

Tuscaloosa County

STORMWATER MANAGEMENT PLAN

2016- 2017 Annual Report, March 31, 2017



Prepared by:
Tuscaloosa County Public Works Department

Introduction to Stormwater Regulations

Background Regulations

Since the passage of the Clean Water Act (CWA), the quality of our nation's waters has improved dramatically. Despite the progress, however, degraded water bodies still exist. From a national perspective, the impacts of stormwater runoff are the most common reason for impairment of water quality in our streams, rivers, lakes and estuaries. As a result of this awareness more federal and state stormwater management programs were established.

Phase I of the U.S. Environmental Protection Agency's (E) Municipal Stormwater Program was promulgated in 1990 under the CWA. Phase I relied on the National Pollutant Discharge Elimination System (NPDES) permit coverage to address stormwater runoff from: (1) "medium" and "large" municipal separate storm sewer systems (MS4s) generally serving populations of 100,000 or greater, (2) construction activity disturbing 5 acres of land or greater, and (3) ten categories of industrial activity.

The Phase II Program, published in 1999, expanded the Phase I Program by requiring additional operators of "small" MS4s and operators of small construction sites, through the use of NPDES permits, to implement programs and practices to control polluted stormwater runoff.

Phase II Stormwater Permit Coverage

In Alabama, the NPDES permit program is administered by the Alabama Department of Environmental Management (ADEM). The Phase II Rule requires the following to apply for NPDES permit coverage:

- Operators of small MS4s located in “urbanized areas” as delineated by the Bureau of the Census,
- Operators of small MS4s so designated by ADEM due to their discharges causing , or having the potential to cause, an adverse impact on water quality.

Once obtained, the permit authorizes stormwater discharges to the waters of the state, as long as the operators implement the required permit components.

Permit Requirements for Small MS4s

The Phase II Stormwater Program was meant to address small municipal separate storm sewer systems (MS4s) located in urbanized areas and some small densely populated areas not covered by the Phase I Program. Unlike the Phase I MS4 Program, the Phase II MS4 Program involved the issuance of a general permit. The permit requires operators of regulated small MS4s to develop, implement, and enforce a Stormwater Management Program (SWMP) designed to reduce the discharge of pollutants from their MS4s to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act. At a minimum, the Stormwater Management Program must employ control measures to address the following five areas:

- Public Education and Public Involvement on Stormwater Impacts
- Illicit Discharge Detection and Elimination (IDDE)
- Construction Site Stormwater Runoff Control
- Post-Construction Stormwater Management in New Development and Redevelopment
- Pollution Prevention/Good Housekeeping for Municipal Operations.

To assess the effectiveness of the program, the permit requires an annual review and report of the Stormwater Management Program. During the

review, the value of the control measures, referred to as Best Management Practices (BMPs), should be gauged from the outcome of the prescribed measurable goals. In the annual report, completed and planned activities must be documented, as well as any proposed changes to the program. If necessary, a monitoring plan must also be submitted and results noted in the annual report.

Overview of Tuscaloosa County's Stormwater Management Program

The U.S. Census Bureau defines urbanized areas based on population density and total population for an area. Based on the 2010 Census, part of Tuscaloosa County was classified as being in an urbanized area. Therefore, the EPA and ADEM designated that area as a regulated small MS4 and required the county to comply with the Phase II Municipal Stormwater Program regulations, obtain coverage under the NPDES General Permit and develop a Stormwater Management Program to reduce the contamination of stormwater runoff.

The MS4 boundaries in Tuscaloosa are located within the Tuscaloosa Urbanized Area as shown in the map entitled Tuscaloosa Alabama Urbanized Area – Stormwater Entities as Defined by the 2010 Census. The permit coverage area as depicted on this map is within the green boundary that is not included in the city limits of Tuscaloosa and Northport. The county areas are in white, light blue and light yellow. The map may also be accessed through the Tuscaloosa County Website, <http://www.tuscco.com> with the path: Government Departments/ Public Works/Environmental/ 2010 Urbanized Area Reference Map, Tuscaloosa, AL

After the finalization of the Phase II Regulations, Tuscaloosa County was defined as a Phase II community and was required to submit a Notice of Intent (NOI) to request coverage under the General NPDES Permit No. ALR040000. Tuscaloosa County applied for coverage on February 26, 2003. The first permit term was scheduled to expire on March 9, 2008.

Tuscaloosa County applied for a second permit term coverage on September 13, 2007. After an administrative extension of nearly three years, ADEM reissued the General Permit for discharges from regulated MS4s. The second permit term became effective on February 1, 2011 and is scheduled to expire on January 31, 2016. Tuscaloosa County applied for a third permit term coverage on October 15, 2015. ADEM reissued the General Permit for discharges from regulated MS4s. The second permit term became effective on October 1, 2016 and is scheduled to expire on September 30, 2021.

Annual Reports for 2014-15 and 2015-16 may be viewed at this link:
<http://www.tuscco.com>

Annual Reports for 2006 through 2013, as well as the permit applications and all supporting documents, can be viewed at the Tuscaloosa County Public Works Department office.

The Tuscaloosa County Stormwater Management Program is comprised of specific actions that will be taken to aid in the efforts to protect water quality and reduce pollutant discharges from the county's MS4. This Stormwater Management Program details the programs and activities, referred to as Best Management Practices, chosen to meet the regulatory requirements, as well as the associated measurable goals and implementation schedules. The Tuscaloosa County Public Works Department is responsible for overall program coordination and implementation, as well as documentation and annual reporting.

Best Management Practices Selection Process

Tuscaloosa County has a history of being proactive when it comes to environmental issues. Many community organizations and governmental agencies within Tuscaloosa have had pollution prevention programs in place prior to the Phase II Rule. Consequently, the first step in the best management practice selection process was to identify the existing

programs and determine if they addressed any of the five minimum control areas. Secondly, groups and organizations that promoted or supported environmental education in the area of stormwater management were contacted to establish partnerships. Then additional BMPs were selected to further address the requirements of the Phase II MS4 General Permit. These supplemental BMPs were evaluated and those that were selected typically addressed more than just one minimum control measure conditions.

In preparing this latest version of the SWMP and selecting suitable best management practices, research was done examining other recognized and successful programs. From each of these reviews, some of the BMPs were noted as having potential to help supplement the work being done in Tuscaloosa. The ADEM approved plans for the communities of Auburn, Tuscaloosa as well as Baldwin County and Madison County were used to assist in the identification of achievable, meaningful and worthy best management practices.

Measurable Goals Selection Process

In accordance with the permit requirements, specific measurable goals have been developed for each best management practice. Measurable goals are objective markers used to evaluate the effectiveness of the SWMP toward protecting water quality and reducing pollutants to the maximum extent practicable. Each BMP that was selected for implementation was subjected to a thorough review to determine realistic, worthwhile and achievable goals in terms of implementation. The goals selected are specific for each BMP, some pertaining to specific public education events, others to increasing the number of points of contact with the public. The goals for each selected BMP were specific to that particular BMP, the goal planning focusing on achievable and worthwhile objectives.

Establishment of Implementation Schedule

For each of the selected Best Management Practices selected by Tuscaloosa County for implementation, a proposed schedule was developed. The BMPs that involve coordination with the schedules of other agencies have been planned on a seasonal basis. The BMPs that are only dependent on the Tuscaloosa County Public Works Department for implementation can be scheduled more firmly, these have tentative schedules based upon a quarterly or monthly basis. There has been flexibility included in the schedule to accommodate unforeseen events that are also the responsibility of the Tuscaloosa County Public Works Department. These events that at times require the dedication of the work force may disrupt the scheduled implementation of the Best Management Practice schedule.

Stormwater Management Program Components

The Phase II MS4 Program involves the issuance of a general permit which requires operators of regulated small MS4s to develop, implement, and enforce a Stormwater Management Program designed to reduce the discharge of pollutants from their MS4s to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act. The Stormwater Management Program should address the following major components:

- Public Education and Public Involvement on Stormwater Impacts
- Illicit Discharge Detection and Elimination (IDDE)
- Construction Site Stormwater Runoff Control
- Post -Construction Stormwater Management in New Development and Redevelopment

- Pollution Prevention/ Good housekeeping for Municipal Operations

For each of the major program components, this section describes the permit requirements, the selected Best Management Practices to satisfy the permit, and the schedule plan to implement the Best Management Practices.

Public Education and Outreach on Stormwater Impacts

Minimum Control Measure #1

General

Tuscaloosa County will implement a public education and outreach program through several avenues. This component of the program will likely provide the most significant long term benefit towards the protection of water quality, therefore a significant amount of work is planned by Tuscaloosa County to address the this opportunity. Outreach is planned which will extend into schools, demonstrations to youth organizations and use of public broadcasting to share the importance of stormwater management throughout Alabama.

Permit Requirement

The Permittee must implement a public education and outreach program to distribute materials to the community or conduct equivalent outreach activities about the impacts of discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff to the maximum extent practicable.

Program Objective

The objective of this component is to engage the public's interest in preventing stormwater pollution. The strategy will be to address the public's varying levels of background knowledge of both stormwater management and their role in reducing stormwater pollution. Therefore, a multi-pronged approach to outreach is planned that will generate a basic awareness of stormwater pollution, educate at groups at a more sophisticated level using more substantive content, and then building on existing recognition of the issue to prompt behavior changes that reduce pollution.

