

North Augusta



South Carolina's Riverfront

Stormwater Management Program 2009 sMS4 Annual Report



***North Augusta Fifth Graders at Brick Pond Park Pilot Project
Stormwater Education Partnership Program***

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City of North Augusta Stormwater Management Small Municipal Separate Storm Sewer System (sMS4) Permit #SCR030304 Annual Report September 1, 2008 – August 30, 2009

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: _____ 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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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 24-35 of this report. For project team information, please see page 36. 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:

- Institutional:** Poor Outdoor Housekeeping Parking Lot Runoff
 Concern Related to Specific Business Type. Describe:

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

Why targeted? 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	39,000	Utility Bill Inserts	36,000
Workshop/ Seminars	14	Radio Ads	
Posters	3	Television Ads	
Newspaper Articles	15	Other: Events	2
Web site (estimated hits)	200	Other: See page 3	

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 2008 – 2009

Events	Topic	Date	Reached
Item/Event - Audience	Topic Covered/Discussed		Participants/Group
Chamber Expo	SW Wetland Intro	Sep 11, 08	35 Bus. leaders
Newsletter	The Resource – Stormwater, Water Quality, Volunteer Efforts	Sep 2008	12,000 residents/businesses
Girl Scouts	Girl Scouts to SW Wet Tour	Sep 15, 08	5 Kids/1 Adult
Audubon Aug/Aik	Bird Walk and SW Wet Tour	Sep 27, 08	10 adults
Chamber – Bus Aft Hrs	SW Wetland Intro, Invite Particip	Oct 7, 08	25 adults/bus ldrs
Terrace Garden Club	SW Wetland Intro, Invite Particip	Oct 8, 08	14 adults/residents
Mtg-School Board/Prin	SW Wetlands, SW Credits, Educ.	Nov 5, 08	3 Adults
Educators (Local Sch)	SW Wetland Tour	Nov 24, 08	10 adults, educators
Educator (Aug. State U)	SW Wetland Tour	Nov 15, 08	3 adults
Horse Ck Watershed Board	SW Issues & Wetland Presentation	Nov 17, 08	22 adults
G&T Elem. Students	SW Wetland Tour (SW & Hist)	Jan 8, 09	20 Kids 5 Adults
Newsletter	The Resource – Low cost energy savings, stormwater education partnerships	Feb 2009	12,000 residents/businesses
School Imprvmt. Council	SWMD Joins SIC for NA Elem	Feb 10, 09	8 adults
NA Elem Fifth Grade	Presented: SW Model & SW Wet.	Feb 18, 09	100 students, 6 tchrs
NA Elem Science Day	Presented SW Model/Recyc	Feb 20, 09	120 students, 6 tchrs
Mossy Crk Elem Sci Day	Presented SW Model/Recyc	Feb 27, 09	100 students, 8 tchrs
NA Elem Fifth Grade	SW Wetland Outdoor Learning	Mar 4, 09	100 students, 20 adlts
NA Elem Fifth Grade	SW Wetland Outdoor Learning 2	Mar 18, 09	100 students 20 adlts
Hammond Hill Elem	Science Day, SW Model/Recyc	Mar 20, 09	130 students, 6 tchrs
NA Elem Fifth Grade	Students Present Project Findings	Apr 1, 09	100 students, media
Kids Earth Day Event	Annual SWMD Outreach Day	Apr 18, 09	700 kids & parents
Clemson Ecol. Class	SW Wetlands Tour	Apr 09	25 students, 1 teachr.
Cham. Connect Break	Presented: SWMD Wetl. Festival	Apr 22, 09	45 bus leaders, media
Newsletter	The Resource-SW Wetland, Air Quality, Stormwater, Workshops	May 09	12,000 residents/businesses
Household Haz Waste	Annual HHAZ Collection Event	May 16, 09	200 participants
Citizens – Workshop	Rain Gardens in Your Landscape	June 8, 09	16 participants
Advent Camp	SW Wetlands Tour	Jun 11, 09	20 kids 2 adults
Advent Camp	SW Wetlands Tour	Jun 18, 09	25 kids 2 adults
Advent Camp	SW Wetlands Tour	Jun 25, 09	22 kids 3 adults
Advent Camp	SW Wetlands Tour	July 2, 09	21 kids 2 adults
WGAC Coffee Break	Radio spot: SW Wetlands & Festival	July 14, 09	~10,000 listeners
SW Wetland Festival	SWMD Hosted: Three day festival celeb. Wetlands	July 24, 25, 26, 2009	125 participants, media coverage heavy
Cub Scout Pack 7	Meeting with Cub Scout Leaders	Aug 7, 09	14 leaders reached
Approx. Total of Individuals reached 9/1/08 – 08/30/09			48,200

