

North Augusta



South Carolina's Riverfront

**Stormwater Management Program
2010 sMS4 Annual Report**



*North Augusta Brick Pond Park
Stormwater Education Partnership Program*

SCR030304
City of North Augusta



sMS4 Annual Report Oct. 30, 2010

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**City of North Augusta Stormwater Management
Small Municipal Separate Storm Sewer System (sMS4)
Permit #SCR030304
Annual Report
September 1, 2009 – August 30, 2010**

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

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: _____ Date: _____

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.

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North Augusta Stormwater Management Department Team

Name	Title	Role	Certifications
Tom Zeaser	Director of Engineering & Public Works	Plan Reviewer	PE
David Caddell	Stormwater Manager & Superintendent of Streets and Drains	Program Manager, Plan Reviewer, Site Inspector	CPESC, CPSWQ, CEPSCI, CSWPR
Tanya Strickland	Environmental Coordinator	Coordinates Program, Plan Reviewer, Site Inspector	CEPSCI, CSWPR, CHMM
Jeff Davis	Engineering Technician	Site Inspector, Engineering Inspections	CEPSCI
Jerome Mabry	Heavy Equipment Operator	Storm drain maintenance and construction	CDL
Raphael Guerra	Laborer	Storm drain maintenance and construction laborer	

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 29-37 of this report. The Storm Sewer Outfall map is located at the end of this report as Attachment A.

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: Yard Waste
- Commercial:**
 - Poor Outdoor Housekeeping Parking Lot Runoff
 - Concern Related to Specific Business Type. Describe:
- Industrial:**
 - Poor Outdoor Housekeeping Parking Lot Runoff
 - Concern Related to Specific Business Type. Describe: Restaurants, Automotive
- Institutional:**
 - Poor Outdoor Housekeeping Parking Lot Runoff
 - Concern Related to Specific Business Type. Describe: School Parking lots

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

Why targeted? THE CITY CONTINUES ITS EFFORTS TO BUILD A POSITIVE WORKING RELATIONSHIP WITH THESE FIRMS TO CREATE A PROACTIVE APPROACH REGARDING BMPS, WATER QUALITY, AND LOW IMPACT DEVELOPMENT IN NORTH AUGUSTA.

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:

	Number		Number
Brochures/ Newsletters	44,000	Utility Bill Inserts	44,000
Workshop/ Seminars	16	Radio Ads	
Posters	12	Television Ads	
Newspaper Articles	15	Other: Events	4
Web site (estimated hits)	200	Other: SWMD Res. survey	1

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
 - 1st year report – program was under development
 - Other: Explain

MCM #01 Educational Outreach Summary 2009 – 2010

Events	Topic	Date	Reached
Item/Event - Audience	Topic Covered/Discussed		Participants/Group
Volunteer SW Pond Cleanup	SW Wetland	Sep 12, 09	SW Volunteers cleaning wetland (2)
Electronics Recycling Day	Recycle to prevent waste from being thrown out.	Sep 12, 2009	100 attendees residents/businesses
SESWA Conference Attendees – Tour of BPP	SW Wetlands and Stormwater Pollution treatment	Sep 30, 09	40 adults (from around the Southeast)
SESWA Presentation	BPP SW Treatment Wetlands	Oct 1, 09	60 adults (from around the southeast)
Palmetto Garden club Presentation	BPP SW Treatment Wetlands and Stormwater Pollution Prevention	Oct 8, 09	16 adults
Meeting with Cub Scout Leaders Committee	SW Volunteer Opportunities	Oct 11, 09	8 adults – 100s of children will be reached
Luncheon Workshop	SW Utility Fee Assessment – in house training	Oct 14, 09	4 adults (in house training)
BPP SW Education Day	NA Middle –day of SW Training	Oct 21, 09	120 children (5 th grade) and 20 adults
The Resource Newsletter	All citizens – SW Education	Nov 2009	12,000 households
Trenton Garden Club Presentation	SW Wetlands and SW education	Nov 5, 09	20 adults
NA Elem Presentation	SW Wetlands and SW Education	Nov 6, 09	120 kids 7 adults
Girl Scout Tree Planting Ceremony	BPP Tree planting	Nov 6, 09	25 adults 40 kids in honor of volunteers
Boy Scouts at BPP Nature Walk	SW Education	Nov 15, 09	15 boys, 12 adults
Boy Scouts marking Storm Drains	SW Education and Activity	Nov 22, 09	8 boys 3 adults
NA Leadership Presentation	NA Leadership class 2009	Jan 6, 10	20 adults (business leaders)
Science Day	Mossy Creek Elem	Feb 26, 10	120 students, 6 teachers
The Resource Newsletter	All citizens – SW Education	Feb 2010	12,000 households
Planning Commission	SW Education	Mar 1, 10	8 adults
Hammond Hills Science Day	Hammond Hills Elem	Mar 18, 10	115 students 9 adults
Stormwater Survey Conducted	All citizens – assessment tool	Feb-Apr 10	1200 surveys out
Earth Day	Kids Earth Day event	Apr 17, 10	>3000 attended
MCG Family Fun Day	BPP – SW Education event	Apr 24, 10	30-40 adults/kids
SRNS Safety/Health Event	SRS – BPP SW Education	Apr 28, 10	40 adults
The Resource Newsletter	All citizens – SW Education	May 2010	12,000 households
Edgefield Garden Club	SW Education	May 13, 10	20 adults
HHAZ Event	Haz Waste Collection – SW Educ	May 15,	120 adults
Adventure Camp at BPP	SW Education	Jun 10, 10	22 kids 5 adults
SCASM Presentation	SW Education Program lessons learned	Jun 17, 10	150 adults (SW profess in SC)
Adventure Camp at BPP	SW Education	Jun 17, 10	20 kids 5 adults