Program Description – Basic Awareness – Educational Brochures

Educational brochures and fact sheets focusing on stormwater pollution prevention have been developed in partnership with the Cities of Tuscaloosa and Northport. These brochures are designed to provide basic water quality information by identifying sources and types of stormwater pollution, explaining the problem of stormwater pollution and a general guide for individuals to prevent stormwater pollution. The brochure and fact sheet further provides points of contact within each of the three governmental agencies that can provide additional information or assist with reporting a stormwater pollution concern.

Implementation Schedule – Basic Awareness – Educational Brochures

In 2015 the brochure titled “Tuscaloosa Area Stormwater Management Guide” was modified for contact name changes for the cities of Tuscaloosa and Northport. In addition the University of Alabama contact name was added to the brochure. As of March 31, 2017 there has been no changes to the 2015 brochure.

Decision Process – Basic Awareness – Educational Brochures

Through the production and distribution of the stormwater informational brochure and fact sheet, known as the Tuscaloosa Area Stormwater Management Guide, the public will be provided with basic information about the issue. This information includes a summary of reasons why stormwater quality is important, suggestions as to how a citizen can help prevent stormwater pollution and also information on pollutants that they may not be aware that degrade water quality.

The informational brochure and fact sheet offers contact information for citizens whereby they may obtain additional information or receive assistance in reporting a stormwater pollution concern.

The target audience for the informational brochure and fact sheet is the general public visiting a public building or venue.

The target pollution sources that the informational brochure and fact sheet is designed to bring awareness to include sediment erosion and deposition from exposed ground, residential yard maintenance waste, and household waste.

The outreach strategy of informational brochures and fact sheet is to provide free, attractive and readily available brochures at locations where the public gathers seeking information. The strategy plan is expected to provide information to 100 residents each year.

Measurable Goals – Basic Awareness – Educational Brochures

2017-19

Review and update the Tuscaloosa Area Stormwater Management Guide as needed.

Continue to distribute the current Tuscaloosa Area Stormwater Management Guides to display locations. Increase the number of distribution locations by one site per year.

2016-2017

Eight Parks owned by the Tuscaloosa County Park and Recreation Authority (PARA) have been added as a Brochure distribution site.

Responsible Party – Basic Awareness – Educational Brochures

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Reporting Mechanism – Basic Awareness – Educational Brochures

The reporting mechanism for documenting progress and results will be accomplished by summarizing work towards each stated goal in the annual report to the Alabama Department of Environmental Management.

Program Description – Public Education Outreach Sessions – Schools

Participating in public education outreach sessions in elementary schools provides an opportunity to increase the awareness of students to the issue of stormwater pollution. The plan to accomplish this goal is to contact public schools in Tuscaloosa County and offer to them an educational session designed around stormwater pollution, awareness and prevention. The session will include a presentation with slides, and hands on demonstration of soil erosion and deposition, and conclude with a question and answer session.

Implementation Schedule – Public Education Outreach Sessions – Schools

Winter/Spring 2016-17

Review and revise and update the Public School Outreach Presentation.

Contact 4 public schools and offer the educational outreach program for their consideration and hosting.

Provide the presentation to each of the 4 schools that agreed to host the outreach presentation.

Fall 2017

Review and revise and update the Public School Outreach Presentation.

Contact 4 public schools and offer the educational outreach program for their consideration and hosting.

Provide the presentation to each of the 4 schools that agreed to host the outreach presentation.

Winter/Spring 2017-2018

Review and revise and update the Public School Outreach Presentation.

Contact 4 public schools and offer the educational outreach program for their consideration and hosting.

Provide the presentation to each of the 4 schools that agreed to host the outreach presentation.

Fall 2018

Review and revise and update the Public School Outreach Presentation.

Contact 4 public schools and offer the educational outreach program for their consideration and hosting.

Provide the presentation to each of the 4 schools that agreed to host the outreach presentation.

Winter/Spring 2018-2019

Review and revise and update the Public School Outreach Presentation.

Contact 4 public schools and offer the educational outreach program for their consideration and hosting.

Provide the presentation to each of the 4 schools that agreed to host the outreach presentation.

Decision Process – Public Education Outreach Sessions – Schools

Through an active, current and inspiring presentation to the youth in the public school systems in Tuscaloosa County, awareness of the issues of stormwater management issues can be shared. By educating the youth, permanent behavioral changes can be made that will have long term positive effects on the overall water quality in Tuscaloosa County. The program will be designed to educate the youth on what is considered to be stormwater pollution, what they can do to help control stormwater pollution and encourage them to help educate others in preventing further actions that contribute to stormwater pollution.

The offer of this outreach program will be accomplished through contact with the administration of selected public elementary schools. The principals of the schools will be offered the opportunity to consider and host the educational session in one or more of their grade levels. The principal will be the point of contact for the program and will offer scheduling options for the presentation.

The program will be designed for the appropriate age and educational level of the audience. The target audience is children in public elementary schools from ages 8 to 10.

The outreach program is targeted at increasing awareness of stormwater pollutants that are generated around the home. The pollutants to be included in the presentation include household debris and household waste.

The public education outreach sessions in elementary schools will include an age appropriate slide presentation to educate the students. Further, a hands on demonstration of the effects of stormwater pollutants will involve the students and facilitate their understanding of the issues. The question and answer session at the conclusion will allow for interaction between the students and the presenter, allowing for discussion of relevant problems and the offering of ways that they can help solve the problem.

The public education outreach sessions in elementary schools is expected to be made available to 300 students over the planned period.

Measurable Goals – Public Education Outreach Sessions – Schools

Winter/Spring 2016-17

Review and revise and update the Public School Outreach Presentation by January 31, 2017.

Contact 4 public schools and offer the educational outreach program for their consideration and hosting by March 31, 2017.

Provide the presentation to each of the 4 schools that agreed to host the outreach presentation by April 30, 2017.

One of the three schools contacted during the fall of 2016 accepted the offering of the outreach program.

The presentation was made to 3rd, 4th, and 5th graders at Myrtlewood Elementary School on November 4, 2016.

One of the four schools contacted during the winter/ spring of 2016-2017 accepted the offering of the outreach program.

The presentation was given to 4th graders at Big Sandy Elementary on January 31, 2017.

Fall 2017

Review and revise and update the Public School Outreach Presentation by August 15, 2017.

Contact 4 public schools and offer the educational outreach program for their consideration and hosting by October 1, 2017.

Provide the presentation to each of the 4 schools that agreed to host the outreach presentation by December 1, 2017.

Winter/Spring 2017-2018

Review and revise and update the Public School Outreach Presentation by January 31, 2018

Contact 4 public schools and offer the educational outreach program for their consideration and hosting by March 31, 2018.

Provide the presentation to each of the 4 schools that agreed to host the outreach presentation.

Fall 2018

Review and revise and update the Public School Outreach Presentation by August 15, 2018.

Contact 4 public schools and offer the educational outreach program for their consideration and hosting by October 1, 2018.

Provide the presentation to each of the 4 schools that agreed to host the outreach presentation by December 1, 2018.

Winter/Spring 2018-2019

Review and revise and update the Public School Outreach Presentation by January 31, 2019.

Contact 4 public schools and offer the educational outreach program for their consideration and hosting by March 31, 2019.

Provide the presentation to each of the 4 schools that agreed to host the outreach presentation by April 30, 2019.

Responsible Party – Public Education Outreach Sessions – Schools

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Reporting Mechanism – Public Education Outreach Sessions – Schools

The reporting mechanism for documenting progress and results will be accomplished by summarizing work towards each stated goal in the annual report to the Alabama Department of Environmental Management.

Program Description – Public Education Outreach – Discovering Alabama

Discovering Alabama is an Emmy Award winning television documentary series hosted by Doug Phillips. This program, broadcasted on Alabama Public Television, aims to document for the citizens, communities and students of the state “the many interesting and changing relationships between Alabama’s lands and people”. Tuscaloosa County has partnered with Dr. Phillips to assist in preparing and having broadcast subject matter pertaining to the issues of stormwater management.

Implementation Schedule – Public Education Outreach - Discovering Alabama

Continue the partnership with Discovering Alabama

Decision Process – Public Education Outreach – Discovering Alabama

Discovering Alabama has been long recognized as an eminent public education platform, being used by many school systems as a teaching tool. The documentary series is also viewed by citizens throughout the state, particularly by those with an interest in environmental issues. By using this medium, the message of the importance of stormwater management will be shared with students, educators, and other environmentally conscious citizens. Through this partnership, it is expected that there will be continued educational outreach with references to responsible stormwater management.

Measurable Goals – Public Education Outreach – Discovering Alabama

2017-2019

Continue partnering with Dr. Doug Phillips of Discovering Alabama and Tuscaloosa County Public Works Department for the purpose of educating the public on the importance of stormwater management. Dr. Phillips will inform the county when there are events that we can participate in.

Tuscaloosa County participated in a Teachers Workshop on March 15, 2017 by giving a short presentation.