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). *(This question does not pertain to this reporting period)*

- 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:

Outdoor Education Proj

Participant Demographic:

- Residential
 Commercial
 Industrial
 Institutional

Activity:

- Program Planning
 Stenciling
 Stream Cleanup
 Street Sweep
 Monitoring
 Wetland Planting
 Re-Forestation
 Other: (Describe) CREATION OF A PUBLIC PRIVATE 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 2008 & 2009

Date	Activity	Participants
09/15/08	Girl Scout Troop Tour of Wetland	6
09/27/08	Audubon Tour & Bird Watch of Wetlands	10
11/24/08	Local Educators (Elem School) Tour of Wetlands	10
10/04/08	E-Waste Recycling Event	
11/17/08	Augusta State Univ. tour of Wetland	3
01/08/09	Local Elem Gifted Students Field Trip to Wetlands	25
03/18/09	NA Elem. Pilot Educ. Proj. Students conduct scientific projects at Wetlands	120
04/01/09	NA Elem. Pilot Educ. Proj. Students present findings of study with PowerPoint	100
04/18/09	Earth Day Event at Lions Memorial Field	700
05/16/09	Household Hazardous Waste Collection	200
06/08/09	Rain Gardens Workshop	16
07/24-26/09	SWMD Wings & Wetlands Festival	125
All year	Citizen Volunteers in Wetlands, Streams, & other outreach activities	15
	Total for period	1300

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: Businesses located within priority areas: monitored via inspections/observations. When problems are noted, the owner is contacted to fix the situation. Ex. A business washed out equip routinely, dumped washwater to a ditch leading to TMDL stream.
- Commercial concerns. Describe a concern as an example: Maintaining stormwater conveyances and BMPs. Annual inspections of BMPs (storm ponds, piping, inlets/outlets) has resulted in correction of many problems within the commercial district. Ex. Storm pond outfall was blown out and dam failure occurred.
- Industrial concerns. Describe a concern as an example. Industrial area BMPs are inspected. Problems that are found are corrected. Ex. Tire storage outside at large outlet was impacting stormdrains. Met with owner to inform them of problem. Tires removed.
- TMDL Evaluation. Result: Pretty Run Creek: monitoring stream for signs of impact, meeting with residents to inform, abandoned major trunk line through watershed after Mims Branch line completed. Educating citizens of problem. Identified septic systems within watershed.
- Impaired Water Body. Name water body: Pretty Run Creek
- Citizen complaints. Give an example: Citizens contact us routinely when discoloration, smell, or other problems occur. We meet with the citizen to help identify the source of the problem. Citizens are notified through quarterly newsletter about issues in the watershed.
- Wetlands/Critical Area, Public Beaches, Shellfish Beds, or other coastal concerns. Brick Pond Park, a 30 acre stormwater treatment wetland was completed in Nov 2008. Since that time, we have used it as an education/outreach tool meeting with citizens, schools, and local professionals about its design, use, on-going research in the area The city completed an assessment of all critical areas in 2009.
- 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 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 reported seeing sewage on the ground near the Greenway Trail. An investigation found that a sewer had become clogged and backed up. The problem was repaired.
- Other: Describe and/or give example: The city purchased a street vacuum truck to remove debris from city streets. This equipment along with the jetter vacuum and street sweeper has resulted in tons of debris being removed from the streets.

