



Governors' South Atlantic Alliance

North Carolina • South Carolina • Georgia • Florida

Clean Coastal and Ocean Waters

Kelly Hill

CCOW Team Members

State Leads and Alternates

- Florida– Gary Raulerson; (Andrea Small)
- Georgia– Kelly Hill
- South Carolina– David Wilson; (David Graves)
- North Carolina– Dianne Reid; (Adriene Weaver)

▶ Federal Participants

- USGS (Mentor)– Eric Strom
- USACOE– Elden Glatwood
- NOAA– Geoff Scott
- USEPA– Andrea Zimmer;
Shawnielle Campbell–
Dunbar
- NPS– Anna Toline

Watershed Improvement Work Group

- FL– Michael Thomas
- GA– Vacant
- SC– Andy Miller; (Will
Salters)
- NC– Adriene Weaver; (Pat
Durrett)

CCOW Goal

The Goal of Clean Coastal and Ocean Waters (CCOW) issue area is to enhance the ability of managers to effectively target pollution prevention, enforcement, response, and mitigation activities, and to integrate coastal and ocean observing systems in the South Atlantic. The Alliance seeks to achieve this goal through the following Objectives:

- ▶ Improve watershed management of point and non-point source pollution
- ▶ Enhance understanding of climate change impacts to water quantity and quality
- ▶ Increase data comparability across the region
- ▶ Improve marine debris removal programs

2013 Progress and Products

CCOW Top 2 Priority Actions– November 2011

- ▶ C.C.O.W. 1 Improve watershed management of point and nonpoint source pollution to reduce adverse impacts to water quality.
 - **CCOW 1A: Establish a regional technical level work group** for the purpose of sharing watershed water quality improvement processes.
 - CCOW 1B: Improve the ability to model loading coefficients for point and non-point sources of nitrogen in coastal ecosystems using the best available technology and information including climate change information.
 - **CCOW 1C: Develop recommendations on processes and protocols** to transfer knowledge and implement best management practices for point and non-point source controls, and to encourage smart growth and green infrastructure (including monitoring-based performance measures).



CCOW 1 A: Established the WIWG (Watershed Improvement Work Group)

- ▶ WIWG Formed in April 2012
- ▶ One primary member from each state
- ▶ Regular conference calls and meeting participation



CCOW 1A Implementation Steps

CCOW 1A: Establish a regional technical level work group for the purpose of sharing watershed water quality improvement processes.

- 1) **Catalogue watershed/water quality processes within each state and evaluate the need to enhance and be consistent in its implementation.**
- 2) Develop the ability to transfer the knowledge about modeling and process development between states to enhance the water quality improvement process.
- 3) Identify and utilize resources for developing and implementing water quality improvement processes in shared watersheds that would lead to enhanced water quality on a large watershed scale.



Watershed Water Quality Program Catalogue

- Inventory of Programs / Processes in each state
- Questions asked include:
 - Implementing Agency
 - Laws / Regulations
 - Weblink
 - Outputs / Responsibilities (ie # permits)
 - FTE
 - Funding Source
 - Notes / History

SC Water Program (Strawman)					
State Implementation Details					
Program Elements	Implementing Agency (s)	Laws/Regulations	Weblink	Outputs/Responsibilities. Quantity/Units (eg. # permits)	# of dec (FTE)
Ambient Monitoring	DHEC-BOW	SCPCA 48-1-50 SC R61-68 SC R.61-9	http://www.scdhec.gov/environment/water/surface.htm	*350 ambient station Annual watershed Bi-annual 303(d) and	3 Centr 8 Regio
Classification/Standards	DHEC-BOW	SC R.61-68	http://www.scdhec.gov/environment/water/wq_standard.htm	Triennial, annual changes	
Shellfish	DHEC-BOW	SC R.61-47 SC R.61-49	http://www.scdhec.gov/environment/water/shell	500+ monthly stations, 25 annual area reports, #	*8
NPDES-Permitting	DHEC-BOW	SC R.61-9 SC Pol. Ctrl. Act	http://www.scdhec.gov/environment/water/npd		
<i>Municipal</i>				*60 major, 110 minor 100 no discharge, 200 General Permits	
<i>Industrial</i>				150 Major,	
<i>Ag</i>					10
NPDES-Stormwater	DHEC-BOW	SC R. 61-9	http://www.scdhec.gov/environment/water/swater/index.htm		
<i>MS4</i>				1 large, 4 medium and 70 small MS4s	
<i>Ind</i>				1000 (# individuals vs generals)	
<i>Ag</i>					600
<i>Construction</i>				1000/year?	
Silviculture	SC Forestry Comm.		http://www.state.sc.us/forest/bmp07.pdf		
Coastal Zone Management	DHEC-OCRM	48-39-10	http://www.scdhec.gov/environment/ocrm/czm		

man)

