



# NOAA<sup>in</sup> the CAROLINAS

National Oceanic & Atmospheric Administration



NOAA in the Carolinas Meeting Participants

## Report from the 2012 NOAA in the Carolinas Conference: Water Resources and Resiliency

Fort Johnson, Charleston, SC

March 15-16, 2012

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## BACKGROUND

NOAA in the Carolinas (NinC) is a self-initiated engagement effort on the part of NOAA staff, programs and partners in North Carolina and South Carolina. During the early years of NinC, NOAA leadership endorsed the NinC regional approach to advance the OneNOAA concept. Over the past two years, NinC has coordinated with the NOAA Southeast and Caribbean Regional Team (SECART) and many of the NinC Steering Committee members also participate on SECART and its committees, thereby increasing the collaborative nature of NinC and SECART.

The mission of NinC is to work across agency lines and disciplines to enhance NOAA's value to and impact on the region. NinC objectives are to:

- Identify local to regional challenges, needs and opportunities in North Carolina and South Carolina.
- Mobilize, share, and integrate knowledge and capabilities across NOAA and extramural partners to respond to constituent needs and opportunities.
- Coordinate with NOAA's Southeast and Caribbean Regional Team (SECART) to support regional activities and more effectively engage extramural partners in mission planning and execution.
- Attract new resources to address regional issues and develop initiatives using the OneNOAA approach.
- Create opportunities for outreach that promote NOAA products and services.

To achieve these objectives, NOAA offices and programs in the region have worked across organizational lines and collaborated on many interdisciplinary and inter-agency projects. Examples of these projects include: efforts to improve rip current safety; development of better flood and storm surge models; climate change impact prediction; and, joint projects that enhance NOAA's public outreach efforts related to hurricane prediction and preparedness. For more information, visit the NinC web site at <http://www.carolinas.noaa.gov/>.

In 2004, 2005, 2007, 2008 and 2010 NOAA representatives in North Carolina and South Carolina conducted meetings in Wilmington, NC; Asheville, NC; Charleston, SC; Beaufort, NC; and Asheville, NC, respectively, to highlight NOAA partnership efforts and to recommend new potential research and outreach efforts. The resulting reports are available online at the NinC website (<http://www.carolinas.noaa.gov/Meetings.html#>). Highlights from some of the meetings, especially progress on specific projects, have been presented by NinC Steering Committee members to NOAA leaders in Silver Spring, MD.

## **2012 NOAA IN THE CAROLINAS CONFERENCE REPORT**

The sixth NOAA in the Carolinas (NinC) conference was held 15-16 March 2012 at Fort Johnson, Charleston, SC (Agenda – Appendix A). There were 57 participants, representing 35 different state and federal agencies, universities and non-profit organizations (Participant List – Appendix B). The conference had a dual meeting theme: Water Resources and Resiliency. These two topics are relevant across both North Carolina and South Carolina, and as such both themes have inland and coastal implications. The theme was determined following deliberations by the NinC Steering Committee and NinC Meeting Planning teams (Steering Committee Members and Meeting Planning Team Members – Appendix C).

The welcome and introductory remarks from the NinC perspective were delivered by Michael Voiland, director of both the North Carolina Sea Grant Program and the Water Resources Research Institute of the University of North Carolina (UNC) System, both located at North Carolina State University in Raleigh, NC. Dr. Voiland provided an overview of NinC's mission, activities, and previous annual meetings, going back to the inaugural meeting of "NOAA in North Carolinas" in 2004 in Wilmington, NC. Dr. Voiland underscored that the general goal for this 2012 NinC Conference was unlike earlier gatherings in that it was planned by the steering committee to serve less as a mechanism for internal and strategic regional project planning (a purpose now primarily served by SECART), and more as an opportunity for NOAA and NOAA-affiliated staff, as well as other key resource agencies and stakeholders, to consider innovative and new ideas for potential partnering and collaborating efforts.

Wrapping up, Dr. Voiland explained that the meeting would commence with two plenary keynote presentations from non-NOAA experts, followed by an open question and answer session and discussions based on those talks. Following that, he laid out how concurrent breakout sessions based on the themes of water resources and resiliency would take place during both days of the conference. Expected outcomes included identification of growth areas and partnership opportunities for new NOAA research interactions, data gathering/analysis, products, and services within the region under both of those broad meeting themes.