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

Businesses

General Public

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Training Class | <input type="checkbox"/> Direct Mail | <input type="checkbox"/> Direct Mail |
| <input type="checkbox"/> Paystub Inserts | <input checked="" type="checkbox"/> Bill Inserts | <input checked="" type="checkbox"/> Bill Inserts |
| <input checked="" type="checkbox"/> Staff Meeting | <input checked="" type="checkbox"/> Site Visits | <input checked="" type="checkbox"/> Public Meetings |
| <input checked="" type="checkbox"/> On the Job Training | <input checked="" type="checkbox"/> Phone Calls | <input type="checkbox"/> Radio |
| <input checked="" type="checkbox"/> Other: Describe
mandatory training | <input checked="" type="checkbox"/> Seminars | <input type="checkbox"/> TV |
| | <input checked="" type="checkbox"/> Other: Describe Newspaper articles | <input checked="" type="checkbox"/> 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)
2008	Storm drains cleaned	78	2.2
2009	Storm drains cleaned	141	4.9

Leaf Vacuum

Year	Item	Pollutants Removed (tons)
2008	Leaf vacuuming (Monthly avg. = 78)	312
2009	Leaf vacuuming (Jan-Mar weighed loads)	167.64
	Leaf vacuuming (avg. to Apr 1 - Aug 30)	312

Street Sweeping

Year	Street Sweeping	Pollutants Removed (tons)
2008	Street Sweeping	58.69
2009	Street Sweeping	215.96

Household Hazardous Waste Collections

Year	Types of items collected	Pollutants Removed (tons)
2009	Paint, oils, gasoline, pesticides, herbicides	26.58

E-Waste Recycling Event

Year	Types of items collected	Pollutants Removed (tons)
2009	Computers, monitors, electronics etc.	24.03

Storm Pipe Repairs

Year	Item	(ft)
2008	Storm Pipes repaired or installed	250
2009	Storm Pipes repaired or installed	475

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)

2008 Permits Issued and Fees Collected 9/1/08 – 12/31/08

date app approved	City Permit #	Project Name	Review Fee	DHEC Fee Collected	Sent Fee to DHEC
n/a	9072301	Raceway - cont to 2009	\$ 180.00	\$ 125.00	2009
n/a	9010901	Bentley PI IV&V (2008)	\$ 940.00	\$ 125.00	2009
9/25/2008	approved	Sweetwater Modification	- n/a	-	n/a
9/25/2008	n/a	Hammonds Ferry Bldg	\$ 100.00	-	n/a
12/10/2008	n/a	Trefz (Arby's part LCP)	\$ 100.00	-	n/a
Totals Fees			\$ 1,320.00	\$ 0	And total sent to DHEC.

2009 Permits Issued and Fees Collected 1/1/09 – 08/30/09

date app approved	City Permit #	Project Name	Review Fee	DHEC Fee Collected	Sent Fee to DHEC
1/9/2009	9010901	Mossy Creek Elem Bus	\$ 330.00	\$ 125.00	1/13/2009
3/27/2009	n/a	Brett Brennan property	\$ 100.00	-	
3/26/2009	9032601	NA Middle School	\$ 150.00	\$ 125.00	3/26/2009
3/31/2009	9010901	Bentley PI IV&V (2008)	\$ -	\$ 125.00	4/6/2009
4/24/2009	n/a	Joe Holt	\$ 100.00	-	
7/13/2009	9071301	NA Middle School Ph II	\$ 250.00	\$ 125.00	7/13/2009
7/23/2009	9072301	Raceway - cont from 2008	\$ -	\$ 125.00	7/23/2009
8/10/2009	9081001	Martin Group Ph II (2008)	\$ 410.00	\$ 125.00	8/10/2009
Totals			\$ 1,340.00	\$ 750.00	

2008 INSPECTION DETAILS 9/1/08 – 12/31/08							
Months	SAT	UNSAT	MARG	C&D	Total Insp.	COMP	NONCOMP
September	27	14	3	1	45	30	15
Total 3rd Qtr	102	22	21	3	148	123	25
Percent	68.92%	14.86%	14.19%	2.03%		83.11%	16.89%
October	27	12	5	2	46	32	14
November	32	5	2	2	41	34	7
December	29	10	12	1	52	41	11
Total 4th Qtr	88	27	19	5	139	107	32
Percent	63.31%	19.42%	13.67%	3.60%		76.98%	23.02%
Annual Total 2007	324	100	68	21	513	392	121
Annual Comp %	63.16%	19.49%	13.26%	4.09%		76.41%	23.59%

