Surfside Beach MS4

Annual MS4 Report

Public Works Department
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TOWN OF SURFSIDE BEACH
www.surfsidebeach.org

December 5, 2013

Mr. Matthew S. Krofchick
South Carolina Department of Health and Environmental Control
Bureau of Water – Division of Water Pollution Control
2600 Bull Street
Columbia, SC 29201

Re:**Town of Surfside Beach MS4 Annual Report 2013**

Dear Mr. Krofchick,

Please find the above referenced submittal in accordance with the Surfside Beach MS4 Certificate of Coverage Permit Schedule. The Town's Stormwater Ordinance was included by reference to the Municode website at:

http://library.municode.com/index.aspx?clientId=14100

Also included in this report is the most recent MS4 outfall inventory map.

Please do not hesitate to contact the Public Works Department at 843-913-6361 if you have any questions or if you need to request additional information.

Sincerely,

John Adair
Director of Public Works

Cc: Micki Fellner, Town Administrator

South Carolina
Small Municipal Separate Storm Sewer Systems (SMS4s)
Annual Report

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: TOWN OF SURFSIDE BEACH, SC

Program Name: SURFSIDE BEACH MS4

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: SCR 035107

Responsible Official Name: MICKI FELLNER
Title: TOWN ADMINISTRATOR
Mailing Address: 115 HIGHWAY 17 NORTH
Telephone Number: 843-913-6111
E-mail address: mfellner@surfsidebeach.org

Program Manager Name: JOHN ADAIR
Title: DIRECTOR OF PUBLIC WORKS
Mailing Address: 115 HIGHWAY 17 NORTH
Telephone Number: 843-913-6361
E-mail address: jadair@surfsidebeach.org

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: http://library.municode.com/index.aspx?clientId=14100

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: Micki Fellner Date: 12/6/13

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

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: MAINTENANCE OF NEIGHBORHOOD STORMWATER SYSTEMS; STORMWATER POND MANAGEMENT; IMPROPER USE OF PESTICIDES; FEEDING WATERFOWL; LOCAL WATER QUALITY PROBLEMS; HYPOXIA; CAR WASHING ACTIVITIES; IMPROPER HANDLING OF LANDSCAPE DEBRIS; PLANT CHOICES FOR RIPARIAN BUFFERS; NUTRIENT LOADING; LOW IMPACT DEVELOPMENT OPTIONS AND RETROFITS; RAINWATER HARVESTING; IMPROPER PAINT DISPOSAL; AND EFFECTS OF LAND USE CHANGES AND INCREASED IMPERVIOUS SURFACES

☒ **Commercial:** ☒Poor Outdoor Housekeeping ☒Parking Lot Runoff ☒Concern Related to Specific Business Type. Describe: RESTAURANTS - PROPER FATS, OILS AND GREASE CONTAINMENT; HOME IMPROVEMENT AND PAINT STORES - IMPROPER PAINT DISPOSAL; AND PRESSURE WASHING - IMPROPER SPILL CONTAINMENT AND DISPOSAL

☒ **Industrial:** ☒Poor Outdoor Housekeeping ☒Parking Lot Runoff ☐Concern Related to Specific Business Type. Describe:

☒ **Institutional:** ☒Poor Outdoor Housekeeping ☒Parking Lot Runoff ☒Concern Related to Specific Business Type. Describe: LOCAL GOVERNMENT STAFF - DEVELOPED GOOD HOUSEKEEPING INSPECTION FORMS FOR VARIOUS DEPARTMENTS; LOCAL GOVERNMENT STAFF - VIDEOS FOR ADDRESSING STORMWATER POLLUTION PREVENTION USING EVERYDAY BMPS AND AT CONSTRUCTION SITES; SCHOOLS - UTILIZING AND MAINTAINING INSTALLED STORMWATER BMPS

Additional Target Audience: TOURISTS, ENGINEERS, CONTRACTORS, DEVELOPERS AND STORMWATER STAFF

Why targeted? TOURISTS WERE TARGETED BECAUSE MILLIONS VISIT LOCAL BEACHFRONT COMMUNITIES EVERY YEAR. ADDITIONALLY, ENGINEERS, CONTRACTORS, DEVELOPERS, AND STORMWATER STAFF WERE TARGETED BECAUSE OF MODELING OF LID APPLICATIONS TO QUANTIFY STORMWATER LOADINGS, REGULATIONS OF ISOLATED WETLANDS, AND STORMWATER BMPS THAT MIMIC WETLAND FUNCTIONS.

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: NUTRIENTS; BACTERIA; POLLUTANTS RESULTING IN LOW DISSOLVED OXYGEN; PESTICIDES AND HEAVY METALS

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

	Number		**Number**
Brochures/ Newsletters	16,500	Utility Bill Inserts	
Workshop/ Seminars	1,391	Radio Ads	150,000
Posters	3,804	Television Ads	275,307
Newspaper Articles	154,000	Other: SEE ATTACHMENT 1	
Web site (estimated hits)	47,981	Other:	

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 #2

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

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

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

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

☒ Program Planning ☒ Stenciling ☒ Stream Cleanup ☒ City Sweep ☒ Monitoring
☐ Wetland Planting ☐ Re-Forestation ☒ Other: (Describe) STORMWATER COMMITTEE MEETINGS, PUBLIC BEACH SWEEPS, HOUSEHOLD HAZARDOUS WASTE EVENTS, STORM DRAIN MARKING WITH DATA COLLECTION, PET WASTE STATION MAINTENANCE.

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:
VOLUNTEERS

Participant Demographic:
☒ Residential
☐ Commercial
☐ Industrial
☐ Institutional

Activity:
☐ Program Planning
☐ Stenciling
☐ Stream Cleanup
☐ Street Sweep
☐ Monitoring
☐ Wetland Planting
☐ Re-Forestation
☒ Other: (Describe) MONTHLY BEACH SWEEPS

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 #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)

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

D. Describe your procedures for locating priority areas. Rank all applicable procedures according to your prioritization schedule. Evaluations of: *(Click to the left of N/A and Press F1 for help.)*

4	Areas with older sanitary sewer lines. Name an area as an example:
N/A	Business concerns. Describe a concern as an example: NONE
N/A	Commercial concerns. Describe a concern as an example: NONE
N/A	Industrial concerns. Describe a concern as an example. NO INDUSTRIAL PROPERTIES
N/A	TMDL Evaluation. Result:
3	Impaired Water Body. Name water body: SIX OCEAN OUTFALLS ARE LISTED ON 303D LIST
2	Citizen complaints. Give an example: leaking sewage or sewage smell will be investigated by staff and reported to Grand Strand Water and Sewer Authority
1	Wetlands/Critical Area, Public Beaches, Shellfish Beds, or other coastal concerns. THE TOWN MONITORS THE MAJOR PONDS LOCATED IN TOWN FOR BACTERIA, SCDHEC TESTS 6 OCEAN OUTFALLS FOR ENTEROCOCCI.
N/A	Other. Describe and/or give example:

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

☒ Areas with sanitary sewer lines:	☒ Dry weather outfall screenings	☒ Site visit	☐ Questionnaire
☐ Areas with septic tanks:	☐ Dry weather outfall screenings	☐ Site visit	☐ Questionnaire
☒ Business concerns:	☒ Dry weather outfall screenings	☐ Site visit	☐ Questionnaire
☒ Commercial concerns:	☒ Dry weather outfall screenings	☐ Site visit	☐ Questionnaire
☐ Industrial concerns:	☐ Dry weather outfall screenings	☐ Site visit	☐ Questionnaire

☒ Citizen complaints: Give an example: CITIZEN CALLS IN A COMPLAINT ABOUT A LEAKING DUMPSTER, STAFF INVESTIGATES AND FOLLOWS UP WITH BUSINESS OWNER TO REPLACE DUMPSTER PROMPTLY.

☐ Other: Describe and/or give example:

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
☒ Corrective Action/Charge to Responsible Party
☐ Other: Describe.

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**
☒ Training Class	☐ Direct Mail	☐ Direct Mail
☐ Paystub Inserts	☐ Bill Inserts	☐ Bill Inserts
☒ Staff Meeting	☒ Site Visits	☒ Public Meetings
☒ On the Job Training	☐ Phone Calls	☒ Radio
☐ Other: Describe	☐ Seminars	☒ TV
	☒ Other: Describe Website updates	☒ Other: Describe SIGNS,MAGN

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 #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: reinspection fee, after-the-fact permit fee
- ☐ Other:

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 devises 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.)*

N/A	TMDL consistency
2	Impaired waters concern
1	Water quality concern
7	Roads/drainage adoption
6	Citizen complaints
3	Geographical location
4	Size of project
5	Past performance of Responsible Party
9	Project Closeout
8	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 apply: *(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 #5

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

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

B. Is your program designed to address the needs of your local community? *Answer all questions:*

☒Yes ☐No Does your program address runoff from new Development?
☒Yes ☐No Does your program address runoff from Redevelopment?
☐Yes ☒No Does your plan include any specific priority areas for this program?
☒Yes ☐No Does your plan describe how your program is specifically tailored for your local community?
☒Yes ☐No Does your program minimize water quality impacts?
☒Yes ☐No Does your program attempt to maintain pre-development runoff conditions?

