

# CITY OF TUSCALOOSA PHASE II STORMWATER PROGRAM

# PERMIT YEAR FIVE ANNUAL REPORT MARCH 2007-MARCH 2008

# City of Tuscaloosa Office of the City Engineer

Walter P. Maddox, Mayor

Joseph A. Robinson, P.E. City Engineer

**Council Members** 

Bobby Howard - District 1 Harrison Taylor - District 2 Cynthia Almond - District 3 Lee Garrison - District 4 Kip Tyner - District 5 Bob Lundell - District 6 William Tinker - District 7

1000 28th Avenue, Tuscaloosa, Al. 35401 (205)349-0240 Fax (205)349-0341 E-mail cchristian@tuscaloosa.com

3/7/08

Alabama Department of Environmental Management Post Office Box 301463 Montgomery, AL 36130-1463 ATTN: Ms. Vernetta Palmer

RE: City of Tuscaloosa Phase II Stormwater Permit

**Annual Report** 

Dear Ms. Palmer:

Enclosed please find the Fifth Annual Report for the City of Tuscaloosa Stormwater Phase II NPDES Permit. We have extended our Public Education and Outreach efforts by completing an advertising campaign at a total cost of \$15,000. We also continued our participation in the stormwater treatment research study with the University of Alabama - a commercial version of the Upflow Filter is now installed and treating runoff from the Riverboat Landing parking lot and vicinity. Finally, we have shifted our outfall mapping efforts to the Survey Crew within the new Office of City Engineer. Please note that we are again requesting a few amendments to our NOI to allow additional time to train employees, complete outfall mapping, and finalize our Pollution Prevention Plan. We have recently received a proposal from a consultant to train not only our employees but also local builders and developers. We will initiate this effort within the next few months.

To avoid repetition of old material, I have only provided documentation in "Appendix E" that pertains to the efforts of the most recent permit year. Therefore, any documents referenced to be in the "Appendix" are contained in previous Appendices and are not duplicated in this volume. Feel free to contact me with any questions or if you should need additional information.

Chad P. Christian, P.E. Storm Drainage Engineer

# **Date Prepared: 03/07/2008**

For questions regarding this report contact: Chad Christian 1000 28th Avenue Tuscaloosa, AL 35401

Stormwater Program Permit Information					
1. Permitting Aut	hority: ADEM				
2. Permit Numbe	r: Unknown		3. Permit Type: General		
4. Permit Name:	Tuscaloosa Sma	I MS4 Permi	t		
5. Date Issue:	03/10/2003	74 (3)	6. Date Expire: 03/09/2008		

General Information for MS4 Operator					
1. Operator Name:	Walt Maddox				
2. Operator Title:	Mayor				
3. Represented Entity:	City of Tuscaloosa				
4. Mailing Address:	1000 28th Avenue				
5. Mail City, State, Zip:	Tuscaloosa, AL 35401				
6. Phone Number:					
7. E-Mail Address:		ч			
8. Co-Permitting With:					
9. Population: 80,000	Households:	0	Area (sq mi): 0		
10. Official Website:	•	•			

	General Information for Primary Contact Person
1. Name:	Chad Christian
2. Title:	Storm Drainage Engineer
3. Phone Number	(205) 349-0240
4. E-Mail Address:	

General Information for Secondary Contact Person			
1. Name:			
2. Title:			
3. Phone Number			
4. E-Mail Address:			

# **Plan Contents Summary**

The Stormwater Management Plan consists of the following Minimum Control Measures and BMPs:

Minimum Control Measures and	BMPs	
Public Education and Outreach		
Advertise Stormwater Hotline		
	03/10/2003	03/10/2004
Conduct Public Education		
	03/10/2003	03/10/2004
Develop Educational Resources		
	03/10/2003	03/10/2004
Expand Educational Resources		
	03/10/2005	03/10/2006
Storm Drain Stenciling		
	03/10/2004	03/10/2007
Public Participation/Involvemen	t	
Community Clean-Ups		
	03/09/2007	03/10/2008
Establish Citizen Volunteer Organization		
	03/10/2003	03/10/2004
Establish Citizen Watch Groups		
	03/10/2006	03/10/2007
Finalize Citizen Panel Recommendations		
	03/10/2004	03/10/2005
Public Awareness - Radio Media/Television		
	03/10/2004	03/10/2005
Public Meetings - Print Media	· · · · · · · · · · · · · · · · · · ·	
	03/10/2003	03/10/2004
Illicit Discharge Detection and Elimir	nation	<del> </del>
Illicit Discharge Detection and Elimination		<del>.,</del>
	03/10/2004	03/10/2007
Illicit Discharge Employee Training		
	03/10/2003	03/10/2008
Implement Illicit Discharge Tracking System		
	03/10/2003	03/10/2004
Ordinance/Regulatory Mechanism Evaluation		
	03/10/2003	03/10/2006
Recycling Program		
	03/10/2003	03/10/2005
Sewer System Map	00/10/2000	1-07 - 07 2000
Control Cystonii Wilap	03/10/2003	12/09/2006
Operation Olds Down # Operation		.2,00,2000
Construction Site Runoff Contro	)I	

Statewide Program Established		T
Post-Construction Runo	ff Control	
Identification of BMP's		
	03/10/2003	03/10/2004
Ordinance Evaluation		
	03/10/2004	03/10/2006
Publication of BMP's		
	03/10/2004	03/10/2005
Statewide Program Established		
Pollution Prevention/Good H	lousekeeping	
Develop Pollution Prevention Plan		
	03/10/2003	03/10/2008
Employee Training Materials		
	03/10/2003	03/10/2004
Implement Information Management System		
	03/10/2003	03/10/2004
Pollution Prevention/Housekeeping Effectiveness		
	03/10/2004	03/10/2008
Train Employees		
	03/10/2004	03/10/2008

# **Public Education and Outreach**

### **Descriptive Text:**

To satisfy this minimum control measure, the operator of a regulated small MS4 needs to:

- 1. Implement a public education program to distribute educational materials to the community, or conduct equivalent outreach activities about the impacts of storm water discharges on local waterbodies and the steps that can be taken to reduce storm water pollution; and
- 2. Determine the appropriate best management practices (BMPs) and measurable goals for this minimum control measure.

An informed and knowledgeable community is crucial to the success of a storm water management program since it helps to ensure the following:

- 1. Greater support for the program as the public gains a greater understanding of the reasons why it is necessary and important. Public support is particularly beneficial when operators of small MS4s attempt to institute new funding initiatives for the program or seek volunteers to help implement the program; and
- 2. Greater compliance with the program as the public becomes aware of the personal responsibilities expected of them and others in the community, including the individual actions they can take to protect or improve the quality of area waters.