2009 INSPECTION DETAILS 1/1/09 – 08/30/09							
Months	SAT	UNSAT	MARG	C&D	Total Insp.	COMP	NONCOMP
January	33	0	0	0	33	33	0
February	33	1	0	0	34	33	1
March	19	0	0	0	19	19	0
Total 1st Qtr	85	1	0	0	86		
Percent	98.84%	1.16%	0.00%	0.00%		98.84%	1.16%
April	26	0	2	0	28	28	0
May	31	0	2	0	33	33	0
June	24	0	2	0	26	26	0
Total 2nd Qtr	81	0	6	0	87		
Percent	93.10%	0.00%	6.90%	0.00%		100.00%	0.00%
July	23	2	2	0	27	25	2
August	21	1	2	0	24	23	1
Total to date	44	3	4	0	51		
Percent	86.27%	5.88%	7.84%	0.00%		94.12%	5.88%
Annual Total	210	4	10	0	224		
Annual Comp %	94%	1.79%	4.46%	0.00%		98.21%	1.79%

City of North Augusta Construction BMP Compliance

In analyzing the compliance rates for this reporting period, there is no doubt that our training efforts to the construction and development community over the past four years improved compliance overall. Early in our program we were met with a lot of frustration by contractors and sub-contractors over proper installation and maintenance of BMPs on-site. We conduct seminars, workshops, and one-on-one training while on site to help educate those involved. Additionally, we hold preconstruction meetings for all sites and explain the requirements and answer questions. All of these efforts are ongoing and we find we get less questions and more compliance as all of the personnel at the site are beginning to understand what the SWPPP is and why it is necessary.

Another aspect of our program that has improved compliance is our first on site policy. The stormwater management department must inspect and find BMPs installed properly before a residential site receives footer inspection by our Building Standards department staff. This assures that the BMPs are installed properly prior to construction of individual lots (even within a new subdivision).

There are several factors not shown in the above 2009 data table that are not reflected but may have a large impact on overall compliance for the period shown. Number one is the downturn in the economy which has resulted much less activity in this sector. Specifically for North Augusta:

- During 2009, there were very few active construction sites throughout the city.
- The sustained drought in our region is also playing a role in the compliance rates.
- Some permitted construction sites have not started or are temporarily stabilized with no activity occurring on site.
- Daily site visits by an inspector.

Our inspector must visit the site regardless of the stage of construction to determine if BMPs are being maintained. A change for 2009 is that the inspector visits most active and/or inactive sites daily since he is also conducting engineering inspections. The increased visibility of the inspector at the site results in minor problems being identified and corrected early. For example, in the 2009 Inspection Details table it shows that there were a total of 87 construction site inspections during the 2nd quarter of the year. Many of these are repeated inspections of temporarily stabilized sites where no activity is occurring during that period of time.

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 98% 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 stormsewer 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
2008	Stormwater ponds	1
2009	Stormwater ponds	14

City Maintained Post Construction Water Quality BMPs

Year	Item	Pollutants Removed (tons)
2008	Stormwater BMPs (in ground) Cleaned	.9
2009	Stormwater BMPs (in ground) Cleaned	1.2

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.

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 2009, the city Operations Facility added one Storm Pure inlet filter device near the maintenance shop. The device is capable of removing oil/grease, sediment, and other pollutants. Two additional inlet filter devices to trap sediment and debris were added at the final two storm drain inlets on the parking lot/laydown yard area. Stormwater employees will maintain and inspect these devices routinely.

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. A pilot project with the local school system is underway regarding using the facility as an outdoor education park. In 2009, fifth grade students participated.

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.

