



Pickens County South Carolina

Stormwater Management Program (SWMP) Plan



June 20, 2014

REVISED January 2016

REVISED June 2018

SMS4 NPDES General Permit SCR037704

Pickens County Office of Stormwater Management

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Introduction

In response to the Water Quality Act of 1987, which provided amendments to the Clean Water Act (CWA), the U.S. Environmental Protection Agency (EPA) developed Phase I of the National Pollutant Discharge Elimination System (NPDES) Stormwater Program in 1990. The Phase I program addresses sources of stormwater runoff that have the greatest potential to negatively impact water quality. Phase I NPDES permit coverage is required for stormwater discharges from medium and large Municipal Separate Storm Sewer Systems (MS4s) located in incorporated areas or counties with populations of 100,000 or greater, (as defined by the latest decennial census) as well as eleven categories of industrial and construction activities that disturb five or more acres of land.

An MS4 is a conveyance or system of conveyances that is:

- Owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.;
- Designed or used to collect or convey stormwater (including storm drains, pipes, ditches, etc.);
- Not a combined sewer; and
- Not part of a Publicly Owned Treatment Works (sewage treatment plant).

The Phase II Final Rule, published in the Federal Register on December 8, 1999, expands the stormwater permit coverage to include stormwater discharges and prohibit illicit discharges from certain regulated small MS4s (SMS4) and also construction activities that disturb between one acre (and less than one acre if the land disturbance is part of a larger common plan of development that will ultimately disturb more than one acre) and 5 acres of land.

The initial Phase II SMS4 permit issued in 2006 by the South Carolina Department of Health and Environmental Control (SC DHEC) required regulated municipal MS4s (those with a minimum population density of 1000 people per square mile and located in urban areas with a population of 50,000 or more as defined by the U.S. Census Bureau) to develop and fully implement a stormwater management program by 2008; this permit expired in 2011. The new SMS4 permit became effective on January 1, 2014 and expires on December 31, 2018. In accordance with stormwater permits, SMS4s are required to design their stormwater programs to:

- Reduce the discharge of pollutants to the “maximum extent practicable” (MEP);
- Protect water quality; and
- Satisfy the appropriate water quality requirements of the Clean Water Act.

The Greenville Urbanized Area, which includes portions of Pickens County, fits the population threshold and density criteria regulated under Phase II of the Stormwater Program; and therefore, Clemson University, the municipalities of Easley, Liberty and Pickens as well as portions of unincorporated Pickens County that fall within the boundaries of the urbanized area are required to have coverage under the SMS4 permit and comply with requirements of this permit.

As a first step toward obtaining NPDES permit coverage, regulated MS4s are required to submit a Notice of Intent (NOI) and Stormwater Management Plan (SWMP) to SC DHEC. The NOI requires MS4s to provide an initial outline of planned management practices and to identify measurable goals to annually assess progress toward the full implementation of an appropriate stormwater management program. Although SC DHEC has specified required actions and provides a list of

approved management practices for each minimum control category, regulated MS4s are encouraged to tailor the development of their stormwater management programs to best meet local stormwater concerns.

SC DHEC is encouraging regulated MS4s to take a watershed approach to local stormwater management by working with neighboring MS4s to develop complementary or cooperative programs for solving shared water quality problems. By combining efforts, sharing costs and working together, regulated municipalities will recognize a higher level of environmental benefits at a decreased program cost and increased community concern and involvement.

Stormwater Permits for Construction Sites

The Construction General Permit (CGP) requires that operators of all construction activities disturbing one acre or more, or less than one acre if it is part of a larger common plan of development or sale that will ultimately disturb one acre, must obtain approval from Pickens County and obtain a NPDES permit from SC DHEC prior to breaking ground, regardless of whether or not the construction takes place within a regulated MS4. Construction site owners/operators must file a Notice of Intent (NOI) and develop an approved Stormwater Pollution Prevention Plan (SWPPP) that includes provisions for controlling erosion and sedimentation during construction, ensuring no pollutants causing impairments will be present in the site's construction Stormwater discharge, and managing stormwater runoff over the life of the completed project. The one-acre soil disturbance is a cumulative threshold. In other words, if a construction activity disturbs less than one acre of soil, but is part of a common development plan that will disturb one acre or more cumulatively over the duration of construction, a construction permit is required for the entire development.

What is Stormwater Pollution?

Stormwater is water from rain or melting snow that doesn't soak into the ground but runs off land into waterways. As it flows from rooftops, over paved areas and bare soil, and through sloped lawns, it picks up many pollutants including sediment, animal waste, pesticides, fertilizers, soaps, oil and grease, litter, debris and other pollutants. The quality and quantity of water runoff is affected by a variety of factors depending on the season, local weather, geography and activities taking place along the path of its flow. Sediment clouds our waterways and interferes with fish habitat and aquatic plant life. Polluted runoff also contaminates our drinking water sources.

Nutrients such as phosphorus and nitrogen can be harmful to aquatic life by promoting the overgrowth of algae and depleting oxygen in our waterways. Toxic motor oil and chemicals from automobiles, sediment from construction activities, and careless application of pesticides and fertilizers threaten the health of the receiving waterway and can kill fish and other aquatic life. Bacteria from animal wastes and illicit sewer system connections can make nearby lakes and rivers unsafe for wading, swimming and the propagation of edible fish. According to an inventory conducted by the EPA, half of the impaired waterways in the United States are affected by stormwater runoff from urban/suburban and construction sources.



Polluted runoff degrades our lakes, wetlands, rivers and other waterways.

What is Being Done?

Significant improvements have been achieved in controlling pollutants that are discharged from point sources such as sewage and wastewater treatment plants. Across the nation, attention is shifting to non-point sources of pollution targeting stormwater runoff. Stormwater management, especially in urban areas, is a necessary step in the process of further reducing water pollution despite the inherent challenges it brings.

