



**City of North Augusta Stormwater Management  
Small Municipal Separate Storm Sewer System (sMS4)  
Permit #SCR030304  
Annual Report  
September 1, 2007 – August 30, 2008**

Submit your Annual Report to: **South Carolina Department of Health and Environmental Control  
Bureau of Water- Water Pollution Compliance Section  
2600 Bull Street  
Columbia, SC 29201-1708**

If you have further questions dealing with either Permitting or Compliance, please call (803) 898-4300.

**Ownership Update**

Permittee: CITY OF NORTH AUGUSTA

Program Name: STORMWATER MANAGEMENT DEPARTMENT

Check here if you are reporting for more than one Program:  (Prepare copies of this page as needed for each Program and attach to report.)

Permit Coverage Approval # SC SCR030304

Responsible Official Name: TOM ZEASER  
Title: DIRECTOR OF PUBLIC WORKS  
Mailing Address: P. O. BOX 6400, NORTH AUGUSTA, SC 29861-6400  
Telephone Number: 803-441-4220  
E-mail address: tzeaser@northaugusta.net

Program Manager Name: DAVID CADDELL  
Title: STORMWATER MANAGER  
Mailing Address: 61 CLAYPIT ROAD, NORTH AUGUSTA, SC 29841  
Telephone Number: 803-441-4295  
E-mail address: dcaddell@northaugusta.net

Ordinance Information: Insert your website address if the ordinance is posted online. If your ordinance is not posted on line, please submit a hard copy of ordinance with this report.

Hard copy attached  website: www.northaugusta.net

**Authorized Signature and Certification**

I certify under the penalty of law that this document and all attachments were prepared under my direction of supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Responsible Official Signature: Signed copy is a separate pdf file attachment Date: 10/30/08

The responsible official may authorize another person or person occupying a specific position to sign and certify this report if the authorization is made in writing and if the written authorization is submitted to the Department. Please attach a copy of the authorization with this report, if appropriate.



# Minimum Control Measures (MCMs)

## The six minimum control measures that must be included in your Storm Water Management Plan

*Note: For a complete list of activities, measurable goals, and outcomes, see comprehensive table located on pages 25 -35 of this report.*

### MCM #1

**Public Education and Outreach on Storm Water Impacts (4.2.1)** *You must implement a public education program to distribute educational materials or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff. Additional information can be obtained from the SCDHEC Storm Water Education Clearinghouse Web Site, <http://www.scdhec.net/water/ms4/index.html>.*

A. Report the current stage of development of your education program. Mark one or more that most accurately reflects the current status of your education program as a whole:

- Not started       Research       Development       Implementation

B. Which audiences have you targeted? Explain why that particular audience was selected. *Mark all that apply:*

- Residential:**       Improper Disposal of Household Hazardous Waste       Large Pet Population  
 Tendency for Littering       Over-Fertilizing Lawns       Septic Tank Maintenance  
 Leaking Sewer Line/Sanitary Sewer Overflow Reporting Procedures  
 Other-Describe: Agricultural practices within the city.
- Commercial:**       Poor Outdoor Housekeeping       Parking Lot Runoff  
 Concern Related to Specific Business Type. Describe: Landscaping and Yard Maintenance, landscapers working within the city routinely over fertilize, put clippings on the street or near drains, apply overspray on pervious surfaces, and fail to meet city requirements. A workshop was held to address these issues and to inform them of the codes they should be aware of.
- Industrial:**       Poor Outdoor Housekeeping       Parking Lot Runoff  
 Concern Related to Specific Business Type. Describe:
- Institutional:**       Poor Outdoor Housekeeping       Parking Lot Runoff  
 Concern Related to Specific Business Type. Describe: Local school parking lots were in disrepair or lacked maintenance creating offsite impact. North Augusta High School owns two dirt lots adjacent to Knobcone Avenue. They were impacting downstream water quality during storm events and causing safety concerns along the roadway. The schools were contacted and repairs have been made correcting the problems.

Additional Target Audience: CONTRACTORS, DEVELOPERS, AND ENGINEERING FIRMS DOING WORK IN THE CITY.

Why targeted? To inform them of the specific requirements of the city stormwater management program and the standard practices they could use to create low impact development, proper BMP installation and maintenance techniques, stormwater pond design and calculations, and proper pipe installation procedures.

**C.** Which pollutant sources has your public education program targeted? *Mark all that apply:*

- Pet Waste  
  Human Septic Waste  
  Litter/Improper Disposal  
 Household Hazardous Waste  
  Parking Lot Runoff (Petroleum)  
  Oils/Grease  
  Sediment  
 Industrial Waste  
  Business/Commercial Waste/Byproducts  
  Other, Name: Agricultural, home Lawn Care, and Gardening practices.

**D.** Describe your outreach strategy. Enter the number distributed/reached in the spaces provided:

	<b>Number</b>		<b>Number</b>
Brochures/ Newsletters	1200	Utility Bill Inserts	48,000
Workshop/ Seminars	14	Radio Ads	
Posters	4	Television Ads	
Newspaper Articles	15	Other:	see
Web site (estimated hits)	150	Other:	pgs 4-5

**E.** Evaluate the success of this MCM:

*Answer each question:*

- a. Does your plan include measurable goals for this MCM?  Yes  No
- b. Did you meet the due date listed in your permit schedule for:
  - Full development of this MCM?  Yes  No (Year 1 Reporting only)
  - Full implementation of the MCM?  Yes  No
- c. Did you measure the program's success against the selected goals?  Yes  No
- d. Rank the program's success as determined by the evaluation:  Successful  Needs Improvement
- e. If your evaluation found the program needs improvement, explain why by marking all that apply:
  - No goals were established
  - Goals were not established early enough in the program to provide guidance to staff
  - Unclear, immeasurable, or unrealistic goals
  - Insufficient funding
  - Insufficient staffing
  - 1<sup>st</sup> year report – program was under development
  - Other: Explain

**MCM #01 Educational Outreach Summary 2007 – 2008**

<b>2008 Events</b>	<b>Topic</b>	<b>Date</b>	<b>Reached</b>
Planning Commission presentation	Water Quality Baseline Report	Jan 17	15 and the Media
Clemson Environmental Committee	Presentation	Jan 5	20 adults
Newsletter	The Resource	Feb 2008	12,000 residents/businesses
Mossy Creek Elementary	Stormwater Model Presentation	Feb 8	150 students
International Visitors from Canada	“Tour of SW Wetlands”	Mar 12	30 adults
Landscapers Seminar	Presentation to professional landscapers	Mar 13	50 attendees
SW Practices Municipal Operations	Training	Mar 18, 19, 24, 25, 28	200 attendees
Earth Day	Stormwater Presentation	Apr 19	980 children & adults
Clemson & North Augusta	Presentation to DHEC	Apr 28	15 people
Newsletter	The Resource	May 2008	12,000 residents/businesses
Hammond Hills Elementary School	SW Present.	May 2	150 kids 8 teachers
Household Hazardous Waste Disposal Day	Collection event	May 17	200 people
NA Chamber Expo	Spoke individually with participants about SW	Sept 11	75 people
Newsletter	The Resource	Sept 2008	12,000 residents/businesses
Girl Scout Volunteer	Organizing meeting.	Sept 16	5 adults/kids
Terrace Garden Club	Presentation	Oct 9	15 adults
*Installation of SW Pipe Course	professional dev. course	Nov 18	pending
<b>Total Individuals reached for all events 2008</b>			<b>37,913</b>

<b>2007 Events</b>	<b>Topic</b>	<b>Date</b>	<b>Reached</b>
NA Board of Realtors	Water Quality in North Augusta	Jan 18	70 adults
Household Hazardous Waste	Collection Event	Jan 20	73 cars
Earth Day		Apr 21	800 kids & adults
Newsletter	The Resource	Feb 2007	12,000 residents & businesses
CSRA Stormwater Team		Feb 7	17 professionals
Clemson Horse Creek Advisory	Meeting	Feb 22	20 professionals
Hammonds Ferry Builders Guild	Presentation	Mar 20	15 professionals
SW Design	SW BMP Workshop Pond Design Workshop	Mar 29	84 participants
Hammond Hills Elementary	presentation Science Day	Mar 30	150 kids 8 teachers



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Relict Trillium Task Force	Task force to protect plant	May 2007	8 professionals
Newsletter	The Resource	May 2007	12,000 residents/businesses
Mossy Creek Elementary presentation	Science Day	May 18	140 kids 6 teachers
Household Hazardous Waste Day	Collection Event	May 19	68 cars
SCASM	Monitoring Your Watershed	June 8	200 professionals
Clemson Extension/SW Dept	Clemson Extension yards & gardens workshop	June 11	16 citizens
Newsletter	The Resource	Aug 2007	12,000 citizens
Aiken County Horse Creek	Assistance Meeting	Aug 2	6 professionals
CEPSCI Training & Exam	Hosted in North Augusta	Sep 4	98 professionals
GAFM Conference	Presentation – SW Protection Programs	Sep 7	40 professionals
SCDHEC & Clemson	Horse Creek Presentation 319 Grant	Sep 10	10 professionals
Newsletter	The Resource	November 2007	12,000 citizens & businesses
River Days Celebration	SW Protection in North Augusta	Nov 10	75 adults and children
City Council Presentation	Stream Water Quality Baseline	Dec 3	18 professionals
<b>Total Individuals reached for all events 2007</b>			<b>49,914</b>

**MCM #2**

**Public Involvement / Participation (4.2.2)** *You are required to comply with State, Tribal and local public notice requirements when implementing a public involvement/ participation program. You must document the program development process and the implementation of a storm water public education and outreach program.*

**A.** Indicate how the public was involved in the development and submittal of your Storm Water Management Program (SWMP). *Mark all that apply:*

- Council Meetings  
  Public Hearing  
  Advisory Panel  
 Public Comments  
  Public Concerns  
  Other: (Describe)

**B.** Which activities did the public participate in? *Mark all that apply:*

- Program Planning  
  Stenciling  
  Stream Cleanup  
  City Sweep  
  Monitoring  
 Wetland Planting  
  Re-Forestation  
  Other: (Describe) Household Hazardous Waste Collection, Electronics Recycling Program, Workshops, Seminars, Volunteer Efforts at Constructed Wetlands for SW Treatment Project