	Outputs/Responsibilities. Quantity/Units (eg. # permits)	# of dedicated staff (FTE)	Funding Source Federal	Funding Source State	Notes/History
www.sodheo.gov/ment/water/surf	*350 ambient station Annual watershed Bi-annual 303(d) and	3 Central 8 Region	CWA106?/\$\$\$\$	Match	Assessments are produced for bi-annual 303(d) list and 305(b) report. Remarks: Program has recently been scaled back considerably. Fewer stations and sampling
www.sodheo.gov/ment/water/w_q_d.htm	Triennial, annual changes	1.5			Remarks: In 2012 SC changed pathogen indicator organism to E-coli from fecal coliform on all inland waters. Enterococcus remains the standard for salt
www.sodheo.gov/ment/water/shell	500+ monthly stations, 25 annual area reports, #	*8			Shellfish use support is determined by fecal coliform according to regs derived from FDA. Shellfish sampl
www.sodheo.gov/ment/water/npd					
	*60 major, 110 minor 100 no discharge, 200 General Permits	4			
	150 Major,	2			Includes pre-treatment program
	10	1.5			There are no CAFDs in SC??1 AFDs 5 dairies, 20 Swine, 500 poultry
www.sodheo.gov/ment/water/swat.htm					
	1 large, 4 medium and 70 small MS4s				
	1000 (# individuals vs generals)				
	600				
	1000/year?				
www.state.sc.us/fpp07.pdf					BMP foresters receive an annual 319 grant for aerial assessments and Courtesy BMP consultation
www.sodheo.gov/ment/ocrm/czm					The coastal zone management program is a deputy area of SC DHEC

CCOW 1A

- IATT transitioned to focus on 1A after 2012 Annual Meeting
- Snap Shot developed at May IATT Meeting
 - Use completed catalogue of watershed/water quality processes within each state (Implementation Step CCOW 1A.1) to analyze similarities and differences of processes across states, as well as make recommendations to improve efficiencies.



CCOW 1 C Implementation Steps

CCOW 1 C: Develop recommendations on processes & protocols to transfer knowledge/implement BMPs for point & non-point source controls, and to encourage smart growth and green infrastructure.

- 1) **Produce a compendium of accepted BMPs.**
- 2) Publish a list of LID and BMP demonstration sites and programs throughout the region.
- 3) Develop strategies to encourage and evaluate innovative best management practices (BMPs) and green technologies.
- 4) Post incentive programs available to support BMP installation on the SAA website.
- 5) Provide training to private and public sectors on LID techniques on a long-term basis.
- 6) Develop a regional process to identify state and federal funds to control non-point source pollution.
- 7) Host a workshop ...



BMP Compendia Initial Considerations


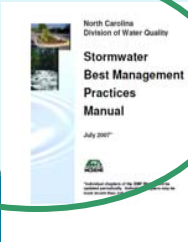
- ▶ List of discrete BMPs vs collection of existing resources
- ▶ BMP Compendia Models elsewhere
- ▶ Target audience
- ▶ Focus on coastal issues only or broader scope
- ▶ Form of output
- ▶ Availability/Distribution of output
- ▶ How will compendium be kept current

BMP Impact Categories

- ▶ Construction
- ▶ Urban Treatment
- ▶ Urban Preventative
- ▶ Ag–Livestock
- ▶ Ag–Cropland
- ▶ Highways
- ▶ Forestry
- ▶ Marinas
- ▶ Golf Courses
- ▶ Educational
- ▶ Groundwater Protection
- ▶ Institutional/Regulatory
- ▶ General

Working Spreadsheet Elements

Compendium of Coastal Water Quality Best Management Practices
 Prepared for the Governors South Atlantic Alliance 2013

BMP Target Category	Title	Weblink	Commentor State
Construction			
	NC State Construction Stormwater BMPs	http://www.hrwc.net/factsheets/constructionbmps.pdf	SC
	DWQ Stormwater Best Management Practices Manual	http://portal.ncdenr.org/web/wq/ws/su/bmp-manual	NC GA FL

Title

Web Link

Title Page Image

E	F	G	
5			
6	Commentor State	Features	Limitations
7			
8			
9	SC	Construction BMP education for the public. Published by an NC citizens group. Not targeted to professionals. Some useful links at the end	Not very useful for BMP decision makers
10	NC	A fact sheet on construction stormwater bmps for general public. Provides an explanation of and examples of construction stormwater bmps and links to state resources for more information about construction stormwater bmps.-Adriene	Some of links (pdf htm) provided in the fact sheet are dead.- Adriene
11	GA		
12	FL		
13		This is the official NCDENR stormwater manual. It says the BMPs included meet the minimum state requirements.Cites construction permit statutes. Cites construction permit statutes. Well organized web interface with links to detailed information on each BMP. Allows on going public involvement through comment solicitation and a listserve	Pollutant removal percentages for nutrients and sediment but not bacteria.
14			

BMP Reviews

Each BMP by State Rep

Tabbed by Impact Category

Construction / Urban-Treatment / Urban-Preventative / Ag-Livestock / Ag-Cropland / Highway / Forestry / Marinas / Golf Courses / Educational

Next Steps

- Continue work on developing CCOW 1A Snap Shot and seeking resources to complete Action Item
- WIWG will continue work on CCOW 1C