the decision pursuant to the provisions of T.C.A. § 27.9.101 et seq. If no appeal is made within 60 days, then the decision of the BSEA is final.

17.1 Board of Storm Water and Environmental Appeals

- A. Creation. There is hereby created a Board of Storm Water and Environmental Appeals (BSEA) to hear appeals filed by any person incurring a civil penalty or damage assessment imposed pursuant to this resolution.
- B. The BSEA may issue subpoenas requiring attendance of witnesses and the production of such evidence as requested, administer oaths, and take testimony as the board deems necessary to fulfill its purpose.
- C. Structure. The BSEA shall be composed of five members and two alternate members appointed by the County Mayor and confirmed by the County Commission. The County Mayor shall select appointees so that the BSEA will consist of individuals with expertise as follows:
 1. A licensed professional engineer with ten (10) years of civil engineering experience;
 2. One technical member and one technical alternate who shall be a civil engineer, architect, landscape architect, or surveyor registered in the State of Tennessee with a minimum of five (5) years experience;
 3. One representative and one alternate from the development or industrial community;

4. One private citizen of Anderson County who has voted in the last three general elections and is at least 30 years old and is a property owner; and
 5. One County Commissioner.
- D. Term. BSEA members shall serve for a term of five (5) years or concurrent with the board member's term in the case of the County Commissioner. A member shall continue to serve, however, until a successor has been appointed, or until the BSEA member has been re-appointed. The terms of the original BSEA members shall be staggered so that the term of one member shall expire each year.
- E. Replacement of Members. An appointment to succeed a BSEA member who is unable to serve said member's full term shall be for the remainder of said member's term. Members may be re-appointed, but they do not succeed themselves automatically.
- F. Compensation. BSEA members shall serve without compensation.
- G. Organization. The BSEA shall annually select one of its members to serve as chair and another member to serve as vice-chair. A majority vote of all members will determine and confirm these appointments. The BSEA shall keep complete and accurate records of the proceedings of all meetings. The Public Works Department shall designate a person to serve as secretary to the BSEA.
- H. Quorum, Voting and Conflict of Interest. Three members of the BSEA shall constitute a quorum, and the concurrence of a majority of the members present and voting in any matter shall be required for any matter within its jurisdiction. No BSEA member shall participate in the appeal of any matter for which he/she has a direct personal or financial interest. An alternate member shall replace any member who has a conflict of interest or is unable to attend.

17.2 Variances

The BSEA shall hear and decide appeals and requests for variances from the requirements and provisions of this resolution. Appeals and requests for variance must be filed through the Department of Public Works and shall be handled in accordance with the procedures and protocols outlined below.

- A. Application for a Variance. Any property owner, or authorized agent thereof, may apply for a variance in response to the rejection of a site development plan from any of the following:
1. Rejection of a site development plan; or
 2. Revocation of a land disturbance or building permit in accordance with Section 15.2 of this resolution.
- B. Deferral or Withdrawal of an Application for a Variance. The property owner, or authorized agent thereof, may petition to defer or withdraw an application for a variance. The petition to defer or withdrawal must be made to the Department of Public Works at least 72 hours prior to the scheduled meeting of the BSEA.
- D. Decisions. A decision of the BSEA varying the application of any provision of this section or modifying a decision of the Storm Water Coordinator shall specify in what manner such variations or modifications shall be made, the conditions upon which they are to be made and the reasons

therefor. Every decision of the Board shall be final after sixty (60) days if no appeal to the Anderson County Chancery or Circuit Court is filed.

D. Standards for Granting Variances. In granting a variance, the BSEA shall ascertain that the following conditions are met:

1. that good and sufficient cause has been provided;
2. that granting the variance will not increase a threat to public health, safety, or general welfare;
3. that granting the variance will not be contrary to the public interest;
4. that granting the variance will not result in public expense;
5. that granting the variance will not knowingly conflict with other existing laws or ordinances;
6. that failure to grant the variance would result in unnecessary hardship; and
7. the Board shall determine, and only grant, the minimum variance necessary to afford relief.

E. Records. All decisions of the BSEA shall be in writing and shall indicate the vote of each member of the Board. Every decision shall be promptly entered into the meeting minutes and placed on record in the Department of Public Works. The records of the Board shall be open to public inspection and a certified copy of each decision shall be sent by mail to the pertinent parties involved in the decision.