**C.** Describe at least one activity, the participant, and the participant’s demographic characteristics that took place during this reporting year. If none, explain why:

**Participant:**  
Scout Troops

**Participant Demographic:**  
 Residential  
 Commercial  
 Industrial  
 Institutional

**Activity:**  
 Program Planning  
 Stenciling  
 Stream Cleanup  
 Street Sweep  
 Monitoring  
 Wetland Planting  
 Re-Forestation  
 Other: (Describe) Duck Box installation

**D.** Evaluate the success of this MCM:

*Answer each question:*

- a. Does your plan include measurable goals for this MCM?  Yes  No
- b. Did you meet the due date listed in your permit schedule for:
  - Full development of this MCM?  Yes  No (Year 1 Reporting Only)
  - Full implementation of the MCM?  Yes  No
- c. Did you measure the program’s success against the selected goals?  Yes  No
- d. Rank the program’s success as determined by the evaluation:  Successful  Needs Improvement
- e. If your evaluation found the program needs improvement, explain why by marking all that apply:
  - No goals were established
  - Goals were not established early enough in the program to provide guidance to staff
  - Unclear, immeasurable, or unrealistic goals
  - Insufficient funding
  - Insufficient staffing
  - 1<sup>st</sup> year report – program under development
  - Other: Explain

**MCM #2 Summary Activities for 2007 & 2008** (specific details available on page 3 & 4)

<b>Date</b>	<b>Activity</b>	<b>Participants</b>
2007, 2008	Household Hazardous Waste Collection Events (see page 10 for details)	Citizens
2007, 2008	Earth Day (see page 3 for details)	Citizens
Aug 2007	Planting Wetland Plants at SW Wetland	USCA Students, Private businesses, local citizens
Aug 2008	Planting Wetland Plants at SW Wetland	Girl Scouts
Sept 2008	Planting Trees at SW Wetland	Girl Scouts
July 2008	Installing Duck Boxes at SW Wetland	Boy Scouts
Nov 2007	River Days Festival	Citizens
Mar 2008	Landscaping Seminar	Landscapers & city worker
May 2007, 2008	Hammond Hills Elementary	Students grades K-3
Feb, Mar 2007, 2008	Mossy Creek Elementary	Students grade 1-5
Mar 2007	BMP Workshop and Design Course	Engineers/developers



### MCM #3

**Illicit Discharge Detection and Elimination (4.2.3)** *The permit requires each MS4 to develop, implement, and enforce a program to detect and eliminate illicit discharges as defined in South Carolina Water Pollution Control Permits Regulation 61-9 122.26(b)(2).*

A. Have you developed a program to detect and eliminate illicit discharge?

Yes  No If "No" what is your target date?

Have you implemented a program to detect and eliminate illicit discharge?

Yes  No If "No" what is your target date?

Have you enforced a program to detect and eliminate illicit discharge?

Yes  No If "No" what is your target date?

B. Provide your most up-to-date storm sewer map. Hard copy attached:  Yes  No (Why) ***The storm sewer map is located as Appendix A at the end of this report.***

C.

C. Do you have a mechanism that prohibits illicit discharges?  Yes  No

D. Describe your procedures for locating priority areas.

- Areas with older sanitary sewer lines. Name an area as an example: Lynnhurst Subdivision has storm sewers and sanitary sewers that needed to be evaluated. City staff smoked tested lines throughout subdivision and found problems. The problems were repaired.
- Business concerns. Describe a concern as an example: Auto Repair shops washing down their parking areas toward storm drains. Food establishments washing equipment outdoors near drains.
- Commercial concerns. Describe a concern as an example: Maintenance of BMPs and storm ponds. Ex. Storm ponds that have physical problems, a pond at the Shoppes at North Augusta had a pipe failure causing sediment loads to impact the pond, trash, debris and trees blocked inlets etc., Met with owner to create an action plan for repair.
- Industrial concerns. Describe a concern as an example. Failing stormwater BMPs such as ponds that could use a retrofit to provide better pollutant removal from parking lots. For example: Ditches that transport stormwater at industrial park were failing. Met with property maintenance and city streets and drains to resolve issues.
- TMDL Evaluation. Result: Pretty Run Creek: stream monitoring, walked down entire sewer system, reports by citizens, infrared aerial survey, result indicate surface runoff is key issue in this stream. Received 319 Grant with Clemson to conduct infrared monitoring.
- Impaired Water Body. Name water body: Pretty Run Creek
- Citizen complaints. Give an example: Streams or creeks that have odors, color, or physical conditions that need to be evaluated. The concerns are investigated and further information is provided to residents. Several citizens have brought problems to our attention including excessive trash being carried into the streams during heavy rain events. Worked with Scouts to clear debris from stream channel.
- Wetlands/Critical Area, Public Beaches, Shellfish Beds, or other coastal concerns. Currently, North Augusta is in the final stages of development of a 30 acre constructed wetland/restoration project. Community volunteers, University staff and students, and private partners were part of the team to get the project complete. The Brick Pond Park was an industrial waste site (Brownfield) that has been restored through the team effort and financial support from private, public, and grant funds. The resulting educational park will be used for stormwater education for generations of citizens. The restored wetland and its stormwater treatment cells will remove pollutants more efficiently and have

created a more suitable environment for wildlife. The city is currently assessing all critical areas of the city.

- Other. Describe and/or give example: I&I of all sewer lines (smoke testing), tv'ing, and routing lines.

**E.** Describe your procedures for tracing the source of illicit discharges.

- |  |  |  |  |
|--|--|--|--|
| <input checked="" type="checkbox"/> Areas with sanitary sewer lines: | <input checked="" type="checkbox"/> Dry weather outfall screenings | <input checked="" type="checkbox"/> Site visit | <input type="checkbox"/> Questionnaire |
| <input checked="" type="checkbox"/> Areas with septic tanks:         | <input checked="" type="checkbox"/> Dry weather outfall screenings | <input checked="" type="checkbox"/> Site visit | <input type="checkbox"/> Questionnaire |
| <input checked="" type="checkbox"/> Business concerns:               | <input checked="" type="checkbox"/> Dry weather outfall screenings | <input checked="" type="checkbox"/> Site visit | <input type="checkbox"/> Questionnaire |
| <input checked="" type="checkbox"/> Commercial concerns:             | <input checked="" type="checkbox"/> Dry weather outfall screenings | <input checked="" type="checkbox"/> Site visit | <input type="checkbox"/> Questionnaire |
| <input checked="" type="checkbox"/> Industrial concerns:             | <input checked="" type="checkbox"/> Dry weather outfall screenings | <input checked="" type="checkbox"/> Site visit | <input type="checkbox"/> Questionnaire |

Citizen complaints: Give an example: Customer complaint regarding septic problems, sewer overflows or illicit discharge of wash water to storm sewers are investigated and resolved. A resident reported that they had a water leak in their yard. After investigation it was determined to be a septic tank drain line that was clogged. We instructed the citizen on how to repair the problem. They did not even realize they had a septic tank. The problem was repaired.

Other: Describe and/or give example:

- \* locating and eliminating improper disposal of wastes,
- \* conducting stream sampling and physical inspections. Developed a baseling water quality report where all basins were monitored for pollutants.
- \* The city purchased a jetter vacuum truck to clean storm drains. Drains are inspected throughout the city. When drains are cleaned, the waste is collected in the vacuum truck is collected and disposed of properly.
- \* The city conducts annual Household Hazardous Waste Collection events for proper disposal. In 2007, two events were held with the help of a grant. In 2008, one event was held.

**F.** Describe your enforcement procedures for removing the source of the illicit discharge. *Mark all that apply:*

- Site inspections
- Record of Findings
- Notice of Findings to Responsible Party
- Notice to Eliminate Discharge
- Notice to Eliminate Pollutant Source
- Written Due Date for Elimination
- Stop Work Order
- Follow-up Site Visit
- Notice to Appear Before Judicial Authority
- Fees/Penalties Maximum Amount: \$500.00
- Corrective Action/Charge to Responsible Party
- Other: Describe. An Enforcement Response Plan has been prepared and implemented for North Augusta.

**G.** What method have you used to inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste? *Mark all that apply*

**Public Employees**

- Training Class
- Paystub Inserts
- Staff Meeting

**Businesses**

- Direct Mail
- Bill Inserts
- Site Visits

**General Public**

- Direct Mail
- Bill Inserts
- Public Meetings



- On the Job Training
- Other: Describe mandatory training
- Phone Calls
- Seminars
- Other: Describe Newspaper articles
- Radio
- TV
- Other: Describe outreach event

**H.** Evaluate the success of this MCM:

*Answer each question:*

- a. Does your plan include measurable goals for this MCM?  Yes  No
- b. Did you meet the due date listed in your permit schedule for:
  - Full development of this MCM?  Yes  No (1<sup>st</sup> Year Report Only)
  - Full implementation of the MCM?  Yes  No
  - Enforcement of the MCM?  Yes  No
- c. Did you measure the program's success against the selected goals?  Yes  No
- d. Rank the program's success as determined by the evaluation:  Successful  Needs Improvement
- e. If your evaluation found the program needs improvement, explain why by marking all that apply:
  - No goals were established
  - Goals were not established early enough in the program to provide guidance to staff
  - Unclear, immeasurable, or unrealistic goals
  - Insufficient funding
  - Insufficient staffing
  - 1<sup>st</sup> year reporting – program under development
  - Insufficient regulatory mechanism (ordinance)
  - Other: Explain

## MCM#3 Activities & Results for North Augusta SWMD

### Storm Drain Cleaning

Year	Notes	Pollutants Removed (tons)
2007		251.5
2008	To date (equipment down 3 mos.)	120.0