Item/Event - Audience	Topic Covered/Discussed		Participants/Group
Adventure Camp at BPP	SW Education	Jun 24, 10	15 kids 5 adults
Adventure Camp at BPP	SW Education	Jul 1, 10	20 kids 5 adults
SIC Cleanup Day	NA Elem (preventing SW poll)	Aug 14, 10	10 adults 1 child
Area 2 School Principals Mtg	NA Area 2 Hdq., SW education posters for schools, BPP proj	Aug 25, 10	10 adults (school officials)
The Resource Newsletter	All citizens – SW Education	Aug 2010	12,000 households
Aiken Family Magazine	SW Education – Article	Aug 2010	Unknown - >4000
<i>Approx. Total of Individuals reached 9/1/09 – 08/30/10</i>			68,486

2010 Stormwater Survey to Residents

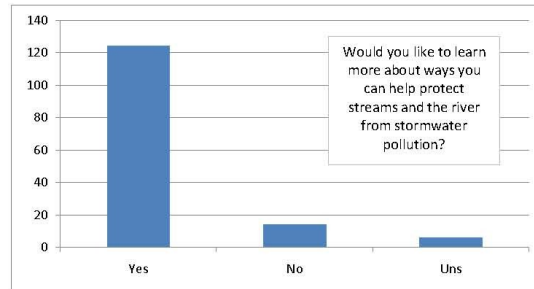
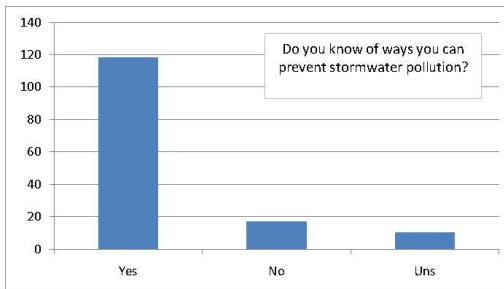
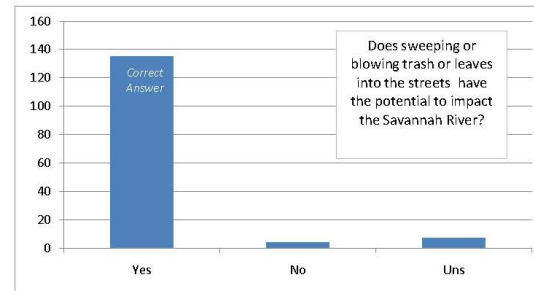
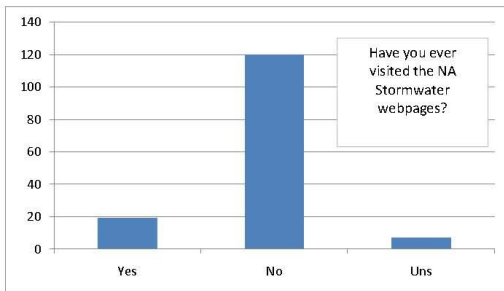
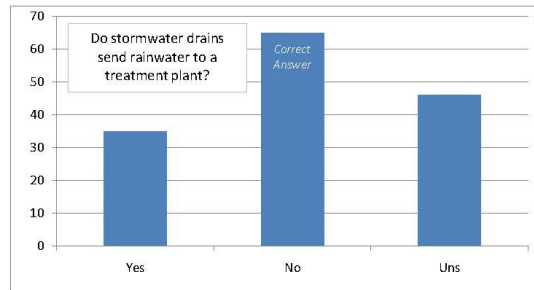
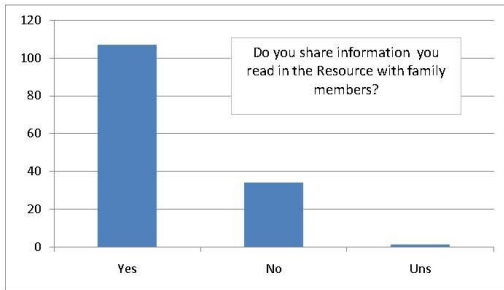
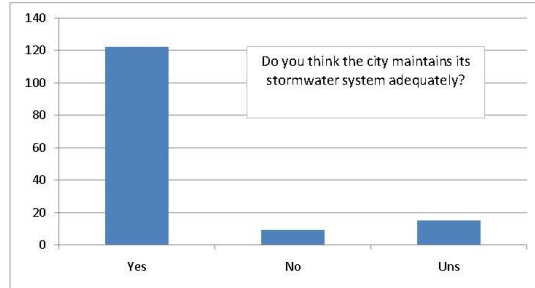
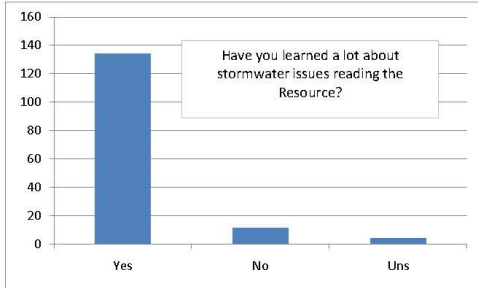
During February, March and April, the stormwater management department (SWMD) conducted a survey of residents (February issue of the *Resource*) to see how effective our outreach efforts have been and also to give residents a chance to comment on issues that are important to them. Eleven thousand residents received the Resource newsletter (with the survey) in their utility bill.