See appendix “A” for attendees

Responsible Party – Public Education Outreach – Discovering Alabama

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Reporting Mechanism – Public Education Outreach – Discovering Alabama

The reporting mechanism for documenting progress and results will be accomplished by summarizing work towards each stated goal in the annual report to the Alabama Department of Environmental Management.

General

A single agency such as the Tuscaloosa County Public Works Department, even when assisted by the City of Tuscaloosa, City of Northport and the Alabama Department of Environmental Management, cannot be as effective in reducing stormwater pollution as if it has the participation, partnership, and combined efforts of other groups in the community all working towards the same goal. The point of public involvement is to build on community capital that is the wealth of interested citizens and groups to help spread the message on preventing stormwater pollution, to undertake group activities that highlight storm drain pollution, and contribute volunteer community actions to restore and protect local water resources.

Public involvement also includes facilitating opportunities for direct action, educational, and volunteer programs that benefit water quality. Groups with a vested interest in water quality who want to participate in promoting environmental causes will be encouraged and offered opportunities to participate in the stormwater management program.

Permit Requirement

The Permittee must include ongoing activities for public involvement through mechanisms to facilitate opportunities for direct action, education and volunteer programs. The Permittee must comply with applicable State and local public notice requirements when implementing a public involvement / participation program.

Program Objective

There are five primary objectives of public participation in stormwater management as part of the Tuscaloosa County stormwater management program. The first objective is education focused on a clear identification and understanding of the particular problem and solutions that are being addressed through the participatory activity. The second objective is to identify the activity or practice that resulted in the problem being addressed and corrected by the activity. The third object is to promote community ownership of both the problems and solutions. The fourth objective is to change behavioral patterns that have led to the problems being addressed by the activity. The fifth object is to incorporate feedback from the participants to further refine the process of public participation.

Program Description – Public Participation – Volunteer Roadside Trash Cleanup Groups

Organizations within Tuscaloosa County recognize the need for roadside trash cleanup in their communities. With the groups taking ownership in the solution to the problem of roadside litter a substantive reduction in the amount of roadside trash is the benefit. This reduction further reduces the amount of trash that then enters the storm drains, ditches and creeks of the county. The overall benefit of this program is first the general appearance of roadsides and second the reduction of pollutants in the waterways.

Tuscaloosa County supports the groups that volunteer to participate in roadside trash cleanup activities. This support includes the loaning of proper motorist warning signs for the work zone activity, the loaning of reflective safety vests to the participants, the issuance of suitable trash bags for the collection of the trash, the provision of work gloves to the participants, and the scheduling of a crew to pick up the collected trash from the roadsides.

Implementation Schedule – Public Participation - Volunteer Roadside Trash Cleanup Groups

As notice is received from a volunteer group expressing an interest in collecting the roadside trash in an area, a contact person is identified for the group. This person will be issued and loaned items needed to safely remove the litter from the roadsides. This program depends upon community organizations to take the initial step in scheduling the activity.

Decision Process – Public Participation - Volunteer Roadside Trash Cleanup Groups

The initiative of local community based groups to volunteer to better their community by removing roadside litter fulfills the five objectives of this program of public participation, and in particular the most important being that the group is taking ownership of the problem and working to correct it. Further, the participants in the volunteer cleanup are likely to not contribute to the problem of roadside litter themselves once they have assisted in a cleanup operation.

The target audience for this activity is community based groups and service organizations. These groups are typically based in small communities in the county, most often associated with churches and schools in their community.

As this program continues, the county is in the process of considering adding to the loaned tools to the volunteer groups. The purchase of pick up tools bearing a message about the stormwater management program is being considered; these pickup tools would be available on loan to those groups participating.

Measurable Goals – Public Participation - Volunteer Roadside Trash Cleanup Groups

2017-2019

The measurable goal for volunteer roadside trash cleanup groups is a count of the number of times the county supports a group hosting an event.

2016-2017

No group clean-ups were performed that the county was made aware of.

Responsible Party – Public Participation - Volunteer Roadside Trash Cleanup Groups

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Reporting Mechanism – Public Participation - Volunteer Roadside Trash Cleanup Groups

The reporting mechanism for documenting progress and results will be accomplished by summarizing work towards each stated goal in the annual report to the Alabama Department of Environmental Management.

Program Description – Public Participation – Spring Cleanup

The Tuscaloosa County Commission has recognized that in the unincorporated areas of the county there is a significant problem with illegal dumping. This often involves the dumping of large unwanted items on roadsides, in ditches and into ravines. This dumping typically takes place in areas with few homes and sporadic traffic. The county commission realized that the items being dumped in this fashion were not the type that are readily disposed of in the curbside pickup. Residents had one avenue of proper disposal which was to transport the items to a landfill and pay the disposal fee. Instead, items were being disposed of in a manner that negatively affects water quality. Items that were frequently being dumped illegally in these sites include computers, televisions, furniture, household chemicals and paint, and building debris.

The Tuscaloosa County Commission offers each spring to the citizens of the county a day of free disposal service. The commission has placed in strategic locations in the county large dumpsters for the disposal of these items. There is no fee for the disposal, and assistance is provided in the unloading of the debris.

Implementation Schedule – Public Participation – Spring Cleanup

2017-2019

During the month of April the Tuscaloosa County Commission will provide to the citizens multiple manned drop off points for the disposal of items. This event is being planned to not have a fee for the service.

Decision Process – Public Participation – Spring Cleanup

Over many years the Tuscaloosa County Commission has been tasked with cleanup of illegal dumps on the rural roadsides. Further, property owners where a

roadside gully or ravine afforded an individual the opportunity and location to dispose of unwanted articles have themselves been faced with the burden and expense of the cleanup. Practices to discourage this type of dumping have had minimal effect; the placement of No Dumping signs or barriers along the roadside did not significantly decrease the amount of illegal dumping. The commission sought to address this problem by offering a day of free dumpster service. This program is promoted by the commission in the local newspaper, radio and television announcements as well as notices to the community centers, fire stations and churches.

Measurable Goals – Public Participation – Spring Cleanup

2017-2019

The measurable goal for the Spring Cleanup is a count of the number of sites being made available to the public for use. The goal of the commission is, at a minimum, maintain the number of collection sites, and to increase as demand dictates the number of collection sites.

A clean-up was done on April 26, 2016.

See Appendix “B” for flyer

Responsible Party – Public Participation – Spring Cleanup

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Reporting Mechanism – Public Participation – Spring Cleanup

The reporting mechanism for documenting progress and results will be accomplished by summarizing work towards each stated goal in the annual report to the Alabama Department of Environmental Management.

Program Description – Public Participation – Volunteer Waterway Cleanup Groups

Organizations within Tuscaloosa County recognize the need for waterway trash cleanup along the lakeshores and stream banks. With the groups taking ownership in the solution to the problem of waterway trash a substantive reduction in the amount of floating and submerged trash is the benefit. This pollution reduction further enhances the appearance of these treasured recreational areas and enhances aquatic plant and animal life.

Tuscaloosa County supports the groups that volunteer to participate in waterway trash cleanup activities. This support includes the issuance of suitable trash bags for the collection of the trash, the provision of work gloves to the participants, and the scheduling of a crew to pick up the collected trash from the public landing areas.

Implementation Schedule – Public Participation - Volunteer Waterway Cleanup Groups

As notice is received from a volunteer group expressing an interest in collecting the waterway trash along a creek, river stream or lakeshore, a contact person is identified for the group. This person will be issued and loaned items needed to safely remove the litter from the waterways. This program depends upon community organizations to take the initial step in scheduling the activity.

Decision Process – Public Participation - Volunteer Waterway Cleanup Groups

The initiative of local community based groups to volunteer to better their community by removing waterway trash fulfills the five objectives of this program of public participation, and in particular the most important being that the group is taking ownership of the problem and working to correct it. Further, the participants in the volunteer cleanup are likely to not contribute to the problem of roadside litter themselves once they have assisted in a cleanup operation.

As this program continues, the county is in the process of considering adding to the loaned tools to the volunteer groups. The purchase of pick up tools bearing a message about the stormwater management program is being considered; these pickup tools would be available on loan to those groups participating.

The target audience for this activity is community based groups and service organizations. These groups are typically have a vested interest in the water body they are volunteering to work within. Past groups that have participated in waterway cleanup activities include Friends of Hurricane Creek, Black Warrior River Keeper, and Geocaching organizations.

Measurable Goals – Public Participation - Volunteer Waterway Cleanup Groups

2017-2019

The measurable goal for volunteer waterway cleanup operations is a count of the number of times the county supports a group hosting an event.

2016-2017

Tuscaloosa County sponsored and participated in the two North River-Lake Tuscaloosa Watershed events. On April 8, 2016 a display

was set up at the Water Fest event held at the Phelps Activity Center and educational materials was distributed.

Two county employees participated in the Lake Clean-up held on April 9, 2016.

See Appendix “C” for registration form and photos

Responsible Party – Public Participation - Volunteer Waterway Cleanup Groups

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Reporting Mechanism – Public Participation - Volunteer Waterway Cleanup Groups

The reporting mechanism for documenting progress and results will be accomplished by summarizing work towards each stated goal in the annual report to the Alabama Department of Environmental Management.