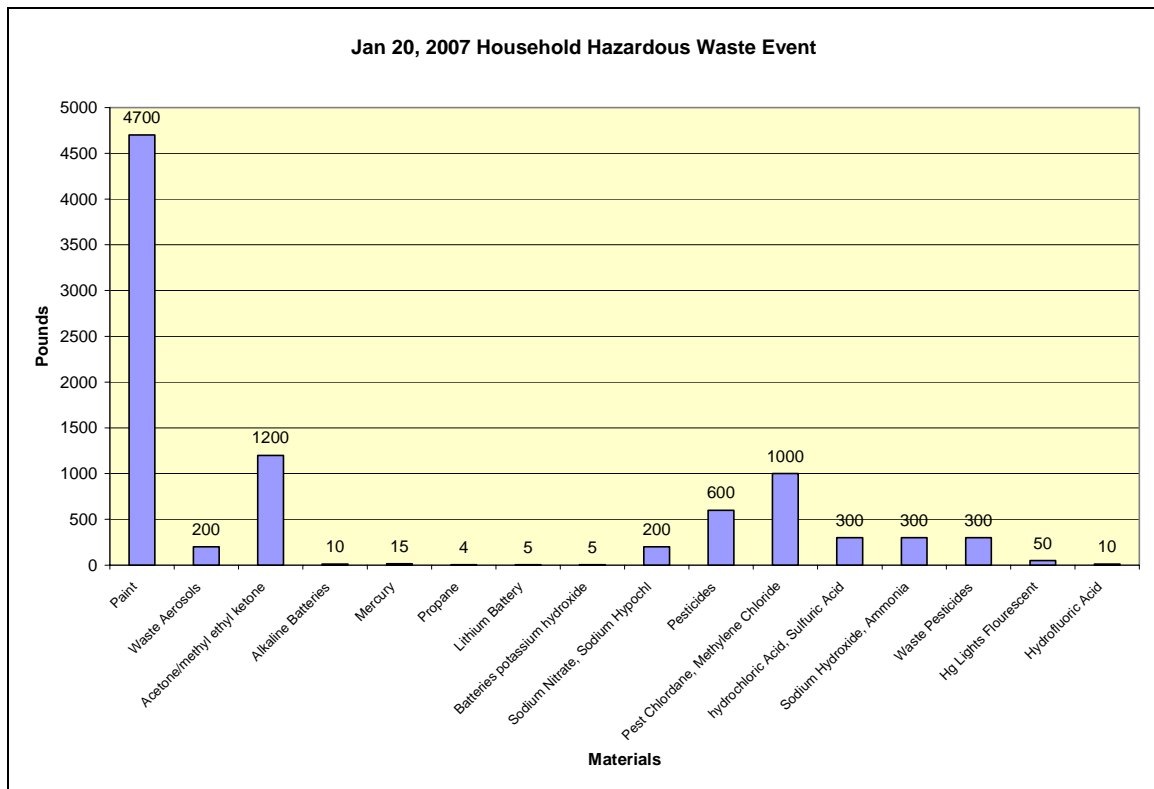
### Street Sweeping

Year	Street Sweeping	Pollutants Removed (tons)
2007		240.0
2008	To date	103.9

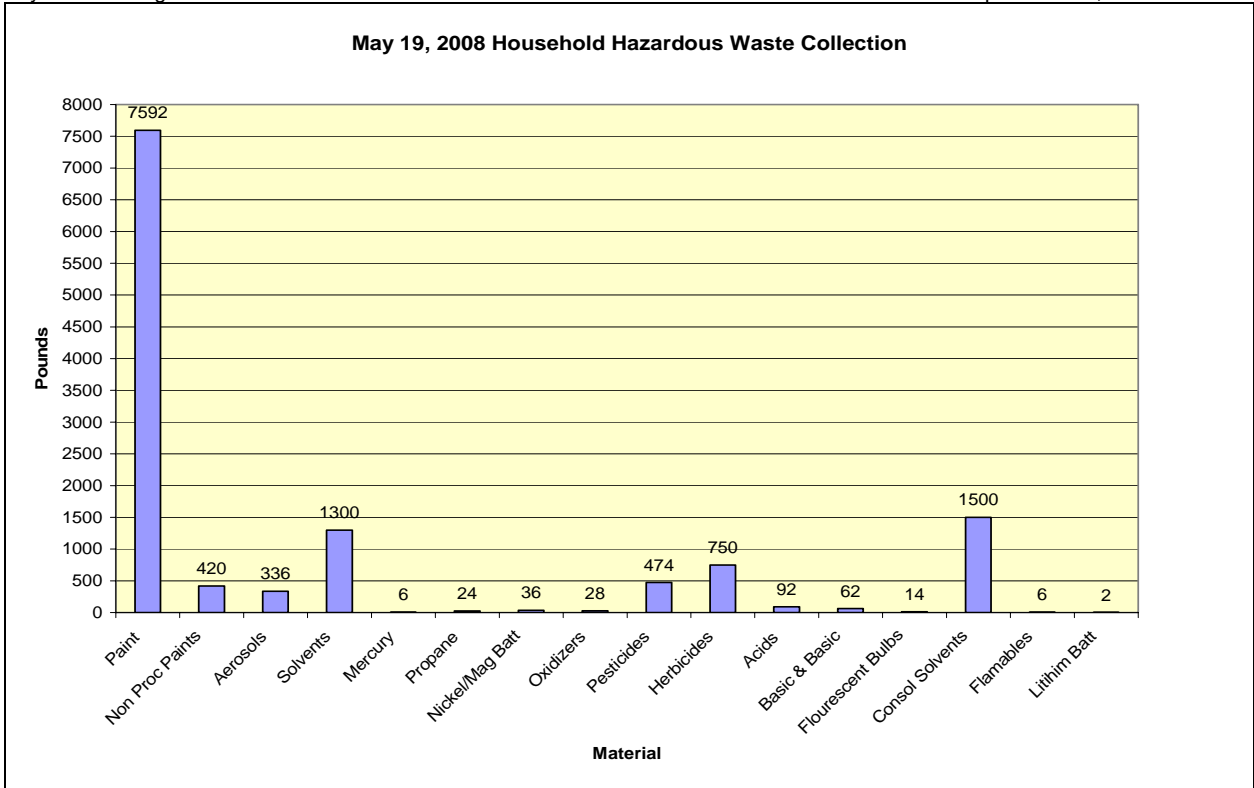
### Household Hazardous Waste Collections

Year	Types of items collected	Pollutants Removed (tons)
2007	Paint, oils, gasoline, pesticides, herbicides	4.3
2008	Paint, oils, gasoline, pesticides, herbicides	6.3

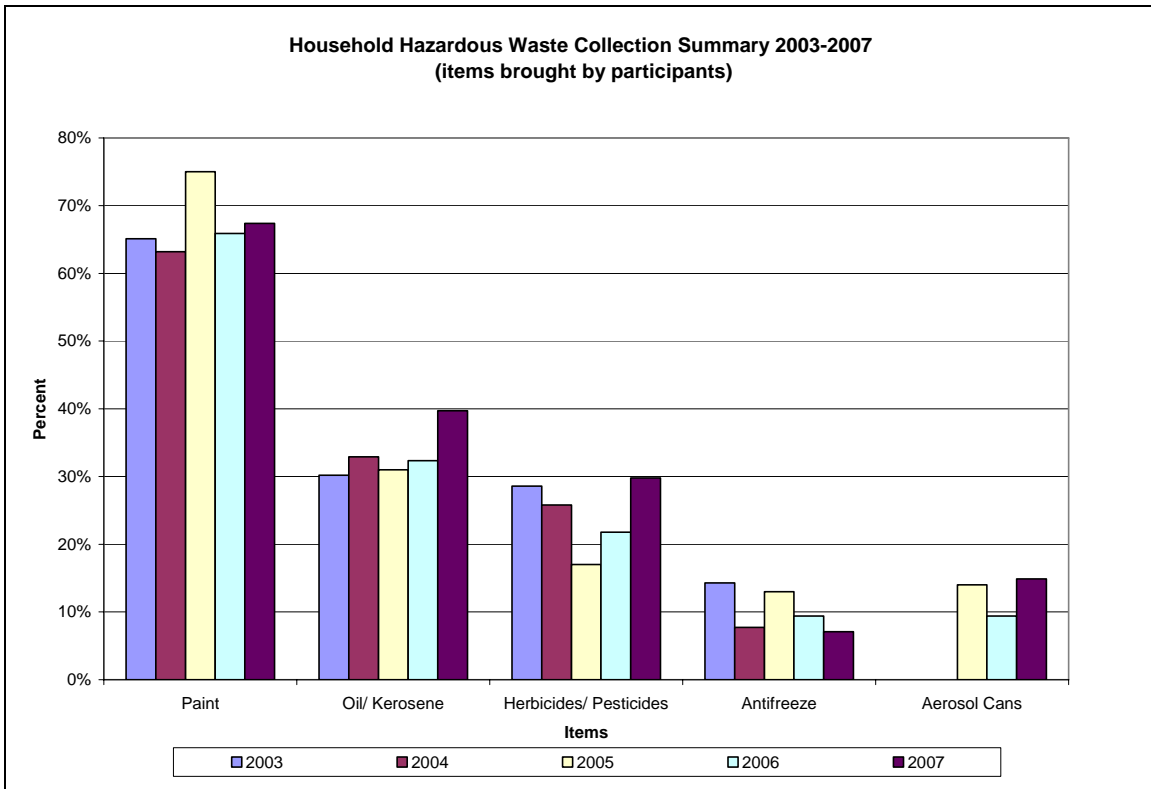
### Household Hazardous Waste Collection Event Summaries 2007-2008