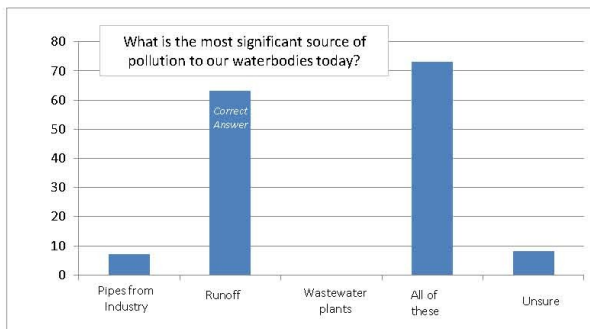
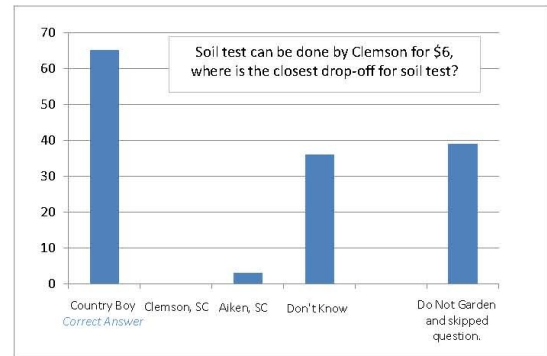
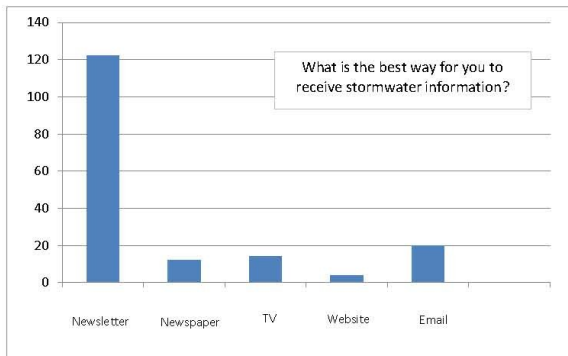
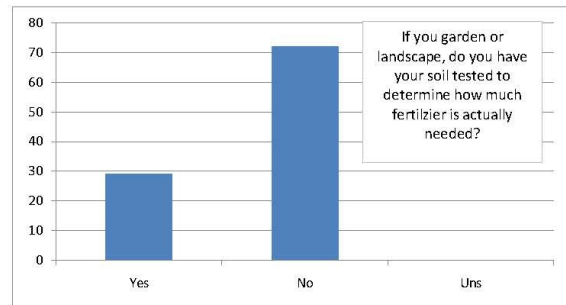
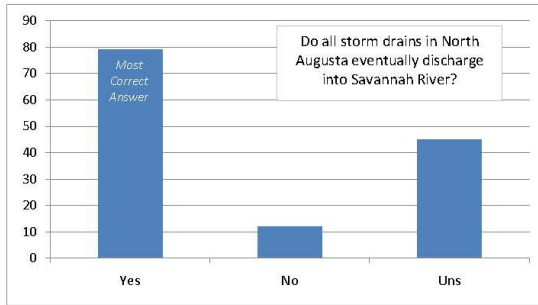
The survey results will be used to improve our outreach efforts and to improve our service to the community. One hundred forty eight (148) responses were received. Of those, 43 residents provided additional comments that helped us identify problem areas and understand what the program means to the community.

Overall, the results indicate that residents have learned a lot about stormwater issues since the program began in 2003. Many people want to learn more about how they can help protect our watershed. Also, most people enjoy getting the Resource newsletter and many share the information they learn. Efforts to educate residents and improve water quality in the watershed will continue.

Results are on the following two pages.

2010 Stormwater Survey Results





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).

- 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, Public Education Program (3 events)

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:

Outdoor Education Proj

Participant Demographic:

- Residential
 Commercial
 Industrial
 Institutional

Activity:

- Program Planning
 Stenciling
 Stream Cleanup
 Street Sweep
 Monitoring
 Wetland Planting
 Re-Forestation
 Other:(Describe)
IMPMLEMENTATION PUBLIC
PRIVATE SCHOOL STORMWATER
EDUCATION PARTNERSHIP

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
 1st year report – program under development
 Other: Explain

MCM #2 Summary Activities for 2009 & 2010

Date	Activity	Participants
09/12/09	Volunteer SW Wetland Cleanup	2
09/12/09	Electronics Recycling Event	100
09/30/09	SESWA Conference Tour of SW Wetlands	40
10/21/09	Brick Pond Park (BPP) Education Program	140
11/06/09	Girl Scout Tree Planting at BPP	65
11/15/09	Boy Scouts at BPP – SW Edu Walk	27
11/22/09	Boy Scout Storm Drain Marking	11
03/01/10	NA Planning Commission Study Session	8
2/10/10	NA Stormwater Residential Survey	148
04/17/10	Earth Day Event at Lions Memorial Field	4
04/24/10	MCG Family Fun Day at BPP	30
05/15/10	Household Hazardous Waste Collection	120
06/10/10	Adventure Camp at BPP – monitoring	27
06/17/10	Adventure Camp at BPP – water quality	25
08/14/10	NA Elem SIC Cleanup day – parking lot	11
Year long	Augusta State Univ. SW Wetlands Studies	5
Year long	USC-Aiken SW Wetlands Studies	5
	Total for period	768