Stormwater runoff cannot be treated using the same end-of-pipe controls appropriate for sewage and wastewater treatment plants. Pollutants in stormwater runoff enter our waterways in numerous ways and the best point of control is usually at the pollutant's source. By using best management practices (BMPs), significant water quality improvements can be made. Proper storage of chemicals, good housekeeping and just paying attention to what's happening during runoff events can lay the groundwork for developing a relatively inexpensive stormwater pollution prevention program.

Additionally, the EPA's Clean Water Act provides that stormwater discharges associated with industrial activity to waters of the United States (including discharges through a municipal separate storm sewer system) are unlawful, unless authorized by a National Pollutant Discharge Elimination System (NPDES) permit. In South Carolina Industrial facilities engaged in activities defined in 40 CFR 122.26(b)(14)(i-ix) and (xi) must obtain permit coverage for stormwater discharges to waters of the United States through either an individual industrial NPDES permit, the NPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity, or provide certification using the No Exposure Exclusion that industrial activities are not exposed to stormwater.

This program has environmental benefits. South Carolina has made significant progress toward improving the overall quality of the State's water resources by controlling major point sources of water pollution, such as industrial stormwater discharges. Despite this progress, *non-point* sources of water pollution such as contaminated stormwater runoff, continue to pose significant water quality threats statewide. Controlling these non-point sources of pollution will require an approach to resource management that is dramatically different from those taken in the past.



Water from rain or melting snow runs off land, carrying litter and debris, sediment, bacteria, oil and grease, fertilizers, pesticides and other pollutants into our creeks, rivers and lakes. This pollution, called stormwater pollution, can be a significant contributor to beach and shellfish bed closures, spoiled fishing and swimming, excessive weed growth, and destruction of aquatic habitat. Large amounts of stormwater rushing off paved surfaces can flood yards, streets and basements.

The stormwater program will help correct these problems; protecting and restoring our valuable environmental resources.

MS4 Stormwater Management Program Requirements

MS4s must develop, implement, and enforce a Stormwater Management Program (SWMP) designed to reduce the discharge of pollutants from small MS4s to the maximum extent practicable (MEP). **"Maximum Extent Practicable" (MEP)** is a technology-based standard used in the NPDES municipal stormwater program against which SC DHEC Bureau of Water and permittees assess whether or not an adequate level of control has been proposed in the stormwater management program (SWMP). This term is defined by 403(p)(3)(B) of the Clean Water Act, by SC Water Pollution Control Permits Regulation 61-9 122.34(a) and by Federal Register/Vol. 63, NO. 6.6.1574/Friday, January 9, 1998. Since no precise definition of MEP exists, it allows for maximum flexibility on the part of MS4 operators as they develop their programs.

In South Carolina, the first Phase II MS4 Stormwater general permit (SCR030000) was a five-year permit, effective March 1, 2006. Small MS4s were required to have their Stormwater Management Programs fully implemented one year from certificate of coverage. Pickens County's SWMP has met the requirements of the first permit cycle, and is now being updated to meet additional requirements of the new general permit which commenced January 1, 2014 and will conclude December 31, 2018.

SWMPs must include six minimum control measures. For each of these six minimum measures, MS4s must identify measurable goals and implement management practices to achieve those measurable goals. The six minimum measures include:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post-Construction Stormwater Management
6. Pollution Prevention and Good Housekeeping for Municipal Operations

Pickens County Stormwater Management Program (SWMP) Plan Requirements

Pickens County has developed, and is implementing, a Stormwater Management Program designed to address pollutants of concern (POCs) and reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP).

The SWMP Plan includes measurable goals for Best Management Practices (BMPs). Measurable goals assist the County with assessing the status and progress of the program. They include schedules and milestones for development and implementation of each management practice, and goals to address progress over time, such as removing debris and sediment from County roads each year, or providing a specific number of educational materials to County residents. The measurable goals also describe how the County will address pollutants of concern.

In this rendition of the MS4 permit, Pickens County and the other regulated MS4s in the Greenville Urbanized Area are also required to implement a TMDL Monitoring and Assessment Plan which will include additional stormwater management practices within the Saluda and Savannah Watersheds in an attempt to achieve compliance with Total Maximum Daily Load

(TMDL) requirements established by SC DHEC and approved by the EPA to meet waste load allocations of the pollutant of concern. More information on the TMDL Monitoring and Assessment Plan is found in the Section: Additional Requirements for TMDL Monitoring and Assessment.

Public Education and Outreach on Stormwater Impacts

Minimum Control Measure 1

People appreciate their local waterways. They use them for swimming, boating and fishing. The residents of Pickens County are fortunate to have and enjoy beautiful lakes, rivers and streams for world class trout and warm-water fishing, as well as canoeing, motor-boating, bird watching, swimming and for drinking water.

Stormwater runoff can impact these water resources in many ways. Implementing this minimum control measure will help the residents of Pickens County understand what they can do to protect and restore the health of their water resources. Public education is a key component to any effective stormwater management program. Well-planned public education and outreach programs will support and help achieve the goals of the other minimum control measures.

Requirements:

To meet the requirements of Minimum Control Measure 1, Pickens County must plan and conduct an ongoing public education and outreach program that describes: the impacts of stormwater discharges on water bodies, the pollutants of concern and their sources, and the steps contributors of stormwater and non-stormwater discharges can take to reduce the pollutants.

The County must develop measurable goals and select appropriate education and outreach activities to ensure the reduction of all pollutants of concern in stormwater discharges to the maximum extent practicable. The measurable goals must be periodically modified as needed so that the program continues to be effective.

The activities and management practices chosen have been determined from the program goal, identified pollutants, the audience to reach, information to convey and what the audience should do as a result.