C. Which BMPs are used in your community? *Mark all that apply:*

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

D. Describe your plan to ensure long-term operation and maintenance of post construction BMPs. *Mark all that apply:*

☒ Maintenance agreement between structure owner and MS4 governmental entity.
☒ Maintenance agreement between (new) structure owner and developer.
☒ MS4 enforces agreements between (new) structure owner and developer.
☒ MS4 assumes maintenance.
☐ MS4 assumes maintenance and bills owner.
☒ MS4 conducts maintenance and bills owner only if owner fails to maintain.
☐Other: Describe

E. Evaluate the success of this MCM.

Answer each question:

a. Does your plan include measurable goals for this MCM? ☒ Yes ☐ No

b. Did you meet the due date listed in your permit schedule for:
Full development of this MCM? ☒Yes ☐ No (1st Year Report)
For full implementation of the MCM? ☒Yes ☐ No (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:

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
	SCR00	
	SCR00	
	SCR00	
	SCR00	
	SCR00	
	SCR00	

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

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.
Water quality monitoring stations WAC-030, 031, 032, 033, 035, and 036 located at the Town's outfalls are documented on the 2010 303D list as waters of concern. The cause for impairment is enterococcus.

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.
Through the Town's volunteer water quality monitoring efforts, and DNA tracer tool development, as well as progress within MCMs 1-6, we are in a position to respond to occasional elevated levels and attempt to assess.

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.

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

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

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	Coastal Waccamaw Stormwater Education Consortium
MCM 2	Coastal Waccamaw Stormwater Education Consortium
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.

ATTACHMENT 1

Coastal Waccamaw Stormwater Education Consortium MCM#1, Part D additional information

July 1, 2012 – June 30, 2013 CWSEC Annual Report Summary Activity Totals

Minimum Control Measure #1: Public Education and Outreach

Outreach Strategy	# Distributed/ Reached	Outreach Strategy	# Distributed/ Reached
Brochures/Informational Cards	16,500	Newsletters	13,260
Workshops/Seminars	1,391	Posters/Exhibits	3,804
Newspaper Articles	154,000	Television (PSAs & News Coverage)	275,307
Websites	47,981	Radio (SCETV Your Day show)	150,000
Billboards	69,816	Children's Activity Booklet (Murrells Inlet)	19,984
Online Coverage	1,332	Presentations	1,834
Good Housekeeping Video Viewing	163	Giveaways with Stormwater Message	337
Conference Publication	1,200	Conference Hosting	160

Minimum Control Measure #2: Public Involvement/Participation

Activity	# of Activities	# of Participants	Activity	# of Activities	# of Participants
River, Marsh and Beach Cleanups	33	970	Volunteer Water Quality Monitoring in Surfside Beach	57	149
Pet Waste Stations in Murrells Inlet	2 sites	9,100 bags	Volunteer Water Quality Monitoring in Murrells Inlet	184	451
Demo/Installation	2	32	Volunteer Water Quality Monitoring on Waccamaw River	414	1,003
Storm Drain Marking	4	129	Volunteer Water Quality Monitoring at CCU	69	92

Coastal Waccamaw
Stormwater Education Consortium

Helping local governments meet requirements for stormwater education and public involvement

July 1, 2012 – June 30, 2013

ANNUAL REPORT

Submitted on July 10, 2013

By Karen Fuss, CWSEC Coordinator

EXECUTIVE SUMMARY

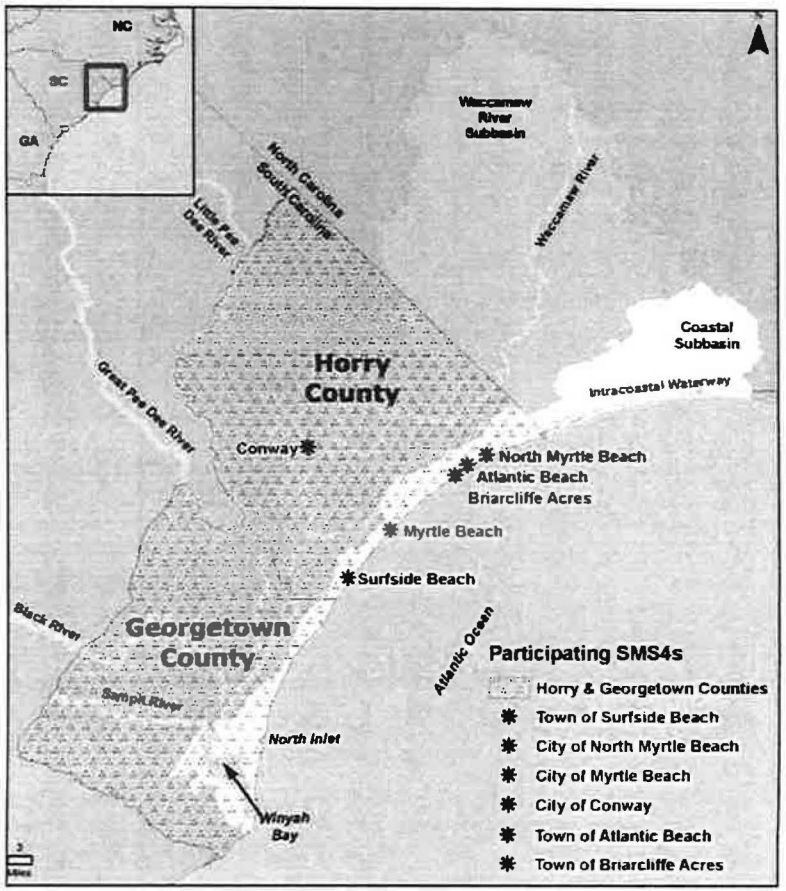
History

From its conception in May 2004, the Coastal Waccamaw Stormwater Education Consortium (CWSEC) set out to fulfill new federal Clean Water Act requirements associated with the NPDES Phase II Stormwater Program. Six small municipal separate storm sewer systems (SMS4s) located within the Myrtle Beach Urbanized Area unanimously endorsed a coordinated approach to regional stormwater education. They charged the educational service providers with developing a Regional Stormwater Education Strategy and a Phased Education Work Plan (found at http://cwsec-sc.org/251/business-documents-2/) based on a formal needs assessment.

The Consortium's first staff member, Karen Fuss, began work in October 2005. She became the CWSEC Coordinator in summer 2006 and serves as a central point of contact to better coordinate communication amongst the SMS4s and education providers.

Based on guidance from South Carolina Department of Health and Environmental Control (SCDHEC) staff in March 2007, CWSEC members and educators chose to focus educational messages on those pollutants contributing to 303(d) impaired waters listings. Late in 2007, the Towns of Atlantic Beach and Briarcliffe Acres signed resolutions to join CWSEC. A second needs assessment in December 2009 aimed to guide future educational programming during the second 5-year NPDES Phase II permit cycle. The findings stressed the unique needs and priorities that vary among SMS4s and their target audiences. The education providers then participated in strategic planning sessions and updated the goals and strategies. CWSEC members approved the changes in June 2011 (*listed on next page*). The education providers continue to coordinate, communicate and involve each SMS4 to serve each of their needs for Minimum Control Measures (MCM) #1 and #2 in their respective communities.

Map of CWSEC SMS4s



Goals and Strategies (*Approved June 2011*)

1.) Maximize efficiency and effectiveness through coordinated and collaborative stormwater education activities.

- Efforts are collaborative, synergistic and non-duplicative
- Work, plan and report together as an entity – member SMS4s and education providers
- Adaptive management in which assessment results are used to guide improved implementation
- Identify and maximize use of individual organizational strengths
- Be a cost-effective deliverer of educational services
- Support the needs and goals of core education providers

2.) Using a regional watershed approach, help member SMS4s meet NPDES Phase II stormwater permit requirements for public education and outreach and public involvement/participation.

- Deliver public education and involvement activities that address water quality information
- Work, plan and report together as an entity – member SMS4s and education providers
- Tailor support activities to individual member SMS4s needs
- Recognize the changing needs of member SMS4s and evolving regulatory requirements within the region

3.) Provide and exchange technical information and expertise on innovative stormwater best management practices and supporting funding opportunities.

- Serve as an information provider on technical and current innovations and associated environmental conditions
- Keep current on educational theory/behavior change/social research/effective communication techniques
- Make local educational resources and service providers readily accessible
- Support identification of external funding opportunities, proposal development, and project delivery

4.) Improve watershed and stormwater awareness in target audiences that informs decision-making and promotes behavior change to address water quality impairments.

- Define target audiences to address water quality threats and impairments
- Use programming in which increased awareness and/or behavior change is measureable
- Stormwater education efforts by public/municipalities are shifted to a watershed focus
- Empower population to serve as stewards of their watersheds through delivery of messages and taking action

5.) Continue to serve as a model for collaborative stormwater education and involvement throughout the state of SC and beyond.

- Communicate outreach efforts and success stories beyond the Consortium and target audiences
- Build upon Consortium collaboration and successes to secure future grants

Core Education Providers

Coastal Carolina University's Waccamaw Watershed Academy
Karen Fuss, CWSEC Coordinator and Environmental Educator
Susan Libes, Director of WWA and Professor of Marine Science and Chemistry

Clemson University's Carolina Clear
Katie Giacalone, Carolina Clear Coordinator

Murrells Inlet 2020
Sue Sledz, Executive Director

North Inlet – Winyah Bay National Estuarine Research Reserve
Beth Thomas, Education Coordinator
Lindsay Thomas, Education Specialist

SC Sea Grant Consortium
April Turner, Coastal Communities Specialist

Winyah Rivers Foundation Waccamaw Riverkeeper® Program
Christine Ellis, Waccamaw Riverkeeper®

Member SMS4s

SMS4 Contacts	SMS4 Annual Priorities and Projects
Linda Cheatham, Interim Town Manager Website: http://townofatlanticbeachsc.com	The Town of Atlantic Beach is focused on reducing litter entering their stormwater system, particularly during Town events such as Bikefest. Atlantic Beach is also undertaking an effort to identify locations of septic systems within the Town to determine whether any systems are failing and could connect to sewer.
Nancy Edelman, Town Councilmember and Stormwater/Lake Committee Member Website: http://www.townofbriarcliffe.us/	Briarcliffe's stormwater focus is on converting homes with septic systems on unsuitable soils to public sewer and keeping debris and pet waste out of the stormwater system. Information has been distributed to all Town residents regarding maintenance of their septic systems. The Town also has ongoing projects to improve or maintain the drainage system. This year a dam and culvert behind Pine Tree Lane were removed so the "bog" can drain adequately into North Lake. Briarcliffe Acres, partnering with Horry County and Coastal Carolina University, has begun a three-year groundwater and lake level monitoring program.
Jerry Barnhill, Director of Public Works Website:http://www.cityofconway.com/departments/publicworks.html	Conway's Water Quality and Drainage Commission includes 5 members, with the City actively looking to fill 2 open positions, serving for three-year terms. This past year, Conway certified its first three businesses in the River-Friendly Business Program, implemented to help reduce the environmental impact on the Waccamaw River and the community and to recognize each business for their commitment and participation. Application materials are available at http://www.cityofconway.com/riverfriendlybusiness.html. The City has also continued to support the Waccamaw Riverkeeper's River Sweeps, the Waccamaw River Volunteer Water Quality Monitoring Program, restoration of the Crabtree Canal, and has instituted a stormwater inspection program.