Illicit Discharge Detection and Elimination Program

Minimum Control Measure #3

General

Illicit discharges are generally any discharge into a storm drain system that is not composed entirely of stormwater. Illicit discharges are a problem because, unlike wastewater which flows to a wastewater treatment plant, stormwater generally flows to waterways without any additional treatment. Illicit discharges often include pathogens, nutrients, surfactants, and various toxic pollutants.

The Stormwater Management Program for Tuscaloosa County includes provisions to detect and eliminate these illicit discharges. This program includes the mapping of stormwater discharge points, a plan for the reporting of illicit discharges, a plan to detect and address illicit discharges and education program on the hazards associated with illicit discharges.

The Stormwater Management Program for Tuscaloosa County is both reactive and proactive. The program is reactive in addressing spills and other illicit discharges to the storm drain system that are found. The program is also proactive in preventing and eliminating illicit discharges through education and training.

Permit Requirement

The Permittee shall include an ongoing program to detect and eliminate illicit discharges into the Permittee's small MS4, and improper disposal, including spills under the purview of another responding authority, into the MS4 owned or operated by the Permittee to the maximum extent practicable.

Program Objective

The objective of the Tuscaloosa County Stormwater Management Program in handling illicit discharge detection is to provide educational outreach to those in a position to assist in the detection process. The county does not have the authority to police illicit discharges but must depend upon the enforcement powers of other agencies that have been given the authority to do so. Therefore, the objective of managing illicit discharge detection and elimination is to train public employees in detection, provide an avenue to report the discharge to the proper agency and to document the detection and reporting process.

Program Description – Illicit Discharge Detection and Elimination – Public Employee Education

Employees of the Tuscaloosa Public Works Department are involved in work throughout the county on a daily basis. This work is often associated with areas where illicit discharges occur, that is in the roadside ditches and creeks throughout the county. A training program will be established and operated that will educate them in identifying illicit discharges, and the procedure to follow in reporting such an occurrence.

Implementation Schedule and Measureable Goals – Illicit Discharge Detection and Elimination – Public Employee Education

2017

The Engineering Department of the Tuscaloosa County Public Works Department developed a training program in 2015. This program is geared towards the maintenance and inspection employees in the department. The subject matter is the identification of illicit discharges, and the proper steps to follow in reporting the illicit discharges.

During the summer of 2017 personnel in the Tuscaloosa County Public Works Department will be trained in the identification of illicit discharges, and the proper steps to follow in reporting the illicit discharge.

2018

During the spring, review and revise the training program for county personnel in illicit discharge detection and reporting procedures.

During the summer personnel in the Tuscaloosa County Public Works Department will be trained in the identification of illicit discharges, and the proper steps to follow in reporting the illicit discharge.

2019

During the spring, review and revise the training program for county personnel in illicit discharge detection and reporting procedures.

During the summer personnel in the Tuscaloosa County Public Works Department will be trained in the identification of illicit discharges, and the proper steps to follow in reporting the illicit discharge.

2016-2017

Camp Coker, Camp Cedar Cove and the Bridge Yard will have a training session during the summer.

Permit Requirement – Storm Sewer Map Update

Update the existing storm sewer map to include the following: location of all outfalls and the names and locations of all waters of the State that receive

discharges from those outfalls; structural BMPs owned, operated and maintained by boundaries of the Permittee's watershed.

Program Objective – Storm Sewer Map Update

The first objective of this section is to continue the process of updating the storm sewer map for Tuscaloosa County. This ongoing process involves locating each discharge point, securing the GPS coordinates of the site, determining the type of pipe, assessing the condition of the pipe as well as the condition at the inlet and outlet ends. This information is included on a spreadsheet as well as located on the Tuscaloosa County GIS map for this purpose. This process of maintaining an inventory will require frequent updates as upgrades are made to the discharge points in the county with culvert replacements, scour repairs, and ditch repairs.

The second objective of this section is to locate and inspect the structural BMPs in place in the county that are operated and maintained by Tuscaloosa County. This process of inspection of the structural BMPs is done monthly at a minimum, and maintenance performed as needed. These structural BMPs receive this inspection until such time as a determination is made that it is no longer needed, and the BMP is removed from service.

Program Description– Storm Sewer Map Update

Inspection personnel from the Tuscaloosa County Public Works Department field check discharge points in the county noting the location, condition and issues with discharge points. After the field check, the information recorded in the field is entered onto a spreadsheet which lists each of the inspected sites. The work to date has located 80 percent of the storm sewer discharge points in the MS4.

Inspection personnel from the Tuscaloosa County Public Works Department also field check the structural BMPs owned and maintained by the county. During this inspection the condition as well as any needed maintenance is recorded. The

reports are filed in the engineer's office and the noted needed repairs are given to the maintenance crews for scheduling.

Implementation Schedule – Storm Sewer Map Update

2017-2019

The county shall implement and maintain a dry weather screening program designed to detect and address non-storm water discharges to the MS4. The program will perform dry screening at a minimum 15 % of the number of outfall points per year with all 100% screened once per five years.

Continue the process of locating discharge points if necessary, securing the GPS coordinates of the site, determining the type of pipe, assessing the condition of the pipe as well as the condition at the inlet and outlet ends. Continue to record this information on a spreadsheet as well as locate the site on the Tuscaloosa County GIS map designed for this purpose.

Continue the process of locating, inspecting and maintaining the structural BMPs owned by Tuscaloosa County. Continue the maintenance of the file of inspection reports.

Revise and update the map and spreadsheet of the discharge points.

2016-2017

36 of 244 points (15 %) were rechecked.

See Appendix "D".

Permit Requirement

To the extent allowable under State and local law, effectively prohibit, through ordinance or other regulatory mechanism, non-storm water discharges into the MS4 and implement appropriate enforcement procedures and actions.

Program Objective

This permit requirement specifies that the Tuscaloosa County Commission prohibit through ordinance or regulatory mechanism the illicit non-permitted discharges into the MS4. Tuscaloosa County does not have “Home Rule” which would allow the passing of ordinances or regulations. The state legislature only allows the commission the authority to accept those regulations passed on at the state level, but does not allow for county specific ordinances to be adopted by the commission. This limited authority prohibits the Tuscaloosa County Commission from adopting the regulations required to police illicit discharges. Instead, Tuscaloosa County can only take action on illicit discharges by reporting the incident to another agency that does have the authority to prohibit such an activity.

Program Description

Tuscaloosa County does not have a program in place to prohibit illicit discharges. Instead, reports of illicit discharges will be referred to the appropriate agency for enforcement. Agencies that may be forwarded reports include the Alabama Department of Environmental Management, the Tuscaloosa County Health Department, the Environmental Protection Agency and the Surface Mining Commission.

Implementation Schedule

Since there is no program to put in place, there is no implementation schedule for this item.

Permit Requirement

Implement a program to review and update the IDDE ordinance or other regulatory mechanism to prohibit and eliminate illegal discharges and/or dumping into the MS4. This program shall include:

- Procedures for locating priority areas likely to have illicit discharges
- Field assessment activities

Program Objective

Tuscaloosa County does not have the authority to prohibit illicit discharges into the MS4 through ordinances or regulations. Since a program to prohibit illicit discharges cannot be put in place, there is nothing to review or update.

Program Description

Tuscaloosa County does not have the authority to prohibit illicit discharges into the MS4 through ordinances or regulations. Since a program to prohibit illicit discharges cannot be put in place, there is nothing to review or update.

Implementation Schedule

An implementation schedule has not been developed since Tuscaloosa County does not have the authority to prohibit illicit discharges into the MS4 through ordinances or regulations.

Permit Requirement

Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

Program Objective

The objective of this section of the Stormwater Management Program is to train staff about potential sources of stormwater contamination and ways to minimize the water quality impact of county activities, as well as to identify and report conditions in the stormwater system that may indicate the presence of illicit discharges and illegal dumping. The training will include general stormwater awareness, a summary of good housekeeping measures, and examples of illicit discharge occurrences and problems caused by the discharge.

Program Description

The training of personnel in the Public Works Department will include information on general stormwater awareness, a summary of good housekeeping measures to be followed at shop facilities as well as in the field, and examples of illicit discharge occurrences and procedures to follow in reporting illicit discharges. The training session will also address the handling of spills and the proper disposal of waste materials.

Implementation Schedule

2017-2019

Tuscaloosa County will host a training session for employees covering the items mentioned in the program description.

New hires will be provided training in the items mentioned in the program description as part of their orientation.

Permit Requirement

Develop a list of occasional incidental non-storm water discharges that will not be addressed as illicit discharges, such as non-commercial or charity car washes.

Program Objective

The objective of this section of the permit is to identify non-stormwater discharge activities that are recognized as significant contributors of pollutants to the MS4. Possible contributing activities may include water line flushing, landscape irrigation, diverted stream flows, car washing, or swimming pool discharges.

Program Description

Personnel trained in stormwater management will be asked to contribute to the list of possible non-stormwater discharge activities.

Implementation Schedule

County personnel will contribute to the list of non-stormwater discharge activities each year during the preparation of the annual report to ADEM.