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) Note: ***The storm sewer map is located as Appendix A at the end of this report.***

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: Hammond Hills s/d sewer infrastructure is older than other areas. The S/D was dye and smoke tested to locate potential problems. All problems found were repaired.
- Business concerns. Describe a concern as an example: Areas within the sub-watershed basins that have high density commercial facilities (restaurants, big box stores, and adjacent businesses) are waked down. The drainage path and infrastructure is checked routinely for problems. Any issues observed coming from a particular business, is tracked and they are contacted to fix the problem.
- Commercial concerns. Describe a concern as an example: Maintaining SW conveyances. Annual inspections of BMPs (storm ponds, piping, inlets/outlets) has resulted in correction of many problems within the commercial district. Ex. Large retailer stormwater pond full of sand, owner repaired pipe failure.
- Industrial concerns. Describe a concern as an example. Industrial area BMPs are inspected. Problems that are found are corrected. Ex. Large warehouse needed to consider BMPs for sediments, worked with owner.
- TMDL Evaluation. Result: Pretty Run Creek: monitoring stream for signs of impact, meeting with residents to stabilize and repair problems within the watershed.
- Impaired Water Body. Name water body: *Pretty Run Creek*
- Citizen complaints. Give an example: Citizens contact us routinely when they find problems in the watershed. Sewer leaks and other repairs are corrected ASAP. Groups help clean the stream of debris.
- Wetlands/Critical Area, Public Beaches, Shellfish Beds, or other coastal concerns. Brick Pond Park, the stormwater treatment system in the basin is being used as an education facility for college students and elementary school. The city is studying the system as well. An assessment of all critical areas is being conducted. The final assessments will be completed in 2010.
- Other. Describe and/or give example: I&I, Routine Maintenance, and Citizen Complaints are addressed immediately when sewer backups, overflows, or other problems are found.

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 type="checkbox"/> Dry weather outfall screenings | <input checked="" type="checkbox"/> Site visit | <input type="checkbox"/> Questionnaire |
| <input checked="" type="checkbox"/> Business concerns: | <input type="checkbox"/> Dry weather outfall screenings | <input checked="" type="checkbox"/> Site visit | <input type="checkbox"/> Questionnaire |
| <input checked="" type="checkbox"/> Commercial concerns: | <input type="checkbox"/> Dry weather outfall screenings | <input checked="" type="checkbox"/> Site visit | <input type="checkbox"/> Questionnaire |
| <input checked="" type="checkbox"/> Industrial concerns: | <input type="checkbox"/> Dry weather outfall screenings | <input checked="" type="checkbox"/> Site visit | <input type="checkbox"/> Questionnaire |
- Citizen complaints: Give an example: Citizen complaints are tracked through our IS system. A citizen found standing water in his yard during drought time. We investigated and found an old sewer line had been breached when he installed his new driveway. Problem repaired.
- Other: Describe and/or give example: The city has a very active CMOM program. Many lines have been tested throughout the city for leaks. All problems found are repaired.

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
- On the Job Training
- Other: Describe mandatory training

Businesses

- Direct Mail
- Bill Inserts
- Site Visits
- Phone Calls
- Seminars
- Other: Describe Newspaper articles

General Public

- Direct Mail
- Bill Inserts
- Public Meetings
- Radio
- TV
- Other: Describe Qtrly Newslett

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 (1st 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
 - 1st year reporting – program under development
 - Insufficient regulatory mechanism (ordinance)
 - Other: Explain

MCM#3 Activities & Results for North Augusta SWMD (reporting period only)

Storm Drain Cleaning

Year	Item	Number of Drains Cleaned	Pollutants Removed (tons estimated)
2009	Storm drains cleaned	80	2.6
2010	Storm drains cleaned	156	5.0

Leaf Vacuum

Year	Item	Pollutants Removed (tons)
9/2009 – 8/32/10	Leaf vacuuming	128.2

Street Sweeping

Year	Street Sweeping	Pollutants Removed (tons)
2009	Street Sweeping (664 miles)	77.84
2010	Street Sweeping (1622 miles)	172.32

Household Hazardous Waste Collections

Year	Types of items collected	Pollutants Removed (tons)
2010	Paint, oils, gasoline, pesticides, herbicides	4.38 (see table next page)

E-Waste Recycling Event

Year	Types of items collected	Pollutants Removed (tons)
2010	Computers, monitors, electronics etc.	46.72

Storm Pipe Repairs

Year	Item	(ft)
2009	Storm Pipes repaired or installed	230
2010	Storm Pipes repaired or installed	770