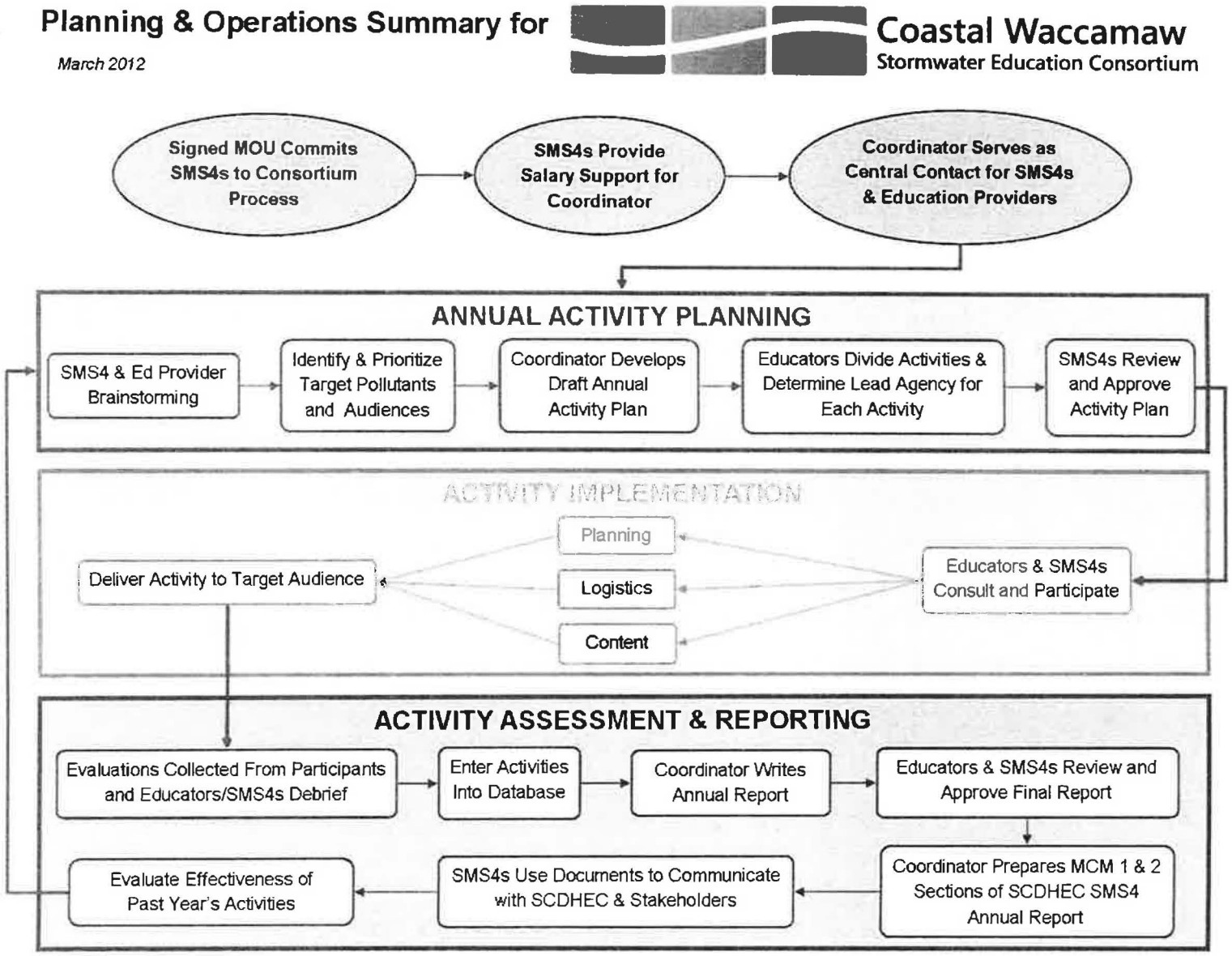
Member SMS4s (Continued)

SMS4 Contacts	SMS4 Annual Priorities and Projects
Tracy Jones, Stormwater Division Manager; *Terri Davis*, Billing Coordinator; *Daniel C. Eckis* , Senior Engineer; *Ray Funnye*, Director of Public Services Website:http://www.georgetowncountycleanwater.com/	Georgetown County Stormwater Division is dedicated to controlling sediment and erosion, reducing the existing potential for stormwater damage to public health, safety, life, property and the environment, and to promoting equitable, acceptable, and legal measures for stormwater management. The Stormwater Division has used their own staff to build a stormwater education model demonstrating the different types of land uses and their contribution to stormwater runoff. The model will be used at schools and summer camps throughout Georgetown County as well as utilized at Hobcaw Barony to assist in watershed presentations.
Tom Garigen, Stormwater Manager; *Thom Roth*, Deputy Stormwater Manager; and *Dave Fuss*, Watershed Planner Website: http://stormwater.horrycounty.org	Horry County Stormwater Management Department is working to implement the new Construction General Permit requirements and to increase the use of low impact development (LID) stormwater techniques. The Department is advised by the Council-appointed, 12-member Stormwater Advisory Board. The Department overhauled its website, which is now organized by target audience, and successfully updated two highway overlay districts to include LID infiltration measures.
Steve Moore, Street Division Superintendent and *Janet Wood,* Stormwater Program Coordinator Website:http://www.cityofmyrtlebeach.com/publicworks.html	The priorities of the Myrtle Beach stormwater management program are: to protect, maintain and enhance the health, safety and general welfare of the citizens of the City; to decrease the degradation of the beaches; to prevent damage to property from improper drainage and flooding; and to protect drinking water supplies. City staff co-authored a Watershed Assessment Report entitled, "Stormwater Management Planning: Development of a Pilot Investigative Approach to Remediate Bacterial Source Impairments along the Grand Strand" for the US Army Corps of Engineers - Charleston District in April 2013. Staff also delivered a presentation on municipal operations and maintenance to the South Carolina Association of Stormwater Managers in June 2013.

Member SMS4s (Continued)

SMS4 Contacts	SMS4 Annual Priorities and Projects
Kevin Blayton, City Engineer/Public Works Director and *Jay Beeson*, Stormwater Compliance Manager Website: http://www.nmb.us/Page.aspx?id=33	North Myrtle Beach stormwater personnel continue to inspect public and private drainage systems annually to address water quality and quantity concerns. Cooperation from property owners over the past year has been extraordinary. The North Myrtle Beach stormwater Capital Improvement Program also addresses water quality improvements in addition to flooding concerns. Significant projects are scheduled for 2013 construction starts including an ocean outfall at Main Street and stormwater retention project at Hillside Drive, which includes a large wetland retention area that will be preserved in its natural state. The outfall project includes significant water quality monitoring to assess the effectiveness of stormwater BMP devices installed. A smaller stormwater project will assess the effectiveness of a dune infiltration system designed to eliminate the last drainage pipe on the beach in the Cherry Grove area.
John Adair, Public Works Director Website:http://www.surfsidebeach.org/publicworks.html	The Town of Surfside Beach's stormwater focus is on flood prevention, water quality, and public education of coastal issues. Surfside Beach has a Stormwater Committee comprised of 7 members, each serving four-year terms consisting of Ken Harth (Chair), Ken Harbin, Melodye Lane-Laveglia, P.L. Mabry, Carolyn Ross, Harry Kohlmann, and Tom Mecchia. The Town Council has approved over $400,000 in stormwater improvements for the FY13-14 budget to alleviate certain areas of residential flooding. This is in addition to the Town's volunteer monitoring effort and public education component.

Figure 1 - Flowchart describing collaborative process between education providers and SMS4s guiding the Consortium's annual activities.



CWSEC Role with NPDES Phase II Permit

On May 15, 2013 SCDHEC placed the draft NPDES General Permit for Storm Water Discharges from Regulated Small MS4s on public notice. Additionally, SCDHEC held a public hearing on June 17. The public comment period remained open until June 27. The Public Notice, Draft Permit, and Fact Sheet can all be found at http://www.scdhec.gov/environment/water/PN_stormwater.htm. Consortium member SMS4s continue to review the draft permit and communicate with other SMS4s throughout the region and state as well as SCDHEC in order to provide guidance in the development of a new permit for the second permitting five-year cycle.

Summary of Noteworthy Activities

The Consortium's activity database (http://bccmws.coastal.edu/cwsec/) provides a comprehensive listing and description for all stormwater-related activities conducted throughout the year. The annual activity plan that was approved in October 2012 by CWSEC members appears in Appendix A containing both the number of activities and number of impacts for the year. Appendix B includes an abbreviated version of the activity database. The year was full of meaningful projects, events, workshops and presentations, and several are highlighted in the following sections.