Activities and Practices:

Pickens County has selected to partner with Clemson Extension's Carolina Clear program to implement the public education and outreach measure of the NPDES SMS4 permit. This is a regional stormwater educational and outreach effort including Anderson County, the Cities of Anderson and Belton, and working in Pickens County as the Pickens County Stormwater Partners and regionally as the Anderson & Pickens Counties Stormwater Partners, that includes the following Pickens County communities at the time of submission:



- City of Easley
- City of Liberty
- City of Pickens



Recently adding to the list of partners is: City of Clemson, Norris and Clemson University.

This coordinated effort will include a regional decision-making process that is consistent among all Carolina Cleared efforts with representatives from each MS4 participating in a prioritization strategy for effective outreach and involvement programming. The pollutant of concern analysis and prioritization process will include the following considerations, pulled together through a planning and reporting framework provided by Carolina Clear:

- An assessment of the region's TMDLs and 303(d) impaired waterbodies list.
- Public Works Departments, stormwater staff, and educational partners will evaluate common concerns and phone calls of stormwater-related issues across the region.
- Feedback from community and educational partners will also include a review of common problems potentially affecting local water resources and the audiences that may be responsible for addressing these problems.
- Telephone survey data collected in the fall of 2013 and made available in the fall/winter of 2014 to guide outreach prioritization, educational messaging and willingness to be involved. The results of this effort was used as public input to the development of the SWMP as well as a baseline for broad program evaluation.

This process will result in a five-year outreach and involvement strategy that prioritizes resources and potential for sustainable impact across at least three high priority community issues, behaviors to address, target audiences, motivating messages, vehicles for information delivery and short-term and long-term measures of success. This outreach plan will be a guiding document for this Consortium's efforts, recognizing that new information, media opportunities, partnerships and new water quality data may affect both the strategy and means to measure program success.

The Public Education and Outreach component of Pickens County's Stormwater Management Program includes flyers and brochures, a library of educational materials available online, videos and DVDs, speakers to community groups, the Traveling Trash Bash and school presentations, social media, and displays at city halls, public events, County facilities and parks. This program includes education on proper disposal of pet waste and proper maintenance of septic systems.



Public Education Plan Objectives:

- Increase the general awareness among residents of Pickens County of how our daily activities impact our water and natural resources.
- Improve the public's perception of Pickens County's existing and future potentials as a community recreational and natural resource asset.
- Develop and implement public involvement and education programs, materials and activities for the citizens in our community to build awareness and foster stewardship of our natural resources.
- Support the education and participation of students, groups or individuals in our community that are participating in existing Pickens County educational efforts.

Public Education Efforts:

- Pickens County provides a recycling program for all residents. This program is an extensive recycling program, accepting paper, brown goods (furniture, floor coverings, and building materials), and cardboard, marine, automotive and lawnmower batteries, cans, plastics number 1 – 7 and bags, automotive oil, cooking oil, glass and other miscellaneous items in addition to standard recyclable items.
- The Stormwater Office has made available a twenty-four (24) hour dedicated phone line for complaints or question concerning stormwater.
- Pens, pencils, magnets, ice scrapers, rain gauges, crayons, pet waste bag dispensers and many other educational materials have been prepared and are being distributed with contact information of Pickens County Stormwater office.
- Pickens County has printed an educational coloring book about stormwater for distribution in the schools and at other public gatherings.
- The Pickens County Beautification and Environmental Advisory Committee have presented the Traveling Trash Bash (TTB) to every third grade student in Pickens County for the past 16 years. This activity-based environmental education program funded by Pickens County focuses on helping our children learn about protecting the earth and making good choices. There are six learning stations: litter prevention and enforcement, beautification, composting, protecting environmental resources, solid waste reduction and recycling, stormwater pollution, and Trash Bash Trivia. The educational precepts of the program align with the South Carolina environmental education and science curriculum standards for third graders and link directly with the SC DHEC Action for a Cleaner Tomorrow and Action in the Classroom curriculum. A pre-test and post-test are given to the Trash Bash students which are analyzed by Clemson University PRTM students. The tests show the learning curve of the students both school by school, and as a whole. The cohesive program reflects positive change in student behaviors. Teachers also reinforced the material presented at the TTB with their students and students took home an environmental education booklet to share with family members and involvement activities that families can choose to participate. Therefore, in addition to all third graders in the county, we are reaching parents, grandparents, siblings, etc.

The Trash Bash stormwater pollution station serves as part of Pickens County's public outreach and education program to fulfill the requirements outlined by EPA Phase II BMPS and Measurable Goals for public education and outreach on stormwater impacts. The watershed model used lets children see the kinds of pollutants that are carried downhill when it rains, and the impacts on people, organisms, and aquatic and terrestrial habitats are considered. The choice of a home environmental project, such as installing a rain barrel or compost bin, recycling or conserving water or electricity, provides for family involvement.

Public Education Materials:

- Additional educational information is added to the Pickens County website as needed including: links to stormwater information, contact information for Pickens County as well as the Cities of Easley, Liberty, and Pickens, the Stormwater Ordinance, the Stormwater Design Manual, a list of BMP's, and other information as it becomes available.
- Series of "tip sheets" and "cheat sheets" of stormwater and environmental education topics for additional emphasis on stormwater pollution prevention specific to Pickens County. Anderson & Pickens Counties Mascots: Gilli the Stormwater Fish, Finn the Storm Drain Dog and Windstorm, the Clean Water Carolina Wren.
- Social Media, such as webpages and Facebook, are developed and maintained.