Household Hazardous Waste collected 05/15/2010

2010 Household Hazardous Waste Collection Event Totals (from manifest)			
Hazardous Waste Collected	lbs	Tons	Percent
Waste Aerosol	221	0.1105	3%
Waste pesticides liquid	421	0.2105	5%
Waste Propane	60	0.03	1%
Waste Flam Liquid (lead)	723	0.3615	8%
Waste Sod Hypochlorite	21	0.0105	0%
Waste pest solid	87	0.0435	1%
Waste corrosives	66	0.033	1%
Waste Hg	3	0.0015	0%
Waste Caustic	72	0.036	1%
Light bulbs Haz waste	331	0.1655	4%
Waste Fertilizer	102	0.051	1%
Waste Ammonia solutions	37	0.0185	0%
Waste Corrosives liquids	21	0.0105	0%
Waste Flam Solid Naphthalene	1	0.0005	0%
Waste Fertilizer/Amm Nitrate	80	0.04	1%
Florescent bulbs	4	0.002	0%
Waste flammable Acetone, Ketone	400	0.2	5%
Waste Paint	6112	3.056	70%
Total	8762	4.381	100%

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 (1st Year Reporting)
 - Full implementation of the MCM? Yes No (1st Year Reporting)
 - Enforcement of the MCM? Yes No (1st 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 Below include *Partial Details* (size of disturbance, date of approval, notes, basin, and other details are recorded but not presented here due to space limitations)

2009 Permits Issued and Fees Collected 9/1/09 – 12/31/09

date application submitted+ fees received	Permit #	Project Name	Size acres disturbed	Date Approved by SW Dept	DHEC Fee Collected	Sent to DHEC
9/22/2009	n/a	Costume Store	<1	9/28/2009	-	
12/1/2009	n/a	St Bartholomew's Education	<1	12/4/2009	-	
11/20/2009	moved to 2010	Cameron Cove (permitted in Jan 2010)	7.1	1/7/2010	2010	
11/29/2009	moved to 2010	Chalet North Ph II (permitted in Feb 2010)	1.7		2010	

Total fees to DHEC

\$0

2010 Permits Issued and Fees Collected 1/1/10 – 08/30/10

date application submitted+ fees received	Permit #	Project Name	Size acres disturbed	Date Approved by SW Dept	DHEC Fee Collected	Sent to DHEC
11/20/2009	10011001	Cameron Cove	7.1	1/10/2010	\$ 125.00	1/10/2010
11/29/2009	10020801	Chalet North PH II	1.7	2/8/2010	\$ 125.00	10/8/2010
12/31/2009	-	Clean Express (Cleanco)	0.34	1/8/2010	-	
3/2/2010	-	AHR Enterprises	0.9	3/3/2010	-	
3/10/2010	project cancelled	McDonalds Hwy 25	1.3	-	Cancelled project	-
2/22/2010	-	Wando Wood Maj mod	1	2/24/2010	-	
3/22/2010	10033001	City NA - Greenway	2	3/29/2010	\$ 125.00	3/30/2010
3/24/2010	-	Bergen West maj mod	3	5/20/2010	-	
4/20/2010	-	Wando Woodl maj mod 2	2.4	5/25/2010	-	
4/13/2010	-	City NA - Sweetwater Tank	0.7	4/23/2010	-	
5/5/2010	-	Dr. David Allen Parking lot	0.8	6/24/2010	-	
5/11/2010	-	Amin pkg lot renovation	0.1	NPR		
6/28/2010	7011001	Wando Woodlands PH IIA	15.3	7/1/2010	\$ 125.00	7/1/2010
7/6/2010	-	Wife Saver remodel	0.9	7/10/2010	-	
7/22/2010	-	Big Lots pkg lot renovation	<1	NPR		
8/19/2010	1100001	American Legion Post 71	1.6	10/18/2010	\$ 125.00	10/20/2010
8/25/2010	-	Bob Richards bldg expansion	0.2	NPR		

NPR=no permit required

Totals Fees to DHEC

\$ 750.00

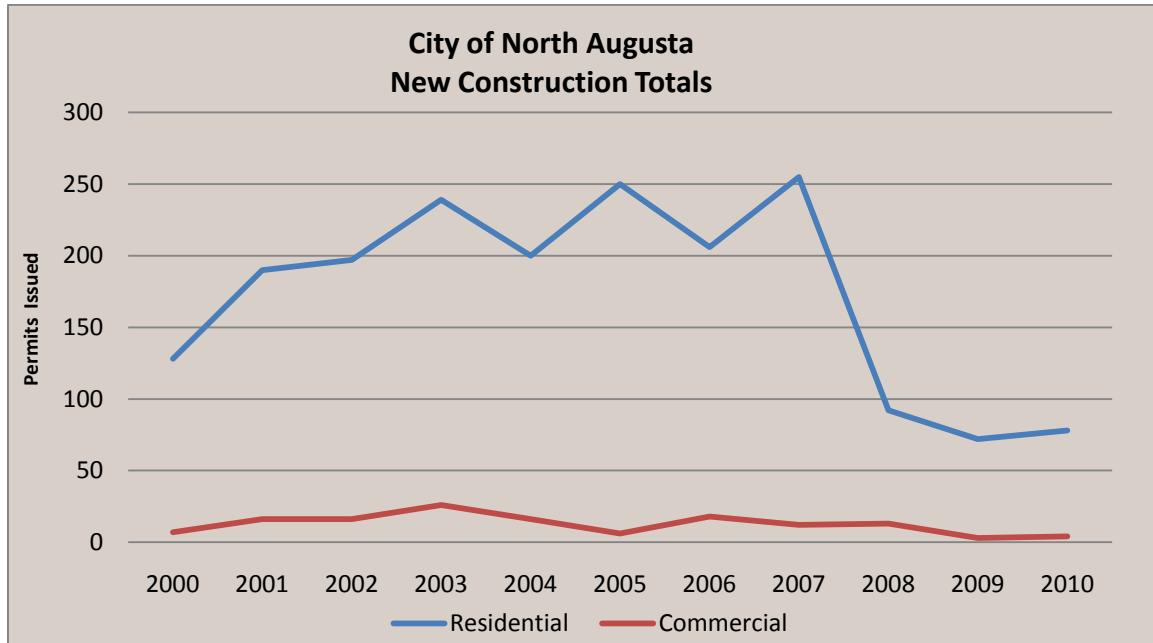
2009 INSPECTION DETAILS 9/1/09 – 12/31/09							
Months	SAT	UNSAT	MARG	C&D	Total Insp.	COMP	NONCOMP
July (not included)	-	-	-	-	-	-	-
August	19	5	2	1	27	21	6
September	36	3	1	0	40	37	3
Total 3rd Qtr	76	23	11	2	112		
Percent	68%	20%	10%	2%			
October	18	1	1	1	21	19	2
November	18	5	5	0	28	23	5
December	36	0	3	0	39	39	0
Total 4th Qtr	72	6	9	1	88	81	7
Percent	82%	7%	10%	1%		92%	8%