Best Management Practices

In an effort to minimize barriers to the adoption and implementation of low impact development, and specifically bioretention use, the region set an objective to host a workshop focusing on design considerations using local case studies. As part of a National Institute of Food and Agriculture-Water Program, Clemson University and NC State University worked alongside Horry County Stormwater Management Department to design two bioretention cells at county solid waste recycling centers. The cell at Loris began construction in June 2013, and the cell at Longs will be included in site expansion.

Using the calculations and engineering plans for these two projects, a Horry County Bioretention Design Workshop was held on June 3 and 4 to lead engineers, scientists, landscape designers and educators through the process of creating, constructing, planting, and maintaining bioretention cells. More than 30 attendees spent one and a half days in the classroom and a half-day on a tour of local bioretention sites (*Figure 2*), including the Loris site under construction (*Figure 3*).

Figure 2 – Clemson University's Dan Hitchcock describes monitoring activities at the Horry County Administration building in Conway.

The participants who completed evaluations ranked the workshop as time well-spent with "very useful" information presented. Several participants completing evaluations

noted that information presented by this program would be utilized in future site designs.

Figure 3 – Participants of Horry County Bioretention Design Workshop observe construction of bioretention cell at Horry County Solid Waste Authority Convenience Center in Loris.

General Stormwater/Watershed Outreach Programs

On April 13 Coastal Carolina University (CCU) teamed up with Horry County Stormwater to teach Horry County's StormFest 2013 attendees about solutions to local stormwater pollution problems. This festival focusing on storms and weather drew an estimated crowd of 2,200 to TicketReturn.com Field in Myrtle Beach. With several exhibits side-by-side including a thumbprint bookmark making station, pet waste outreach campaign, and general homeowner tips to help improve water quality, CWSEC's presence was highly visible. Event planners designed a question-based BINGO card for children and their families seeking a prize for successfully visiting with participating organizations, which netted approximately 500 direct interactions with staff at the CWSEC booth (*Figure 4*). Staff rated these interactions as highly valuable due to the education-oriented nature of the event and the eagerness of participants to learn from participating organizations.

Figure 4 – StormFest '13 attendees receive stickers for answering BINGO card question while youth make thumbprint bookmarks.

Marine education staff with South Carolina Department of Natural Resources (SCDNR) docked at Hobcaw Barony on Winyah Bay April 22 through April 25 for a week of boat and land-based field studies with Georgetown and Horry County schools. SCDNR, NOAA's ACE Basin and North Inlet-Winyah Bay National Estuarine Research Reserves (NERR) and CWSEC partnered to offer an exciting educational experience for local students and teachers. Over 200 students participated in a variety of land programs at the Hobcaw Barony Discovery Center and boat excursions aboard the *E/V Discovery* in Winyah Bay; activities included water quality testing, trawling and identification of marine organisms, estuary ecology, watersheds, stormwater and marine pollution, and emphasized ways students can help protect these important ecosystems. *The Sun News* also participated in

a boat trip with Carolina Forest High School and included a news article about the event in the local press (*Figure 5*). The *E/V Discovery* will be returning to Hobcaw again in September and in spring and summer of 2014.

Figure 5 – Carolina Forest High School students enjoy taking a closer look at a shrimp as they take part in the Earth Week Estuary Extravaganza on the E/V Discovery. Photo Courtesy of Charles Slate, The Sun News.

Schools taking part in Earth Week Estuary Extravaganza included the following:

- April 22 - McDonald Elementary School, Georgetown County
- April 23 - Myrtle Beach High School, Horry County
- April 24 - Waccamaw High School, Georgetown County
- April 25 & 26 - Carolina Forest High School, Horry County

Media/Outreach Materials

SMS4 members requested an emphasis in mass media in the Consortium's outreach strategy, compared to previous years' media campaigns. This past year included increased rotations in Horry and Georgetown Counties on cable channels. The negotiated contracts with cable providers included website banners, video pre-roll, and thousands of commercial plays. The 30-second spot, paired with local billboards, demonstrated small ways the public can take action to protect recreation, drinking and commercial uses of water that is "so much a part of our culture."

Water Quality Monitoring and associated Media/Outreach Materials

A collaborative effort to assess coastal water quality was initiated in spring of 2012 by the newly formed Long Bay Hypoxia Monitoring Consortium (LBHMC). The cities of Myrtle Beach and North Myrtle Beach along with Horry County have banded together to jointly fund water quality monitoring at the seaward ends of three fishing piers. This information supports ongoing efforts to protect and enhance water quality associated with the municipalities' stormwater management programs. This includes providing public access to local ocean water quality and weather information. Interest in conducting this work was stimulated by the recent discovery of unusually low oxygen levels in the coastal waters that lie along the Grand Strand. The development of low oxygen levels, usually during the summer, is termed "hypoxia". This issue is growing worldwide and is recognized as arising from polluted stormwater running off of the nearby land. The equipment at the Cherry Grove, Apache Campground and Second Avenue North fishing piers is measuring temperature, oxygen, salinity, pH, chlorophyll, and turbidity in the surface and bottom waters on the quarter hour. Meteorology stations are measuring air temperature, wind speed and direction, barometric pressure and relative humidity.

All observations are relayed to a public website located at: http://www.ysieconet.com/public/WebUI/Default.aspx?hidCustomerID=131. This website explains the purpose of the monitoring and meaning of each type of measurement.

The data are also being used by students at CCU who are performing biological assessments at the piers. These include monitoring of phytoplankton numbers and species, larval recruitment onto tiles, and fish catch. The latter effort is being funded by SCDNR. NOAA is also looking at the pH data to help develop strategies to study and provide outreach education on the issue of coastal ocean acidification. This emerging issue is being caused by the uptake of excess atmospheric carbon dioxide gas into the surface waters of the ocean. Little pH data is being collected in coastal waters, so the efforts of the LBHMC are highly valuable.

A press conference was held at the Cherry Grove Pier on August 13, 2012 to officially launch the new monitoring sites. Educational signage (*Figure* 6) is posted at each pier and includes a QR code to enable access to the monitoring observations via smart phone. Laminated business cards are also used to distribute this information. Some of the local communities provide a link to the monitoring site on their webpages. The temperature data are regularly cited in the weekly fishing column of *The Sun News*.

Technical Assistance

Sponsored by Murrells Inlet 2020, local water resource management agencies including Horry and Georgetown Counties, Coastal Carolina University, and Earthworks Group LLC are collaborating to develop a watershed-based plan for Murrells Inlet. The main focus of the plan is to address fecal coliform impairments in the Shellfish

Figure 6 – Educational signage posted at the Grand Strand fishing piers.

Harvesting Areas of the watershed. The project facilitator, Waccamaw Regional Council of Governments, was awarded a Section 319 Grant from SCDHEC last year to lead this process. The final plan will review historical water quality trends in Murrells Inlet and set forth a list of recommended best management practices to meet the outlined water quality goals. An evaluation of potential funding options and a timeframe for implementation will also be key components of this plan. Additionally, the plan will aim to address future monitoring and public outreach needs to ensure success. It is expected that this plan will position the Murrells Inlet community to be eligible for future 319 grant implementation projects and other worthwhile long-term water quality initiatives sponsored by

state and federal agencies. The final plan is due for submission to SCDHEC in mid-November 2013.

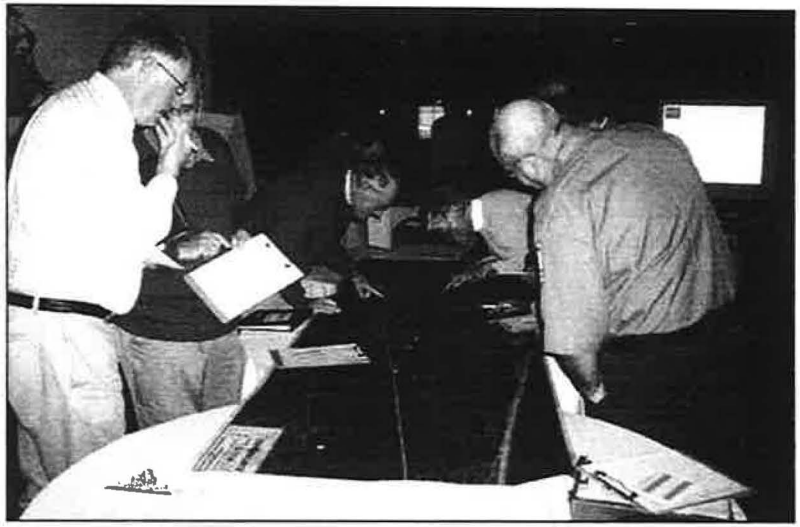


Figure 7- Murrells Inlet watershed plan stakeholder meeting participants use watershed maps to identify potential hot spots.

Conclusion

Cooperative efforts between the core education providers and SMS4 members set forth CWSEC's annual planning and operation process to ensure that region-wide stormwater education (MCM #1) and involvement activities (MCM #2) remain collaborative, synergistic, and adaptive to local needs. The partnering members of the Consortium work together in a well-designed and documented process (*Figure 1*) for regional and annual activity selection through identification and prioritization of target pollutants, audiences, and behaviors. After an initial brainstorming session at the June 2012 biannual consortium meeting, which included discussion of past successes and continuing efforts, CWSEC educators then met and discussed future activities and assigned the corresponding lead providers. Before the list was finalized, it was shared among all the members and additional changes and additions were made before becoming the official Year 8 Activity Plan in October 2012.

Most of CWSEC's activity planning takes place in the summer months and involves identifying pollutants of concern and corresponding target audiences and behaviors or action items; however, some activities are added after the annual activity plan has been finalized due to their difficult-to-predict nature. One such example occurred in January 2013 after results from a bacterial source tracking study revealed that canine fecal matter was a significant contributor to the fecal impairment in Withers Basin watershed in Myrtle Beach. Under the supervision of the CWSEC Coordinator, a CCU Marine and Wetland Studies graduate student initiated a pet waste campaign. This large effort was not included in the official Year 8 Activity Plan, but was deemed worthy to begin in early 2013 rather than waiting until the fall of 2013.