Regulatory Requirement:

Within the first year of permit coverage, Permittee shall continue to implement, and revise if necessary, a comprehensive stormwater education/outreach program in accordance with items noted below:

- Identify the pollutant(s) of concern (POC) within the municipality's defined watershed area(s).
- Initiate a planning process that defines the goals and objectives of the program as they relate to at least three high priority community issues with potential to decrease the POC's effect on water quality. Include formative and summative evaluation within the planned goals and objectives. Program goals and objectives must include short-term goals geared to increase awareness of the issue as well as longer-term goals geared to affect behavior change to the maximum extent practicable (MEP).
- Identify and analyze the audience(s) that is believed to have an influence on the POC identified in
 - above and that are believed to have influence on the goals and objectives identified in above
 - above (i.e., Identify the target audience(s))
- Create an appropriate message(s) in accordance with the program goals and objectives that is designed to invoke a desired response in the targeted audience(s).

Milestones

- Develop brochures, tip sheets and other print media about stormwater pollution and BMPs
- Provide a phone line to provide the public with a known place to report suspected violations, complaints, or ask questions about stormwater. This number is publicized through the print media.
- Add stormwater educational information to the Pickens County website.
- Distribute information at the annual "Pickens County Trash Bash" and other County festivals.

Best Management Practices and Measurable Goals

1. **BMP:** Stormwater education program for all third grade school children
Measurable Goal: The Traveling Trash Bash educates all 3rd graders in the Pickens

County School District annually on stormwater pollution, litter, recycling, composting, beautification, and household chemicals, by providing a live presentation, materials, brochures, and other media. Pre-test and post-tests are given to the students.

Justification: Third grade was selected for the program because the students are old enough to grasp the environmental concepts but young enough to accept them. The educational precepts of the program align with the South Carolina environmental education and science curriculum standards for third graders and link directly with the SC DHEC Action for a Cleaner Tomorrow curriculum. Teachers also reinforce the material presented at the TTB with their students and students take home an environmental education booklet to share with family members. Therefore, in addition to all third graders in the county, we are reaching parents, grandparents, siblings, school administrators and faculty.

This educational effort is ongoing and will continue annually.

2. BMP: Stormwater educational materials for Contractors and Developers

Measurable Goal: Outreach materials on proper stormwater management practices for Contractors and Developers will continue to be developed.

Justification: Contractors and Developers have been identified as a significant contributor of run off from not installing and maintaining best management practices. This targeted educational campaign will make Contractors and Developers aware of impacts from not installing and maintaining best management practices.

This educational effort will continue building and expanding in Years 1–5.

3. BMP: Stormwater educational materials for proper maintenance and installation of septic tanks

Measurable Goal: Outreach material on proper maintenance and installation of septic tanks will be developed.

Justification: The lack of proper maintenance and proper installation of septic tanks has been identified as a significant contributor of fecal coliform. This targeted educational campaign will make owners of septic tanks aware of the potential storm water impact from not maintaining septic systems.

This educational effort will continue building and expanding in Years 1-5.



Rain garden and rain barrel at a Pickens County school



Pickens County Beautification and Environmental Education building

Public Involvement/Participation

Minimum Control Measure 2

Cleaning up stormwater pollution is a difficult task because there is no single source, no single solution and, no single responsible party. We all contribute to the problem and we all have a role to play in the solution.

MS4s will benefit by involving citizens in planning and implementing the SWPP. Important partnerships are cultivated for planning and implementing the program through public involvement activities. An involved public will support a stormwater program with implementation and sustainability.

Requirements:

Pickens County must comply with State and local public notice requirements when implementing a public involvement/participation program. The County will comply with public participation and involvement provisions of the Clean Water Act whenever applicable.

The County is required to design and conduct a public involvement/participation program that: identifies key individuals and groups who are interested in or affected by the stormwater permitting program, identifies the type of input the MS4 will seek from them, and describes activities the MS4 will undertake to provide program access and gather needed input.

As a component of this minimum control measure, the County must develop measurable goals and select appropriate public involvement activities to ensure the reduction of all pollutants of concern in stormwater discharges to the maximum extent practicable. The County will periodically assess and modify the measurable goals as needed.



Pet waste station at Pickens County Mile Creek Park

Public Participation Efforts:

Pickens County has a number of programs that allow citizens to become directly involved in programs and projects to promote environmental awareness in our community. Such programs include pet waste projects, rain barrel painting, recycling and composting, community litter pick ups, storm drain marking, and water quality monitoring with lead partners including:

Pickens County Recycling Department
Pickens County Beautification and Environmental Advisory Committee
Clemson Carolina Clear
Pickens County Stormwater Board

The citizens of Pickens County have developed programs to heighten environmental awareness and to improve the community. The county will work with these and others that may be developed to promote citizen involvement in the Stormwater program. The following is a partial list of known groups that may be effective in this effort:

Pickens County School District
Friends of Lake Keowee (FOLKS)
Lake Hartwell Association (LHA)
SC Department of Natural Resources
Friends of Lake Jocassee (FOJ)
Boy Scouts and Girl Scouts
SC DOT Adopt-A-Highway Program
Duke Energy
Pickens County Soil and Water Conservation District/ NRCS
Save our Saluda
Georgia Adopt-a-Stream

Additionally, Pickens County enlists Carolina Clear, SC DHEC Stormwater Outreach and Education Office, and the SC DHEC Watershed Managers for this area to provide additional support to these programs.

Milestones:

- Work with other local programs and agencies to hold workshops about stormwater issues in Pickens County.
- A citizen advisory committee was formed to aid in the writing of the stormwater management plan and the Stormwater Ordinance.
- A citizen Stormwater Board was formed to function as an appeals board to the County Stormwater Program
- Concentrate on community awareness including brochures, posters, printed publications, Internet, and media/public relation's efforts promoting stormwater participation.
- Promote community clean-ups partnering with groups like: Adopt-A-Stream, Friends of Lake Keowee, Friends of Jocassee and Lake Hartwell Association.
- Develop five-year plan for future involvement programs. Focus on priority issues specific to Pickens County.