Decision Process

The identification of non-stormwater discharge activities should be a goal in the stormwater management program. By noticing and checking on discharges, there is assurance that the discharge is either permitted or not in need of a permit. The identification and checking the sources of discharges keeps the inspectors aware of the overall activities within the watershed that affect water quality. The compilation of a list of non-stormwater discharge activities requires the inspectors to be accountable of both investigations of permitted discharges as well as discharges not requiring a permit.

Measurable Goals

2017-2019

Compile a list of discovered non-stormwater discharges noted and incorporate them into the list into the annual report to ADEM.

Responsible Party

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Reporting Mechanism

The reporting mechanism for documenting progress and results will be accomplished by summarizing work towards each stated goal in the annual report to the Alabama Department of Environmental Management.

Construction Site Storm Water Runoff Control

Minimum Control Measure #4

General

Uncontrolled stormwater runoff from construction sites can significantly impact rivers, lakes and estuaries. Sediment in waterbodies from construction sites can reduce the amount of sunlight reaching aquatic plants, clog fish gills, smother aquatic habitat and spawning areas, and impede navigation. Phase II MS4s are required to develop a program to reduce pollutants in stormwater runoff to the MS4 for construction sites disturbing one or more acres.

In addition to the stormwater requirements that Phase II MS4s place on construction sites, construction operators must also apply for NPDES permit coverage if their project disturbs at least one acre and discharges to a waterbody.

Permit Requirement

The Permittee must develop, implement and enforce a program to reduce to the MEP, pollutants in any storm water runoff to the regulated MS4 from construction activities that result in a total land disturbance of greater than or

equal to one acre and activities that disturb less than one acre but are part of a larger common plan of development or sale that would disturb one acre or more.

Program Objective

The objectives of the program are to reduce pollutants in stormwater runoff from construction activities, ensure that construction site operators are in compliance with the proper implementation and maintenance of erosion and sediment control practices, and to report to the appropriate agency for enforcement violations.

Program Description

This control measure of the Stormwater Management Program is intended to prevent soil erosion and the subsequent deposition in the stormwater system. Sediment is the primary pollutant of concern. Through the attentive review of construction activities within the MS4, advising developers of possible issues with the BMPs on the construction sites, and the resulting siltation of the waterways can be significantly reduced.

Subdivision construction involves the clearing of tracts of land for the development, an activity that can impact water quality. Tuscaloosa County has adopted regulations governing subdivision development; contained within the regulations is a section on Erosion Control (Section 5-4-20 of the Tuscaloosa County Subdivision Regulations) as well as other references and guides to responsible development with regard to stormwater management.

The Erosion Control Section of the regulations states:

The design engineer shall submit an Erosion Control Plan in conjunction with the construction plans. A NPDES permit shall be the responsibility of the developer and shall be in accordance with the requirements of ADEM. Erosion Control shall be installed and maintained until the County accepts the project for maintenance as to prevent off-site sedimentation. A stand of grass shall be established along shoulders and back slopes. Best

management practices shall be required on all projects regardless of permitting requirements. Also, a posted ADEM permit shall be in place at the subdivision, if applicable. Proof of current ADEM regulation and inspection reports shall be submitted to County Engineer at time of final plat submittal, if applicable.

The subdivision regulations further address issues of concern for stormwater management in Section 5-1 Minimum Standards. In this section the developer is instructed to comply with “the rules and standards of the Alabama Department of Environmental Management (ADEM)”. Further, the developer is encouraged to arrange the street plan considering the topographical conditions to manage water velocities. The developer is provided direction in the design of the drainage system to further control erosion. This is accomplished through culvert design, use of curb and gutter, inlet design and placement, and the use of energy dissipation.

The monitoring of other construction sites that are not covered under the subdivision regulations is done as encountered. Personnel within the public works department routinely drive through the MS4. If a construction activity is discovered or reported that exhibits the potential for erosion and off-site sedimentation, then a more thorough investigation is made. The Tuscaloosa County Commission has adopted a policy for addressing construction sites where off-site sediment deposition is occurring or has the potential to occur. This policy involves the issuance of a letter of notice that directs the property owner to respond within 7 days to the county with an acceptable plan to correct any problems and manage the stormwater leaving their site. If the property owner fails to respond or correct the problems within the specified time, then the violations are reported to ADEM for enforcement.

Construction sites that are under the direct control of Tuscaloosa County will be managed in accordance with ADEM regulations. As required, NPDES permits will be obtained on projects that meet the area threshold. Further, projects below the threshold will be managed in a responsible manner to prevent the deposition of sediment off-site. This particular section of construction site stormwater runoff

control for county managed projects will be covered in the section of this report titled Pollution Prevention and Good Housekeeping for municipal operations.

Implementation Schedule

Upon receipt of each subdivision plat for review, attention by the engineering staff is given to the developer's compliance with the subdivision regulations. Included in this review is a review of the items affecting the proper management of stormwater. Once construction is started on the development, periodic checks are made to ensure that best management practices are in place and are effective in preventing off-site sediment deposition.

Reported or discovered stormwater management problems not covered under the subdivision regulations are investigated promptly. The owner of the property where the disturbance is located is given notice to respond and present a plan for correction within seven days of receipt of notice. If after the expiration of the seven day period and a satisfactory plan or corrective action has not been taken, then the violation is reported to ADEM for enforcement.

During 2016- 2017, 129 subdivision plats have been reviewed by Tuscaloosa County, with the review process including an examination of the proper management of storm water by the developer.

During this time there has been one inspection of a subdivision for acceptance for maintenance, of which a section is the management of stormwater. This inspection noted that there were deficiencies relating to stormwater. The issues were corrected.

Permit Requirement

An ordinance or other regulatory mechanism to require erosion and sediment controls, sanctions to ensure compliance and to provide all other authorities needed to implement the requirements of the construction site storm water runoff.

Program Objective

The objective of this section of the permit is to require the Tuscaloosa County Commission to adopt a regulatory mechanism to effectively manage control related to construction site stormwater runoff.

Program Description

Tuscaloosa County is limited by the state legislature in the adoption of ordinances or regulations. The commission can only adopt ordinances or regulations as permitted. The county has been granted authority to adopt subdivision regulations; and as a part of these regulations, responsible stormwater management is required.

The Tuscaloosa County Commission has agreed to investigate and report to ADEM concerns about potential violations affecting water quality. The enforcement of the discovered violations is then under the purview of ADEM.

Implementation Schedule

The investigation and reporting of discovered violations will be done as each incident is noted.

Permit Requirement

A training program for the MS4 site inspection staff in the identification of appropriate construction best management practices.

Program Objective

The objective of this section of the permit is to ensure that inspectors and supervisors within the Tuscaloosa County Public Works Department are adequately trained in the identification of appropriate best management practices.

Program Description

The training of engineering, inspection and supervisors within the Tuscaloosa County Public Works Department is done to ensure that employees are able to identify appropriate best management practices. These employees are initially trained upon promotion or hiring where they are certified as Qualified Credentialed Inspectors. These employees are also provided with annual refresher training to maintain their respective certification.

Implementation Schedule

Tuscaloosa County will continue to provide training opportunities to new hires in the Engineering Department to receive Qualified Credentialed Inspector status. This training will take place within 6 months of hire for those employees involved in stormwater inspection and reporting.

The county will provide training opportunities to new hires in supervision in the road and bridge maintenance operations to receive Qualified Credentialed Inspector status. This training will take place within 6 months of hire for those employees involved in stormwater inspection and reporting.

Tuscaloosa County will provide training opportunities to existing employees to maintain their Qualified Credentialed Inspector status. This training will be done annually for each QCI employee.

See Appendix "E" for copies of QCI Training certificates and cards

Permit Requirement

Procedures for prioritization and frequency of inspection activities of qualifying construction sites to verify the use of appropriate erosion and sediment control practices. Priority construction sites must be inspected once per month at a minimum.

Program Objective

This section of the permit has two objectives; those construction sites under the direct control of Tuscaloosa County and those construction sites under the management control of another entity. The sites under the control of Tuscaloosa County will be inspected, at a minimum, once each month and after qualifying precipitation events. The inspection after qualifying precipitation events will be conducted as soon as possible, but no later than 72 hours after the event. The sites not under the control of Tuscaloosa County that have been noted as being in possible violation of the stormwater regulations will be checked after qualifying rain events as practicable for continued compliance.

Program Description

Tuscaloosa County will continue to work to ensure that county managed activities that could affect water quality are inspected in accordance with the regulations of the Alabama Department of Environmental Management. Inspectors and supervisors will complete the required inspections within the time frame outlined in the ADEM regulations.

For construction activities not managed by Tuscaloosa County, an inspector or supervisor will check to ensure continued compliance with the stormwater regulations. Any violations noted will be reported either through the 7 day warning letter from the county or by notice to ADEM.

Implementation Schedule

The appropriate inspection response will be completed in accordance with the ADEM stormwater regulations.

Permit Requirement

Procedures for construction site plan review and approval to include an evaluation of plan completeness and overall BMP effectiveness.

Program Objective

The purpose of construction site plan review and approval is to reduce pollutants in stormwater runoff from construction activities that are under the management control of Tuscaloosa County. The submitted plan will be reviewed to ensure that stormwater quality objectives are addressed early in the process of plan development.