Collaboration among the SMS4s and Consortium educators continues with the implementation of activities. Examples in the Noteworthy Activities section of this document demonstrate core education providers and members working together. For instance, Horry County Stormwater Management Department was instrumental in working with partner NC State University in locating preferred sites for design and construction of two bioretention cells for the Horry County Bioretention Design Workshop co-sponsored by Clemson University. Many outreach programs, such as the *E/V Discovery* trips and associated land-based programs, involve several CWSEC core education providers; however, some general

stormwater programming, like StormFest 2013, pair stormwater department staff and educators to jointly share their knowledge with the public. Developing the Murrells Inlet watershed-based plan using grant funds is an example of stormwater staff from local SMS4s working with multiple educators in a technical setting.

This past year, CWSEC experienced turnover, which presented significant challenges to the core education providers in completing the activity plan. The part-time Consortium Education Assistant resigned in August 2012 to take a full-time position with benefits. Even though the CCU graduate student intern began in January, her focus was solely on a pet waste outreach campaign, and she did not contribute to tasks previously fulfilled by the Assistant. Several pet waste campaign materials were produced, but this internship ended in April due to the graduate subcommittee not accepting her proposal for the project. The North Inlet-Winyah Bay NERR's Coastal Training Program has been faced with an open position for their Coordinator since the end of March. Several projects included in the Year 8 Activity Plan are not yet completed, because of lack of key personnel. The availability of staff largely dictates the quantity of activities accomplished in a given year. Tentatively, a new CWSEC Environmental Education Assistant will begin in August 2013 which will help the organization greatly with initiating and completing tasks.

In spite of staffing challenges, the Consortium remains committed to helping the local communities meet their stormwater permit requirements. The CWSEC database, used for tracking all activities as well as mid-year and year-end reporting to partners and SCDHEC, continues to show an expansion of programs that meet MCMs #1 and #2 and beyond. Additional functions led by CWSEC to address other MCMs demonstrates the dedication of the education providers and SMS4 members in meeting expanded and more robust permit requirements expected in the upcoming second phase of the NPDES Phase II Stormwater Program.

APPENDIX A

Coastal Waccamaw Stormwater Education Consortium Year 8 Activity Plan

Appendix A

Coastal Waccamaw Stormwater Education Consortium Year 8 (July 1, 2012 - June 30, 2013) Activity Plan				
Theme	**Activity**	**Activity Description**	**# of Activities (July 2012 - June 2013)**	**Number of Impacts/Reached**
BMP	Website	Maintain SC LID Atlas and add local BMP projects to Atlas	Ongoing	600
	Maintenance	Follow-up with CWSEC-led BMPs, e.g. installed rain gardens at schools	1	10
	Demo/Install, Presentation or Workshop/Seminar	Assist with LID demonstrations/installations and/or associated educational programming	3	101
	Demo/Install	Design two (and county install one) bioretention basin(s) in Horry County at recycling convenience center	1	32
	Workshop/Seminar	Full-day technical workshop for professionals on installation of bioretention	1	32
	Manual	Assist with development of SC LID manual	2	80
	TBD	Meet with Horry Co. school district & discuss using LID in new construction rather than retrofits	0	0
General Stormwater/Watershed Outreach Programs	Field Workshop/Trip	Field workshops/trips with watershed focus (usually with school groups & public)	11	754
	Field Workshop/Trip	SCDNR's Discovery vessel field trips in Georgetown County	10	373
	Field Workshop/Trip, Presentation or Workshop/Seminar	Spring break and summer camp assistance in Georgetown County	2	50
	Presentation	Stormwater and watershed presentations for pre-K -college students	9	574
	Presentation	Stormwater-related presentations (short duration) for adult groups, e.g. civic groups	4	61
	Conference	Annual river conference including education on polluted runoff and BMPs	1	50

Appendix A

Coastal Waccamaw Stormwater Education Consortium Year 8 (July 1, 2012 - June 30, 2013) Activity Plan				
Theme	**Activity**	**Activity Description**	**# of Activities (July 2012 - June 2013)**	**Number of Impacts/Reached**
Media/Outreach Materials	Website	Provide monthly updates and maintenance to CWSEC website and track # of website viewers	12	2,171
	Website	Continue to promote 5th and 7th grade watershed curriculum to local teachers and schools and record web traffic	Ongoing	23,182
	Website	Track usage and continue to update SC stormwater pond management website	Ongoing	17,808
	Website	Maintain SCCIN event calendar and resource portal website	Ongoing	750
	Website, Brochure/Info Card or Poster/Exhibit/Display	Build toolbox for property owners on living shorelines, addressing freshwater and salinity tolerant plant characteristics, including illustration of an aerial view of a living shoreline	5	3,470
	Brochure/Info Card	Distribute info cards on various best management practices: 1. Pressure washing; 2. Residential proper paint disposal; 3. Commercial paint disposal; 4. Fats, oil, grease; 5. Septic tank maintenance	4	1 - 150; 2 - 290; 3 - 282; 4 - 100
	Brochure/Info Card	Develop short/concise list of recommended native plant species for buffers around stormwater ponds	1	TBD
	Billboard	Continue posting of three Rivers Connect Us billboards	3	69,816
	Television	Continue television 30-second stormwater awareness cable rotations	1	130.307
	Television	Television coverage on stormwater-related activity and/or TV interview on local TV stations and shows	4	105,000
	Television and Newspaper	Partner with North Myrtle Beach, Myrtle Beach, and Horry Co. on media event for hypoxia monitoring at piers	2 - Newspaper; 2 - Televison	Sun News - 132,000; TV - 40,000
	Newspaper	Newspaper coverage on stormwater topics, e.g. introduction to stormwater systems, IDDE, remodeling/renovation activities, volunteer monitoring	3	22,000
	Newspaper	Add stormwater information to *The Sun News* gardening column	0	0

Appendix A

Coastal Waccamaw Stormwater Education Consortium Year 8 (July 1, 2012 - June 30, 2013) Activity Plan				
Theme	**Activity**	**Activity Description**	**# of Activities (July 2012 - June 2013)**	**Number of Impacts/Reached**
Media/Outreach Materials	Online Coverage	Online coverage on stormwater-related activity (e.g. announcement on TV website about CWSEC activity)	3	1,209
	Educational Signage	Display signage at piers to describe water quality monitoring	3	Unknown
	Educational Signage	Add stormwater information on signage at Adopt-A-Landing sites	3	Unknown
	Educational Signage	Provide educational signage at shorescaping demonstration sites following installation	0	0
	Promotional Items	Distribute promotional/educational items for give-aways, e.g. IDDE magnets, sponges, etc.	5	337
	Newsletter	Write and submit monthly CWSEC E-Newsletter	12	1,146
	Newsletter	Write and submit newsletters (and articles for newsletters) with stormwater/watershed focus	5	12,114
	Activity Book	Distribute anti-litter Murrells Inlet activity and coloring book via Murrells Inlet restaurants	14	19,984
	Conference Publication	Published paper in conference proceedings	4	1,200
	Poster/Exhibit/Display	Design posters and displays on stormwater topics for conferences, festivals or public events	16	3,804
	Poster/Exhibit/Display or Promotional Items	Finalize outreach products focusing on FOG (fat, oil and grease) for distribution to restaurant managers	1 (online coverage)	123
	TBD	Develop outreach info for carpet cleaners on no dumping in storm drains or ditch systems	0	0
Water Quality Monitoring	Monitoring	Volunteer water quality monitoring on Waccamaw River	414	1,003
	Monitoring	Volunteer water quality monitoring in Murrells Inlet	184	451
	Monitoring	Volunteer water quality monitoring in Surfside Beach	57	149
	Monitoring	Student-based volunteer water quality monitoring program on CCU's campus	69	92
	Workshop/Seminar	Annual volunteer water quality monitoring training workshop	1	12

Appendix A

Coastal Waccamaw Stormwater Education Consortium Year 8 (July 1, 2012 - June 30, 2013) Activity Plan				
Theme	**Activity**	**Activity Description**	**# of Activities (July 2012 - June 2013)**	**Number of Impacts/Reached**
Water Quality Monitoring	Conference	Annual data conference to disseminate volunteer water quality monitoring data, results and conclusions	3	110
	Presentation	Short presentation on volunteer water quality program(s)	5	287
	Website	Maintain water quality monitoring website and monitor website traffic	Ongoing	TBD
	Reporting	Provisional water quality monitoring reports sent to MS4s and partners and USGS	92	414
Volunteer Involvement	Storm Drain Marking	Storm drain marking and data collection	4	129
	Community Cleanup	Boat landing cleanups at Adopt-A-Landing sites	19	147
	Community Cleanup	Litter cleanups at additional sites	9	300
	Community Cleanup	Morgan Park cleanup, in honor of Ernie Nance, sponsored by KGB, City of Georgetown & Georgetown Co.	1	100
	Community Cleanup	Beach cleanups on Waties Island	Ongoing	58
	Community Cleanup	Fall Creek Sweep and Spring Tide cleanup in Murrells Inlet	2	265
	Community Cleanup	Help promote local KAB affiliates to educate and engage the public in litter prevention and collection	Ongoing	100
	Recycling	Sustain recycling programs for monofilament fishing line (report on volume) in region	5	19 lbs.
	Recycling	Sustain recycling programs for glass and plastic bottles in Murrells Inlet (report on volume)	3	1,300 lbs.
	Pet Stations	Maintain pet waste bag stations and record bags used throughout Murrells Inlet	2 sites	9,100 bags
Technical Assistance	Good Housekeeping	Municipal employee training via commercially-made videos/slide presentations borrowed from CWSEC library	8	163
	Good Housekeeping	Good Housekeeping Inspection Forms - reformat forms found at NCSU website and distribute for use by all CWSEC SMS4s	2	56