Best Management Practices and Measurable Goals

1. ***BMP:*** Identify a target audience

Measurable Goal: Survey - Carolina Clear

Justification: Attitude surveys of interested parties will be used to determine what the attitudes and misconceptions exist concerning stormwater. ***This best management practice will continue in Year 1.***

2. ***BMP:*** Establish a Stormwater Board

Measurable Goal: The Stormwater Board was established to function as an appeals board to the County Stormwater Program and is composed of six members who are resident electors of the county.

Justification: Involving stakeholders in the storm water management program will improve support for programs because the stakeholders will be able to voice their concerns and suggestions.

3. ***BMP:*** Continue to operate a phone line for questions and /or complaints concerning stormwater.

Measurable Goal: The phone line will be available to field complaints and questions concerning stormwater.

Justification: The citizens of Pickens County are a good source of problem areas and the phone line will provide them a resource to delivery that information.

This best management practice will continue in Years 1-5.

Illicit Discharge Detection and Elimination (IDDE) Minimum Control Measure 3

A significant portion of flows from municipal separate storm sewer systems (MS4s) are not directly attributable to precipitation runoff. They are due to inappropriate, or illicit, discharges and connections to the MS4. Illicit discharges enter the system through direct or indirect connections. The result is inadequately treated stormwater discharges that contribute high levels of pollutants, including heavy metals, toxics, oil and grease, viruses, and bacteria to receiving water bodies.

Requirements:



Under this minimum control measure, Pickens County must develop, implement and enforce a program to detect and eliminate illicit discharges into the MS4, including illegal dumping, and develop and maintain a map showing the location of all stormwater outfalls, within the County's urbanized area, including the names and location of all Waters of the United States that receives discharges from those outfalls.

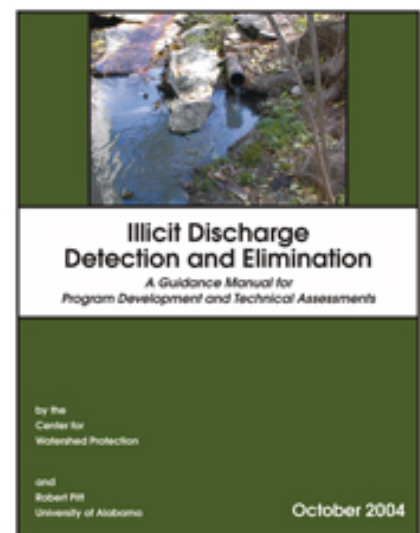
(A stormwater outfall is defined as any point where a storm sewer system discharges to either the waters of the U.S. or to another MS4. Outfalls include discharges from pipes, ditches, swales, and other points of concentrated flow.)

The program must include: an ordinance or other regulatory mechanism prohibiting illicit discharges into the storm sewer system; procedures for identifying priority areas of concern for the IDDE program; description of priority areas of concern etc.; procedures for identifying and locating illicit discharges (trackdown); procedures for eliminating illicit discharges; and procedures for documenting actions. The County's program also contains components to inform public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste.

The County is also required to conduct an inspection, or outfall reconnaissance inventory, as described in the EPA publication [Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessment](#), addressing every outfall within the County's jurisdiction in the urbanized area.

By January 1, 2015, the County must update the system map and identify priority areas.

As with other minimum control measures, the County must develop appropriate measurable goals, and assess and modify them as needed to protect the quality of Pickens County's waterbodies to the maximum extent practicable.



What is an "Illicit Discharge"?

Federal regulations define an illicit discharge as any discharge to an MS4 that is not composed entirely of stormwater...." with some exceptions. These exceptions include discharges from SPDES-permitted industrial sources and discharges from fire- fighting activities. Illicit discharges are considered "illicit" because MS4s are not designed to accept, process, or discharge such non-stormwater wastes. Sources of illicit discharges include: sanitary wastewater piped to storm drains, leaking septic tanks, car wash wastewaters, improper oil disposal, radiator flushing disposal, laundry wastewaters, and auto or household toxics dumped into storm drains.



Activities and Practices:

- Implement an information management system for tracking illicit discharges.
- Continue the development of the recycling program for commonly dumped household waste.
- Update the storm sewer system map with identification of illicit discharges incorporating visual dry weather screening.
- Public education campaign of illicit discharge awareness and impacts to water quality.
- The County Parks Department will continue to provide a recreational vehicle dump station at County Park campgrounds.
- Inform public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste
- The County will continue to incorporate employee training on illicit discharges into their annual training program.

1. **BMP: Update Storm sewer system map**

Measurable Goal: A storm sewer system map has been developed with the location of all outfalls, and names and location of all Waters of the United States that receive discharges from those outfalls.

Justification: The storm sewer map was created in the first permit cycle and is reviewed and updated annually.

2. **BMP: Identify Priority Areas**

Measurable Goal: Identify problem areas that will require more detailed screening based on higher likelihood of illicit connections.

Justification: Completed by January 2015.

3. **BMP: Field screening to detect illicit discharges**

Measurable Goal: Continue to revise, as applicable, dry weather screening and analytical monitoring procedure.

Justification: Completed within one year from the effective date of permit coverage.

4. **BMP: Procedure for tracing the source of an illicit discharge**

Measurable Goal: Develop a written procedure for conducting investigations into the source of all identified illicit discharges.

Justification: A written procedure can currently be found in the Stormwater Ordinance. A Enforcement Response Plan (ERP) will be implemented by January 2015.

5. **BMP: Determine the source of the illicit discharge**

Measurable Goal: Develop written procedures for investigating the source of all illicit discharges.