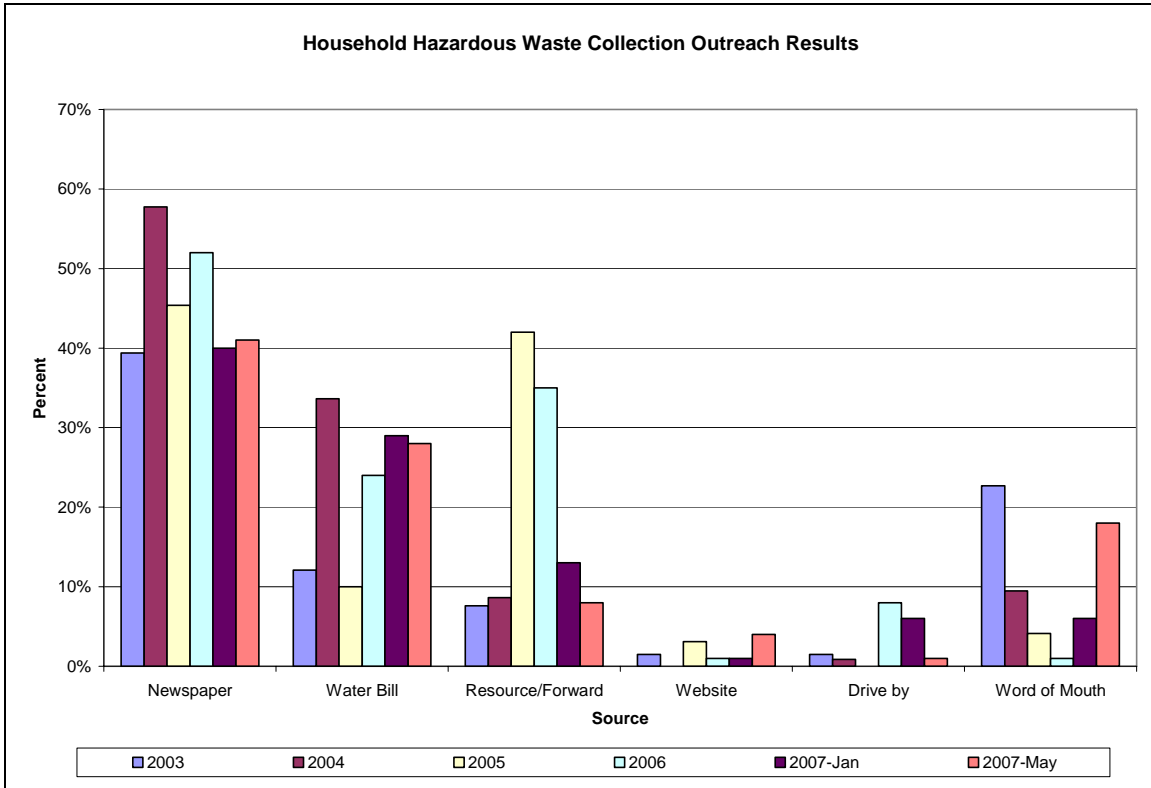




### Types of Waste Collected - Survey Result (all years)



**Outreach Survey of Participants: How did you hear about this event? Results (all years)**



**MCM #4**

**Construction Site Storm Water Runoff Control (4.2.4)** *The permit requires each MS4 to develop, implement, and enforce a program to reduce pollutants in any storm water runoff to your regulated SMS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of pollutants in storm water discharges from construction activity disturbing less than one acre must be included in your program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more.*

**A.** Does your plan include the following elements? *Mark all that apply:*

- Ordinance or other mechanism to regulate construction site runoff
- Sediment and erosion control Best Management Practices (BMP) requirements
- Record keeping for rainfall and inspections
- Waste controls for discarded building materials
- Waste controls for concrete truck washout
- Waste controls for chemicals
- Waste controls for litter
- Waste controls for sanitary waste
- Procedures for site plan review
- Verification plan includes consideration of potential water quality impacts
- Quantitative & qualitative assessment for Pollutant of Concern for projects >25 acres at 303D waters
- Procedures for receipt and consideration of information submitted by the public

**B.** Does your regulatory mechanism have sanctions to ensure compliance, including an enforcement component?

Yes  No If “Yes”, which of the following does your MS4 use? *Mark all that apply:*

- Verbal warnings
- Written warnings
- Stop-work orders
- Fines/Penalties Maximum amount \$500
- Performance bonds/forfeiture procedures
- Withholding Certificate of Occupancy
- Permit Denial
- Fee, Explain:
- Other: Magistrates Court, City repair of problem at owners expense

**C.** Does your plan include a procedure that describes when specific sanctions listed in Question “B” above are to be used to ensure compliance?  Yes  No

**D.** Describe your procedures for site inspections. *Mark all that apply:*

- Prioritize sites for inspection
- Give notice upon arrival at site
- Verify correct paperwork is on site
- Examine construction entrance
- Check perimeter controls
- Verify temporary vegetation established by due date
- Look for eroded areas
- Verify sediment and erosion control devices installed per plan
- Inspect ponds
- Look for sediment leaving site
- Look for sediment in waters of the state
- Verify land disturbance ends at permit boundaries

**E.** Describe your plan for prioritizing sites for inspection. Mark all that apply by ranking them according to your prioritization plan. *(Click to the left of N/A and Press F1 for help.)*

- 1 TMDL consistency
- 1 Impaired waters concern
- 1 Water quality concern
- 2 Roads/drainage adoption
- 1 Citizen complaints
- 1 Geographical location
- 2 Size of project
- 1 Past performance of Responsible Party
- 2 Project Closeout
- 2 Request from Responsible Party

**F.** Evaluate the success of this MCM.

*Answer each question:*

- a. Does your plan include measurable goals for this MCM? Yes No
- b. Did you meet the due date listed in your permit schedule for:
  - Full development of this MCM? Yes No (1<sup>st</sup> Year Reporting)
  - Full implementation of the MCM? Yes No (1<sup>st</sup> Year Reporting)
  - Enforcement of the MCM? Yes No (1<sup>st</sup> Year Reporting)
- c. Did you measure the program's success against the selected goals? Yes No
- d. Rank the program's success as determined by the evaluation: Successful Needs Improvement
- e. If your evaluation found the program needs improvement, explain why by prioritizing all that applies: *(Click to the left of N/A and Press F1 for help.)*
  - N/A No goals were established
  - N/A Goals were not established early enough in the program to provide guidance to staff
  - N/A Unclear, immeasurable, or unrealistic goals
  - N/A Insufficient funding
  - N/A Insufficient staffing
  - N/A No construction projects took place in the MS4 area to provide an opportunity to evaluate success
  - N/A Insufficient regulatory mechanism (ordinance)
  - N/A Other: Explain



**MCM#4 Details for North Augusta SWMD Activities**

**Permit Approval Records** *Partial Details* (size of disturbance, date of approval, notes, basin, and other details are recorded but not presented here due to space limitations)

**2007 Permits Issued and Fees Collected**

Application Date	Permit #	Project Name	NA Fee (not rec'd by SW dept)	Amount Collected	Sent Fee to DHEC
=completed					
1/3/2007	70302001	Briggs Ventures, LLC	\$ 120.00	\$ 125.00	3/22/2007
1/22/2007	7060401	Overlook IV	\$1,050.00	\$ 125.00	6/4/2007
1/29/2007	7030101	Brighton Place	\$ 560.00	\$ 125.00	3/1/2007
2/8/2007	7021501	Hampton Park Townhomes	-	-	3/1/2007
3/21/2007	7040501	River Commons final	\$1,100.00	\$ 125.00	4/12/2007
3/27/2006	06042402a	Morgan Point Major Mod	\$1,150.00	\$ 125.00	4/24/2007
4/16/2007	7050101	National Healthcare	\$ 270.00	\$ 125.00	5/1/2007
4/19/2007	7050102	Hammonds Ferry A3	\$ 100.00	\$ 125.00	5/1/2007
4/19/2007	Revisions	SRP Credit Union	\$1,320.00		
5/21/2007	7120701	Hammond Grove Baptist	\$ 300.00	\$ 125.00	7/18/2007
5/23/2007	7050102	Hammonds Ferry A3 resub	-	-	-
5/23/2007	exempt	Lance Group Office Bldg	-	-	-
7/10/2007	7080801	Seven Gables	\$ 130.00	\$ 125.00	8/8/2007
7/11/2007	7060801	Bentley Place Ph II & III	\$ 768.00	\$ 125.00	8/8/2007
9/25/2007	exempt	Signature Investments Office bldg	-	-	
10/12/2007	2/26/2008	Bergen West Ph II	\$2,000.00	\$ 125.00	Sent 2008
12/4/2007	hold	Hamrick Farms	\$ 800.00	\$ 125.00	
12/10/2007	exempt	McClam Dev Group	\$ 100.00	-	
<b>Totals Fees</b>			<b>\$9,768.00</b>	<b>\$1,500.00</b>	