The two keynote addresses were provided on day one of the NinC Conference. The Water Resources plenary, titled "A Fundamental Change in Managing our Community Water Infrastructure", was provided by Trevor Clements of Tetra Tech. The Resiliency plenary, titled "Coastal Resilience in the Age of Climate Change" was provided by Gavin Smith of UNC Chapel Hill. These presentations are available on the NinC website (<http://www.carolinas.noaa.gov/Meetings.html#>).

During the Water Resources keynote address, Mr. Clements described U.S. water use and how communities should consider a future water processing and use methodology that includes a balance of economy, environment, and social needs. Mr. Clements explained that 13% of national electricity use is in pumping water to use, and in treating

water. While planning for the future, towns and communities need to integrate water resource management and land management in order to address water scarcity, promote hydrologic and ecological resource restoration through best management practices, and reduce water management silos (i.e. reform managing water supplies, treating wastewater, and treating stormwater as three separate systems). The 21<sup>st</sup> Century water management strategy has to be flexible, provide watershed scale planning and management, include full life-cycle costing, improve on current regulations, and enhance community engagement.

Dr. Gavin Smith, in the Resiliency keynote address, focused on the following areas: climate change adaptation and hazards management; adapting to climate change: lessons from natural hazards; and, recommendations for North Carolina and South Carolina Coastal Managers. Dr. Smith's personal involvement with post-Hurricane Katrina disaster recovery efforts provided many lessons learned which have application for all coastal communities. Managers need to be good risk communicators and provide the appropriate tools for assessing risk to the affected communities. Federal and state managers should consider working with housing design teams to provide better solutions than FEMA trailers for post disaster emergency housing and to design communities for post-disaster resettlement. Additionally, consideration of building codes and land use should be taken into account so that the same development mistakes are not made again post disaster. Moreover, NOAA can assist FEMA through its initial climate change-related efforts, such as mapping of sea level rise. Finally, Dr. Smith discussed how all of these topical areas are relevant to NC and SC coastal managers.

The keynote addresses were followed by an open forum discussion period, led by Dr. Voiland. The presenters and the meeting participants discussed management concerns for both Resiliency and Water Resources in both NC and SC. Additionally, conference participants discussed in general terms some current projects, NOAA capabilities, and options to leverage investments on future work.

Following the keynote addresses, meeting participants had the option to participate in concurrent breakout sessions based on the conference themes of water resources and resiliency. See Table 1 for a complete list of the breakout session presentations. Additionally, over the course of the two day meeting, updates were provided on NOAA work within the region. On Day 1, Kodi Monroe provided an update on the Coastal and Inland Flood Observation and Warning (CIFLOW) project, and on Day 2, the following presentations were made: Geno Olmi provided an overview of NOAA Southeast and Caribbean Regional Team (SECART) efforts to address resiliency and water resources within the region; Rick DeVoe provided an overview of the Governors' South Atlantic Alliance; Doug Marcy presented on NOAA Coastal Services Center's Climate and Hazards Resilience Activities; and, Geoff Scott provided the following presentation – Coastal Urbanization and Climate Change: A Recipe for Disaster. All of the presentations as well as the breakout presentations are available in PDF format at: <http://www.carolinas.noaa.gov/Meetings.html#>.

<b>Water Resources</b>	<b>Resiliency</b>
<i>Breakout Session 1A</i>	<i>Breakout Session 1B</i>
<p>Topic 1: Richard Heim, Jr., NCDC - Drought Monitoring, Global Drought Monitoring Portal, and other NCDC drought monitor efforts and studies</p> <p>Topic 2: John Schmidt, Development and Operations Hydrologist, NWS SERFC - NIDIS status in the ACF, plans to extend NIDIS into the Carolinas, other river forecast science updates</p>	<p>Topic 1: Richard Bandy, NOAA NWS – Hurricane Irene Impacts: Storm Surge Forecasting and Ties to Resiliency</p> <p>Topic 2: April Turner, South Carolina Sea Grant Consortium - Climate impacts of shallow coastal flooding in Charleston - what is the impact as sea level continues to rise?</p>
<i>Breakout Session 2A</i>	<i>Breakout Session 2B</i>
<p>Topic 1: Sankar Arumugam, NC State University - Role of Climate Variability in Modulating the Surface Water and Groundwater Interaction over the Southeast United States</p> <p>Topic 2: Greg Carbone, Carolinas Integrated Sciences &amp; Assessments (CISA) - Improving the Characterization of Drought and Understating of Impacts on Water and Ecological Resources</p>	<p>Topic 1: Linda Rimer, EPA-NC EPA-FEMA-MOA Community Pilot Projects</p> <p>Topic 2: Tom Allen, East Carolina University- Storm surge visualization projects</p>
<i>Breakout Session 3A</i>	<i>Breakout Session 3B</i>
<p>Topic 1: Eric Strom, USGS - Ongoing work and challenges, coastal and inland</p> <p>Topic 2: Mark Endries, USFWS - Predictive Habitat Maps for 226 Aquatic Species in Western NC using Maxent Modeling</p>	<p>Topic 1: Allison Hardin, City of Myrtle Beach - Coastal No Adverse Impact</p> <p>Topic 2: Jess Whitehead, South Carolina Sea Grant Consortium - Vulnerability and Consequences Adaptation Planning Scenarios (VCAPS)</p>