Appendix A

Coastal Waccamaw Stormwater Education Consortium Year 8 (July 1, 2012 - June 30, 2013) Activity Plan				
Theme	**Activity**	**Activity Description**	**# of Activities (July 2012 - June 2013)**	**Number of Impacts/Reached**
Technical Assistance	Workshop/Seminar	HOA/Property Manager training workshops on storm system operation and maintenance	0	0
	Workshop/Seminar	Withers Swash watershed tour and educational workshop	1	23
	Workshop/Seminar	Technical workshop/seminar on reducing non-point sources	0	0
	Workshop/Seminar	Wetland Identification Course at Hobcaw Barony	1	18
	Presentation or Workshop/Seminar	Stormwater education program for North Myrtle Beach targeting council, boards, commissions and/or related staff	0	0
	Presentation or Workshop/Seminar	Stormwater education program for Surfside Beach targeting council, boards, commissions and/or related staff	1	30
	Presentation	Present on findings from Army Corps of Engineers genotypic source tracking project	3	83
	Presentation	Present on Fish & Wildlife Crabtree floodplain restoration assessment	2	90
	Presentation	Present at SCASM on Stormwater Pond Management Conference itineraries and results	1	160
	Presentation	Present CWSEC and stormwater information at local, state, regional and national conferences	6	208
	Meeting, Presentation or Workshop/Seminar	Technical support for Conway Water Quality and Drainage Commission	5	38
	Meeting, Presentation or Workshop/Seminar	Assist Horry Co. Stormwater Advisory Board	4 - Mtgs.; 1 - Presentation	45
	Meeting	Assist Surfside Beach Stormwater Committee and/or staff as needed	5	45
	Meeting	SCCIN quarterly meetings	1	20
	Meeting	CWSEC biannual meetings and education provider meetings	4	50
	Meeting	Green Step Schools mentoring	5	18
	Grant Assistace	Grant assistance to SMS4s as needed (# of requests vs hours)	2	Unknown

Appendix A

Coastal Waccamaw Stormwater Education Consortium Year 8 (July 1, 2012 - June 30, 2013) Activity Plan				
Theme	**Activity**	**Activity Description**	**# of Activities (July 2012 - June 2013)**	**Number of Impacts/Reached**
Technical Assistance	Survey	Begin evaluation of survey questions, survey timing and research into new questions with CU Dept. of Sociology & George Mason University; pilot survey to subset population	Ongoing	TBD
	Meeting or Presentation	Initiate Murrells Inlet Watershed Management Plan with stakeholder team & steering committee training and public outreach via Chowder Talks, MI2020 newsletter & press releases	8 - Meetings; 2 Presentation	Meeting - 110; Presentation - 219
	TBD	Create a septic task force/technical assistance and discuss potential outreach products	Ongoing	TBD

APPENDIX B

CWSEC Year 8 Database Log

APPENDIX B CWSEC YEAR 8 DATABASE LOG				
Activity Theme	**Lead Service Provider(s)**	**Activity Description Title**	**End Date**	**Impacts**
Best Management Practices	Sea Grant	SCNEMO LID Atlas	6/30/13	600
	Sea Grant	Community Resource Inventory - on-line mapping tool (CRI-SC)	6/30/13	unknown
	CC	Bioretention design workshop	6/4/13	32
	CC; Clem; NCSU; HCS	Assist with designing 2 bioretention cells in Horry County	6/4/13	32
	CCU	Presentation on local issues at bioretention workshop	6/3/13	32
	CCU	LID presentation to Carolina Forest Civic Association	4/17/13	35
	NI-WB CTP; ACE CTP	LID manual project	4/16/13	25
	NMBPW	Compost-based BMPs and LID seminar in North Myrtle Beach	2/21/13	34
	NI-WB CTP; ACE CTP	LID manual project	1/16/13	55
	CCU	Assisted with water quality monitoring at constructed wetland	10/23/12	10
Stormwater Outreach	NI-WB PE; GCS	Summer day camp with Georgetown County Stormwater	6/18/13	50
	NI-WB PE	Estuary field study	5/17/13	27
	CCU	Field workshop on Waties Island with Myrtle Beach High students	5/14/13	28
	NI-WB PE	SCDNR Discovery vessel school trips in Winyah Bay	4/26/13	184
	NI-WB PE	Estuary field study	4/17/13	48
	NI-WB PE	Estuary field study	4/10/13	57
	NI-WB CTP	Research talk	4/1/13	12
	NI-WB PE	School field study-estuaries	3/28/13	58
	NI-WB PE; Sea Grant	Pluff mud teacher workshop	3/24/13	18
	CCU	Stormwater lessons to 7th grade classes at St. James Middle School	2/25/13	327
	WR®	Presentation to Waccamaw Region Council of Governments	2/6/13	15
	WR®	Presentation to CCU political science class	1/24/13	30
	WR®	Waccamaw Conference - Annual public education event	1/19/13	50
	CCU	LID presentation at Waccamaw Conference	1/19/13	16
	CCU	Field workshop on Waties Island with Carolina Forest students	11/13/12	29
	BWB Found	South Carolina Forestry Commission wood magic forest fair	11/9/12	396
	CCU	Field workshop on Waties Island with Carolina Forest High students	11/8/12	38
	CCU	Field workshop to Waties Island with Carolina Forest High students	10/30/12	18
	NI-WB PE; BWB Found	Waccamaw Elementary BEACH program	10/29/12	43
	CCU	Presentation on stormwater and watersheds to Palmetto Academy	10/25/12	56
	CCU	Presentation on stormwater and watersheds at Palmetto Academy	10/24/12	57
	NI-WB PE	SCDNR Discovery vessel school trips from Hobcaw	10/19/12	163

APPENDIX B CWSEC YEAR 8 DATABASE LOG				
Activity Theme	**Lead Service Provider(s)**	**Activity Description Title**	**End Date**	**Impacts**
	SCDNR;ACE NERR	Environmental Discovery Series-Winyah Bay Discovery trip	10/16/12	26
Stormwater Outreach	CCU	Stormwater and watershed presentation at Burgess Elementary	9/26/12	54
	CCU	Stormwater and watershed presentation at Burgess Elementary	9/25/12	50
	NI-WB CTP; NI-WB PE	North Inlet-Winyah Bay NERR 20th Anniversary Celebration	9/21/12	52
	CCU	Trip to Waties Island with FFA camp students	7/31/12	12
Media/Outreach/Materials	CCU	CWSEC website monthly updates and maintenance	6/30/13	2,171
	CCU	Business cards for volunteer water quality monitoring sites	6/30/13	1,500
	CC	CWSEC pen giveaways ordered/distributed	6/30/13	120
	CC	Compressed sponge promo item ordered/distributed	6/30/13	145
	WR®	Participation in festivals and other public events	6/30/13	320
	CCU	Maintain website for Long Bay Hypoxia Monitoring Consortium	6/30/13	unknown
	CCU	Write and submit monthly CWSEC E-newsletter	6/30/13	576
	Sea Grant	SCCIN event calendar and resource portal	6/30/13	750
	CCU	Volunteer water quality website upgrade	6/30/13	unknown
	CCU	CWSEC promotional dog waste bag dispensers distributed	6/30/13	72
	CC	Cable commercial	6/3/13	130,307
	MI 2020	Distribute anti-litter Murrells Inlet activity booklet in Murrells Inlet	5/31/13	19,984
	CC	Stormwater pond management website - maintenance and hosting	5/31/13	17,808
	CC	H2Ownership water-focused fact sheet views	5/31/13	3,470
	CCU	Environmental education display at Burgess Elementary career fair	5/31/13	350
	CC	FOG website launched and maintained	5/31/13	123
	CC	Development of Carolina Yards plant list	5/31/13	17
	CC	Carolina Clear website	5/31/13	23,182
	CC	Carolina Clear stormwater news on Facebook	5/31/13	1,000
	NI-WB PE	Pushing the Limits library program-Georgetown Co.	5/3/13	29
	CCU	New Enterococcus database called ENTEROview	5/1/13	unknown
	CCU	Watershed assessment report on genotypic source tracking	5/1/13	unknown
	WR®	Georgetown County newsletter article	4/30/13	1,550
	CCU	Poster on groundwater monitoring in CCU undergrad research contest	4/18/13	50
	CCU	StormFest exhibits and displays	4/13/13	2,200
	CCU	Display at Apache Pier Kids Day	3/23/13	25
	CCU	Poster presentation on groundwater monitoring at SC Envi Conference	3/11/13	50