**2008 Permits Issued and Fees Collected**

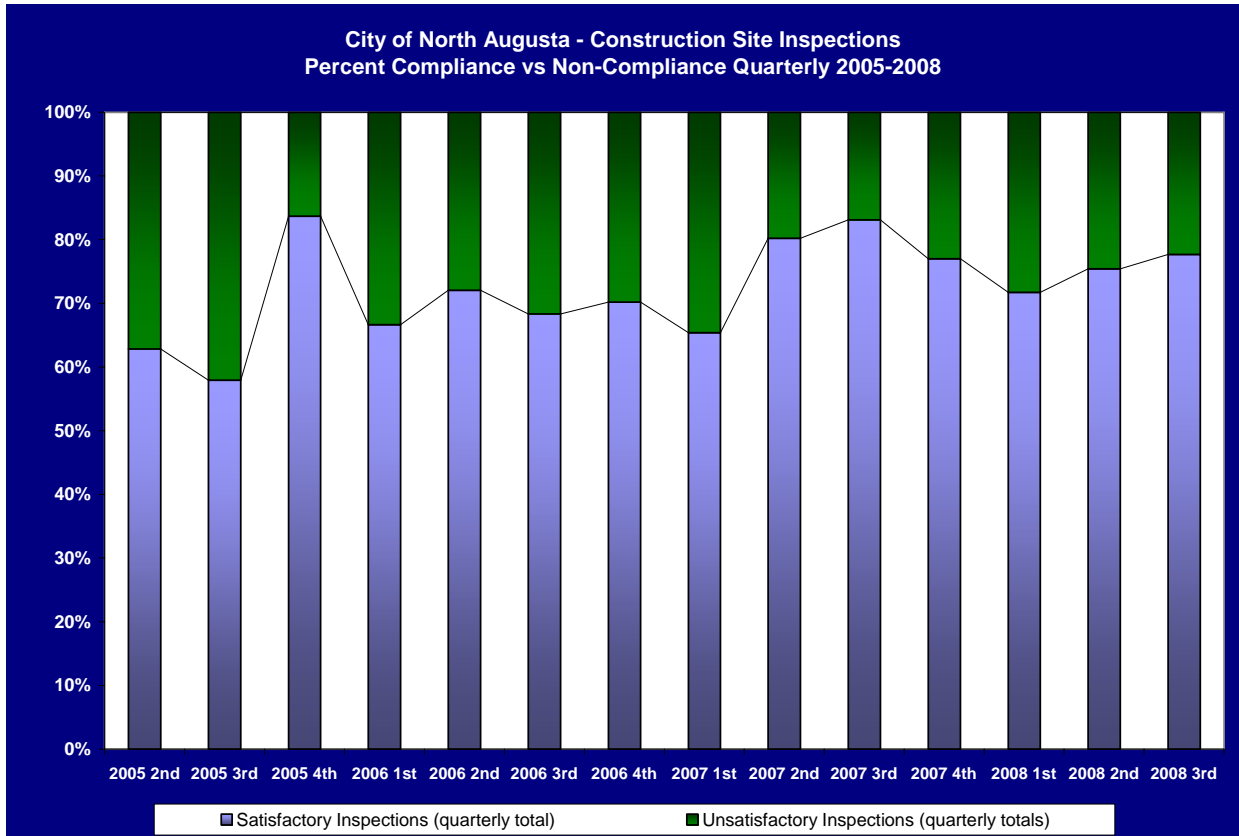
date application	Permit #	Project Name	Review Fee	DHEC Fee Collected	Sent Fee to DHEC
=completed					
1/15/2008	5042601	Martintown Village Maj Mod	\$ 830.00	-- n/a	-
2/8/2008	8041001	SRP Credit Union resub	- coll in 2007	\$ 125.00	4/10/2008
10/12/2007	8022601	Bergen West Ph II	- coll in 2007	\$ 125.00	2/26/2008
02/15/08?	exempt	Signature Investments II	unpaid	- n/a	-
3/14/2008	8041002	Whatley Place II	\$ 2,000.00	\$ 125.00	4/10/2008
3/14/2008	8042301	Sweetwater	\$ 2,000.00	\$ 125.00	5/28/2008
3/25/2008	8042302	Rivercommons Commercial	\$ 1,620.00	\$ 125.00	5/5/2008
3/25/2008	exempt	EZ Ice LLC	-	- n/a	-
3/14/2008	8041003	Copper Point	\$ 380.00	\$ 125.00	4/10/2008
5/15/2008	exempt	Mountaineer Pest Serv	unpaid	- n/a	
6/18/2008	8072201	Hammonds at 5 Notch	\$ 480.00	\$ 125.00	7/22/2008
6/8/2008	exempt	Superior Lock & Safe	\$ 100.00	- n/a	
7/16/2008	8102701	Capital City Bldg Exp	\$ 100.00	- n/a	
7/18/2008	enforcement	BTC Stormwater Existing Repair	-	- n/a	
7/18/2008	pending revis	Martin Group Project	\$ 630.00	\$ 125.00	(not in-hand)
7/23/2008	exempt	Martintown Plaza Extension	-	- n/a	
7/28/2008	exempt	Jackson Square Commercial	\$ 100.00	- n/a	
9/23/2008	approved	Sweetwater Maj Modification	-	- n/a	
9/26/2008	exempt	Hammonds Ferry Bldg	\$ 100.00	- n/a	
<b>Totals</b>			<b>\$ 8,340.00</b>	<b>\$1,000.00</b>	

<b>2007 INSPECTION DETAILS</b>							
<b>Months</b>	<b>SAT</b>	<b>UNSAT</b>	<b>MARG</b>	<b>C&amp;D</b>	<b>Total Insp</b>	<b>COMP</b>	<b>NONCOMP</b>
January	12	9	5	0	26		
February	28	13	5	7	53		
March	27	15	8	1	51		
<b>Total 1st Qtr</b>	<b>67</b>	<b>37</b>	<b>18</b>	<b>8</b>	<b>130</b>		
<b>Percent</b>	<b>51.54%</b>	<b>28.46%</b>	<b>13.85%</b>	<b>6.15%</b>		<b>65.38%</b>	<b>28.46%</b>
April	19	3	5	4	31		
May	18	2	0	0	20		
June	30	9	5	1	45		
<b>Total 2nd Qtr</b>	<b>67</b>	<b>14</b>	<b>10</b>	<b>5</b>	<b>96</b>		
<b>Percent</b>	<b>69.79%</b>	<b>14.58%</b>	<b>10.42%</b>	<b>5.21%</b>		<b>80.21%</b>	<b>19.79%</b>
July	40	2	8	1	51		
August	35	6	10	1	52		
September	27	14	3	1	45		
<b>Total 3rd Qtr</b>	<b>102</b>	<b>22</b>	<b>21</b>	<b>3</b>	<b>148</b>		
<b>Percent</b>	<b>68.92%</b>	<b>14.86%</b>	<b>14.19%</b>	<b>2.03%</b>		<b>83.11%</b>	<b>16.89%</b>
October	27	12	5	2	46		
November	32	5	2	2	41		
December	29	10	12	1	52		
<b>Total 4th Qtr</b>	<b>88</b>	<b>27</b>	<b>19</b>	<b>5</b>	<b>139</b>		
<b>Percent</b>	<b>63.31%</b>	<b>19.42%</b>	<b>13.67%</b>	<b>3.60%</b>		<b>76.98%</b>	<b>23.02%</b>
<b>Annual Total 2007</b>	<b>324</b>	<b>100</b>	<b>68</b>	<b>21</b>	<b>513</b>		
<b>Annual Comp %</b>	<b>63.16%</b>	<b>19.49%</b>	<b>13.26%</b>	<b>4.09%</b>		<b>76.41%</b>	<b>23.59%</b>

<b>2008 INSPECTION DETAILS</b>							
<b>Months</b>	<b>SAT</b>	<b>UNSAT</b>	<b>MARG</b>	<b>C&amp;D</b>	<b>Total Insp</b>	<b>COMP</b>	<b>NONCOMP</b>
January	27	15	10	0	52	37	15
February	28	10	5	1	44	33	11
March	22	10	7	3	42	29	13
<b>Total 1st Qtr</b>	<b>77</b>	<b>35</b>	<b>22</b>	<b>4</b>	<b>138</b>		
<b>Percent</b>	<b>55.80%</b>	<b>25.36%</b>	<b>15.94%</b>	<b>2.90%</b>		<b>71.74%</b>	<b>25.36%</b>
April	36	10	5	0	51	41	10
May	17	7	3	0	27	20	7
June	29	14	5	0	48	34	14
<b>Total 2nd Qtr</b>	<b>82</b>	<b>31</b>	<b>13</b>	<b>0</b>	<b>126</b>		
<b>Percent</b>	<b>65.08%</b>	<b>24.60%</b>	<b>10.32%</b>	<b>0.00%</b>		<b>75.40%</b>	<b>24.60%</b>
<i>July heavy rain</i>							
July	21	15	8	1	45	29	16
August	19	5	2	1	27	21	6
September	36	3	1	0	40	37	3
<b>Total 3rd Qtr</b>	<b>76</b>	<b>23</b>	<b>11</b>	<b>2</b>	<b>112</b>		
<b>Percent</b>	<b>67.86%</b>	<b>20.54%</b>	<b>9.82%</b>	<b>1.79%</b>		<b>77.68%</b>	<b>22.32%</b>

2007 cont.	SAT	UNSAT	MARG	C&D	Total Insp	COMP	NONCOMP
October	18	1	1	1	21	19	2
November	0	0	0	0	0	0	0
December	0	0	0	0	0	0	0
<b>Total 4th Qtr</b>	<b>18</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>21</b>		
<b>Percent</b>	<b>85.71%</b>	<b>4.76%</b>	<b>4.76%</b>	<b>4.76%</b>		<b>90.48%</b>	<b>9.52%</b>
<b>Annual Total 2008</b>	<b>253</b>	<b>90</b>	<b>47</b>	<b>7</b>	<b>397</b>		
<b>Annual Comp %</b>	<b>64%</b>	<b>22.67%</b>	<b>11.84%</b>	<b>1.76%</b>		<b>75.57%</b>	<b>24.43%</b>

**City of North Augusta Construction BMP Compliance (13% improvement)**



**MCM #5**

**Post-Construction Storm Water Management in New Development and Re-development (4.2.5)** *Within 18 months from the effective date of this permit, you must develop, implement, and enforce a program to address storm water run-off from new development and redevelopment projects within your jurisdiction that disturb one acre or greater, including projects less than one acre that are part of a larger common plan of development or sale that discharge into your small MS4. Your program must ensure that controls are in place that would prevent or reduce water quality impacts. You must also select and implement a program of appropriate BMPs and measurable goals for this minimum control measure.*

**A.** Is there an ordinance or other regulatory mechanism in place to control post construction runoff from new development or redevelopment?  Yes  No If "No", target date for passage:

**B.** Is your program designed to address the needs of your local community? *Answer all questions:*  
 Yes  No Does your program address runoff from new Development?  
 Yes  No Does your program address runoff from Redevelopment?  
 Yes  No Does your plan include any specific priority areas for this program?  
 Yes  No Does your plan describe how your program is specifically tailored for your local community?  
 Yes  No Does your program minimize water quality impacts?  
 Yes  No Does your program attempt to maintain pre-development runoff conditions?

**C.** Which BMPs are used in your community? *Mark all that apply:*  
 Policies or ordinance to direct growth to identified areas.  
 Policies or ordinance to protect wetlands and riparian areas.  
 Policies or ordinance to maintain or increase open space.  
 Funding source to acquire open space.  
 Policies or ordinance to provide buffers along sensitive water bodies.  
 Policies or ordinance to minimize impervious surfaces.  
 Policies or ordinance to minimize disturbance of soils and vegetation.  
 Policies or ordinance that encourage infill development in higher density urban areas.  
 Policies or ordinance that encourage development in areas with existing storm sewer systems.  
 Education programs for developers about project designs that minimize water quality impacts.  
 Education programs for the public about project designs that minimize water quality impacts.  
 Measures to minimize percentage of impervious area after development.  
 Measures to minimize directly connected impervious areas.  
 Good housekeeping measures.  
 Preventative maintenance measures.  
 Spill prevention measures.  
 Storage practices such as wet ponds or extended detention outlet structures.  
 Filtration practices such as grassed swales, bio-retention cells, sand filters, or filter strips.  
 Infiltration practices such as infiltration basins and infiltration trenches.  
 Other: Describe

**D.** Describe your plan to ensure long-term operation and maintenance of post construction BMPs. *Mark all that apply:*  
 Maintenance agreement between structure owner and MS4 governmental entity.  
 Maintenance agreement between (new) structure owner and developer.  
 MS4 enforces agreements between (new) structure owner and developer.  
 MS4 assumes maintenance.  
 MS4 assumes maintenance and bills owner.