Table 1. List of Breakout session presentations. Note Breakout sessions 1 and 2 occurred on Day 1 and Breakout session 3 occurred on Day 2.

**Synthesis Session: Discussion of Breakout Sessions**

Thoughts for consideration during the breakout sessions were provided by Mike Voiland during the opening remarks. The breakout sessions highlighted the fact that water resources and resiliency are important research themes and interconnected, especially when considered in the context of climate change. The breakout sessions also provided opportunities to share research and science endeavors that are improving water resource and resiliency efforts in North Carolina and South Carolina. Specific regional and local projects related to drought monitoring, and coastal flooding and adaptation planning, highlighted NOAA and Sea Grant activities in the Carolinas. Partner agencies, specifically representatives of the Environmental Protection Agency (EPA), U.S. Geological Survey (USGS), and the U.S. Fish and Wildlife Service (USFWS), noted their efforts in addressing water resources and resiliency and provided thoughts on how NOAA could benefit from their projects as well as how NOAA agencies could get

involved. Finally, an informative presentation on Myrtle Beach, SC's city planning efforts to move towards "Coastal No Adverse Impacts" provided an overview of how town planners and managers are working towards reducing risk as the city grows.

Question and answer sessions after breakout group presentations allowed for more in-depth discussion and for making connections among the participants. In addition, the NinC meeting afforded an opportunity for group discussion on a potential National Integrated Drought Information System (NIDIS) pilot program in the coastal Carolinas. Water resources and resiliency will continue to be important priorities for NOAA in the Southeast and Caribbean Region, and this workshop will improve NOAA's ability to tackle these issues.

### ***Outcomes and Opportunities***

Meeting participants agreed that in order to properly address resiliency and water resources, long term monitoring data are needed, using a multi-disciplinary approach working collaboratively between federal, state and local agencies. In addition, there was agreement that NOAA should work more closely with FEMA. For example, there are conflicting messages between risk maps and permitting in many locations. How can NOAA, state management and regulatory agencies, and FEMA work cooperatively to address flood risk? Furthermore, as mentioned earlier, as FEMA embarks in more efforts related to climate change, availability of sea level rise maps from NOAA will be very helpful.

Other potential collaborative opportunities and/or needs expressed at the workshop included:

- The NCDC is undertaking a study to improve the definition of drought for diverse North America climate regions. The NCDC is getting input from some climatologists, but it would like input from all state climatologists.
- NCDC and drought authors would like development of a database with U.S. Department of Agriculture (USDA) input on crop impacts nationwide to help classify impacts objectively. It is possible agricultural extensions could help with this.
- There were several potential collaborative opportunities that could positively affect NWS hydrologic activities, specifically in the Carolinas among efforts at the NWS Southeast River Forecast Center (SERFC).
- There is a hurricane storm tide network in SC through a partnership between the USGS and the USACE. A similar effort could occur in NC following the practice developed in SC.
- Vulnerability and Consequences Adaptation Planning Scenarios (VCAPS) is a climate change planning tool which Sea Grant has successfully used in several NC and SC communities. In the future, Sea Grant plans to incorporate hazard mitigation with climate change using VCAPS. Sea Grant plans to host training sessions on VCAPS which will be open to state and federal agencies as so that they can facilitate the VCAPS process.

- The EPA and FEMA will be conducting sea level rise projects with the cities of New Bern, NC and Wilmington, NC. Sea Grant will be assisting with these projects and there may be collaborative opportunities with other NOAA agencies as well.
- Flood Plain Managers use a number of on-line tools from NOAA Coastal Services Center, such as Digital Coast. There are other potential collaborative opportunities for NOAA offices, such as the NWS, to coordinate better with city or county flood plain managers to identify risks and educate the public for both short-term hazard risks as well as sea level rise.