Program Description

The projects within the MS4 that are under the control of Tuscaloosa County or where a county approved stormwater management plan is required, will be reviewed by engineering staff for completeness and effectiveness. Critical elements of the site plan that will be addressed include minimization of clearing and grading activities to limit exposure; protection of waterways and waterbodies by buffers and structural BMPs; phased construction; prompt stabilization of exposed soils; slope protection practices; site perimeter controls; and assurance of qualified personnel to inspect and maintain construction site BMPs.

Implementation Schedule

Each construction site plan review will be conducted as soon as practicable upon receipt of the plan. The owner of the plan will be advised of concerns found within the plan and also of the approval or denial of the submission.

Permit Requirement

Procedures to notify ADEM of non-compliant construction sites discovered during periodic inspections to include location, name, contact information and summary of site deficiencies of the construction site.

Program Objective

The objective of ADEM notification of non-compliant construction sites is to ensure complete and proper enforcement of the stormwater regulations in Tuscaloosa County.

Program Description

Tuscaloosa County does not have the authority to approve ordinances or prosecute those in violation of the stormwater regulations. This authority rests with the Alabama Department of Environmental Management. The Tuscaloosa County Commission has directed that engineering staff investigate discovered or reported violations and then provide the property owner with a registered letter of notice of possible stormwater violations. The property owner is provided seven days from the receipt of the registered letter to respond to the county with a plan to correct the possible violations. If the property owner fails to respond or correct the problems, then the violation is promptly reported to ADEM for investigation and enforcement. Tuscaloosa County provides, at a minimum, the location,

property owner identification, contact information and deficiency description as part of the report.

Implementation Schedule

This process of investigation and reporting to ADEM occurs after the property owner either fails to respond to the registered letter or fails to correct the deficiency within the allotted time. This process is initiated as soon as practicable upon receipt of a complaint or discovery of a deficiency.

Permit Requirement

If not relying on ADEM for the setting of standards for appropriate erosion controls and sediment controls for qualifying construction sites and for enforcement of such controls, then the Permittee must have requirements for construction site operators to implement appropriate sediment and erosion control BMPs consistent with the Alabama Handbook.

Program Objective

The objective of this section is to assure that if the government agency is not relying on ADEM for standards and control, that the agency assure ADEM that the standards and control is at least consistent with ADEM standards.

Program Description

Tuscaloosa County does not have the authority to approve ordinances or prosecute those in violation of the stormwater regulations. This authority rests with the Alabama Department of Environmental Management. As a result, Tuscaloosa County will continue to rely upon ADEM for the standards for appropriate erosion controls and sediment controls for qualifying construction sites and for enforcement of such controls.

Implementation Schedule

Tuscaloosa County will continue to rely on ADEM for the standards for appropriate erosion controls and sediment controls for qualifying construction sites and for enforcement of such controls.

Permit Requirement

Requirements for construction site operators to control waste such as discarded building material, concrete truck washout, chemicals, litter, and sanitary waste at construction sites that may cause adverse impacts on water quality.

Program Objective

Building materials and other construction site wastes must be properly managed and disposed of to reduce the risk of pollution from materials such as surplus or refuse building materials or hazardous wastes. Practices such as trash disposal, recycling, proper material handling, and spill prevention and cleanup measures can reduce the potential for stormwater runoff to mobilize construction site wastes and contaminate surface or ground water. The proper management and disposal of wastes should be practiced at every construction site to reduce stormwater runoff. Use waste management practices to properly locate construction site debris in proper disposal containers, to cover materials that

might be displaced by rainfall or stormwater runoff, and to prevent spills and leaks from hazardous materials that were improperly stored should be considered and implemented by contractors.

Program Description

A significant portion on the MS4 in Tuscaloosa County is within the planning jurisdiction of the City of Tuscaloosa or the City of Northport. In fact, over 90 percent of the land area of the MS4 is located within the jurisdictional control of these two cities. In the areas within the planning jurisdiction there are regulations in place to control the management of construction site debris. Land development permits are required by the cities for construction projects. Part of the land development permit requires the placement of a proper debris container of site, with the debris being disposed of in an approved landfill. Further, this ordinance address sediment control by the contractor.

Tuscaloosa County does not have the authority to pass an ordinance to require the placement of a debris disposal container on site for use during construction projects. However, Tuscaloosa County has two avenues to address the issue of construction debris disposal. First, Tuscaloosa County has the Solid Waste Management Department to handle illegal dumping. Further, the Tuscaloosa County Commission has been given the authority to enact the “Junk Law” which applies to the unincorporated areas of the county which prohibits the accumulation of junk on private property.

Implementation Schedule

Tuscaloosa County will continue to seek assistance from the Cities of Tuscaloosa and Northport in the enforcement of the regulations in the Land Development Permits issued by the respective governments. The discovery of or the receipt of notice of a possible violation will be promptly reported to the proper agency. This practice will continue through the planned time frame of the program.

Upon discovery of improper construction site debris disposal outside of the jurisdictional control of the cities, the violation will be managed through the Tuscaloosa County Solid Waste Department. The notice of a discovered or reported possible violation will be forwarded to this department for investigation, cleanup and prosecution. Although this approach is reactive to a problem rather than proactive such as requiring an onsite container, the county must approach the problem in this manner since further authority to enact ordinances has not been granted to Tuscaloosa County.

Permit Requirement

Development and Implementation of an enforcement strategy that include escalating enforcement remedies to respond to issues of non-compliance.

Program Objective

The objective of this program requirement is to encourage owners, developers, and contractors to take the necessary measures to ensure that their construction sites do not create negative impacts to water quality in Tuscaloosa County. The intent is to ensure compliance through escalating enforcement remedies to issues of non-compliance.

Program Description

Tuscaloosa County does not have the authority to approve ordinances or prosecute those in violation of the stormwater regulations. This authority rests with the Alabama Department of Environmental Management. As a result, Tuscaloosa County will continue to rely upon ADEM for assistance in enforcement

of non-compliance with the standards for appropriate erosion controls and sediment controls for qualifying construction sites.

Implementation Schedule

Tuscaloosa County has been and will continue to rely upon ADEM for assistance in enforcement of non-compliance with the standards for appropriate erosion controls and sediment controls for qualifying construction sites.

Permit Requirement

Implement an enforcement tracking system designed to record instances of non-compliance and the MS4's responding actions.

Program Objective

The objective of this section of the program is to document and track reports of non-compliance with the stormwater regulations in Tuscaloosa County and specifically within the MS4. This documentation will assist in identify locations with frequent compliance problems and further particular property owners and developers whose actions negatively impact water quality more frequently than others.

Program Description

A spreadsheet summarizing the notice, investigation and enforcement status of each discovered and reported location of non-compliance will be maintained in the Tuscaloosa County Public Works Department. The spreadsheet will be useful

in the tracking of each potential violation from the time of report to the resolution of the issue.

Implementation Schedule

2017-2019

Continue spreadsheet maintenance.

Permit Requirement

Must keep records of all inspections, site plan reviews and employee training.

Program Objective

The maintenance of records is critical in operating a responsible stormwater management program. Through the review of the records of previous inspections and employee training status, sound decisions regarding the stormwater program management can be made by the administrators of the program.

Program Description

Tuscaloosa County maintains a file of inspections, both of those construction sites under the control of the county as well as inspections conducted on sites under the control of other entities. The projects for which the county is the controlling agency, the inspections are conducted meeting the requirements of ADEM, noted deficiencies are addressed and the inspection reports stored in files maintained in the Engineering Department. The records of investigations of construction sites and projects that are not under the control of the county are handled separately. A summarizing spreadsheet will list each reported or discovered potential violation, and the status of each. Inspection reports, correspondence and

photographs of each investigation are stored in files maintained in the Engineering Department.

Implementation Schedule

Tuscaloosa County will continue to maintain a file of the inspections of the sites under the control of the county in the Engineering Department. For projects not under the direct control of the county, a spreadsheet summarizing all reported potential violations will be used. A file dedicated to each reported or discovered potential violation will be maintained. This file will contain information on the nature of the notice, property owner, correspondence, photographs and inspection reports. These files will be kept in the Engineering Department.

Decision Process

In order to develop the Construction Site Runoff Control component of its Stormwater Management Program, Tuscaloosa County has reviewed current construction site runoff control practices that may impact water quality. From this review, areas have been identified where improvements can be instituted with an overall benefit to water quality.

The most effective control measure that is available to Tuscaloosa County in the enforcement of stormwater regulations is through the adopted subdivision regulations. These regulations, which were recently updated, have a significant emphasis on responsible stormwater management practices for the developer, engineer and contractors involved. The subdivision regulations guide the entire process of development, from the initial planning stages to project completion and acceptance by the county commission. The developer of each subdivision is required to post bonds for maintenance which can be used to correct problems that are not corrected. Further, developers that are considered delinquent with their projects are not approved to develop other properties until the issues are corrected.

Tuscaloosa County plans to continue to rely on the enforcement of the stormwater regulations through ADEM. Since Tuscaloosa County does not have the authority to adopt and then enforce ordinances, the enforcement authority of ADEM must be utilized to achieve corrective action for other entities.