- MS4 conducts maintenance and bills owner only if owner fails to maintain.  
 Other: Describe

**E. Evaluate the success of this MCM.**

*Answer each question:*

- a. Does your plan include measurable goals for this MCM?  Yes  No
- b. Did you meet the due date listed in your permit schedule for:  
Full development of this MCM?  Yes  No (1st Year Report)  
For full implementation of the MCM?  Yes  No (1<sup>st</sup> Year Report)  
Enforcement of the MCM?  Yes  No (1<sup>st</sup> Year Report)
- c. Did you measure the program's success against the selected goals?  Yes  No
- d. Rank the program's success as determined by the evaluation:  Successful  Needs Improvement
- e. If your evaluation found the program needs improvement, explain why by prioritizing all that apply:  
 No goals were established  
 Goals were not established early enough in the program to provide guidance to staff  
 Unclear, immeasurable, or unrealistic goals  
 Insufficient funding  
 Insufficient staffing  
 No redevelopment projects took place in the MS4 area to provide an opportunity to evaluate success  
 No new development projects took place in MS4 area to provide an opportunity to evaluate success  
 Insufficient regulatory mechanism (ordinance)  
 Other: Explain

**MCM #6**

**Pollution Prevention / Good Housekeeping for Municipal Operations (4.2.6)** *The permit requires each MS4 to develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Your program must include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water maintenance.*

**A.** Do you have an operation and maintenance program currently in place?

No If "No" what is your target date?

Yes If "Yes" name the municipal operations that are included in this O&M program. *Mark all that apply:*

- Parks and recreation area maintenance
- Fleet maintenance
- Building maintenance
- New construction/land disturbance (municipal projects)
- Storm water system maintenance
- Other: Describe: Sewer system maintenance

**B.** Do you have procedures/controls to reduce floatables and other pollutants to your storm sewer system?

*Mark all that apply:*

- Maintenance activities
- Maintenance schedules
- Long-term inspection plans
- Street, road, highway maintenance
- Waste transfer station maintenance
- Fleet or maintenance area controls
- Salt/sand storage area maintenance
- Snow disposal area maintenance
- Proper disposal of waste removed from the storm sewer system: dredge spoil, sediments, and debris
- Water quality assessments for new flood management projects
- Assessment of existing flood management projects to determine additional needed controls

**C.** Does your plan contain an employee-training component? *Answer each question.*

Yes  No Public employee training designed to reduce polluted runoff from municipal operations.

Yes  No Employee training record retention.

**D.** Does your governmental entity own any industrial facilities that discharge to your storm sewer system?

Yes  No If "Yes" give the name of the facility and list its SCDHEC NPDES permit number, or include a copy of the Notice of Intent (NOI).

Facility Name	Permit Number	Notice of Intent Attached
North Augusta Material Recovery Facility	<u>SCR001252</u>	No
<u>North Augusta Clay Pit</u>	<u>SCG730169</u>	No

**E. Evaluate the success of this MCM.**

*Answer each question:*

- a. Does your plan include measurable goals for this MCM?  Yes  No
- b. Did you meet the due date listed in your permit schedule for:
  - Full development of this MCM?  Yes  No (Year 1 Report Only)
  - Full implementation of the MCM?  Yes  No
- c. Did you measure the program's success against the selected goals?  Yes  No
- d. Rank the program's success as determined by the evaluation:  Successful  Needs Improvement
- e. If your evaluation found the program needs improvement, explain why by marking all that apply:
  - No goals were established
  - Goals were not established early enough in the program to provide guidance to staff
  - Unclear, immeasurable, unrealistic goals
  - Insufficient funding
  - Insufficient staffing
  - 1<sup>st</sup> year reporting – program under development
  - Other, explain

**MCM#6 Activity Examples**

All employees of the city have attended a training seminar in 2008 with handouts describing SW impacts from municipal operations, how to spot stormwater impacts, reporting of impacts, hazardous spill cleanup, and proper operation and maintenance of equipment regarding stormwater impacts.
Departments that directly impact land disturbance, landscape maintenance, or equipment maintenance routinely meet and discuss stormwater impacts and how to work to prevent them. Friday morning meeting topics range from Safety to Stormwater BMPs.
All employees are required to document this training activity. Training records are located at the SWMD and on the Information System "Alchemy".
BMPs have been installed at drain inlets at the MRF Facility on Claypit Road in 2007. In 2009, more BMP devices (in ground filters) are to be installed at the Operations Facility to reduce pollutants from stormwater.
The City received a grant from the National Fish & Wildlife Foundation to restore and construct a treatment wetland for stormwater at a 30 acre riverfront man made failing wetland system. The work has been completed and the system is being studied for treatment success from major stormwater outfalls located in that area. In addition, the system is to be a public park and education center for area students.

## Special Conditions

### 1. Discharges to Impaired Water Bodies

Section 3.1 of the permit requires that you describe how implementation of your Storm Water Management Program will provide Reasonable Assurance that discharges will not cause or contribute to violations of water quality standards in Impaired Water Bodies. Answer each question below.

Yes  No Have you determined whether your storm sewer system discharges to an Impaired Water Body? If "No", what is your target date for completing the determination?

Yes  No If the determination has been done: does your storm sewer discharge to an Impaired Water Body?

If yes, list the name(s) of the Impaired Water Bodies and the pollutant of concern for each Water Body.  
Pretty Run Creek - Fecal coliform

If yes: Provide a brief summary of the measures and BMPs that provide Reasonable Assurance that your discharges will not cause or contribute to violations of water quality standards in Impaired Water Bodies. Target outreach to the community regarding animal wastes and septic tank repair and upkeep. Evaluate additional construction within the waterbody area more stringent review for potential impacts to the stream.

### 2. Consistency with Total Maximum Daily Load Allocations (TMDL)

Section 3.1 of the permit requires that you incorporate any limitations, conditions and requirements contained in the TMDL applicable to your discharges, if any, including monitoring frequency and reporting required, in order to be eligible for permit coverage. Answer each question.

Yes  No Have you determined whether your storm sewer system discharges to a water body with an established TMDL?

If No, what is your target date for completing the determination?

Yes  No If the determination has been done: Does your storm sewer discharge to a water body with an established TMDL?

a. If **Yes**, list the name(s) of the Water Body and the pollutant of concern listed in the TMDL for each Water Body.

Pretty Run Creek - Fecal coliform

b. If **Yes**, list applicable limitations, conditions, and requirements contained in the TMDL implementation plan attributed specifically to your MS4.

**TMDL: reduction of FC loads by 31%**

The Pretty Run Creek TMDL specifically states that if a permitted MS4 community is meeting the requirements of its MS4 permit, then they meet the requirements of the TMDL. Through our MS4 Permit we are conducting targeted outreach efforts and conducting increased mapping efforts to identify all storm drains that discharge into Pretty Run Creek. In addition, all construction permit applications (NOIs) received that could impact this stream are evaluated specifically on what potential considerations should be given to prevent further impacts to it. If the proposed project is to place additional sewer lines within the watershed, a buffer area for any lines must be utilized and lines are not to be placed directly adjacent to or within the stream.

c. If **Yes**, explain how your plan incorporates those limitations, conditions, and requirements.

Our plan incorporates items specifically to address Pretty Run Creek. Over the next five year period, stormwater discharges directly to Pretty Run Creek will be either reduced or treated prior to discharge through more advanced treatment technologies. Possibilities include, treatment wetlands, vegetated swales, and mechanical pollutant removal technologies retrofitted into the current storm sewer system in order to reduce



pollutant loads. The treatment devices will be located upstream of the current pipe discharge points. These changes are under evaluation and study at this time to reduce loads by 31%. The study will determine the most economical and effective way to implement the changes. Results of the study and strategies to move forward will be completed by 2010.

All new developments proposed in the City of North Augusta are required to treat the first one inch of rainfall prior to it being discharged from the site. As of 2004 ordinance requirements, all proposed development projects must meet this standard through the permit review process. The ability to reduce pollutants from all current and future construction within the watershed will protect Pretty Run Creek.

A city wide ambient stream water quality baseline assessment has been conducted to gather information on the current water quality of basins located within North Augusta. Basins located in areas with high residential or commercial density were targeted within the city for physical assessments and water quality sampling at the lowest point in the basin. A dry weather sample and rain event sample was attempted for larger basins. No outfalls within the basins have been sampled at this time. The snapshot of instream sampling was to evaluate the overall water quality at a given time. A report was generated from the assessment "North Augusta Stream Water Quality Baseline Assessment" of water quality and stream integrity within North Augusta. The report is to be used as a baseline for all future stormwater department program assessments and also as a tool for planning decision makers regarding future development needs. For example, it was found that one of the basins in the study rated poor, had the most development occurring. Planners will use this information to discuss with developers, more effective ways to prevent problems if they do intend to develop in that particular basin. The report is publicly available through a link located on our city website homepage at: [www.northaugusta.net](http://www.northaugusta.net).

Additionally, the City of North Augusta partnered with Clemson Extension to study and implement changes in the Pretty Run Creek watershed during 2007 and 2008 through a 319 Grant. The results of the study of Pretty Run Creek basin indicated that the sewer lines within the area are not contributing, taps to the sewer system were found to be leaking in one instance, and septic tanks were identified and homeowners at those addresses were contacted regarding maintenance and repair of the lines that could contribute fecal coliform to the stream. Also, a field survey of the neighborhood and homes that were directly adjacent to the stream channel found that many dogs are fenced up next to the stream. Residents received a newsletter describing ways to improve water quality through animal waste management practices.

### 3. Pollutant Reduction Success Assessment

Section 5.3.2 of the permit requires that you submit the results of monitoring data, if you conducted monitoring. If you conducted monitoring, the results must be submitted on a Discharge Monitoring Report (DMR). Attach any DMRs for Year 1 to this Questionnaire.

Yes  No Did you conduct any monitoring during the reporting year?  
If no, do not answer the question below.

Yes  No Have you attached your DMRs to this report?

## Year 1 Questionnaire

### Sharing Responsibility

Section 4.4 of the permit states that one or more of the minimum measures may be shared with another entity or the entity may fully take over the measure. Please answer the questions below to explain whether responsibility was shared with another entity.

*Answer each question that applies:*

a. Did you share responsibility for any minimum measure with another entity?