City of North Augusta Stormwater Management Department Program Goals Evaluation & Results										
BMP (Symbols: I = implemented, X=on going C= Completed, S=under evaluation/rescheduled) R=removed	2003	2004	2005	2006	2007	2008	2009	Measurable Goal	2003-2009 Measure/Assessment	Met?
1. Public Participation/Involvement										
Volunteer Storm Drain Stenciling/markig	I	X	X	C	X	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.	yes
Establish a Citizens Advisory Committee		S			Š		R	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. Our public volunteers are actively involved in outreach activities as well (Scouts, Citizens, & Education partners). We will not form a separate committee at this time.	yes
City-School Partnership Program	S				Š	X	X	By May 2003, meet with representatives from all public and private schools within the City.	Team has developed a 5th grade environmental education initiative at Brick Pond Park with a partnership with Aiken County Schools and local universities.	yes
Meet with school representatives	I	X			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. Two pilot projects have been completed with over 200 fifth grades students in 2009.	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. SWMD involved in school 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) R=removed	2003	2004	2005	2006	2007	2008	2009	Measurable Goal	2003-2009 Measure/Assessment	Met?
Implement Adopt a Stream Program			S	Š		I	X	The SWMD will establish procedures for implementing an Adopt a Stream program by 2005 to reduce the amount of trash in City streams.	Meetings with local scout leaders at a Leaders Monthly meeting resulted in discussion of adopt a stream program with each group. Follow-up meetings planned for November 2009. In 2009, a local group "The First Saturday Group" has selected several areas of the city to conduct clean-up efforts. Additionally, the Hammonds Ferry Foundation works to conduct pond clean-up at Brick Pond Park.	partially
Household Hazardous Waste Materials Collection Day	I	X	X	X	X	X	X	Hold this event yearly and survey participants to quantify volume and type of HHAZ collected annually.	Ongoing program for every year. See report for details on collected tonnage.	yes
2. Education and Outreach										
City-School Partnership	S			Š	X	X	I	By May 2003 meet with representatives from all public and private schools within the City.	Full partnership formed in 2009. Brick Pond Park outdoor education program established.	yes
Establish Internship program with Universities.	I	X	X	X	X	X	X	Provide educational opportunities to local college students through an internship program in the SWMD.	To date, there have been seven SWMD interns involved in all aspects of SW management in NA. Several students have since graduated and are currently working at DHEC or within other local communities environmental/sw programs.	yes
Water Quality Brochures	I	X	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

City of North Augusta Stormwater Management Department Program Goals Evaluation & Results										
BMP (Symbols: I = implemented, X=on going C= Completed, S=under evaluation/rescheduled) R=removed	2003	2004	2005	2006	2007	2008	2009	Measurable Goal	2003-2009 Measure/Assessment	Met?
Stormwater Fact Sheets	I	X	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, landscapers, engineers, contractors, citizens, and small businesses. Stormwater brochures located throughout the city offices and distributed at events.	yes
Water Quality Poster Series	I			X	X	X	X	Display posters in public buildings and offer copies to businesses. (begin 2003)	Stormwater posters under development.	yes
Pollution Prevention Guides for Businesses	I	X			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	R	Stormwater Pollution TV spot. (2004)	This goal is being evaluated based on current economic conditions. Our outreach efforts through seminars, public involvement, and utility mailings to all residents are affordable and have proven to be more cost-beneficial at this time. We do not intend to pursue this BMP and are removing it from our goals until further notice.	
Stormwater Internet Web Pages	I	X	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)	City website re-designed in Oct 2009. Stormwater web pages will be updated by Jan 2010.	yes
Storm Drain Stenciling/Curb Marking	I	X	X	C	X	X	X	Install markers on 90% of the storm drains exposed to pedestrian traffic by 2007. Begin by installing 165 markers in	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) R=removed	2003	2004	2005	2006	2007	2008	2009	Measurable Goal	2003-2009 Measure/Assessment	Met?
								2003.		
Water Quality Seminars	I	X	X	X	X	X	X	Low impact development seminar (2004 & 2006)	Seminars completed. Ongoing outreach in this area.	yes
Pollution Reduction Documentation	I	X	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.	yes
North Augusta Forward Newsletter	I	X	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	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	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



City of North Augusta Stormwater Management Department Program Goals Evaluation & Results										
BMP (Symbols: I = implemented, X=on going C= Completed, S=under evaluation/rescheduled) R=removed	2003	2004	2005	2006	2007	2008	2009	Measurable Goal	2003-2009 Measure/Assessment	Met?
Kids Earth Day	I	X	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
3. Illicit Discharge Detection and Elimination										
Initial Identification of Illicit Discharge Sources	C			X	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	C		S	I	X	C	I	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	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	I	X	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 85% 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) R=removed	2003	2004	2005	2006	2007	2008	2009	Measurable Goal	2003-2009 Measure/Assessment	Met?
Water Resources Ordinance	I	C					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	I	X	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 reused 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	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	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	An article in the Sept. 2008 issue of the Resources newsletter describing NASWMD roles	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) R=removed	2003	2004	2005	2006	2007	2008	2009	Measurable Goal	2003-2009 Measure/Assessment	Met?
								stormwater management.	in the community and requirements of the sMS4 permit. Copies were distributed to all utility customers (business and residential).	
Water quality monitoring			I	X	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. Municipal Operations Pollution Prevention/Good Housekeeping										
Develop Pollution Prevention Plan	C						X	Complete this plan in 2003.	completed	yes
Employee Training Materials	I	X	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