Tuscaloosa County recognizes the need for effective training opportunities for employees in stormwater best management practices. The initial training for certification and subsequent training to maintain certification is an integral part of responsible stormwater management. The record keeping program for training files as well as record keeping for inspections will be upgraded to ensure compliance with the stormwater management programs.

Measurable Goals

2017-19

Compile a file for each reported or discovered potential violation of the stormwater regulations by March 31 of each year. The files will contain at a minimum the identification of the property owner, copies of correspondence, photographs and inspection reports

Assemble a spreadsheet summarizing the status of all reported or discovered potential violations of the stormwater regulations by March 31 of each year.

2016-2017

Tuscaloosa County personnel have noted and reported 10 potential violations discovered in the county. A summary of these reports and the status of each is presented in **Appendix "F"**.

Review and summarize the files for each QCI noting the status of their training accomplishments, and correspondence concerning their upcoming training needs by March 31, of each year.

Provide QCI training opportunities for the 8- hour initial class to new hires in the Engineering Department within 6 months of hire for those employees involved in stormwater inspection and reporting.

Provide QCI training opportunities for the 8- hour initial class to new hires in supervision in maintenance operations within 6 months of hire for those employees involved in stormwater inspection and reporting.

Provide QCI training opportunities for the 8- hour initial class to employees promoted to supervisory positions within the maintenance operations within 6 months of hire for those employees involved in stormwater inspection and reporting.

Provide annual refresher class training opportunities for existing Qualified Credentialed Inspectors.

Inspect once each month or after every qualifying rain event the county controlled construction sites with a NPDES permit.

Responsible Party

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Reporting Mechanism

The reporting mechanism for documenting progress and results will be accomplished by summarizing work towards each stated goal in the annual report to the Alabama Department of Environmental Management.

Post-Construction Stormwater Management

In New Development and Redevelopment

Minimum Control Measure #4

General

Post-Construction storm water management refers to the activities that take place after construction occurs, and includes structural and non-structural activities including low-impact development and green infrastructure practices to obtain permanent storm water management over the life of the property's use. These post construction controls should be considered during the initial site development planning phase.

Permit Requirement

The Permittee must develop/revise, implement and enforce a program to address storm water runoff from qualifying new development and redevelopment projects to the maximum extent possible (MEP). This program shall ensure that controls are in place to prevent or minimize water quality impacts.

1. Develop/Revise and outline procedures for the site plan review for and approval process and a required re-approval when changes to post-construction controls are required.

Program Description

The applicable portion of the Tuscaloosa County Subdivision regulations that outline the above requirements are as follows:

“Article IV, Approval of Subdivision Plats, Section 4.7, page 19; Approval of Construction Plans for Major Subdivisions:

Following the approval of the preliminary plat for a major subdivision, the developer shall be required to submit 2 sets of construction plans for the proposed subdivision to the Tuscaloosa County Public Works Department. The plans shall be prepared in accordance with requirements set forth in Section 5 of these regulations. The County Engineer shall have 30 days to review the construction plans to ensure compliance with these regulations. In the event the submitted plans do not meet these regulations, the County Engineer shall notify the developer of the deficiencies. Upon approval of the construction plans by the County Engineer and the County Commission, a Permit to Development shall be issued to the developer.

The developer shall have one year from the date of issuance of the Permit to development to begin substantial work on the proposed subdivision. If construction does not begin within the one year time frame, the preliminary plat must be resubmitted for review to the County Engineer and approval by the County Commission.

Any changes or deviations from the approved preliminary plat and construction plans shall be in violation of these regulations and shall be subject to removal or correction at the expense of the developer. Changes to the subdivision construction plans will be submitted for review and approval by the County and the County Commission.”

A link for the subdivision regulations is available on the Tuscaloosa County website, www.tuscco.com

Permit Requirement

2. Develop/revise and outline procedures for a post construction process to demonstrate and document that post-construction storm water measures have been installed per design specifications, which includes enforceable procedures for bringing noncompliant projects into compliance.

Program Description

Tuscaloosa County subdivision regulations address the above procedures in Article VI, Guarantee of Completion of Improvements, Section 6-3, page 38, Maintenance of Improvements and Appendix VIII, Maintenance Bond as follows:

“Upon verification that all subdivision improvements are complete, the developer shall submit a maintenance bond to the Tuscaloosa County Commission. The surety shall be in the amount of 15% of the total cost of improvements to the subdivision and shall be in effect in for 15 months from the date of final plat approval. The engineer of record shall provide the cost estimate to determine the 15% calculation for the maintenance bond. During this maintenance period, the developer or the owner shall be required to maintain all rights-of way and to construct, repair, replace, or maintain public improvements. The term Maintenance Bond has the following meaning:

1. A commercial bond secured by a surety company authorized to engage in bonds in and by the State of Alabama.
2. An irrevocable letter of credit shall be automatically renewed until the subdivision has been accepted for maintenance by the County. The letter of credit shall bear the name of Tuscaloosa County Commission.
3. A Cashier’s Check made out to Tuscaloosa County Commission.

Sixty days (60 days) prior to the end of the 15 month maintenance period, the developer or developers engineer shall notify the County Engineer in writing requesting a final inspection. If the inspection reveals deficiencies beyond those caused by wear and tear, the County Engineer will notify the developer or developer’s representative of such deficiencies and afford said party reasonably

opportunity to correct any deficiencies . Upon correction of deficiencies, the responsible party shall notify the County Engineer in writing that the improvements be accepted for maintenance. If the County Engineer is satisfied that all requirements have been met and the deficiencies have been corrected, the County Engineer will have the subdivision on the agenda at the next regularly scheduled County Commission meeting asking that the Commission accept the subdivision by resolution. If the County Commission accepts the subdivision, the maintenance surety will be returned to the applicant.

In the event the developer fails to submit a request for final inspection as noted above, the County Engineer shall determine if any repairs are needed in order to bring the roadway in compliance and make the necessary surety required to complete said repairs. The remaining surety would be returned to the developer upon completion of the work. The subdivision would at that time be placed on the Commission agenda and recommended for acceptance by resolution.

If a developer, or any member, partner, a shareholder thereof, has developed one or more other subdivisions in the County with deficient improvements, the County's acceptance of the subject subdivision for maintenance may be withheld until such other subdivision improvements are no longer deficient.

In the event the developer fails to perform as required by the bond, the County Attorney or his designee is authorized to file a lien equal the amount of the bond against any lot or lots in the subdivision subject to the bond and owned by the developer.”

Permit Requirement

The Permittee must develop and implement strategies which may include a combination of structural and/ or non-structural BMP's designed to ensure, to the maximum extent practical, that the volume and velocity of pre-construction storm water runoff is not significantly increased. A design rainfall event with an intensity up to that of a 2 year – 24 hour storm event shall be the basis for the design and implementation of post-construction BMPs.

Program Description

Tuscaloosa County subdivision regulations address the above in Article V, Section 5- 4-16, Design Standards-Drainage Improvements and 5-4-17, page 33 Stormwater Detention / Retention, pages 33 and 34.

- A. “The engineer must provide a statement on the construction plans in regards to the storm drainage plans in regards to the storm drainage design as noted below.
“The Drainage plan for <insert project name> has been designed such that when constructed according to the plans and specifications, within usual construction tolerances, there will be no adverse effects to adjacent of downstream properties”
- B. A complete drainage plan showing contours, pipe sizes, locations, and drainage areas shall be submitted along with the profile grades and typical roadway section for approval. All drainage structures shall be designed for a 25 year, one hour rainfall event at a minimum.
- C. All existing drainage structures, including the next drainage structure upstream and downstream, shall be shown on the preliminary plat.
- D. All off-site drainage areas that drain through the development shall be included on the contour map along with acreage.
- E. All drainage structures and peak flow rates shall be included for each drainage structure, as well as profiles for all new storm sewers and open ditches. All storm drainage calculations shall be signed by the design engineer.
- F. Outlet velocities that are greater than five feet per second shall require an appropriate method of energy dissipation such as rip rap apron or other method designed by the engineer of record.
- G. Typical Sections of all open ditches and swales will be provided.
- H. Any proposed new side drain pipes or other storm sewer pipes under the County’s roadway must be shown on the preliminary plat and must be approved by the County Engineer.
- I. The plans shall take into consideration the ultimate or saturated development of the tributary in which the proposed subdivision is

located. On-Site stormwater detention may be required for certain developments.

- J. Off-premise drainage easements and improvements may be required to handle the runoff from subdivision into a natural drainage channel.
- K. All the developments in the County shall be in compliance with the Flood Damage Prevention Ordinance. The applicant should contact the County Engineer for a preliminary discussion on this matter prior to plan submittal.

All subdivisions in the County subject to stormwater detention or retention shall meet the minimum design requirements set forth in this section. Detention and retention facilities shall be designed for a 25 year, one hour rainfall at a minimum. Rainfall amounts shall be based on the latest available information. Each detention and retention facility shall provide for an emergency spillway designed to convey the 100 year rainfall event.