APPENDIX B CWSEC YEAR 8 DATABASE LOG				
Activity Theme	**Lead Service Provider(s)**	**Activity Description Title**	**End Date**	**Impacts**
	CC	Horry and Georgetown counties homebuilders home show	3/9/13	350
	MI 2020	MI 2020 newsletter	3/8/13	3,358
Media/Outreach/Materials	CC	Booth at SC Nursery and Landscape Association tradeshow	2/8/13	150
	WR®	Newspaper article about 2013 Waccamaw Conference	1/24/13	5,000
	CCU	Waccamaw Watershed Academy display at Waccamaw Conference	1/19/13	50
	CCU	Interview with NWQ Council's volunteer monitoring newsletter	1/14/13	192
	MI 2020	Murrells Inlet/Garden City Town Planner calendar	1/11/13	15,000
	CCU	CWSEC monthly E-newsletter	12/31/12	570
	MI 2020	MI 2020 newsletter	12/7/12	3,277
	CC	Shorescaping fact sheet	12/3/12	unknown
	WR®	Stormwater signage at boat landings	12/1/13	3
	CC	Shorescaping educational postcard	11/30/12	unknown
	CC	Continued posting of We All Live Downstream billboard	11/1/12	69,816
	CCU; HCS	CWSEC display at Carolina Forest rec center open house	10/29/12	100
	CCU	Television coverage on Crabtree and associated monitoring	10/16/12	5,000
	CCU	CWSEC exhibit at SC Water Resources Conference	10/11/12	300
	CCU	SC Water Resources Conference proceedings	10/11/12	300
	CCU	Poster on storm drain marking data at SC Water Resources Conference	10/10/12	300
	CCU	qPCR paper included in SC Water Resources Conference proceedings	10/10/12	300
	CCU	Paper on Long Bay hypoxia in SC Water Resources Conf proceedings	10/10/12	300
	CCU	Paper in SCWR Conference proceedings on Crabtree research	10/10/12	300
	CCU; MI 2020	Newspaper article on Murrells Inlet volunteer monitoring	10/5/12	5,000
	WR®	Riverspeak newsletter	10/1/12	400
	CCU	Television coverage on water quality monitoring data conference	9/19/12	20,000
	MI 2020	MI 2020 newsletter	9/14/12	3,529
	CCU	Coastal Today interview on floating wetlands	9/10/12	5,000
	CC	Carolina Gardener article	9/1/12	12,000
	CCU	Exhibit at Apache Pier Appreciation Day	8/25/12	30
	CCU	Newspaper coverage of hypoxia monitoring at piers	8/22/12	132,000
	CCU	Television coverage about fish kill in Long Bay	8/17/12	75,000
	CCU	Media event for hypoxia monitoring at piers	8/15/12	40,000
	CC	SCETV Your Day interview	8/2/12	30,000

APPENDIX B CWSEC YEAR 8 DATABASE LOG				
Activity Theme	**Lead Service Provider(s)**	**Activity Description Title**	**End Date**	**Impacts**
	CC	SCETV radio recording	8/2/12	30,000
	CC	SCETV radio interview	8/2/12	30,000
	CC	SCETV radio recording	8/2/12	30,000
Media/Outreach/Materials	CC	SCETV radio recording	8/2/12	30,000
Water Quality Monitoring	CCU	Volunteer water quality monitoring in Surfside Beach	6/30/13	72
	CCU; MI 2020	Volunteer water quality monitoring in Murrells Inlet	6/30/13	264
	CCU; WR®	Volunteer water quality monitoring on the Waccamaw River	6/30/13	552
	CCU; WR®	Volunteer water quality monitoring at CCU	6/30/13	48
	WR®	Riverkeeper Challenge - youth water quality monitoring program	6/30/13	280
	WR®	Benthic macroinvertebrate survey on the Waccamaw River	6/30/13	30
	CCU	Provisional water quality reports sent to SMS4s	6/30/13	414
	CCU; MI 2020	Murrells Inlet volunteer monitoring luncheon	4/30/13	35
	WR®	Waccamaw River VM program - annual volunteer get together	3/20/13	32
	CCU	Water quality presentation at Waccamaw Conference	1/19/13	30
	CCU; WR®	Waccamaw River in NC water monitoring data conference	1/9/13	30
	CCU; WR®	Volunteer water quality monitoring on Waccamaw River	12/31/12	451
	CCU; MI 2020	Volunteer water quality monitoring in Murrells Inlet	12/31/12	187
	CCU	Volunteer water quality monitoring in Surfside Beach	12/31/12	77
	CCU; WR®	Volunteer water quality monitoring at CCU	12/31/12	44
	WR®	Riverkeeper Challenge - youth water monitoring	12/31/12	80
	CCU	Presentation to Master Naturalist class on water quality monitoring	10/25/12	40
	CCU; MI 2020	Presentation on water quality monitoring in Murrells Inlet	10/16/12	150
	CCU	Added rain database function to volunteer monitroing database	10/1/12	unknown
	CCU; WR®	Volunteer water quality monitor training	9/19/12	12
	WR®	Annual data conference - Waccamaw River volunteer monitoring	9/19/12	50
	CCU	Surfside water quality monitoring data conference	8/21/12	30
Volunteer Involvement	WR®	Adopt-a-Landing cleanups	6/30/13	100
	WR®	River cleanups	6/30/13	150
	WR®	Monofilament fishing line recycling on Waccamaw River	6/30/13	unknown
	WR®	Assist local KAB affiliates in promoting litter prevention	6/30/13	100
	CCU	Beach cleanups on Waties Island	6/30/13	58
	MI 2020	Maintain pet waste bag stations in Murrells Inlet	5/31/13	9,100

APPENDIX B CWSEC YEAR 8 DATABASE LOG				
Activity Theme	**Lead Service Provider(s)**	**Activity Description Title**	**End Date**	**Impacts**
	MI 2020	2013 Annual Spring Tide clean-up in Murrells Inlet	4/28/13	225
	CCU	Revisit storm drain marking sites in downtown Conway	3/21/13	3
	CCU	Revisit storm drain marking sites	2/18/13	3
	WR®	Adopt-a-Landing litter cleanups	12/31/12	24
Volunteer Involvement	WR®	Monofilament fishing line recycling on Waccamaw River	12/31/12	unknown
	CCU	Storm drain marking with Burgess Elementary in neighborhoods	11/30/12	63
	CCU	Storm drain marking with Burgess Elementary in neighborhoods	11/28/12	60
	MI 2020	Sustain recycling programs for monofilament fishing line in region	10/31/12	19
	NI-WB CTP; NI-WB PE	Morgan Park memorial cleanup for 2012 Beach/River Sweep	9/15/12	100
	MI 2020	Boat landing cleanups at Adopt-A-Landing sites	9/15/12	23
	MI 2020	Fall creek sweep cleanup in Murrells inlet	9/15/12	40
	WR®	Litter cleanup	9/15/12	150
Technical Assistance	CCU	Surfside Beach Stormwater Committee technical assistance	6/30/13	20
	CCU	Participate on Myrtle Beach Sustainable Community Committee	6/30/13	80
	CCU	Participate in Horry County SWAB meetings	6/30/13	30
	CCU	Participate in Conway Water Quality and Drainage Committee meetings	6/30/13	14
	CCU	Murrells Inlet watershed management plan presentations	6/30/13	50
	Sea Grant	SC Coastal Information Network (SCCIN) quarterly meetings	6/30/13	20
	CCU	Participate in Crabtree floodplain restoration meetings	6/30/13	30
	Sea Grant; Clem	Green Infrastructure Design for Stormwater Management in Coastal SC	6/30/13	N/A
	Sea Grant; NI-WB RC	Assessing Aeration as a Means of Improving Pond Performance	6/30/13	N/A
	CCU	CWSEC biannual meeting	6/20/13	15
	Sea Grant; SCTGHA	Harmful Algal Blooms (HABs) and stormwater ponds workshop	5/31/13	40
	CC	Environmental attitudes, knowledge and behaviors survey development	5/31/13	N/A
	HCS	Horry County employees viewed a good housekeeping video	5/15/13	8
	CCU; WR®	Award program for SC Environmental Awareness Award	5/15/13	30
	CCU	Presentation on water quality given at SECOORA meeting	5/15/13	75
	CCU	Green Steps mentoring meeting with Burgess Elementary	5/6/13	2
	CCU	Green Steps mentoring with Ocean Bay Middle	5/1/13	3
	HCS	Horry County employees viewed good housekeeping video	4/25/13	28
	CCU	Webinar on findings from USACE genotypic source tracking project	4/25/13	20
	CCU	Presentation on Crabtree at CCU research competition	4/18/13	50