City of North Augusta Stormwater Management Department Program Goals Evaluation & Results										
BMP (Symbols: I = implemented, X=on going C= Completed, S=under evaluation/rescheduled) R=removed	2003	2004	2005	2006	2007	2008	2009	Measurable Goal	2003-2009 Measure/Assessment	Met?
Stormwater System Map		I	X	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	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. An additional IS system for development (Track-IT) is now operational. Also a document library has been added to the website. Monthly reports are available to the public. Citywide Action Tracking (CATS) tracks all complaints from citizens.	yes
Employee Training			I	X	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	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 stormwater infrastructure repairs within the city are under comprehensive review at this time.	yes
Pollution Reduction				I	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. A yard waste container program was also implemented in 2008.	yes
Street Sweeping	I	X	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 and vacuuming data is being collected and is 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) R=removed	2003	2004	2005	2006	2007	2008	2009	Measurable Goal	2003-2009 Measure/Assessment	Met?
Storm sewer Maintenance (jet/vac trailer and operator)				I	X	X	X	By 2007, purchase equipment and hire staff to begin a storm sewer maintenance program.	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	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. Data collected is presented in this report.	Yes
5. Construction Site Runoff Control										
Perennial Stream Habitat/Ecological Assessment	I	X	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 www.northaugusta.net. Update: A new city website launched in Oct 2009 is still ongoing. The report will be re-posted by Jan 2010.	yes
Information Management System	I	X	C			X	X	An IS system is installed and being utilized by SWMD on the city's network.	Alchemy has been developed and is now in use at the City. All data collected in the SWMD program is available in that system. An additional IS system for development (Track-IT) is now operational. Also a document library has been added to the website. Monthly reports are available to the public. Citywide Action Tracking (CATS) tracks all complaints from citizens.	yes
Construction Site Erosion and Sediment Control Ordinance	C							This system will be put into place in 2003.	completed	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) R=removed	2003	2004	2005	2006	2007	2008	2009	Measurable Goal	2003-2009 Measure/Assessment	Met?
Construction Site Inspection Program		I	X	X	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 substantially lower numbers of building sites due to the economic downturn and also less rainfall during the year. The compliance rate to date for 2009 is 98%. The compliance rate for 2008 was nearly 76% from 62% in 2005.	yes
Water Quality Monitoring			I	X	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
Construction Site Runoff Pollution Control Seminar		I	X	X	X			Construction site runoff pollution control seminar (Year 2004 & 2006)	See Education & Outreach Efforts listed 2006 & 2008 Annual Reports previously submitted to the Department.	yes
Stormwater Management Manual	I				C		X	The Stormwater Management Manual will be completed in 2003. The manual will be updated periodically to document progress made in achieving each	Complete	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) R=removed	2003	2004	2005	2006	2007	2008	2009	Measurable Goal	2003-2009 Measure/Assessment	Met?
								goal.		
Sediment & Erosion Control Manual	I	C					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	I	X	C				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				I	X	-	-	Conduct WQ design seminar bi-annually.	Accomplished - see details in Education and Outreach details in report. A Rain Garden workshop was conducted this year.	yes
Residential Lot BMP Guidance Pamphlet	I	X	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 2006 & 2008 Annual Reports previously submitted to the Department	yes
6. Post-Construction Runoff Control										
Identification of Developed Property WQ BMPs	C						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		I	X		X	C	X	The Water Quality BMP Ordinance will be placed in effect in 2004.	Completed. Also a new Development Code was adopted.	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) R=removed	2003	2004	2005	2006	2007	2008	2009	Measurable Goal	2003-2009 Measure/Assessment	Met?
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	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		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, data available in this report.	yes

North Augusta Stormwater Management Department Team

Name	Title	Role	Certifications
Tom Zeaser	Director of Engineering & Public Works	Plan Reviewer	PE
Matt Schuster, PhD	Civil Engineer 1	Plan Review assistance to PE	EIT
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	

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Appendix A**

Storm Sewer Outfall Map