### Number of BMPs associated with control measure:

5

### **Important Dates:**

Earliest Start Date: 03/10/2003

End Date:

03/10/2007

#### Details of BMPs and Work Performed for Them

#### Advertise Stormwater Hotline

Responsible Party: Unknown, Unknown

Start Date: 03/10/2003 End Date: 03/10/2004

Permits Years during which activities are scheduled:

Year 1 X

Year 2

Year 3

Year 4

Year 5

Name of Separate Implementing Entity:

Unknown

BMP Description:

Advertise the Stormwater Hotline once established. This will promote citizen interest and participation in the stormwater management plan and establish a direct link from the community and stakeholders to the program.

Has Goal Been Accomplished: YES

#### Work Perform d

Date: 03/11/2005

Responsible Party: Chad Christian, Storm Drainage Engineer

3rd Year Distribution of Phase II Brochure

Approximately 500 additional copies of existing Phase II brochure distributed during permit year 3 at various small public meetings and speaking engagements. Refer to Appendix B of Permit Year 2 Annual Report for sample copy.

Date: 03/11/2006

Responsible Party:

4th Year Advertisement of Hotline

Distributed Countywide brochure containing Stormwater Hotline information to 77,727 households. A copy of the brochure is included in Appendix D.

Date: 08/03/2007

Responsible Party: Chad Christian, Storm Drainage Engineer

5th Year Advertisement of Hotline

The Stormwater Hotline was advertised via the 2007 Stormwater Phase II Media Campaign. A copy of the Council Resoultion and Advertising Plan are included in the Appendix.

Date: 03/11/2004

Responsible Party: Chad Christian, Storm Drainage Engineer

Continued Distribution of Phase II Brochure

Approximately 1000 additional copies of existing Phase II brochure distributed during permit year 2 at various small public meetings and speaking engagements. Refer to Appendix B of Permit Year 2 Annual Report for sample copy.

Date: 07/02/2003

Responsible Party: Chad Christian, Unknown

Started Distribution of Phase II Brochure

Began distribution of Tuscaloosa stormwater brochure with contact information and telephone number. Approximately 1000 copies distributed to date at numerous small public meetings and speaking engagements as well as the major presentations listed.

#### **Conduct Public Education**

Responsible Party: Unknown, Unknown

Start Date: 03/10/2003 End Date: 03/10/2004

Permits Years during which activities are scheduled:

Year 1 X

Year 2 X

Year 3 X

Year 4 X

Year 5

Name of Separate Implementing Entity:

Unknown

#### BMP Description:

Speak at seminars and public meetings to raise awareness of the City's Phase II program and begin education of the public concerning BMP's. Distribute brochures and other educational materials.

Has Goal Been Accomplished: NO

# Work Performed

Date: 03/09/2005

Responsible Party:

"Our Great Lake" Media Campaign Initiated

A multiyear media campaign has been funded during Permit Year Two to raise public awareness about watershed issues and to protect Lake Tuscaloosa, our local drinking water source. The campaign has entailed radio, newspaper, and billboard advertisement and watershed signs within the Lake Tuscaloosa Watershed. In addition, the website www.ourgreatlake.org was established. Refer to Appendix B for details of this campaign.

Date: 08/03/2007

Responsible Party: Chad Christian, Storm Drainage Engineer

2007 Stormwater Media Campaign

Public Education was achieved via the 2007 Stormwater Phase II Media Campaign. A copy of the Council Resoultion and Advertising Plan are included in the Appendix.

Date: 03/11/2005

Responsible Party: Chad Christian, Storm Drainage Engineer

Continue "Our Great Lake" Media Campaign

A multiyear media campaign was been funded during Permit Year Two to raise public awareness about watershed issues and to protect Lake Tuscaloosa, our local drinking water source. The campaign has entailed radio, newspaper, and billboard advertisement and watershed signs within the Lake Tuscaloosa Watershed. In addition, the website www.ourgreatlake.org was established. Refer to Appendix B of Permit Year Two Annual Report for details of this campaign. This campaign continued through Permit Year Three and is still active for upcoming Permit Year Four.

Date: 03/11/2005

Responsible Party: Chad Christian, Storm Drainage Engineer

Continue Stormwater Media Campaign

An \$18,000 "Stormwater Media Campaign" contract was authorized by the Tuscaloosa City Council on 9/23/04. This contract led to the creation and running of stormwater education print, radio, and television advertisement. This contract was completed in Permit Year 3. Please refer to Appendix B of the Permit Year Two Annual Report for examples and details of this campaign. Also please refer to Appendix C of this report for details of the ads run during Permit Year Three. A new larger campaign will be initiated in Permit Year Four to increase media exposure.

Date: 10/10/2003

Responsible Party: Bennett Bearden, Unknown

Legal Aspects of Phase II Speech

Speech conducted and paper presented to ABICLE "What Every Real Estate Lawyer Needs to Know" Conference covering all legal aspects of the EPA Phase II Program as it relates to affected municipalities.

Date: 09/23/2004

Responsible Party: Chad Christian, Storm Drainage Engineer

Media Campaign Initiated

An \$18,000 "Stormwater Media Campaign" contract was authorized by the Tuscaloosa City Council on 9/23/04. This contract has led to the creation and running of stormwater education print, radio, and television advertisement. Please refer to Appendix B for examples and details of this campaign.

Date: 08/27/2003

Responsible Party: Chad Christian, Unknown

**NEMO Presentation** 

Gave NEMO Presentation to Alabama Genernal Contractors Seminar "Employee Training for Inspecting BMPs". Copy of meeting notice included in Appendix.

Date: 06/22/2005

Responsible Party: Chad Christian, Storm Drainage Engineer

Presentation at Weeks Bay Nonpoint Pollution Seminar

A presentation detailing the City of Tuscaloosa's Stormwater Phase II compliance program was given

to the 2005 Weeks Bay Nonpoint Source Pollution and Stormwater Workshop at Weeks Bay National Estaurine Reserve. A copy of the program agenda is included in Appendix C.

Date: 05/10/2006

Responsible Party:

Produce and Distribute Countywide Brochure

A joint funding agreement was executed with Tuscaloosa County and the City of Northport to produce and distribute an educational brochure to every household within the County. A total of 77,727 brochures were mailed out in January and February 2007. A copy of the brochure is included in Appendix D.

Date: 03/02/2004

Responsible Party: Joe Robinson, Unknown

Speech to Local Realtor's Meeting

Delivered talk to Tuscaloosa Realtor's group and distributed ordinance and brochures.

Date: 06/25/2003

Responsible Party: Chad Christian, Unknown

Tuscaloosa Phase II Presentation

Delivered Model Community presentation on details of the City of Tuscaloosa Phase II Program. Copy of meeting notice included in Appendix.