Justification: A written procedure can currently be found in the Stormwater Ordinance. An Enforcement Response Plan (ERP) will be implemented by January 2015.

6. **BMP: Corrective Action to Eliminate Illicit Discharge**

Measurable Goal: Once the source of the illicit has been determined a corrective action plan is needed to eliminate the discharge.

Justification: A written procedure can currently be found in the Stormwater Ordinance. An Enforcement Response Plan (ERP) will be implemented by January 2015.

7. **BMP: Public Reporting Mechanism**

Measurable Goal: Develop a written spill/dumping response procedure for responding to public notices of illicit discharges including the responsible agencies and their contacts.

Justification: An Enforcement Response Plan (ERP) will be implemented by January 2015.

8. **BMP: Employee Training**

Measurable Goal: Develop annual training program for employees, which, as part of their normal job responsibilities, may come in contact with an illicit discharge.

Justification: Education of County employees that may encounter an illicit discharge will begin in year one of the permit and will continue on an annually.

Construction Site Runoff Control Minimum Control Measure 4

Though most communities welcome a certain level of development, construction sites can present a risk to water quality. Construction sites can be a significant source of sediment-laden runoff to MS4s, especially when installation and maintenance of erosion and sediment controls are not required or not adequately enforced. Proper stormwater management at construction sites will prevent loose soil and other pollution in stormwater runoff from causing significant degradation of our water bodies.

Requirements:

The County's Construction Site Stormwater Runoff Control program applies to any change in topography, including but not limited to: clearing, grading, demolition and excavating that results in a land disturbance of one acre or greater or less than one acre if total land disturbance is part of a larger common plan of development or sale that will ultimately disturb one acre.



Pickens County is required to develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the County's MS4 from the County's construction activities. An Ordinance establishing County policy regarding construction site erosion and sediment controls and post-construction stormwater management for construction projects in unincorporated Pickens County was issued in 2005.

The program must include a mechanism to require construction site contractors on Construction projects in Pickens County to implement erosion and sediment control management practices, soil stabilization practices, and to control waste at the construction site that may cause adverse impacts to water quality. The County's program also includes procedures for site plan review to ensure consistency with State erosion and sediment control requirements and considers potential water quality impact and procedures for site inspections and enforcement of control measures.

To ensure the reduction of all pollutants of concern in construction stormwater discharges to the storm sewer system to the maximum extent practicable, construction projects disturbing one acre or more must have a Stormwater Pollution Prevention Plan (SWPPP) prepared in compliance with the NPDES General Permit For Stormwater Discharges from Construction Activity.

All County employees involved in site inspections are Certified Erosion and Sediment Pollution Control inspectors and all county employees involved in Sediment and Erosion Control Plan review are Plan Reviewer Certified. The County maintains an inventory of active construction sites and stormwater management facilities within the County's jurisdiction.

1. ***BMP: Continuing developing, implementing and enforcing a program to reduce pollutants in any stormwater runoff from construction activities***

Measurable Goal: Written procedures for implementing the construction site runoff control program.

Justification: The Stormwater Ordinance and Design Manual currently have written procedures for compliance with the NPDES permit. The Design Manual will be reviewed and updated accordingly, and reviewed and updated annually as needed.

2. ***BMP: Ordinance or other regulatory mechanism to require erosion and sediment controls***

Measurable Goal: A Stormwater Ordinance and Design Manual were approved in 2005.

Justification: The Stormwater Ordinance and Design Manual currently have written procedures for compliance with the NPDES permit. The Design Manual will be reviewed and updated accordingly, and reviewed and updated annually as needed.

3. ***BMP: Requirements for Construction Site operators***

Measurable Goal: Construction operators implement appropriate Best Management Practices for Erosion and Sediment Control and soil stabilization.

Justification: The Stormwater Ordinance and Design Manual currently have written procedures for compliance with the NPDES permit. The Design Manual will be reviewed and updated accordingly, and reviewed and updated annually as needed.

4. ***BMP: Requirements for design, installation and maintenance of effective pollution prevention measures***

Measurable Goal: All construction projects are required to provide a means for concrete wash out areas, mud mats for vehicular traffic, and proper disposal of all trash.

Justification: Plans are reviewed to insure all sites have pollution prevention measures

specified on the plans and in the standard notes contained on the plans. Active construction sites are inspected monthly and more often if applicable.

5. *BMP: Operator of Construction activity prepares and submits Stormwater Pollution Prevention Plan (SWP3) prior to land disturbance.*

Measureable Goal: All SWP3 submitted and approved for compliance with NPDES Construction General Permit (CGP) and Pickens County Stormwater Ordinance.

Justification: The Stormwater Ordinance and Design Manual currently have written procedures for compliance with the NPDES permit. The Design Manual will be reviewed and updated accordingly, and reviewed and updated annually as needed.

6. *BMP: Implement site plan review procedures*

Measureable Goal: Implement site plan review procedures that prohibit commencement of land disturbing activities until written approval is received and assure the SWP3 complies with the technical requirements of NPDES Construction General Permit.

Justification: The Stormwater Ordinance and Design Manual currently have written procedures for compliance with the NPDES permit. The Design Manual will be reviewed and updated accordingly, and reviewed and updated annually as needed.

7. *BMP: Employee training for plan review and site inspections*

Measureable Goal: Train staff in technical review of SWP3 and inspections of sediment and erosion control

Justification: All Stormwater staff are certified in plan review and construction site inspections and attended technical conferences and recertification classes.

8. *BMP: Site Inspections*

Measureable Goal: Maintain an inventory of all active construction projects and update as new projects are submitted. Conduct site inspections of all permitted sites.

Justification: All construction sites greater than 5 acres or larger inspected within two weeks of commencement of land disturbing activities. Active sites are inspected at least monthly and inactive sites bi-monthly. A data base of all projects is maintained and updated daily or as needed.