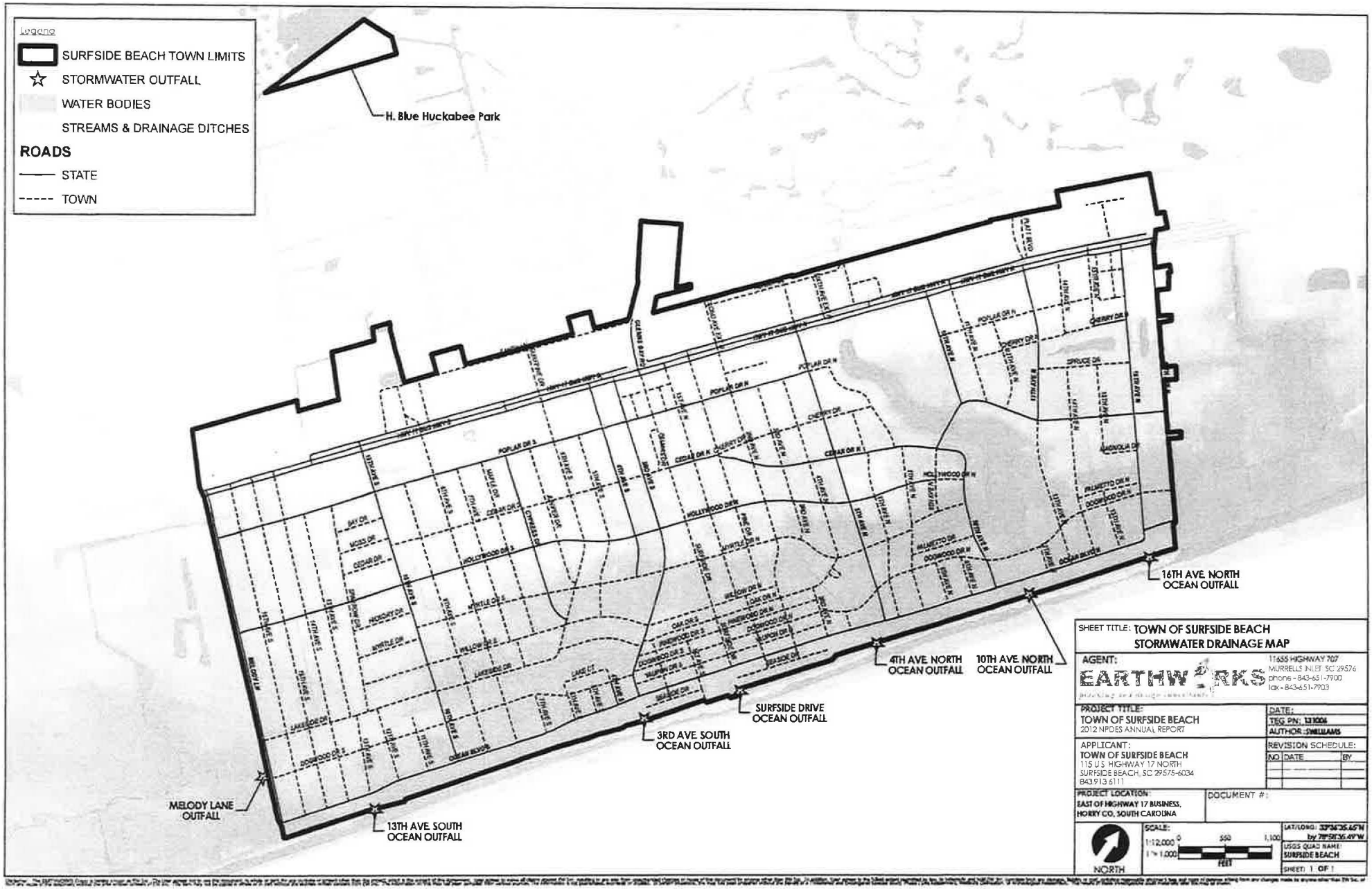
APPENDIX B CWSEC YEAR 8 DATABASE LOG				
Activity Theme	**Lead Service Provider(s)**	**Activity Description Title**	**End Date**	**Impacts**
	CCU	Presentation on groundwater monitoring at CCU research competition	4/18/13	50
	SBPW	Surfside Beach employees viewed good housekeeping video	4/17/13	26
	CC	Rain garden workshop for professionals in the Pee Dee	4/15/13	3
	NMBPW	North Myrtle Beach employees viewed good housekeeping video	4/4/13	5
	CCU	Good housekeeping inspection forms meeting	3/27/13	56
Technical Assistance	MI 2020	MI 2020 Chowder Talk	3/19/13	87
	CPW	City of Conway employees viewed good housekeeping video	2/21/13	17
	CCU	CWSEC education provider meeting	2/14/13	7
	NMBPW	North Myrtle Beach employees viewed good housekeeping video	2/8/13	28
	CCU	Interview with Burgess elementary students	2/8/13	5
	GCS	Georgetown employees viewed good housekeeping video	1/25/13	15
	NMBPW	North Myrtle Beach employees viewed good housekeeping video	1/23/13	36
	CCU	Presentation to Briarcliffe Acres Council on groundwater monitoring	1/22/13	15
	Sea Grant	Presentation on the impacts of climate change	1/19/13	20
	CCU; NI-WB CTP	Surfside Beach Stormwater Committee technical assistance	12/31/12	25
	CCU; CPW	Participate in Conway Water Quality and Drainage Committee meetings	12/31/12	24
	CCU; HCS	Participate in Horry County SWAB meetings	12/31/12	15
	CCU; MBPW	Participate on Myrtle Beach Sustainable Community Committee	12/31/12	15
	CCU	CWSEC biannual meeting	12/12/12	20
	MI 2020; WCOG	Murrells Inlet watershed management plan technical committee	12/6/12	40
	CCU	Green Steps mentoring meeting with Burgess Elementary	12/3/12	3
	NI-WB CTP	Withers Swash watershed tour	11/15/12	23
	CCU	Presentation on water quality monitoring on Withers Swash tour	11/15/12	23
	MI 2020	Initiate Murrells Inlet watershed based plan with stakeholder team	10/29/12	132
	CCU	Presentation at Coastal and Estuarine Habitat Restoration Conference	10/24/12	30
	CCU	Presentation at SC Water Resources conference	10/11/12	35
	CCU	Presentation on qPCR at SC Water Resources conference	10/11/12	40
	CCU	Presentation on Long Bay Hypoxia at SC Water Resources conference	10/11/12	40
	CCU	Presentation on Crabtree research at SC Water Resources conference	10/10/12	40
	CCU; NI-WB PE	The Watershed Rundown presentation at SCMEA conference	10/6/12	8
	CCU	Green Steps Schools mentoring with Ocean Bay Middle	10/3/12	5
	NI-WB CTP	Coastal wetland identification course	10/3/12	18

APPENDIX B CWSEC YEAR 8 DATABASE LOG				
Activity Theme	**Lead Service Provider(s)**	**Activity Description Title**	**End Date**	**Impacts**
	CC	Presentation at SCASM on 2012 Stormwater Pond conferences	9/27/12	160
	CC	Low impact gardening series	9/26/12	12
	CCU	CWSEC presentation on annual report to Horry Co. SWAB	9/18/12	8
	NI-WB PE	Technical assistance to local children's author on marine debris	9/17/12	1
	MI 2020	Technical meeting on Murrells Inlet watershed management plan	9/6/12	10
	MI 2020	Technical meetings on Murrells Inlet watershed plan	7/26/12	10
Technical Assistance	CCU	CWSEC core education provider meeting	7/23/12	8

Entries shaded blue are additional activities to the official Year 8 Activity Plan		
Key to Lead Providers:	**CC**	**Clemson - Carolina Clear**
	CCU	**Coastal Carolina University**
	MI 2020	**Murrells Inlet 2020**
	NI-WB CTP	**North Inlet - Winyah Bay NERR Coastal Training Program**
	NI-WB PE	**North Inlet - Winyah Bay NERR Public Education**
	Sea Grant	**South Carolina Sea Grant Consortium**
	WR®	**Waccamaw RiverKeeper**
	ACE CTP	Ace Basin NERR Coastal Training Program
	BWB Found	Belle W. Baruch Foundation
	Clem	Clemson University
	CPW	Conway Public Works
	GCS	Georgetown County Stormwater
	HCS	Horry County Stormwater
	MBPW	Myrtle Beach Public Works
	NCSU	North Carolina State University
	NI-WB RC	North Inlet - Winyah Bay Research Coordinator
	NMBPW	North Myrtle Beach Public Works
	SCDNR	South Carolina Department of Natural Resources
	SCTGHA	South Carolina Task Group on Harmful Algae
	SBPW	Surfside Beach Public Works
	WCOG	Waccamaw Council of Governments

APPENDIX C

Storm Sewer Outfall Map of MS4 Area


Legend
SURFSIDE BEACH TOWN LIMITS
STORMWATER OUTFALL
WATER BODIES
STREAMS & DRAINAGE DITCHES
ROADS
STATE
TOWN
H. Blue Huckabee Park
MELODY LANE OUTFALL
13TH AVE. SOUTH OCEAN OUTFALL
3RD AVE. SOUTH OCEAN OUTFALL
SURFSIDE DRIVE OCEAN OUTFALL
4TH AVE. NORTH OCEAN OUTFALL
10TH AVE. NORTH OCEAN OUTFALL
16TH AVE. NORTH OCEAN OUTFALL
SHEET TITLE: TOWN OF SURFSIDE BEACH STORMWATER DRAINAGE MAP
AGENT:
EARTHWORKS
11655 HIGHWAY 707
MURRELLS INLET, SC 29576
phone - 843-651-7900
fax - 843-651-7903
PROJECT TITLE:
TOWN OF SURFSIDE BEACH
2012 NPDES ANNUAL REPORT
DATE:
TEG PN: 131006
AUTHOR: SWILLIAMS
APPLICANT:
TOWN OF SURFSIDE BEACH
115 U.S. HIGHWAY 17 NORTH
SURFSIDE BEACH, SC 29575-6034
843 913 6111
REVISION SCHEDULE:
NO. DATE BY
PROJECT LOCATION:
EAST OF HIGHWAY 17 BUSINESS,
HORRY CO, SOUTH CAROLINA
DOCUMENT #:
NORTH
SCALE:
1:12,000
1" = 1,000'
0 550 1,100
FEET
LAT/LONG: 33°34'35.65"N
by 78°58'36.49"W
USGS QUAD NAME:
SURFSIDE BEACH
SHEET: 1 OF 1

APPENDIX D

Surfside Beach Dog Park

SURFSIDE BEACH DOG PARK

SUMMARY AND BMP PLANNING

There has been a series of questions and complaints, concerning the Surfside Beach Dog Park, over the course of the past year. Most of these complaints originate from one citizen, but make the assertion that the Dog Park is contributing to downstream impairment at the WAC-031A DHEC sampling site, which is listed on the 303D list as a water of concern. It should be further noted that during the 2013 sampling season at this location, DHEC recorded 21 samples, but only three contravened water quality standards for enterococcus (104).

After several discussions with Brian Wisnewski this past summer, it was agreed that the Town would investigate and install BMPs at the site, which would mitigate any potential to affect downstream water quality. As outlined in my letter dated July 15th, 2013, the following non-structural BMPs are in practice:

- Daily closing at sunset
- Daily patrols to pick up waste left behind (uncommon)
- Four dog waste stations in immediate vicinity of site
- Stand-alone waste receptacles in immediate area
- Vegetated ditch alongside large dog park for infiltration/nutrient uptake
- "Clean up after your dog" signage

In the succeeding months, I have interviewed representatives from the Filterra Corporation, Advanced Drainage Systems, Inc, Crystal Stream Technologies, and Fabco Industries, who all offer a structural, drop inlet insert to reduce effluent bacteria loads. We are currently selecting the most cost-effective product, and hope to have an installation during this off-season.

We will continue to work closely with the Bureau of Water, to ensure we all have shared knowledge and experience, as well as maintaining compliance with our obligations under our MS4 permit.