Date: 02/11/2004

Responsible Party: Chad Christian, Unknown

WaterQuest Presentation

Conducted presentation on the Tuscaloosa Phase II Program at WaterQuest Nonpoint Source Watershed Forum and distributed ordinance, brochures, legal paper, and outfall mapping requirements. Copy of meeting notice included in Appendix.

#### Develop Educational Resources

Responsible Party: Unknown, Unknown

Start Date: 03/10/2003

End Date: 03/10/2004

Permits Years during which activities are scheduled:

Year 1 X

Year 2

Year 3

Year 4

Year 5

Name of Separate Implementing Entity:

Unknown

BMP Description:

Develop or collect existing brochures, fact sheets, print advertisements, radio and television media, and other educational materials to build a stormwater toolbox. Identify volunteer educators to be used for public education programs.

Has Goal Been Accomplished: YES

#### Work Performed

Date: 10/10/2003

Responsible Party: Bennett Bearden, Unknown

Created Educational Paper on Legal Aspects of Phase II

Paper written for educational effort covering the legal aspects of the Phase II program. Presented originally to real estate seminar and subsequently distibuted at WaterQuest 2004. Copy included in Appendix B of Permit Year Two Annual Report.

Date: 07/02/2003

Responsible Party: Chad Christian, Unknown

Created Tuscaloosa Phase II Brochure

Printed first run of City of Tuscaloosa Stormwater brochures. Brochure was created based on an EPA example brochure. Sample copy included in Appendix B of Permit Year Two Annual Report.

#### Expand Educational Resources

Responsible Party: Unknown, Unknown

Start Date: 03/10/2005

End Date: 03/10/2006

Permits Years during which activities are scheduled:

Year 1

Year 2

Year 3 X

Year 4

Year 5

Name of Separate Implementing Entity:

Unknown

BMP Description:

Develop a school curricula to educate students about stormwater issues. Create an informational website describing the City of Tuscaloosa Stormwater Management Plan.

Has Goal Been Accomplished: YES

#### Wo k erformed

Date: 09/23/2004

Responsible Party: Chad Christian, Storm Drainage Engineer

Developed Additional Print, Radio and TV Ads and Logos

New logos and a series of new radio, print, and television ads were developed as part of a graphic design and media campaign contract with Southern Digital Design. Some ads were based on materials previously obtained from the ADEM OEO and some work was designed specifically for the City of Tuscaloosa. One major television ad was used with the permission of Salt Lake County, Utah, who originated the ad. Refer to Appendix B of Permit Year Two Annual Report for examples.

Date: 06/01/2004

Responsible Party: Chad Christian, Storm Drainage Engineer

**Obtained Grade School Educational Materials** 

City Engineer Joe Robinson obtained Stormwater educational materials for school children through Patti Hurley with the ADEM Office of Education and Outreach.

#### Storm Drain Stenciling

Responsible Party: Unknown, Unknown

Start Date: 03/10/2004

End Date: 03/10/2007

Permits Years during which activities are scheduled:

Year 1

Year 2 X

Year 3 X

Year 4 X

Year 5

Name of Separate Implementing Entity:

Unknown

BMP Description:

Stencil storm drain tops with messages like "Do Not Dump - Drains to River". Utilize volunteer groups to help accomplish this task.

Has Goal Been Accomplished: NO

#### Work Performed

Date: 03/06/2005

Responsible Party: Chad Christian, Storm Drainage Engineer

Storm Drain Lids Cast with Permanent "NO DUMPING" Message

Obtained specifications for storm drain lids with "No Dumping - Drains to Waterways" message permanently cast in center. Several City projects have already utilized these new manhole covers - example and specifications in Appendix B of Year Two Annual Report. The subdivision regulations will be amended during Permit Year Four to require these inlet/junction box tops on all City projects and possibly all construction projects within the City Planning Jurisdiction.

# **Public Participation/Involvement**

# **Descriptive Text:**

To satisfy this minimum control measure, the operator of a regulated small MS4 must:

1. Comply with applicable State, Tribal, and local public notice requirements; and

2. Determine the appropriate best management practices (BMPs) and measurable goals for this minimum control measure.

EPA believes that the public can provide valuable input and assistance to a regulated small MS4's municipal storm water management program and, therefore, suggests that the public be given opportunities to play an active role in both the development and implementation of the program. An active and involved community is crucial to the success of a storm water management program because it allows for:

- 1. Broader public support since citizens who participate in the development and decision making process are partially responsible for the program and, therefore, may be less likely to raise legal challenges to the program and more likely to take an active role in its implementation;
- 2. Shorter implementation schedules due to fewer obstacles in the form of public and legal challenges and increased sources in the form of citizen volunteers:
- 3. A broader base of expertise and economic benefits since the community can be a valuable, and free, intellectual resource; and
- 4. A conduit to other programs as citizens involved in the storm water program development process provide important cross-connections and relationships with other community and government programs. This benefit is particularly valuable when trying to implement a storm water program on a watershed basis, as encouraged by EPA.

# Number of BMPs associated with control measure:

6

### **Important Dates:**

Earliest Start Date: 03/10/2003

End Date: 03/10/2008

#### Details of BMPs and Work Performed for Them

Community Clean-Ups

Responsible Party: Unknown, Unknown

Start Date: 03/09/2007 End Date: 03/10/2008

Permits Years during which activities are scheduled:

Year 1

Year 2

Year 3

Year 4

Year 5 X

Name of Separate Implementing Entity:

Unknown

BMP Description:

Plan and schedule community clean-ups for ordinary citizens to gain hands-on experience while cleaning stream segments of trash and debris. Coordinate through the Citizen Panel.

Has Goal Been Accomplished: NO

# Work⊞erorned

Date: 03/11/2007 Responsible Party: Chad Christian, Storm Drainage Engineer

Amend NOI to Move Goal to Permit Year Five

We would like to move this Goal to Permit Year Five and coordinate Cleanups through TDOT rather than a Citizen Panel.

Date: 03/10/2008

Responsible Party: Chad Christian, Storm Drainage Engineer

Amend NOI to Move Goal to Permit Year Six

We would like to move this Goal to Permit Year Six and coordinate Cleanups through the new Office of City Engineer rather than TDOT.

#### **Establish Citizen Volunteer Organization**

Responsible Party: Unknown, Unknown

Start Date: 03/10/2003

End Date: 03/10/2004

Permits Years during which activities are scheduled:

Year 1

Year 2

Year 3 X

Year 4

Year 5

Name of Separate Implementing Entity:

Unknown

BMP Description:

Create a citizen group to provide input from various viewpoints concerning storm water management policies and BMPs. Use the group to assist with water quality monitoring and location of outfalls, identifying illicit discharges, and stenciling storm drains.