2010 INSPECTION DETAILS 1/1/10 – 08/31/10							
Months	SAT	UNSAT	MARG	C&D	Total Insp.	COMP	NONCOMP
January	20	5	2	0	27	22	5
February	20	3	1	1	25	21	4
March	20	1	2	0	23	22	1
Total 1st Qtr	60	9	5	1	75	65	10
Percent	80%	12%	7 %	1%		87%	13%
April	19	0	3	0	22	22	0
May	23	2	2	0	27	25	2
June	24	0	3	0	26	27	0
Total 2nd Qtr	66	2	8	0	76	74	2
Percent	88%	2%	10%	0%		97%	3%
July	19	0	2	1	22	21	1
August	22	0	2	0	24	24	0
<i>September</i>	23	0	2	0	25	25	0
Total to date	64	0	6	1	71	70	1
Percent	90%	0%	9%	1%		99%	1%
Annual Total to date					222	209	13
Annual Comp %						94%	6%

City of North Augusta Construction BMP Compliance

In analyzing the compliance rates for this reporting period, our inspection and oversight efforts have continued to be effective. Lower than average rainfall and construction during the reporting period resulted in a good overall compliance rating. North Augusta continues to see low development rates at the present time (see 2000-2010 Summary below). Active construction projects in the city are at a ten year low.

There is a continued shortage of rainfall in our area. During only one quarter in the reporting period, excessive amounts of rainfall (4th Qtr 2009) were observed. Overall, BMPs in place were being maintained and functioned well. Contractors were contacted if any deficiencies were noted, and they are given a set time to repair them based on potential impacts. The city construction site inspector must visit the site regardless of the stage of construction to determine if BMPs are being maintained.



While we enjoy the fact that our compliance ratings are excellent this reporting period, we understand that in all likely-hood, when the economy rebounds and construction begins to pick up, the numbers will not stay in the 94% compliance range. We will continue to assist our construction community with educational opportunities, whether in a formal or informal way, and will continue to monitor construction sites diligently to assure compliance.

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 (residential subdivision development stormwater ponds only, pond maintenance agreement provided at time of NOI submittal if other than the developer)
- Maintenance agreement between (new) structure owner and developer.
- MS4 enforces agreements between (new) structure owner and developer.

- MS4 assumes maintenance (only for in-ground devices which are dedicated as part of the city storm sewer system).
- MS4 assumes maintenance and bills owner.
- MS4 conducts maintenance and bills owner only if owner fails to maintain through our illicit discharge ordinance.
- Other: Describe: City annually inspects post-construction structures and notifies owner if a problem exists. City conducts follow-up inspection and further contact with owner when necessary.

City Owned Ponds Cleaned/Repaired

Year	Item	Number of Ponds
2009	Stormwater ponds	14
2010	Stormwater ponds	1

City Maintained Post Construction Water Quality BMPs

Year	Item	Pollutants Removed (tons)
2009	Stormwater BMPs (in ground) Cleaned	.4
2010	Stormwater BMPs (in ground) Cleaned	.6

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 (1st Year Report)
 - Enforcement of the MCM? Yes No (1st 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
North Augusta Clay Pit	<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
 - 1st 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. This training has been followed up with department specific training in 2009/2010.

- In this period, 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".
- In 2010, the city Operations Facility stormwater department employees worked to clean and replace filters on inlet protection devices located at the facility.
- The City is maintaining and conducting a five year study on the constructed stormwater treatment wetlands located below the new Municipal Center and Riverfront development area. Results of the study are used to improve function of the system and provide additional information regarding the system. The Brick Pond Park Stormwater Education partnership is in place, and the City is hosting three schools this year.

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.

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.