NinC plays a vital role in providing opportunities to bring people together for discussion and planning activities in the two-state region. Additionally, NOAA provides many water resource and resiliency products and services (e.g. maps, GIS tools, on-line catalogues) that could be useful for management decisions. There is a need for NOAA offices to reach out to state and municipal decision makers and inform them of the products and services available. Finally, there is an increased need for federal agencies to cooperatively address issues facing those in the Carolinas. One goal for the next NinC conference is to invite more federal agencies to participate (e.g. FEMA, Department of Energy, USFWS's Landscape Conservation Cooperative) in order to identify possible areas of collaboration. Another suggestion included inviting an economist to discuss how NOAA can articulate a value to something it needs to prove or move forward with. Ultimately, NinC as well as other collaborative entities will need to work to overcome obstacles to coordination and communication, of which an acute obstacle currently is budget.

### **SPECIAL THANKS**

The NinC Steering Committee would like to thank Robert Van Dolah and his staff at the SCDNR Marine Resources Research Institute at Fort Johnson, SC, along with Susan White and Suzanne Smith, of the Hollings Marine Lab at Fort Johnson, for hosting the 2012 NOAA in the Carolinas Conference. We would also like to thank the members of the Meeting Planning Team for their contributions to the planning and organization of this meeting, especially the following planning team members who are not NinC Steering Committee members: Tancred Miller, NC Department of Natural Resources and Steve Eberbach, Michael Baker Corporation. A full list of the Meeting Planning Team members and their affiliations is located in Appendix C.

Thank you to all of the conference attendees who completed the participant satisfaction survey. The survey results are listed in Appendix D.



## Appendix A – 2012 NOAA in the Carolinas Conference Agenda

Topic 2: John Schmidt, Development & Operations Hydrologist, SERFC - NIDIS status in the ACF, plans to extend NIDIS into the Carolinas, other river forecast science updates

### **Breakout Session 1B**

DNR Indoor Classroom

*Resiliency* (each topic will have 20 minutes plus 10 minutes for discussion)

Topic 1: John Dorman, GTM Director and IHRM Lead - Integrated Hazards Risk Management and Sea Level Rise

Topic 2: April Turner, South Carolina Sea Grant – Climate impacts of shallow coastal flooding in Charleston – what is the impact as sea level continues to rise?

#### Goals:

- Discuss problem-focused products, information services, and decision support tools.
- Connect users to existing resiliency models, products, etc. and discuss the development of new, authoritative, reliable services.

### **Session 2:**

2:15 pm

### **Concurrent breakout sessions for Resiliency and Water Resources**

#### **Breakout Session 2A**

MRRRI Auditorium

*Water Resources* (each topic will have 20 minutes plus 10 minutes for discussion)

Topic 1: Sankar Arumugam, NC State University - Role of climate Variability in Modulating the Surface Water and Groundwater interaction over the Southeast United States.

Topic 2: Greg Carbone, Carolinas Integrated Sciences & Assessments (CISA) – Improving the Characterization of Drought and Understating of Impacts on Water and Ecological Resources.

#### **Breakout Session 2B**

DNR Indoor Classroom

*Resiliency* (each topic will have 20 minutes plus 10 minutes for discussion)

Topic 1: Linda Rimer, EPA - FEMA-EPA Community Resilience Pilots

Topic 2: Tom Allen, East Carolina University – Storm surge visualization projects

#### Goals:

- Discuss problem-focused products, information services, and decision support tools
- Connect users to developing resiliency resources, models, products, etc. and discuss the development of new, authoritative, reliable services.

3:15 pm

Break

## Appendix A – 2012 NOAA in the Carolinas Conference Agenda

<b>Session 3:</b>	<b>Plenary</b>	MRRI Auditorium
3:45 pm	CIFLOW update Kodi Nemunaitis-Monroe , NOAA CIMMS/NSSL <ul style="list-style-type: none"><li>• Ties with Water Resources and Resiliency</li><li>• Current status</li><li>• Successes during Hurricane Irene</li><li>• Future work and challenges</li></ul>	
4:15 pm	Summary of day one, plan for day two, other logistical items	
4:45 pm	Adjourn	