Has Goal Been Accomplished: NO

#### Work Performed

Date: 03/08/2005

Responsible Party: Chad Christian, Unknown

Amend NOI to Move Goal to Permit Year Three

We have not accomplished this task and wish to move this goal to Permit Year Three.

Date: 03/11/2006

Responsible Party: Chad Christian, Storm Drainage Engineer

Amend NOI to Remove Goal

We have not gained traction with this effort and believe that focusing on broad advertisement of the Stormwater Hotline and expanding the Public Awareness Media Campaign will achieve acceptable Public Participation and Involvement.

#### Establish Citizen Watch Groups

Responsible Party: Unknown, Unknown

End Date: 03/10/2007 Start Date: 03/10/2006 Permits Years during which activities are scheduled: Year 2 Year 4 X Year 5 Year 1 Year 3 Name of Separate Implementing Entity: Unknown BMP Description: Establish citizen watch groups and/or work with existing groups to monitor watersheds for potential and existing impacts to water quality. Has Goal Been Accomplished: NO Work Performed Date: 03/09/2008 Responsible Party: Amend NOI to Move Goal to Permit Year Six We have established working relationships with active local watershed groups. We will form a broader citizen-based group as we continue our Outreach efforts. Finalize Citizen Panel Recommendations Responsible Party: Unknown, Unknown Start Date: 03/10/2004 End Date: 03/10/2005 Permits Years during which activities are scheduled: Year 5 Year 1 Year 2 Year 3 X Year 4 Name of Separate Implementing Entity: Unknown BMP Description: Compile the final recommendations of the Citizen Panel and publish the results. Make copies of the report freely available to the citizens. Has Goal Been Accomplished: NO Work Performed Date: 03/08/2005 Responsible Party: Amend NOI to Move Goal to Permit Year Three We have not accomplished this task and wish to move this goal to Permit Year Three. Date: 03/11/2006 Responsible Party: Chad Christian, Storm Drainage Engineer Amend NOI to Remove Goal We have not gained traction with this effort and believe that focusing on broad advertisement of the Stormwater Hotline and expanding the Public Awareness Media Campaign will achieve acceptable Public Participation and Involvement. Public Awareness - Radio Media/Television Responsible Party: Unknown, Unknown End Date: 03/10/2005 Start Date: 03/10/2004 Permits Years during which activities are scheduled: Year 5 Year 2 X Year 3 Year 4 Year 1 Name of Separate Implementing Entity: Unknown BMP Description: Radio and television spots promoting personal responsibility for compliance with the stormwater

program and/or informing the public about the construction permit process.

Has Goal Been Accomplished: YES

#### Work Performed

Date: 08/03/2007 Res

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Responsible Party: Chad Christian, Storm Drainage Engineer

2007 Stormwater Media Campaign

Public Awareness was increased via the 2007 Stormwater Phase II Media Campaign. A copy of the Council Resoultion and Advertising Plan are included in the Appendix.

Date: 03/11/2006

Responsible Party: Chad Christian, Storm Drainage Engineer

Continue Stormwater Media Campaign

An \$18,000 "Stormwater Media Campaign" contract was authorized by the Tuscaloosa City Council on 9/23/04. This contract led to the creation and running of stormwater education print, radio, and television advertisement. This contract was completed in Permit Year 3. Please refer to Appendix B of the Permit Year Two Annual Report for examples and details of this campaign. Also please refer to Appendix C of this report for details of the ads run during Permit Year Three. A new larger campaign will be initiated in Permit Year Four to increase media exposure.

Date: 09/23/2004

Responsible Party: Chad Christian, Storm Drainage Engineer

Media Campaign Initiated

An \$18,000 "Stormwater Media Campaign" contract was authorized by the Tuscaloosa City Council on 9/23/04. This contract has led to the creation and running of stormwater education print, radio, and television advertisement. Please refer to Appendix B for examples and details of this campaign.

#### Public Meetings - Print Media

Responsible Party: Unknown, Unknown

Start Date: 03/10/2003

End Date: 03/10/2004

Permits Years during which activities are scheduled:

Year 1

Year 2

Year 3 X

Year 4

Year 5

Name of Separate Implementing Entity:

Unknown

BMP Description:

Notify citizens of public meetings in several different print media.

Has Goal Been Accomplished: NO

#### Work Performed

Date: 03/08/2005

Responsible Party: Chad Christian, Unknown

Amend NOI to Move Goal to Permit Year Three

We have not accomplished this task and wish to move this goal to Permit Year Three.

Date: 03/11/2006

Responsible Party: Chad Christian, Storm Drainage Engineer

Amend NOI to Remove Goal

We have not gained traction with this effort and believe that focusing on broad advertisement of the Stormwater Hotline and expanding the Public Awareness Media Campaign will achieve acceptable Public Participation and Involvement.

# Illicit Discharge Detection and Elimination

# **Descriptive Text:**

Recognizing the adverse effects illicit discharges can have on receiving waters, the final rule requires an operator of a regulated small MS4 to develop, implement and enforce an illicit discharge detection and elimination program. This program must include the following:

- 1. A storm sewer system map, showing the location of all outfalls and the names and location of all waters of the United States that receive discharges from those outfalls;
- 2. Through an ordinance, or other regulatory mechanism, a prohibition (to the extent allowable under State, Tribal, or local law) on non-storm water discharges into the MS4, and appropriate enforcement procedures and actions:
- 3. A plan to detect and address non-storm water discharges, including illegal dumping, into the MS4;
- 4. The education of public employees, businesses, and the general public about the hazards associated with illegal discharges and improper disposal of waste; and
- 5. The determination of appropriate best management practices (BMPs) and measurable goals for this minimum control measure.

Discharges from MS4s often include wastes and wastewater from non-storm water sources. A study conducted in 1987 in Sacramento, California, found that almost one-half of the water discharged from a local MS4 was not directly attributable to precipitation runoff. A significant portion of these dry weather flows were from illicit and/or inappropriate discharges and connections to the MS4. Illicit discharges enter the system through either direct connections (e.g., wastewater piping either mistakenly or deliberately connected to the storm drains) or indirect connections (e.g., infiltration into the MS4 from cracked sanitary systems, spills collected by drain outlets, or paint or used oil dumped directly into a drain). The result is untreated discharges that contribute high levels of pollutants, including heavy metals, toxics, oil and grease, solvents, nutrients, viruses, and bacteria to receiving waterbodies. Pollutant levels from these illicit discharges have been shown in EPA studies to be high enough to significantly degrade receiving water quality and threaten aquatic, wildlife, and human health.