				<div style="border: 1px solid black; padding: 2px;"> S = scheduled, § = re-scheduled, I = implemented, X = ongoing C=completed R=removed </div>		
BMP	2008	2009	2010	Measurable Goal	2009-2010 Measure/Assessment	Met?
1. Public Participation/Involvement						
Volunteer Storm Drain Stenciling/markings	X	X	x	90% of Drains were marked in the first 5 years of the program. The program is ongoing and replacement markers are now being installed.	The city has marked 90% of drains in pedestrian areas through the SWMD internship program. In 2010 the city did not have an intern due to budgets, the Boy Scouts stepped up and marked new drains in the West and Center Street areas.	yes
Establish a Citizens Advisory Committee		R		This goal has been evaluated and removed from our program until further notice.	A citizens Advisory Committee has not been a necessary component of our vigorous program.	N/A Needed - Removed from goals in 2009.
City-School Partnership Program	X	X	x	By May 2003, meet with representatives from all public and private schools within the City.	Team has developed 5th grade environmental education initiative at the Brick Pond Park Eco Park	yes
Meet with school representatives	X	X	x	By 2004, meet with each local school representatives to encourage participation with city SW program.	Meeting to discuss environmental education program for 5th graders across the city. Team School Board Member, School Principal, SWMD	yes
Evaluate School Environmental program			x	Meet with school representatives yearly to assess and encourage implementation of environmental learning activities.	We have exceeded these goals in the past 2 years.	YES
Implement Adopt a Stream Program		X	R	Work with communities to clean up streams within the watershed.	Rather than implementing an adopt a stream program, we have elected to use a more targeted approach by soliciting volunteers to clean stream reaches with a significant litter problem (of which we have very few). Many of our volunteer partners (Boy and Girl Scout, local citizens) are actively working to keep these reaches clear of debris.	yes
Household Hazardous Waste Materials Collection Day	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	

	2008	2009	2010			
BMP	8	9	0	Measurable Goal	2009-2010 Measure/Assessment	Met?
S = scheduled, Š = re-scheduled, I = implemented, X = ongoing C=completed R=removed						
2. Education and Outreach						
City-School Partnership		I	x	By May 2003 meet with representatives from all public and private schools within the City.	Meeting with North Augusta Elem. In Nov 2008 to begin process. Met with USC-Aiken and currently have an active city school partnership with the University. Partnership formed in 2009 with local schools, school board, and local universities. Brick Pond Park outdoor education program.	yes
Establish Internship program with Universities.	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 graduated and several are currently working at DHEC or within other local communities environmental/sw programs.	yes
Water Quality Brochures	X	X	x	Develop WQ brochures and education materials for public and professional use.	Stream type brochure completed in 2007. Available to Developers, Engineers, Citizens	yes
Stormwater Fact Sheets	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, landscapers, engineers, contractors, citizens, and small businesses. Stormwater Brochures available at city offices and all events.	yes
Water Quality Poster Series		X	x	Display posters in public buildings and offer copies to businesses. (begin 2003)	Stormwater posters developed in 2010 and distributed to all local schools for display.	yes
Pollution Prevention Guides for Businesses	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 2003. Distributed to auto repair shops in the city. A more comprehensive guide based on DHECs guide is under development for 2009. As of date of this report, document in draft format.	yes
Stormwater Pollution Television Spot	-	Š	R	Stormwater Pollution TV spot. (2004)	Funding for this is limited. Until further notice, we will not keep this on our list of goals.	removed

BMP	2	2	2	Measurable Goal	<div style="border: 1px solid black; padding: 2px;"> S = scheduled, § = re-scheduled, I = implemented, X = ongoing C=completed R=removed </div>	2009-2010 Measure/Assessment	Met?
	0	0	0				
	0	0	1				
	8	9	0				
Stormwater Internet Web Pages	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)		City launched a new website in Oct 2009. Web pages to be updated by Jan 2010.	yes
Storm Drain Stenciling/Curb Marking	X	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
Water Quality Seminars	X	X	x	Low impact development seminar (2004 & 2006)		Item completed. Ongoing outreach efforts.	yes
Pollution Reduction Documentation	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.	yes
North Augusta Forward Newsletter	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 (stormwater Newsletter)	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	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 this report.	yes

	2008	2009	2010		<div style="border: 1px solid black; padding: 2px;"> S = scheduled, § = re-scheduled, I = implemented, X = ongoing C=completed R=removed </div>	
BMP	8	9	0	Measurable Goal	2009-2010 Measure/Assessment	Met?
Kids Earth Day	X	X	x	Participate in Kids Earth Day annually. Determine number of kids participating in stormwater model demonstration.	The SWMD participates in this event 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
3. Discharge Detection and Elimination						
Initial Identification of Illicit Discharge Sources	X	X	x	Number and type of illicit discharges will be documented for each year.	Accomplished 80% of drainage assessment within the city to date.	yes
Implement an Information management System for Tracking	-	I	x	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. Implemented Track IT for SW Plan Review in 2009.	yes
Household Hazardous Materials Collection Day	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 this report.	yes
Storm Sewer System Map	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.	In 2009/2010 we completed our outfall map and we conducting a quality control review of the data points.	yes
Water Resources Ordinance	I	X	x	The Water Resources Ordinance will be placed in effect in 2004.	the 2008 Development Code was adopted 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	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