9. *BMP: Enforcement*

Measureable Goal: Develop an Enforcement Response Plan (ERP) with a description of response to violations.

Justification: An ERP was developed and implemented by the end of the first permit year.

10. *BMP: Construction site operator and public involvement*

Measureable Goal: Develop communication process with construction operators and procedures for receipt and consideration of information submitted by the public.

Justification: Contractors involved in land disturbing are required to attend a pre-construction meeting before the commencement of land disturbing activities. All plans and correspondences are available to the public by request under the Freedom of Information Act. Also see Public Participation *MCM*.

Post Construction Stormwater Management Minimum Control Measure 5

As runoff flows over areas altered by development, it picks up pollutants such as oil and grease, heavy metals, pesticides and fertilizers. New development and redevelopment projects offer the opportunity to implement structural and non-structural stormwater runoff controls and management strategies to reduce the amount of pollutants that run off the sites into lakes, rivers and streams. Prior planning and design for minimization of pollutants in post-construction stormwater discharges is a cost-effective approach to stormwater quality and quantity management for new development and redevelopment.

Stormwater management technologies are evolving, and Pickens County is promoting the use of new treatment methods collectively called "Green Infrastructure" – including, but not limited to, porous pavement, infiltration trenches and rain gardens - implemented on new construction and redeveloped sites.



Requirements for non-land use control MS4s:

To meet the requirements of Minimum Control Measure 5, Pickens County is tasked with developing and implementing a program that includes a combination of stormwater management practices that will protect water quality and reduce the discharge of pollutants to the MS4 to the maximum extent practicable, using a mechanism to address post-construction runoff from permitted construction sites, and ensuring adequate long-term

operation and maintenance of management practices. The County is also required to inspect permitted construction sites at County Facilities.

Activities and Practices:

The County promotes using a combination of structural management practices and/or non-structural management practices (including open space preservation programs, Low Impact Development (LID), Better Site Design (BSD) and other Green Infrastructure practices) appropriate for construction sites that will reduce the discharge of pollutants to the maximum extent practicable.

1. **BMP: Develop and implement a program that includes performance standards designed to control runoff impacts**

Measureable Goal: New and redeveloped construction sites (one acre or greater or less than one acre if part of a larger common plan) must install, implement and maintain Stormwater controls that approximate pre-development conditions to the MEP unless a waiver has been requested and granted.

Justification: Pickens County's Stormwater Ordinance and Design Manual requires post-development runoff conditions cannot exceed pre-development runoff conditions unless a waiver is requested and approved.

2. **BMP: Demonstrate the runoff reduction and pollutant removal necessary to approximate pre-development conditions to the MEP and to protect water quality.**

Measureable Goal: The first one-inch of runoff from a construction sites must be captured and allowed to discharge over a twenty-four hour period. Additionally, the construction site runoff must be addressed by one or a combination of design strategies to approximate pre-development conditions to the MEP.

Justification: The Stormwater Design Manual will be updated accordingly and include examples of Site Performance Standards

3. **BMP: Site Plan Review**

Measureable Goal: Implement project review, approval and enforcement procedures.

Justification: All construction projects with land disturbing activities of one acre or greater (or less than one acre if part of a LCP) are reviewed and approved for compliance with the Construction General Permit and Pickens County Stormwater Ordinance. An ERP was developed and implemented in the first year of the permit.

4. **BMP: Long-Term Maintenance of Post-Construction Stormwater Control Measures**

Measureable Goal: All structural controls must be maintained in perpetuity.

Justification: All property owners (or operators) of any new or redeveloped site must provide a maintenance schedule and a notarized **Permanent Stormwater Management Structure Maintenance Agreement** for the structural control measure. If maintenance responsibility is transferred, an updated agreement is required.

5. **BMP: Tracking of Post-Construction Stormwater Control Measures**

Measureable Goal: Maintain an inventory of all post-construction structural Stormwater control measures.

Justification: When construction sites are stabilized to at least 70% coverage, and as-built plans are received and approved, a Notice of Termination from permit coverage is accepted. Within the first year of the project closeout and every year thereafter, all post construction BMP's are tracked and inspected. A report is generated and sent to the owner of record.

Pollution Prevention/Good Housekeeping for Municipal Operations

Minimum Control Measure 6

Municipal operation and maintenance activities can become sources of the pollutants that need to be minimized through the SWMP. Good housekeeping measures for municipal operations will reduce or prevent this pollution from entering nearby water bodies in stormwater runoff.

Effective stormwater management programs should start with municipal employees. Municipal crews can be educated about the impacts of their work on stormwater quality to prevent pollution from municipal operations. Also, municipal crews can set a good example for citizens.

Requirements:

This minimum control measure requires Pickens County to develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reduction pollutant runoff from municipal operations as an integral part of the SWMP.



Bioswale at County Administration Facility

Pollution Prevention/Good Housekeeping for Municipal Operations

1. **BMP: Develop a Municipal Facility and Stormwater Control Inventory**

Measureable Goal: Update and maintain an inventory of county owned facilities and Stormwater controls

Justification: A data base with all County owned facilities will be developed by the end of the first permit cycle and reviewed and updated annually.

2. **BMP: Facility assessment**

Measureable Goal: Identify "high priority" facilities that have a high potential to generate Stormwater pollutants that are not covered under the NPDES General Permit for Industrial Activity.

Justification: By the end of the 2nd permit cycle, January 2016, and every year thereafter, conduct a comprehensive inspection of "high priority" facilities.

3. **BMP: Assessment of MS4 catch basins**

Measureable Goal: Prioritize County owned Stormwater management systems and implement a maintenance schedule.