# Number of BMPs associated with control measure:

# **Important Dates:**

Earliest Start Date: 03/10/2003

End Date:

03/10/2008

#### Details of BMPs and Work Performed for Them

#### Illicit Discharge Detection and Elimination

Responsible Party: Unknown, Unknown

Start Date: 03/10/2004 End Date: 03/10/2007

Permits Years during which activities are scheduled:

Year 1

Year 2 X

Year 3 X

Year 4 X

Year 5

Name of Separate Implementing Entity:

Unknown

BMP Description:

Utilizing the System Map and Illicit Discharge Information Management System, begin systematic inspection of outfall lines to identify potential problems. After identifying actual illicit connections, take steps to eliminate them and report the action taken and results.

Has Goal Been Accomplished: NO

# Work Performed



Date: 03/10/2005

Responsible Party: Chad Christian, Storm Drainage Engineer

Continued Inspection and Enforcement

Inspection and Enforcement efforts were increased during Permit Year Three.

Date: 03/11/2006

Responsible Party:

Continued Inspection and Enforcement Increased

Inspection and enforcement efforts were ramped up again in Permit Year Four. At this point most builders and contractors are aware of BMP requirements and are actively complying.

Date: 03/11/2004

Responsible Party: Chad Christian, Storm Drainage Engineer

Inspection and Enforcement Activities Increased

A core group of TDOT employees were trained during Permit Year Two to increase our inspection and enforcement activities. Subdivision, homebuilding, and site development activities are monitored and the correction of BMP deficiencies is required as identified. Tips or complaints recieved through the stormwater hotline are acted on accordingly. We plan to train additional employees and continue to ramp up inspection and enforcement activity during Permit Year Three.

Date: 03/10/2007

Responsible Party:

Inspection and Enforcement Increased

Inspection and enforcement efforts were ramped up again in Permit Year Five. Unfortunately, we experienced numerous lapses in compliance by local developers and builders. We are currently revamping Education efforts for City staff and the private sector and are making changes to the City code to make enforcement easier, more punitive, and more rapid.

#### Illicit Discharge Employee Training

Responsible Party: Unknown, Unknown

Start Date: 03/10/2003

End Date: 03/10/2008

Permits Years during which activities are scheduled:

Year 1 X

Year 2 X

Year 3 X

Year 4 X

Year 5 X

Name of Separate Implementing Entity:

Unknown

BMP Description:

Design and administer a training program for employees to teach them to recognize and document potential illicit discharges.

Has Goal Been Accomplished: NO

#### Work Performed

Date: 01/03/2005

Responsible Party: Chad Christian, Storm Drainage Engineer

Initiated Employee Training

A core group of employees has been trained and consequently our inspection and enforcement activities have been ramped up during Permit Year Two. Additional employees were trained during Permit Year Three and Four to expand these efforts. We will continue this training throughout Permit Year Five and therefore need to amend our NOI to reflect this continued training activity. A need for more technical training as well as training of members of the private sector has become evident. To better achieve this goal we will hire an outside consultant. A copy of a the consultant's proposal is included in the Appendix.

#### Implement Illicit Discharge Tracking System

Responsible Party: Unknown, Unknown

Start Date: 03/10/2003 End Date: 03/10/2004

Permits Years during which activities are scheduled:

Year 1 X

Year 2

Year 3

Year 4

Year 5

Name of Separate Implementing Entity:

Unknown

BMP Description:

Implement an information management system to gather and document all information concerning illicit discharge detention and elimination. Summarize results including outfalls screened, number of illicit discharges discovered through screening or complaints, and illicit discharges resolved.

Has Goal Been Accomplished: YES

#### Work Performed

Date: 01/01/2003

Responsible Party: Chad Christian, Unknown

ASIST Software Implemented

ASIST Software Suite purchased and implemented. Description of software capabilities included in Appendix of Year One Annual Report.

#### Ordinance/Regulatory Mechanism Evaluation

Responsible Party: Unknown, Unknown

Start Date: 03/10/2003

End Date: 03/10/2006

Permits Years during which activities are scheduled:

Year 1 X

Year 2 X

Year 3 X

Year 4

Year 5

Name of Separate Implementing Entity:

Unknown

BMP Description:

March 2004

Evaluate existing ordinances/regulations

Prepare draft of revised ordinances/regulations

March 2005

Gather stakeholder comments and other input

March 2006

Revise and enact new ordinances and regulations

Has Goal Been Accomplished: YES

#### Work Performed

Date: 02/03/2004

Responsible Party: Tuscaloosa City Council, Unknown

Ordinance Adopted

A new ordinance was written with input from various stakeholder groups. It evolved over 9 drafts and assimilated concerns of the stakeholders. The final version of the Tuscaloosa Phase II ordinance was adopted by the City Council on February 3, 2004. A copy of the ordinance as adopted is included in the Appendix of Permit Year One Annual Report.

#### **Recycling Program**

Responsible Party: Unknown, Unknown

Permits Years during which activities are scheduled:

Year 1 X Year 2 X Year 3 Year 4 Year 5

Name of Separate Implementing Entity:

Unknown

BMP Description:

Initiate or publicize an existing recycling program to collect commonly dumped wastes such as antifreeze, motor oil, paint, and pesticides.

Has Goal Been Accomplished: YES

#### Work Performed

Date: 03/11/2004 Responsible Party:

Continued Growth of Recycling Program

The Environmental Services Department of the City of Tuscaloosa has expanded the Recycling Program during Permit Year Two as follows:

The program currently serves 6000 residences and will add another 2000 in April 2005. To promote recycling, three different radio and television ads are run throughout the year and an educational brochure is distributed. Additional outreach is performed by speaking at public meetings and an educational program is presented to grades K-12 in the local schools. Please refer to Appendix B for additional details and sample educational materials.

#### Sewer System Map

Responsible Party: Unknown, Unknown

Start Date: 03/10/2003 End Date: 12/09/2006

Permits Years during which activities are scheduled:

Year 1 X Year 2 X Year 3 X Year 4 X Year 5

Name of Separate Implementing Entity:

Unknown

BMP Description:

20% of system mapped March 2004

50% of system mapped March 2005

80% of system mapped March 2006

100% of system mapped November 2006

Has Goal Been Accomplished: NO

#### Work Performed

Date: 03/10/2007 Responsible Party: Chad Christian, Storm Drainage Engineer

Additional Mapping in Permit Year Five

Additional GPS outfall mapping was performed in Permit Year Five and is reflected in the Electronic Outfall Map reviewed during the Compliance Visit on 7/12/2007. The newly formed Office of City

Engineer will complete our outfall mapping with the City surveying crew. Date: 03/11/2006 Responsible Party: Additional Mapping in Permit Year Four Additional GPS outfall mapping was performed in Permit Year Four and is reflected in the System Map Submitted at the end of 2006. We will continue mapping in Permit Year Five to gather all Outfall data as required. Date: 08/05/2003 Responsible Party: Chad Christian, Unknown Began Outfall Mapping Tuscaloosa City Council authorizes contract with local engineering firm to undertake GPS mapping of outfalls. Copy of Council action and description of data collected for each outfall is included in the Appendix. 275 outfalls have been surveyed to date; this represents approximately 20% of the total number of outfalls that will eventually be identified. The contract will be amended to continue in the 2004 permit year. Date: 03/11/2004 Responsible Party: Chad Christian, Storm Drainage Engineer Continued System Mapping The existing Engineering Contract was extended to continue mapping efforts in Permit Year Two and beyond. During Permit Year Three we plan to generate the first map for showing outfall locations. Date: 03/10/2005 Responsible Party: Chad Christian, Storm Drainage Engineer Further System Mapping During Permit Year Three mapping was continued. For Permit Year Four we plan to add GIS functionality for our outfall maps.