Appendix A – 2012 NOAA in the Carolinas Conference Agenda

**Day 2, March 16: (8:00 am – 3:00 pm)**

8:00 am	Continental Breakfast and Informal Conversation	MRRRI Lobby
<b>Session 4:</b>	<b>Plenary</b>	MRRRI Auditorium
8:30 am	NOAA in the Region Highlights Geno Olmi, Coordinator, NOAA Southeast and Caribbean Regional Team	
9:00 am	Governor’s South Atlantic Alliance Highlights: Water Resources and Resiliency Rick DeVoe, Director, South Carolina Sea Grant Consortium	
9:30 am	Break	
<b>Session 5:</b>	<b>Concurrent breakout sessions for Resiliency and Water Resources</b>	
10:00 am	<b>Breakout Session 5A</b> <i>Water Resources</i> (each topic will have 20 minutes plus 10 minutes for discussion) Topic 1: Eric Strom, USGS – Ongoing work and challenges, coastal and inland Topic 2: Mark Endries, USFWS – Predictive Habitat Maps for 226 Aquatic Species in Western NC using Maxent Modeling	MRRRI Auditorium
	<b>Breakout Session 5B</b> <i>Resiliency</i> (each topic will have 20 minutes plus 10 minutes for discussion) Topic 1: Allison Hardin, City of Myrtle Beach - Coastal No Adverse Impact Topic 2: Jess Whitehead, South Carolina Sea Grant Consortium – Vulnerability and Consequences Adaptation Planning Scenarios (VCAPS)	DNR Indoor Classroom
	<u>Goals:</u>	
	<ul style="list-style-type: none"> <li>• Develop problem-focused products, information services, and decision support tools</li> <li>• Connect users to existing water resources models, products, etc. and discuss the development of new, authoritative, reliable services</li> </ul>	
11:10 am	Group Photo	Location TBD based on weather
11:30 am	Lunch, catered	Outdoor Classroom
<b>Session 6:</b>	<b>Plenary</b>	MRRRI Auditorium
12:30 pm	Coastal Services Center climate and Hazards Resilience Activities Doug Marcy, Coastal Hazards Specialist, NOAA’s Coastal Services Center	

## Appendix A – 2012 NOAA in the Carolinas Conference Agenda

- 1:00 pm Coastal Urbanization and Climate Change: A Recipe for Disaster  
Geoff Scott, Director, Center For Coastal Environmental Health and Biomolecular Research, Hollings Marine Lab
- 1:45 pm Facilitated open forum on NOAA services, gaps, and collaborative opportunities regarding water resources and resiliency.
- 3:00 pm Adjourn

## Appendix B - 2012 NOAA in the Carolinas Conference Attendees

Name	Affiliation	e-mail address
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Lisa Humphrey	North Carolinas Sea Grant	humphrey@uncw.edu

## Appendix B - 2012 NOAA in the Carolinas Conference Attendees

<b>Name</b>	<b>Affiliation</b>	<b>e-mail address</b>
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* denotes presenters		

## Appendix C - NOAA in the Carolinas Steering Committee & Meeting Planning Team Members

### NOAA in the Carolinas Steering Committee Members (listed alphabetically)

Robert Bacon	South Carolina Sea Grant Consortium, Charleston, SC
Richard Bandy	NOAA NWS Office, Newport/Morehead City, NC
Rebecca Ellin	NC National Estuarine Research Reserve, Beaufort, NC
Mike Emlaw	NOAA NWS Office, Charleston, SC
Virginia Fay	NOAA Southeast Regional Office, St. Petersburg, FL
Darin Figurskey	NOAA NWS Office, Raleigh, NC
Aleta Hohn	NOAA National Marine Fisheries Service, Beaufort, NC
Geno Olmi	NOAA SE and Caribbean Regional Team, Charleston, SC
Jeff Payne	NOAA Coastal Services Center, Charleston, SC
Mike Kruk	National Climatic Data Center, Asheville, NC
Jack Thigpen	North Carolina Sea Grant, Raleigh, NC
Michael Voiland	North Carolina Sea Grant, Raleigh, NC
Susan White	Hollings Marine Lab, Charleston, SC

### NOAA in the Carolinas Program Coordination

Jennifer Dorton	NOAA in the Carolinas Program Coordinator
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### NOAA in the Carolinas Meeting Planning Team (listed alphabetically)

Steve Eberbach	Michael Baker Corporation
Darin Figurskey	NOAA NWS
Doug Marcy	NOAA Coastal Services Center
Tancred Miller	NC Department of Natural Resources
Geoff Scott	NOS/NCCOS/Center for Coastal Environmental Health & Biomolecular Research
Jack Thigpen	North Carolina Sea Grant
Michael Voiland	North Carolina Sea Grant
Susan White	Hollings Marine Lab