BMP	2	2	2	Measurable Goal	2009-2010 Measure/Assessment	Met?
	0	0	0			
	0	0	1	<div style="border: 1px solid black; padding: 2px;"> S = scheduled, § = re-scheduled, I = implemented, X = ongoing C=completed R=removed </div>		
	8	9	0			
Sanitary Sewer System Inflow and Infiltration Detection/Repair	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. A CMOM program is in place.	yes
Storm Drain Curb Markers	X	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	-	X	x	Create a guide for businesses to help them understand stormwater management.	Article in the September 08 edition of the Resource newsletter was published. The article reiterated the NA SWMD MS4 requirements. Copies to all utility customers including businesses were distributed as an insert to utility bill. (12,000)	yes
Water quality monitoring	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
4. Pollution Prevention/Good Housekeeping						
Develop Pollution			x	Complete this plan in 2003.	completed	yes

	2008	2009	2010				
BMP	8	9	0	Measurable Goal	<div style="border: 1px solid black; padding: 2px;"> S = scheduled, § = re-scheduled, I = implemented, X = ongoing C=completed R=removed </div>	2009-2010 Measure/Assessment	Met?
Prevention Plan							
Employee Training Materials	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. Follow-up training occurs on a department basis during monthly meetings.	yes
Recycling	X	X	x	Recycling Efforts (City recycling policies and procedures)		Recycling data is compiled and recorded in monthly reports available on line.	yes
Information Management System	X	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 and is available on line under the "documents library" of the website. Monthly reports reflect operations.	yes
Maintenance Schedule	X	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 are ongoing. Information regarding location of problems and repair schedules are logged.	yes
Pollution Reduction	X	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. Yard waste container program implemented in 2008.	yes
Street Sweeping	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

BMP	2008	2009	2010	Measurable Goal	2009-2010 Measure/Assessment	Met?
<p>S = scheduled, § = re-scheduled, I = implemented, X = ongoing C=completed R=removed</p>						
Storm sewer Maintenance (jet/vac trailer and operator)	X	X	x	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.	Equipment was purchased (street vacuum and Jetter Vacuum truck). Storm drain box cleaning is being conducted and the data is being presented in this report.	yes
Acquire leaf vacuum machine and train two operators.	X	X	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 (2008) and staff are trained on its operation. The machine is being used routinely on city streets.	Yes
5. Construction Site Runoff Control						
Perennial Stream Habitat/Ecological Assessment	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 www.northaugusta.net. A new website launch in Oct 2009 has been completed. The report is posted in the document library.	yes
Information Management System	X	X	x	An IS system is installed and being utilized by SWMD on the city's network.	Data management system is Alchemy and Permit Tracking through Trak-it software. All citizen complaints are maintained in the citywide action tracking system (CATs)	yes
Constr. Site Erosion and Sediment Control Ordinance			x	This system will be put into place in 2003.	completed	yes
Construction Site Inspection Program	X	X	x	Data will be collected on permitted construction site compliance rates for years 2004 – 2009.	In 2009, compliance tracking has shown a marked improvement in construction site BMP maintenance. The percentage increase reflects a substantially lower number of building sites due to the economic downturn and also less rainfall during the year. The compliance rate to date for 2009/2010 is 94%.	yes

BMP	2	2	2	Measurable Goal	2009-2010 Measure/Assessment	Met?
	0	0	0			
	0	0	1			
	8	9	0			
					S = scheduled, § = re-scheduled, I = implemented, X = ongoing C=completed R=removed	
Water Quality Monitoring	X	X	x	Streams that discharge to Savannah River will be sampled at the lowest point in the sub-basin they represent. Primary outfalls 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.	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
Constr. Site Runoff Pollution Control Seminar			x	Construction site runoff pollution control seminar (Year 2004 & 2006)	See Education & Outreach Efforts listed 2009/2010 submitted in this report.	yes
Stormwater Management Manual	X	X	x	The Stormwater Management Manual will be completed in 2003. The manual will be updated periodically to document progress made in achieving each goal.	Complete and updated to 2010.	yes
Sediment & Erosion Control Manual	X	X	x	The Sediment & Erosion Control Manual will be completed in 2004. The manual will be updated periodically 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	X	X	x	The Water Quality Manual will be completed in 2005. The manual will be updated periodically 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 Design Seminar	-	-	x	Conduct WQ design seminar bi-annually.	Accomplished - see details in Education and Outreach details in report. A rain garden workshop was held in 2009.	yes
Residential Lot BMP Guidance Pamphlet	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

	2008	2009	2010			
BMP	8	9	0	Measurable Goal	2009-2010 Measure/Assessment	Met?
	2008	2009	2010		<div style="border: 1px solid black; padding: 5px; text-align: center;"> S = scheduled, § = re-scheduled, I = implemented, X = ongoing C=completed R=removed </div>	
Conduct Constr.Site Pollution control seminars.				Conduct one training event in 2004 and one in 2006 geared towards contractors, developers and engineers.	Completed see 2006 & 2008 Annual Reports previously submitted to the department.	yes
6. Post-Construction Runoff Control						
Identif. of Developed Property WQ BMPs	X	X	x	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	X	X	x	The Water Quality BMP Ordinance will be placed in effect in 2004.	completed	yes
Water Quality Incentives Program			x	Track number of customers utilizing the credit program to determine outreach efforts.	completed	yes
Stormwater Management Facility Inspection Program	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.	Post construction BMPs are inspected annually. Reports of maintenance needs are sent to owners.	yes
Storm sewer Maintenance (jet/vac trailer and operator)	X	X	x	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 goal, data available in this report.	yes

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Appendix A**

Storm Sewer Outfall Map