# **Construction Site Runoff Control**

### **Descriptive Text:**

The Phase II Final Rule requires an operator of a regulated small MS4 to develop, implement, and enforce a program to reduce pollutants in storm water runoff to their MS4 from construction activities that result in a land disturbance of greater than or equal to one acre.

The small MS4 operator is required to:

- 1. Have an ordinance or other regulatory mechanism requiring the implementation of proper erosion and sediment controls, and controls for other wastes, on applicable construction sites;
- 2. Have procedures for site plan review of construction plans that consider potential water quality impacts;
- 3. Have procedures for site inspection and enforcement of control measures;
- 4. Have sanctions to ensure compliance (established in the ordinance or other regulatory mechanism);
- 5. Establish procedures for the receipt and consideration of information submitted by the public; and
- 6. Determine the appropriate best management practices (BMPs) and measurable goals for this minimum control measure.

Polluted storm water runoff from construction sites often flows to MS4s and ultimately is discharged into local rivers and streams. Of the pollutants listed in Table 1, sediment is usually the main pollutant of concern. Sediment runoff rates from construction sites are typically 10 to 20 times greater than those of agricultural lands, and 1,000 to 2,000 times greater than those of forest lands. During a short period of time, construction sites can contribute more sediment to streams than can be deposited naturally

during several decades. The resulting siltation, and the contribution of other pollutants from construction sites, can cause physical, chemical, and biological harm to our nation's waters. For example, excess sediment can quickly fill rivers and lakes, requiring dredging and destroying aquatic habitats.

# Table 1 Pollutants Commonly Discharged From Construction Sites

Sediment
Solid and sanitary wastes
Phosphorous (fertilizer)
Nitrogen (fertilizer)
Pesticides
Oil and grease
Concrete truck washout

# Number of BMPs associated with control measure:

0

# **Important Dates:**

Earliest Start Date:

End Date:

# **Post-Construction Runoff Control**

# **Descriptive Text:**

April 2 April 19

The Phase II Final Rule requires an operator of a regulated small MS4 to develop, implement, and enforce a program to reduce pollutants in post-construction runoff to their MS4 from new development and redevelopment projects that result in the land disturbance of greater than or equal to 1 acre. The small MS4 operator is required to:

- 1. Develop and implement strategies which include a combination of structural and/or non-structural best management practices (BMPs);
- 2. Have an ordinance or other regulatory mechanism requiring the implementation of post-construction runoff controls to the extent allowable under State, Tribal or local law,
- 3. Ensure adequate long-term operation and maintenance of controls;
- 4. Determine the appropriate best management practices (BMPs) and measurable goals for this minimum control measure.

Post-construction storm water management in areas undergoing new development or redevelopment is necessary because runoff from these areas has been shown to significantly effect receiving waterbodies. Many studies indicate that prior planning and design for the minimization of pollutants in post-construction storm water discharges is the most cost-effective approach to storm water quality management.

There are generally two forms of substantial impacts of post-construction runoff. The first is caused by an increase in the type and quantity of pollutants in storm water runoff. As runoff flows over areas altered by development, it picks up harmful sediment and chemicals such as oil and grease, pesticides, heavy metals, and nutrients (e.g., nitrogen and phosphorus). These pollutants often become suspended in runoff and are carried to receiving waters, such as lakes, ponds, and streams. Once deposited, these pollutants can enter the food chain through small aquatic life, eventually entering the tissues of fish and humans. The second kind of post-construction runoff impact occurs by increasing the quantity of water delivered to the waterbody during storms. Increased impervious surfaces interrupt the natural cycle of gradual percolation of water through vegetation and soil. Instead, water is collected from surfaces such as asphalt and concrete and routed to drainage systems where large volumes of runoff quickly flow to the nearest receiving water. The effects of this process include streambank scouring and downstream flooding, which often lead to a loss of aquatic life and damage to property.

# Number of BMPs associated with control measure:

3

### Important Dates:

Earliest Start Date: 03/10/2003

End Date:

03/10/2006

#### Details of BMPs and Work Performed for Them

Identification of BMP's

Responsible Party: Unknown, Unknown

Start Date: 03/10/2003 End Date: 03/10/2004

Permits Years during which activities are scheduled:

Year 1 X Year 2 Year 3

Year 4

Year 4

Year 5

Year 5

Name of Separate Implementing Entity:

Unknown

BMP Description:

Identify and catalog a mix of effective BMPs tailored to the geography and rainfall patterns of Tuscaloosa. Utilize existing manuals or guidance available from regulatory bodies when possible.

Has Goal Been Accomplished: YES

# Work Performed

Responsible Party: Tuscaloosa City Council, Unknown Date: 02/03/2004

**BMP Manual Adopted** 

Tuscaloosa City Council adopted Alabama Handbook for Erosion Control, Sediment Control, and Storm Water Management on Construction Sites and Urban Areas.

Year 3 X

#### Ordinance Evaluation

Responsible Party: Unknown, Unknown

Start Date: 03/10/2004 End Date: 03/10/2006

Permits Years during which activities are scheduled:

Year 1 X Year 2 X

Name of Separate Implementing Entity:

Unknown

BMP Description:

March 2004

Evaluate existing ordinances/regulations

Prepare draft of revised ordinances/regulations

March 2005

Gather stakeholder comments and other input

March 2006

Revise and enact new ordinances and regulations

Has Goal Been Accomplished: YES

#### Work Performed

Responsible Party: Tuscaloosa City Council, Unknown Date: 02/03/2004

Ordinance Adopted

A new ordinance was written with input from various stakeholder groups. It evolved over 9 drafts and assimilated concerns of the stakeholders. The final version of the Tuscaloosa Phase II ordinance was adopted by the City Council on February 3, 2004. A copy of the ordinance as adopted is included in the Appendix.