The minimum information submitted for a detention or a retention pond design shall be as follows:

- a. Existing drainage area and peak flow to the facility.
- b. Proposed drainage area and peak flow to the facility.
- c. Inflow hydrograph.
- d. Outfall hydrograph.
- e. Storage-elevation plot.
- f. Required storage volume, in acre-feet or cubic feet.
- g. 100 year peak rainfall flow to the emergency spillway.
- h. Statement of methodology used for detention facility design.
- i. Provide for low flow ditch in reservoir.
- j. Sides shall be grassed or paved.
- k. Primary spillways must be equipped with a trash rack. Maximum opening between bars shall not exceed four inches.
- l. Overflow sections, such as emergency spillways, shall be sodded or paved.
- m. All detention or retention facilities shall be enclosed with a minimum five-foot tall fence.

All detention and retention facilities that may be required in conjunction with the construction of a subdivision are to be maintained by the home owner's association of the subdivision for which it is located. Tuscaloosa will not be responsible for maintenance of such areas. The home owner's association will be required to maintain these areas as required to protect the safety of all adjacent and downstream property owners."

Note: The City of Tuscaloosa sends the county a copy of their Land Development Permit (LDP) application for projects located in the city's Planning Jurisdiction (PJ) in the county's MS4. The county is able to review the permit application and send comments back to the city for items such as drainage calculations.

See Appendix "G" for list of LDP applications reviewed in the last year.

Permit Requirement

To the extent allowable under State law, the Permittee must develop and institute the use of an ordinance or other regulatory mechanism to address post-construction runoff from qualifying new development and re-development projects.

Program Description

Tuscaloosa County subdivision regulations address the above and are mentioned previously showing pages 33-34

Permit Requirement

The Permittee must ensure adequate long-term operation and maintenance of BMPs. One or more of the following as applicable:

Program Description

1. The developer's signed statement accepting responsibility for maintenance until the maintenance responsibility is legally transferred to another party; and/or
2. Tuscaloosa County subdivision regulations address the above in Article VI Section 6-3, page 38, Maintenance of Improvement and Appendix VIII, Maintenance Bond.
3. Written conditions in the sales or lease agreement that require the recipient to assume responsibility for maintenance; and/or
Tuscaloosa County subdivision regulations require that the Homeowners Association assume responsibility for detention and retention facilities.
4. Written conditions in project conditions, covenants, and restrictions for residential properties assigning maintenance responsibilities to a home owners association, or other appropriate group, for maintenance of structural and treatment control management practices; and/or

Tuscaloosa County subdivision regulations address the above in Article VI Section 6-3, Maintenance of Improvement and Appendix VIII, Maintenance Bond.

5. Any other legally enforceable agreement that assigns permanent responsibilities for maintenance of structural or treatment control management practices.

Not covered in Tuscaloosa County subdivision regulations

Permit Requirement

The Permittee shall perform or require the performance of post-construction inspections, at a minimum of once per year, to confirm that post-construction BMP's are functioning as designed. The Permittee shall include an inspection schedule, to include inspection frequency within the SWMPP.

Program Description

The Permittee shall perform BMP inspections as stated above. The County upon accepting the subdivision for maintenance of the streets and drainage structures in the Right Of Way (ROW) will perform a formal inspection at least once per year. Informally, personnel within the public works department routinely drive through the MS4. If a construction activity is discovered or reported that exhibits the potential for erosion and off-site sedimentation, then a more thorough investigation is made. The Tuscaloosa County Commission has adopted a policy for addressing construction sites where off-site sediment deposition is occurring or has the potential to occur. This policy involves the issuance of a letter of notice that directs the property owner to respond within 7 days to the county with an acceptable plan to correct any problems and manage the stormwater leaving their site. If the property owner fails to respond or correct the problems within the specified time, then the violations are reported to ADEM for enforcement.

Permit Requirement

The Permittee shall maintain or require the developer/owner/operator to keep records of post-construction activities, maintenance activities and make them available to the Department upon request and require corrective actions to poorly functioning or inadequately maintained post-construction BMP's.

Permit Requirement

The Permittee shall review and evaluate policies and ordinances related to building codes, or other local regulations, with a goal of identifying regulatory and policy impediments to the installation of green infrastructure and low-impact development techniques.

Program Description

The county is not able to enact such an ordinance. Projects in the county in the City of Tuscaloosa's planning jurisdiction, fall under the City's municipal code referencing green infrastructure and low-impact development (LID).

Permit Requirement

The Permittee shall report each year in the annual report the following:

1. Copies or link to ordinances or regulations:

The subdivision regulations are available on the Tuscaloosa County website, www.tuscco.com

2. A list of post- construction structural controls installed and inspected during the permit year:

3. Updated inventory of post-construction structural controls including those owned by the permittee:

4. Number of inspections performed on post-construction structural controls:

An inspection was performed at Kings Ridge Phase II

See Appendix "H" for Subdivision Inspections

5. Summary of enforcement actions:

None

Responsible Party

Bob Cunningham

Tuscaloosa County Public Works Department

2810 35th Street

Tuscaloosa, Alabama 35401

205-345-6600

Reporting Mechanism

The reporting mechanism for documenting progress and results will be accomplished by summarizing work towards each stated goal in the annual report to the Alabama Department of Environmental Management.

Pollution Prevention and Good Housekeeping**For Municipal Operations****Minimum Control Measure #5**

General

The Pollution Prevention and Good Housekeeping for municipal operations minimum control measure is a key element of the small MS4 stormwater management program. This measure requires the county to examine and subsequently alter actions to help ensure a reduction in the amount and type of pollution that collects on parking lots, open spaces and storage and vehicle maintenance areas and is discharged into local waterways. It also requires the county to examine and subsequently alter actions to reduce pollution from actions such as environmentally damaging land development and flood management practices or poor maintenance of storm sewer systems. This measure is meant primarily to improve or protect receiving water quality by altering municipal or facility operations.

Permit Requirement

The Permittee must develop and implement a program for pollution prevention and good housekeeping for municipal operations.

Program Objective

While many of the stormwater management programs have focused on external entities, this section is directed internally on county operations. County activities can have a significant impact on stormwater quality, such as the operation of the county shop and road maintenance facilities. Fleet storage and maintenance as well as materials used in road maintenance require environmentally responsible stewardship. The objective of this section is to ensure effective pollution control principles to reduce or eliminate the potential for pollutants to enter the stormwater runoff as a result of county activities.

Program Description

The Tuscaloosa County Shop is the location of most activities that have the potential for pollutants to effect water quality. At this location fleet maintenance and storage requires the storage of chemicals and fluids that could be harmful to water quality.

Vehicle and equipment washing and cleaning is done in a covered wash rack area designed to contain contaminants. The wash rack has 3 internal sediment traps to collect pollutants before the liquid is pumped into an oil – water separator unit. This device removes petroleum based contaminants from the water. All vehicle and equipment cleaning is done in this wash facility. Used oil from fleet maintenance is collected and stored in above ground tanks. The collected oil is then burned during the cold weather months for heat in the shop using a heater designed for this purpose. Used antifreeze is collected in above ground tanks and removed from the site by a company specializing in recycling. Pesticides and herbicides stored on site are located in a covered facility. The empty containers are returned to the chemical distributor for re-use. Spill containment kits are kept at the shop facility as well as on the mobile service trucks.

Tuscaloosa County is engaged in activities that result in the disturbance of ground cover. These activities primarily involve road and bridge construction and maintenance. With training of supervisors in effective best management practices and the availability of materials and equipment to construct and maintain BMPs, the county employees are able to reduce or eliminate pollutants from entering the waterways.

Implementation Schedule

As presented in the Measurable Goals section, the training program put in place beginning in 2016.

Decision Process

The process of reviewing and implementing changes to the stormwater management program for activities under the control of the county is a sound practice. Through discussions with other local government agencies who are operating similar facilities and projects, ideas for further improvements will be noted and those that will benefit the county program considered for implementation. Training sessions that county employees attend will offer additional insights into effective measures to improve water quality.

Measurable Goals

2017-2019

Train new hires to the county shop in effective spill containment and cleanup by July.

Refresh the training of existing employees at the county shop in effective spill containment and cleanup.

2017

The County Shop will have a training session in the summer.

Responsible Party

Bob Cunningham

Tuscaloosa County Public Works Department

2810 35th Street

Tuscaloosa, Alabama 35401

205-345-6600

Reporting Mechanism

The reporting mechanism for documenting progress and results will be accomplished by summarizing work towards each stated goal in the annual report to the Alabama Department of Environmental Management.

Special Conditions:**Hurricane Creek:**

The county is aware that the creek has a TMDL for turbidity. We are unaware of any current development in the creek in our MS4. We have procedures in place that will inform us if there is a developer in the process of disturbing land with the potential to cause or contribute to the impairment of the creek. An erosion control plan would be required to detail the BMP's to be used.

Any development along the creek will be mentioned in the annual report in the time period that the work was done.

Additional items for Annual Report

On May13, 2016 40 employees attended a class on Cogon Grass.

See Appendix “I” for Cogon Grass Alabama Cooperative brochures

The county attended Clean Water Partnership meetings until disbanded.

See Appendix “J” for meeting minutes.

The county attended a meeting on March 31, 2017 that established the “Tuscaloosa Area Stormwater Working Group”. **See Appendix “K”**