Yes  No If **“Yes,”** indicate the name of the entity that shared responsibility beside the measure that entity helped with. NOTE: Copy this page as needed to answer the questions for additional entity that shares responsibility.

MCM 1	
MCM 2	
MCM 3	
MCM 4	
MCM 5	
MCM 6	

- b.  Yes  No Did the other entity implement the measure (for year 1 reporting if the requirement was to develop a program, did the other entity develop it?)
- c.  Yes  No Is the control measure (or the other entity’s component) as stringent as the permit requires?
- d.  Yes  No Did the other entity agree in writing to implement the measure on your behalf?
- e.  Yes  No Did you maintain the written agreement as a part of your plan?
- f.  Yes  No Did the other entity agree to report on the measure on your behalf?
- g.  Yes  No If the other entity agreed to report on the measure, did you supply that entity with reporting information such as: your compliance with permit conditions; BMP assessments; measurable goals; results of information collected and analyzed; monitoring data (if any); progress toward reducing discharge of pollutants to the Maximum Extent Practicable; upcoming year activity plan; proposed changes to your plan; changes to any BMPs; or identified measurable goals?
- h.  Yes  No Notice to the Department that you relying on another entity.
- i.  Yes  No Have you dissolved any agreements with other entities this year?

Submit a copy of any agreements that have not previously been sent to the Department.

City of North Augusta Stormwater Management Department Program Goals Evaluation & Results									
BMP (Symbols: I = implemented, X=on going C= Completed, S=under evaluation/rescheduled)	2003	2004	2005	2006	2007	2008	Measurable Goal	2003-2008 Measure/Assessment	Met?
<b>1. Public Participation/Involvement</b>									
Volunteer Storm Drain Stenciling/markings	I	X	X	C	X	X	This program will complement the City's effort to mark 90% of all storm drains exposed to pedestrian traffic within the first five-year permit term.	The city has marked 70% overall and 90% of drains in pedestrian areas through the SWMD internship program. The program is an ongoing effort.	yes
Establish a Citizens Advisory Committee		S			S		Establish this committee and schedule quarterly meetings by 2004.	A citizens Advisory Committee has not been formed. The Savannah River Keeper organization meets with and is involved with our program outreach events.	yes
City-School Partnership Program	S				S	X	By May 2003, meet with representatives from all public and private schools within the City.	Team to develop 5th grade environmental education initiative at the Brick Pond Park Eco Park	yes
Meet with school representatives	I	X			X	X	By 2004, meet with each local school representatives to encourage participation with city SW program.	Early meetings with schools resulted in participation with science day activities. Recent discussions and planned meetings to develop an environmental education program for 5th graders are underway. Current team: School Board Member, School Principal, SWMD	yes
Evaluate School Environmental program	I	X			X		Meet with school representatives yearly to assess and encourage implementation of environmental learning activities.	Earlier meetings with school officials regarding outreach programs resulted in increased participation.	no

City of North Augusta Stormwater Management Department Program Goals Evaluation & Results									
BMP (Symbols: I = implemented, X=on going C= Completed, S=under evaluation/rescheduled)	2003	2004	2005	2006	2007	2008	Measurable Goal	2003-2008 Measure/Assessment	Met?
Implement Adopt a Stream Program			S	S		I	The SWMD will establish procedures for implementing an Adopt a Stream program by 2005 to reduce the amount of trash in City streams. The SWMD will work to "adopt out" impaired reaches of at least 75% four of the six primary streams within the City limits by 2007. The SWMD will also identify tributaries to these six streams that would benefit the most from this program by 2005 with the goal of "adopting out" impaired portions of 75% of these critical tributaries by 2007.	This program is going to be re-evaluated in 2008 and more focused. The SWMD program has been effective in soliciting volunteers and has several recent organizations asking for work within the basins. A new program with 5 <sup>th</sup> graders across the city is under development and adopt a stream will be discussed as part of that program.	no
Household Hazardous Waste Materials Collection Day	I	X	X	X	X	X	Hold this event yearly and survey participants to quantify volume and type of HHAZ collected annually.	Events held all years, 2 in 2007 - Amount of waste collected to date >15 Tons	yes
<b>2. Education and Outreach</b>									
City-School Partnership	S			S	X	X	By May 2003 meet with representatives from all public and private schools within the City.	Meeting with North Augusta Elementary to set up full program with 5 <sup>th</sup> grade students. Met with USC-Aiken and currently have an active city school partnership with the University.	yes
Establish Internship program with Universities.	I	X	X	X	X	X	Provide educational opportunities to local college students through an internship program in the SWMD.	To date, there have been six SWMD interns involved in all aspects of SW management in NA. The students have since graduated and several are currently working at DHEC or within other local communities environmental/sw programs.	yes

City of North Augusta Stormwater Management Department Program Goals Evaluation & Results									
BMP (Symbols: I = implemented, X=on going C= Completed, S=under evaluation/rescheduled)	2003	2004	2005	2006	2007	2008	Measurable Goal	2003-2008 Measure/Assessment	Met?
Water Quality Brochures	I	X	X	X	X	X	Develop WQ brochures and education materials for public and professional use.	Several brochures have been developed. Stream "types" brochure completed in 2007. Available to Developers, Engineers, Citizens	yes
Stormwater Fact Sheets	I	X	X	X	X	X	Create stormwater fact sheets to give out at meetings, seminars, and mailings.	Stormwater fact sheets completed in 2006. Distributed to Auto Repair sheets, landscapers, engineers, contractors, citizens, and small businesses	yes
Water Quality Poster Series	I			X	X	X	Display posters in public buildings and offer copies to businesses. (begin 2003)	Stormwater posters under development. Stormwater information kiosks posters are throughout the city	yes
Pollution Prevention Guides for Businesses	I	X			X	X	Develop an automotive shop stormwater pollution prevention guide for dissemination to all shops within the City in 2003. Develop a similar guide for restaurants in 2004	Pollution prevention guides developed in 2004. Distributed to auto repair shops in the city. A more comprehensive guide based on DHECs guide is under development for 2009	yes
Stormwater Pollution Television Spot			S		S	S	Stormwater Pollution TV spot. (2004)	This goal is being evaluated.	no
Stormwater Internet Web Pages	I	X	X	X	X	X	There is currently a stormwater page on the City web site. Expand online information to include pollution prevention information, access to publications, and notifications of upcoming events and seminars. (2004)	Stormwater web site completely updated in 2006. Site maintained and updated routinely to include new information regularly.	yes
Storm Drain Stenciling/Curb Marking	I	X	X	C	X	X	Install markers on 90% of the storm drains exposed to pedestrian traffic by 2007. Begin by installing 165 markers in 2003.	Storm drain marking program ongoing. Completed 90% of marking in pedestrian areas.	yes

City of North Augusta Stormwater Management Department Program Goals Evaluation & Results									
BMP (Symbols: I = implemented, X=on going C= Completed, S=under evaluation/rescheduled)	2003	2004	2005	2006	2007	2008	Measurable Goal	2003-2008 Measure/Assessment	Met?
Water Quality Seminars	I	X	X	X	X	X	Low impact development seminar (2004 & 2006)	Met – seminar and presentations on WQ, BMPs, Design, etc completed and on going. See page 3 – 4 of this report for details.	yes
Pollution Reduction Documentation	I	X	X	X	X	X	Identify and estimate the percentage reduction attained in the area of floatables discharged into local waterways and document findings.	Documentation on street sweeping, drain cleaning, and street vacuuming are being collected through the scales facility at the recycling facility. The data is being presented in this report page 10.	yes
North Augusta Forward Newsletter	I	X	X	X	X	X	Include SW educational information in NA Forward newsletter. (quantify number of copies delivered to residents)	The NA Forward ran two articles regarding the SWMD program in 2008. This newsletter reaches all citizens.	yes
The Resource (SWMD Newsletter)		I	X	X	X	X	Develop newsletter to inform the public about water quality issues. Conduct 2 mailings per year to all households and businesses. Two additional mailings per year may be used for event notification (e.g. Hazardous Materials Collection Day, Composting Seminar, etc...) for a total of 4 yearly mail-outs. (2003-2007)	Newsletter published 4 times per year and is distributed to all households and businesses that receive a utility bill. 12,000+ per quarter	yes
Household Hazardous Waste Materials Collection Day	I	X	X	X	X	X	This will be a yearly event. The initial event will be held by fall 2003.	This event has been held every year as an annual event. Participation has been exceptional. Data included in Annual Report page 10.	yes



City of North Augusta Stormwater Management Department Program Goals Evaluation & Results									
BMP (Symbols: I = implemented, X=on going C= Completed, S=under evaluation/rescheduled)	2003	2004	2005	2006	2007	2008	Measurable Goal	2003-2008 Measure/Assessment	Met?
Kids Earth Day	I	X	X	X	X	X	Participate in Kids Earth Day annually. Determine number of kids participating in stormwater model demonstration.	The SWMD participates in this even annually. We display the sw model and interact with every child that visits the booth. Each child receives a toy/gift with imprinted SWMD messages for reinforcement.	yes
<b>3. Illicit Discharge Detection and Elimination</b>									
Initial Identification of Illicit Discharge Sources	C			X	X	X	Number and type of illicit discharges will be documented for each year.	Accomplished 75% of drainage assessment within the city to date.	yes
Implement an Information management System for Tracking	C		S	I	X	C	This information will be included in annual reports and will detail the following:# of outfalls screened, #of IDs discovered during screening, #of IDs resolved	Implemented Alchemy in 2007 to store all SWMD data collected for the department.	yes
Household Hazardous Materials Collection Day	I	X	X	X	X	X	This will be a yearly event. The initial event will be held by fall 2003.	This event has been held every year as an annual event. Participation has been exceptional. Data included in Annual Report	yes
Storm Sewer System Map	I	X	X	X	X	X	The City will submit a topographical map listing primary outfalls and watersheds to SCDHEC with the NPDES permit NOI. A complete map, meeting all permit requirements, will be submitted in the fall of 2003.	The storm sewer system map is 75-80% complete for North Augusta. A copy is attached with this report as Appendix A.	yes