#### Publication of BMP's

Responsible Party: Unknown, Unknown

End Date: 03/10/2005 Start Date: 03/10/2004

Permits Years	during which	ch activities are sch	eduled:			
	Year 1	Year 2 X	Year 3	Year 4	Year 5	
Name of Sepa Unknown	rate Implen	nenting Entity:				
BMP Descripti Distribute the		leveloped BMP Ma	nual to develor	pers, municipal st	aff and interested	citizens.
Has Goal Beer	<u>-</u>	<del></del>	<del></del>	···		
		y W	ork Performe	d J-3		W.C.
Date: 01/03/20	005 F	Responsible Party:	Chad Christian	, Storm Drainage	Engineer	
	es of the ad	ide Available dopted BMP manua Tuscaloosa Depart			ade available for po	ublic

# Pollution Prevention/Good Housekeeping

### Descriptive Text:

Recognizing the benefits of pollution prevention practices, the rule requires an operator of a regulated small MS4 to:

- 1. Develop and implement an operation and maintenance program with the ultimate goal of preventing or reducing pollutant runoff from municipal operations into the storm sewer system;
- 2. Include employee training on how to incorporate pollution prevention/good housekeeping techniques into municipal operations such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance. To minimize duplication of effort and conserve resources, the MS4 operator can use training materials that are available from EPA, their State or Tribe, or relevant organizations;
- 3. Determine the appropriate best management practices (BMPs) and measurable goals for this minimum control measure.

The Pollution Prevention/Good Housekeeping for municipal operations minimum control measure is a key element of the small MS4 storm water management program. This measure requires the small MS4 operator to examine and subsequently alter their own actions to help ensure a reduction in the amount and type of pollution that: (1) collects on streets, parking lots, open spaces, and storage and vehicle maintenance areas and is discharged into local waterways; and (2) results from actions such as environmentally damaging land development and flood management practices or poor maintenance of storm sewer systems. While this measure is meant primarily to improve or protect receiving water quality by altering municipal or facility operations, it also can result in a cost savings for the small MS4 operator, since proper and timely maintenance of storm sewer systems can help avoid repair costs from damage caused by age and neglect.

# Number of BMPs associated with control measure:

5

# <u>Important Dates:</u>

Earliest Start Date: 03/10/2003

End Date:

03/10/2008

#### Details of BMPs and Work Performed for Them

#### **Develop Pollution Prevention Plan**

Responsible Party: Unknown, Unknown

Start Date: 03/10/2003 End Date: 03/10/2008

Permits Years during which activities are scheduled:

Year 1 X

Year 2 X

Year 3 X

Year 4 X

Year 5 X

Name of Separate Implementing Entity:

Unknown

BMP Description:

Develop a comprehensive Pollution Prevention Plan that identifies the following: BMP's, Management Practices and Maintenance Schedules, Recycling Efforts, Waste Disposal Guidelines, and Areas of Concern.

Has Goal Been Accomplished: NO

#### Wo erformed

Date: 02/03/2004

Responsible Party: Chad Christian, Unknown

BMPs Identified

BMP menu identified with the adoption of the Alabama Handbook for Erosion Control, Sediment Control, and Storm Water Management on Construction Sites and Urban Areas.

Date: 01/13/2004

Responsible Party: Natural Resources Subcommittee, Unknown

City of Tuscaloosa Comprehensive Plan Input

The City of Tuscaloosa Comprehensive Plan is being updated currently. A Stormwater/Watershed Task Force was formed from members of the Comprehensive Plan Natural Resources Subcommittee to submit goals and guidelines for inclusion in the new Comprehensive Plan. A summary of the recommendations made is included in the Appendix.

Date: 03/11/2004

Responsible Party: Chad Christian, Storm Drainage Engineer

Continued Development of Plan

An additional street sweeping route has been started to focus on residential neighborhoods. We now have three street sweeping routes in regular implementation. No additional work was done on the plan in Year Five and therefore our NOI needs to be amended to reflect the completion of our Pollution Prevention Plan in Permit Year Six.

#### **Employee Training Materials**

Responsible Party: Unknown, Unknown

Start Date: 03/10/2003

End Date: 03/10/2004

Permits Years during which activities are scheduled:

Year 1 X

Year 2

Year 3

Year 4

Year 5

Name of Separate Implementing Entity:

Unknown

BMP Description:

Develop and collect training materials to educate staff about pollution prevention and good housekeeping. Some items will need to be specifically tailored to Tuscaloosa while others are available from EPA and other external sources.

Has Goal Been Accomplished: YES

Work Performed

Responsible Party: Unknown, Unknown

End Date: 03/10/2004 Start Date: 03/10/2003

Permits Years during which activities are scheduled:

Year 1 X

Year 2

Year 3

Year 4

Year 5

Name of Separate Implementing Entity:

Unknown

BMP Description:

Date: 01/01/2003

Implement an information management system to track the inventory of stormwater facilities and outfalls. Use system to schedule and perform inspections and document and report any actions taken.

Has Goal Been Accomplished: YES

Work Performed

Responsible Party: Chad Christian, Unknown

ASIST Software Implemented

ASIST Software Suite purchased and implemented. Description of software capabilities included in

Appendix.

Pollution Prevention/Housekeeping Effectiveness

Responsible Party: Unknown, Unknown

Start Date: 03/10/2004

End Date: 03/10/2008

Permits Years during which activities are scheduled:

Year 1

Year 2 X

Year 3 X

Year 4 X

Year 5 X

Name of Separate Implementing Entity:

Unknown

BMP Description:

Generate reports that summarize the following: estimate of the quantity of floatables and other pollutants intercepted, list of facilities and stormwater system components maintained, report of overall compliance and explanation of discrepancies.

Has Goal Been Accomplished: NO

Work Performed

#### Train Employees

Responsible Party: Unknown, Unknown

Start Date: 03/10/2004

End Date: 03/10/2008

Permits Years during which activities are scheduled:

Year 1

Year 2 X

Year 3 X

Year 4 X

Year 5 X

Name of Separate Implementing Entity:

Unknown

**BMP** Description:

Utilizing the Employee Training Toolbox previously created, train staff on pollution prevention and good housekeeping measures.

Has Goal Been Accomplished: NO

Work erformed

Date: 03/11/2004

Responsible Party: Chad Christian, Storm Drainage Engineer

Core Group of Employees Trained

A core group of employees has been trained and consequently our inspection and enforcement activities have been ramped up during Permit Year Two. Additional employees were trained during Permit Year Three and Four to expand these efforts. We will continue this training throughout Permit Year Five and therefore need to amend our NOI to reflect this continued training activity. A need for more technical training as well as training of members of the private sector has become evident. To better achieve this goal we will hire an outside consultant. A copy of a the consultant's proposal is included in the Appendix.