Justification: Catch basins on county roads, within the MS4 area, will be inspected, GPSed, and marked with storm drain markers. The inspection reports will be stored in a data base and delivered to the Public Works Director for review.

4. **BMP: Maintenance of County owned structural Stormwater controls.**

Measureable Goal: Inspect and maintain all county owned structural controls

Justification: All county owned detention and green infrastructure practices will be inspected at a minimum of once every 12 months. A tracking system will be maintained and included in the GPS data base.

5. **BMP: Employee Training and Education**

Measureable Goal: Develop annual training program for employees involved in implementing pollution prevention and good housekeeping.

Justification: General Stormwater education of County employees that may encounter Stormwater pollution will begin in year one of the permit and will continue annually.



Rain Barrel at Hagood Mill



Native Plants at the Pickens County Museum



Erosion & Geese Control at Mile Creek Park

Additional Requirements for TMDL Monitoring and Assessment

Pickens County is required to implement additional watershed improvement strategies in the portion of the urbanized area within the Savannah and Saluda Watershed to ensure reductions in the discharge of bacteria from stormwater runoff and to work toward achieving compliance with the [Total Maximum Daily Load \(TMDL\)](#) set by the DHEC and the U.S. EPA. The TMDL is the maximum amount of bacteria the respective watersheds can receive from all point source discharges like industries and wastewater treatment plants, and non-point source discharges such as stormwater and farm runoff.



Twin Falls, Pickens County

Public education and outreach efforts include targeted education on sources of bacteria in stormwater and ways to reduce impacts to residents living within these watersheds and to staff working at County properties within the watershed.

E. Coli is an indicator bacteria for other pathogens which may be present in a waterbody. Bacteria levels increase following a rain event. Potential sources of bacteria on construction sites include improperly located porta-johns and litter that may attract rodents and other animals. Porta-johns should be placed away from Waters of the

State and not placed on catch basins and other drainage structures. Litter and construction debris should be placed in identified areas and emptied on a routine basis.

The County distributes pet waste bags to parks, local veterinarian's and the Humane Society that teaches the importance in picking up after your pet.

All construction projects within Pickens County applying for NPDES stormwater construction permits are now required to have a Stormwater Pollution Prevention Plan that includes stormwater management practices designed to reduce pollutants in stormwater discharges from the site during and after construction.

1. **BMP: *Determination of receiving water conditions and impacts***

Measureable Goal: Does the County's MS4 discharge to receiving waters within a TMDL watershed or with a listing on the latest CWA 303(d) list is associated with a water quality monitoring station (WQMS).

Justification: The TMDL listing is reviewed at a minimum of once per quarter (as it is updated) and the 303 (d) list is reviewed every 2 years as it is updated. The current Public Notices for TMDL's are reviewed as they are published.

2. **BMP: TMDL Monitoring and Assessment**

Measureable Goal: The discharge of the pollutant of concern (POC) to TMDL waters will be identified and located in the TMDL watershed draining to the impaired WQMS.

Justification: A TMDL Monitoring and Assessment Plan will be completed and submitted to SCDHEC within 12 months, January 1, 2015 of the effective date of the permit coverage. If a new TMDL becomes effective (Effective Date of the TMDL) after the first permit year the Monitoring and Assessment Plan will be updated by January 1, 2016.

3. **BMP: The TMDL Monitoring Plan**

Measureable Goal: Develop a schedule for conducting monitoring to measure the pollutant levels discharged from the MS4 area outfalls to waters subjected to a TMDL.

Justification: Within 18 months, July 1, 2015, the existing TMDL monitoring activities must be initiated. For TMDL approved after the first permit year, monitoring activities will begin no later than 18 months from the effective date of the TMDL.

4. **BMP: TMDL Implementation and Analysis**

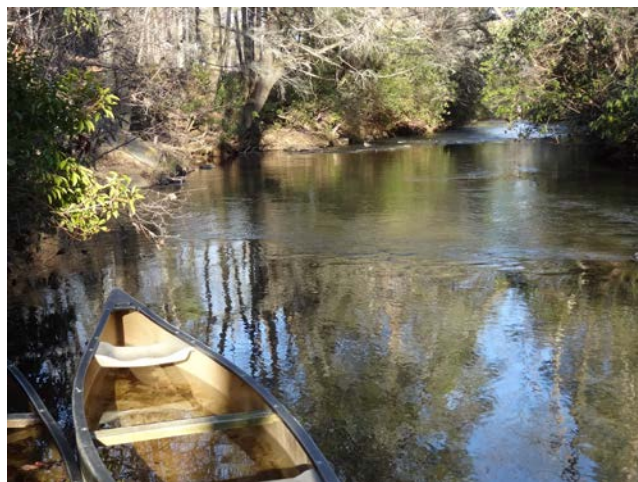
Measureable Goal: Complete and submit a TMDL Implementation Plan for approved TMDL's

Justification: Within 48 months from the effective date of the permit, July 1, 2018, or 48 months from the new TMDL effective date, the TMDL Implementation Plan will be submitted to SC DHEC.

5. **BMP: Discharges to Impaired Water Bodies**

Measureable Goal: Determine if any of the MS4 area discharges the pollutant of concern(s) to impaired waters listed on the 303(d) list. Specifically identify BMP, control techniques, system design, and engineering methods deemed appropriate for control of the pollutant of concern (POC).

Justification: The POC associated with discharges in the MS4 consist of bacteria. Pickens County is striving to reduce the discharge of bacteria in the watershed by educational efforts consisting of Pet Waste and septic tank maintenance. All construction plans are reviewed for areas that could contribute to impairments. A note is required on all construction plans stating: The Contractor will provide a portable toilet in an area that is not adjacent to a waterway or storm drainage. Litter and construction debris are required to be placed in properly identified locations.



South Saluda River, Pickens County