City of North Augusta Stormwater Management Department Program Goals Evaluation & Results									
BMP (Symbols: I = implemented, X=on going C= Completed, S=under evaluation/rescheduled)	2003	2004	2005	2006	2007	2008	Measurable Goal	2003-2008 Measure/Assessment	Met?
Water Resources Ordinance	I	C					The Water Resources Ordinance will be placed in effect in 2004.	the 2008 Development Code has been passed by City Council and includes comprehensive strategies to protect water quality and preserve sensitive space in the city through codes, planning, permitting, and enforcement	yes
Used Oil Collection	I	X	X	X	X	X	Yearly notices will be sent to City residents via utility bills to remind them of this service.	Used oil is collected at the MRF in North Augusta. Most is collected by utility companies but some is used in a waste oil burner to heat the facility.	yes
Sanitary Sewer System Inflow and Infiltration Detection/Repair	I	X	X	X	X	X	By summer 2003 the Stormwater Management Department (SWMD) will, in conjunction with the Public Utilities Department, develop an information sharing system. This system will facilitate the SWMD receiving timely information of problem areas in the system that may warrant more frequent outfall screening. Problems detected by outfall screening can be quickly referred to Public Utilities for further investigation. Data will be compiled for end of year comparisons with previous years.	The utilities department has undergone a comprehensive assessment of the sewer system in North Augusta. The assessment included dye testing, smoke testing, and TV testing lines throughout the city.	yes
Storm Drain Curb Markers	I	X	X	C	X	X	City's effort to mark 90% of all storm drains exposed to pedestrian traffic within the first five-year permit term.	Storm drain marking program ongoing. Completed 90% of marking in pedestrian areas.	yes
Stormwater Management Guide for Businesses	I	X	X			x	Create a guide for businesses to help them understand stormwater management.	A new guide will be developed in 2009 for distribution.	no

City of North Augusta Stormwater Management Department Program Goals Evaluation & Results									
BMP (Symbols: I = implemented, X=on going C= Completed, S=under evaluation/rescheduled)	2003	2004	2005	2006	2007	2008	Measurable Goal	2003-2008 Measure/Assessment	Met?
Water quality monitoring			I	X	X	X	Primary outfalls and outfalls of concern will be screened year 2003 and quarterly thereafter. Primary outfalls (outfalls that meet items 1-3 above and discharge in or near waters of the state) will be designated as such on the storm sewer map. Outfalls of concern are non-primary outfalls that based on initial screening, historical information, or testimonials, the Stormwater Management Department feels that frequent screening is warranted. The list of outfalls of concern will be dynamic and will not be represented as permanent quarterly screening points on the storm sewer map. Secondary outfalls will be screened yearly.	A baseline water quality report has been compiled and distributed to the community through workshops, seminars, media coverage, and web site accessibility. The report is a compilation of all data collected to date at the lowest point in each basin. Sampling at specific outfalls has not been done.	yes
<b>4. Municipal Operations Pollution Prevention/Good Housekeeping</b>									
Develop Pollution Prevention Plan	C						Complete this plan in 2003.	completed	yes
Employee Training Materials	I	X	X	X	X	X	Maintenance Schedules (City equipment and infrastructure maintenance policies and schedules)	Seminars were conducted in 2008 for all employees and training materials were distributed.	yes
Stormwater System Map		I	X	X	X	X	Recycling Efforts (City recycling policies and procedures)	Map is nearly completed. Data presented in this report.	yes
Information Management System		I	X	C	X	X	Waste Disposal Guidelines (Addresses disposal of wastes such as vehicle service wastes, sediment removed from catch basins, landscaping debris, etc... from City operations). Areas of concern prioritized for correction.	Alchemy has been developed and is now in use at the City. All data collected in the SWMD program is available in that system.	yes

City of North Augusta Stormwater Management Department Program Goals Evaluation & Results									
BMP (Symbols: I = implemented, X=on going C= Completed, S=under evaluation/rescheduled)	2003	2004	2005	2006	2007	2008	Measurable Goal	2003-2008 Measure/Assessment	Met?
Employee Training			I	X	X	X	Implement employee training in 2004.	All employees of the City of North Augusta were trained in 2008. Each employee's participation was required and documented.	yes
Maintenance Schedule			I	C	X	X	Document and analyze program effectiveness beginning in 2006.	The program maintenance schedules have been established in 2008. Storm box cleaning, street sweeping, storm pipe maintenance, and other sw infrastructure within the city is undergoing a comprehensive review at this time.	yes
Pollution Reduction				I	X	X	Yard waste composting seminar (2003, 2005, & 2007)	Seminars were completed regarding all aspects of yard maintenance through Carolina Yards & Gardens workshops held in the City in 2005, 2006, 2007, and 2008	yes
Street Sweeping	I	X	X	X	X	X	Quantity of trash collected per unit effort under the Adopt a Stream program for each year. Document volume of waste removed from streets annually.	Street sweeping data is being collected and is presented in this report.	yes
Storm sewer Maintenance (jet/vac trailer and operator)				I	X	X	By 2007, purchase equipment and hire staff to begin a stormsewer maintenance program. Document number of drains cleaned and volume of waste removed from stormdrains annually.	Storm drain box cleaning is being conducted and the data is being presented in this report.	yes

City of North Augusta Stormwater Management Department Program Goals Evaluation & Results									
BMP (Symbols: I = implemented, X=on going C= Completed, S=under evaluation/rescheduled)	2003	2004	2005	2006	2007	2008	Measurable Goal	2003-2008 Measure/Assessment	Met?
Acquire leaf vacuum machine and train two operators.						X	May 2008 machine purchased and a training event was held on May 22, 2008. Two employees (1 S&D, 1 SWMD)	Machine has been acquired and staff are trained on it operation. The machine is being used routinely on city streets.	Yes
<b>5. Construction Site Runoff Control</b>									
Perennial Stream Habitat/Ecological Assessment	I	X	X	X	X	X	Stream habitat/ ecosystem assessments will be conducted for the primary stream in each watershed at a point close to the City perimeter during 2003. Follow-up assessments will be conducted years the next four years for comparison.	Assessments are ongoing. A water quality report describing the assessments to date has been completed. The data is available on our public website at <a href="http://www.northaugusta.net">www.northaugusta.net</a> . A link is available on the homepage to the report.	yes
Information Management System	I	X	C			X	An IS system is installed and being utilized by SWMD on the city's network.	Data management system is Alchemy and Permit Tracking.	yes
Construction Site Erosion and Sediment Control Ordinance	C						This system will be put into place in 2003.	completed	yes
Construction Site Inspection Program		I	X	X	X	X	Data will be collected on permitted construction site compliance rates for years 2004 – 2007.	Data from the site inspection program is included in this report. A 13% increase in compliance has been achieved since program inception. The compliance rate for 2008 is nearly 76% from 62% in 2005.	yes

City of North Augusta Stormwater Management Department Program Goals Evaluation & Results									
BMP (Symbols: I = implemented, X=on going C= Completed, S=under evaluation/rescheduled)	2003	2004	2005	2006	2007	2008	Measurable Goal	2003-2008 Measure/Assessment	Met?
Water Quality Monitoring			I	X	X	X	Primary outfalls and outfalls of concern will be screened year 2003 and quarterly thereafter. Primary outfalls (outfalls that meet items 1-3 above and discharge in or near waters of the state) will be designated as such on the storm sewer map. Outfalls of concern are non-primary outfalls that based on initial screening, historical information, or testimonials; the Stormwater Management Department feels that frequent screening is warranted. The list of outfalls of concern will be dynamic and will not be represented as permanent quarterly screening points on the storm sewer map. Secondary outfalls will be screened yearly.	A baseline water quality report has been compiled and distributed to the community through workshops, seminars, media coverage, and web site accessibility. The report is a compilation of all data collected to date at the lowest point in each basin. Sampling at specific outfalls has not been done. Priority has been focused on stream water quality overall for the baseline report.	yes
Construction Site Runoff Pollution Control Seminar		I	X	X	X		Construction site runoff pollution control seminar (Year 2004 & 2006)	See Education & Outreach Efforts listed in report for details.	yes
Stormwater Management Manual	I				C		The Stormwater Management Manual will be completed in 2003. The manual will be updated yearly to document progress made in achieving each goal.	Complete	yes
Sediment & Erosion Control Manual	I	C					The Sediment & Erosion Control Manual will be completed in 2004. The manual will be updated yearly to document progress made in achieving each goal.	Complete and available on line and/or is available in hard copy format to all.	yes
Water Quality Manual	I	X	C				The Water Quality Manual will be completed in 2005. The manual will be updated yearly to document progress made in achieving each goal.	Complete and available on line and/or is available in hard copy format to all.	yes



City of North Augusta Stormwater Management Department Program Goals Evaluation & Results									
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Water Quality Design Seminar				I	X	-	Conduct WQ design seminar bi-annually.	Accomplished - see details in Education and Outreach details in report.	yes
Residential Lot BMP Guidance Pamphlet	I	X	X	X	X	X	Create pamphlet for all builders working in the city.	completed and distributed to all contractors within the city at time they pull permits	yes
Conduct Construction Site Pollution controls seminars.			X	X	X	X	Conduct one training event in 2004 and one in 2006 geared towards contractors, developers and engineers.	completed see report	yes
<b>6. Post-Construction Runoff Control</b>									
Identification of Developed Property WQ BMPs	C						Include BMPs in the City Stormwater Management Manual that will be completed in 2003.	All developed property BMPs are compiled within a report in the SWMD. The report is used for yearly evaluations of the systems.	yes
Implement Development WQ BMPs Ordinance		I	X		X	C	The Water Quality BMP Ordinance will be placed in effect in 2004.	Completed new Development Code that incorporates goal	yes
Water Quality Incentives Program	C						Track number of customers utilizing the credit program to determine outreach efforts.	completed	yes
Stormwater Management Facility Inspection Program	I	X	X	X	X	X	Conduct yearly inspections of Stormwater Management facilities to ensure compliance with the SWM Ordinance and any written agreement between city and customer.	All BMPs are inspected annually. Reports of maintenance needs are sent to owners.	yes
Storm sewer Maintenance (jet/vac trailer and operator)				I	C		By 2007, purchase equipment and hire staff to begin a storm sewer maintenance program. Document number of drains cleaned and volume of waste removed from storm drains annually.	completed, data available in this report. 2008 included one technician to assist the operator.	yes

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Appendix A**

*Storm Sewer Outfall Map*