# APPENDIX E

APPROVED
24m
2010
City Attorney

Prepared By:	RE
Requested:	PROJECTS COMMITTEE
Presentation on:	07-24-07
Suspension of Ru	les:NO

### **RESOLUTION**

RESOLUTION AUTHORIZING THE MAYOR TO EXECUTE AGREEMENT FOR MEDIA CAMPAIGN, STORMWATER (A07-0624)

BE IT RESOLVED BY THE CİTY COUNCIL OF TUSCALOOSA as follows: That the Mayor be, and he is hereby, authorized to execute that certain contract now before the Council between the City of Tuscaloosa and Jon Mason d/b/a Caldwell Mason for a media campaign for public awareness related to Stormwater in an amount not to exceed \$15,000.00; and the City Clerk is authorized to attest the same.

solution
dinance roduced roduced 7/23/07 Reading animous led bled ended mments:
i i

# 2007 Stormwater Campaign Broadcast Media Placements

Total Broadcast Budget:

\$15,000

Campaign Dates: August - November 2007

WTBC 1230 Package

\$900 per month for the following:

(40) Spots: 2 paid spots per day rotating between "The Morning Show" and "Paul

Finebaum"

(20) Bonus Spots: 1 bonus spot per day rotating between above shows

\*Additional space available bonus spots M-F 6a-6a

Total WTBC Package: \$3,600.00

#### WTXT 98.1 Package

\$667 per month (Aug - Oct) for the following:

(23) :30 commercials per month, M-Su 6a-7p

Sponsorship of WTXT High School Football Scoreboard every Friday night beginning late August through mid November

\*Sponsorships are mentioned weekly and during the scoreboard broadcasts, ie "The 98 TXT High School Scoreboard brought to you by Tuscaloosa Stormwater

Awarenss...Remember, ...."

Total WTXT Package: \$2,000.00

#### **WWPG AM Package**

\$600 per month (Aug – Nov)

(140) Spots per month, emphasis in Jim Lawson program

Total WWPG Package: \$2,400.00

#### WTUG FM Package

\$700 per month (Aug – Nov)

A minimum of (76) commercials per month with drive time emphasis

Total WTUG Package: \$2,800.00

#### WVUA TV Package

\$800 per month (Sept - Nov) for the following:

(8) local news commercials per month, during 5pm, 6pm and 10pm newscasts.

\*Additional bonus coverage during all local newscasts and throughout the programming day

Total WVUA Package: \$2,400.00

#### Comcast/Charter Cable Package

\$600 per month (Sept - Nov) for the following:

Rotator schedule between major cable networks including FOX News, ESPN, ESPN2, HGTV, etc. for \$600.00 per month

\*Additional bonus coverage during space available times throughout the cable lineup. Total Comcast/Charter Package: \$1,800,00

CAMPAIGN TOTAL:

\$15,000.00

# Proposal Erosion and Sediment Control Training for Tuscaloosa Area Developers, Contractors and Homebuilders

The purpose of the proposed effort is to provide information and understanding that will enable attendees to more effectively and efficiently control erosion and sediment transport thereby achieving better compliance with construction stormwater permits and improved protection of water quality and aquatic resources.

#### Anticipated Results:

- Workshop participants will leave with a clear understanding that erosion and sediment control involves a process and a system and is not just individual erosion and sediment control Best Management Practices (BMPs)
- Workshop participants have an increased understanding of the importance of organization, planning and management of erosion and sediment control as an integral component of the construction process.
- Workshop participants will learn when in the construction process that different measures must be in place for effective erosion and sediment control.
- Workshop participants will learn the difference between erosion and sediment control and that both erosion control and sediment control must be in place and maintained in order to assure compliance and protection of water quality and aquatic resources.
- Workshop participants will learn how basic BMPs function and thus the what, why and how of BMP selection.
- Workshop participants will learn how to properly locate, configure, install and maintain a variety of BMPs

#### Training Format:

The training will include both classroom and field instruction. The field instruction will reinforce the classroom instruction. The classroom training session will be a 3-hour session that covers:

- A process that should be followed for effective erosion and sediment control for new subdivisions and large construction projects including pre-clearing site evaluation, planning, off-site water management, runoff flow control and largescale sediment control
- Erosion and sediment control management procedures needed to assure quality erosion and sediment control
- The science of erosion and sediment control the technical background needed to understand the difference between erosion control and sediment control and to understand how different BMPs work and where and when they should be used
- Examination of a variety of erosion control BMPs with emphasis on appropriate application and common mistakes or misuse that results in failures

- Examination of a variety of sediment control BMPs with emphasis on appropriate application and common mistakes or misuse that results in failures
- A discussion of how planning, management, proper BMP selection and placement and BMP maintenance work together to create effective erosion and sediment control
- The consequences of failing to do effective erosion and sediment control

The field session will examine several sites in the Tuscaloosa area. The field session will:

- Point out appropriate and effective BMPs
- Point out inappropriate BMPs (selection, placement, construction, alignment) and failing BMPs and suggest alternatives or improvements
- Field questions from participants

In addition to the classroom and field training session, an option will be made available for additional training and advice in the form of "courtesy" inspections. These courtesy inspections would provide an opportunity for further training of city personnel who might attend the training as well as an incentive for those who attend.

The courtesy inspections would work as follows:

- City personnel (inspectors) would visit sites where courtesy inspections were requested and the trainer would do a mock inspection
- Site/project personnel would be present during the courtesy inspection of their site
- Recommendations would be made to the site personnel
- No enforcement action would be taken by the City based on problems discovered as a result of the courtesy inspection so long as work to correct problems commences within 72 hours

Resources Needed for the Proposed Training:

Resources required for the proposed training are detailed in the second page of this proposal. Some items are recommendations only and are separable. These are indicated in the attachment.

The resources/cost section is broken down into presenter expenses and local costs.

### Quote for Proposed Services:

#### Labor:

Workshop Preparation – 40 hours at \$50 per hour Workshop – 8 hours at \$50 per hour Courtesy Inspections – 8 hours at \$50 per hour		
Travel 2 trips to Tuscaloosa – 620 miles at \$0.505/mile Local mileage – 100 miles Lodging and Meals – 2 nights – \$100/day		
Materials and Printing – \$5 per participant (30 participants) <sup>2</sup>	\$150	
Total Presenter Expenses	\$3513	

### Local services required:

Meeting room Digital projector Vans and drivers for field portion of training

### Local services suggested:

Refreshments for attendees Lunch for attendees

<sup>&</sup>lt;sup>1</sup> This is optional and can be eliminated.
<sup>2</sup> If there is a need to train more than 30 participants plan on two sessions on consecutive days, just add \$500 per additional day