### Support Staff

Lisa Humphrey	North Carolina Sea Grant
Shawna Cokley	NOAA NWS, Webmaster

Appendix D - NOAA in the Carolinas Survey Results

Ranking	Poor	Fair	Satis- factory	Good	Very Good	Excellent	No Answer	Average Score	Total Responses
Ranking Weight	1	2	3	4	5	6			
<b>1. How well did we achieve our overall objectives?</b>									
A. Enhance awareness of Water Resources & Resiliency									
Number of responses				4	22	6			32
Score				16	110	36		<b>5.06</b>	
B. Cross-cutting collaborative projects									
Number of responses		1	2	10	14	4	1		31
Score		2	6	40	70	24		<b>4.58</b>	
C. Opportunities to learn from each other									
Number of responses			2	2	15	13			32
Score			6	8	75	78		<b>5.22</b>	
<b>How well did we address Water Resources and/or Resiliency during Day 1 of the meeting and the breakout sessions?</b>									
2. Water Resources Keynote Address Trevor Clements									
Number of responses			1	7	7	15	2		30
Score			3	28	35	90		<b>5.20</b>	
3. Resiliency Keynote Address Gavin Smith									
Number of responses				4	12	16			32
Score				16	60	96		<b>5.38</b>	
4A. Water Resources breakout session 1A Heim & Schmidt									
Number of responses			3	5	4	1			13
Score			9	20	20	6		<b>4.23</b>	
4B. Resiliency breakout session 1B Bandy & Turner									
Number of responses			1	2	7	7			17
Score			3	8	35	42		<b>5.18</b>	
5A. Water Resources breakout session 2A Arumugam & Carbone									
Number of responses			2	5	5	2			14
Score			6	20	25	12		<b>4.50</b>	
5B. Resiliency breakout session 2B Rimer & Allen									
Number of responses				2	9	5			16
Score				8	45	30		<b>5.19</b>	

Appendix D - NOAA in the Carolinas Survey Results

Ranking	Poor	Fair	Satis- factory	Good	Very Good	Excellent	No Answer	Average Score	Total Responses
Ranking Weight	1	2	3	4	5	6			
<b>How well did we address Water Resources and/or Resiliency during Day 2 of the meeting and the breakout sessions?</b>									
6A. Water Resources breakout session 5A Strom & Endries									
Number of responses			1	1	7	4			13
Score			3	4	35	24		<b>5.08</b>	
6B. Resiliency breakout session 5B Hardin & Whitehead									
Number of responses				4	8	5			17
Score				16	40	30		<b>5.06</b>	
7. Coastal Services Center Climate & Hazards Doug Marcy									
Number of responses				3	18	6	5		27
Score				12	90	36		<b>5.11</b>	
8. Coastal Urbanization & Climate Change Geoff Scott									
Number of responses			1	6	11	7	7		25
Score			3	24	55	42		<b>4.96</b>	
9. Workshop encouraged participation of the entire group?									
Number of responses		1	2	8	13	8			32
Score		2	6	32	65	48		<b>4.78</b>	
10. How would you rate the facilities and meals?									
Number of responses			2	2	10	18			32
Score			6	8	50	108		<b>5.38</b>	
11. Overall, rating of the NinC meeting?									
Number of responses		1	1	1	19	10			32
Score		2	3	4	95	60		<b>5.13</b>	
12. Specific presentation or breakout you found meaningful?									
see following pages for written answers									
13. What 2 things would you change about the meeting?									
see following pages for written answers									
14. Probability of being involved in a new projects?									
Number of responses	1	2	4	6	14	4	1		31
Score	1	4	12	24	70	24		<b>4.35</b>	

Appendix D - NOAA in the Carolinas Survey Results

Ranking	Poor	Fair	Satisfactory	Good	Very Good	Excellent	No Answer	Average Score	Total Responses
Ranking Weight	1	2	3	4	5	6			
15. Would you attend another NinC meeting in the future?									
Number of responses			1	3	13	14	1		31
Score			3	12	65	84		<b>5.29</b>	

**12. Specific presentation or breakout you found meaningful?**

CI-Flow -Kodi
Resiliency breakout 5B Hardin & Whitehead presentation
Linder Rimer-Community pilot project
Tom Allen Storm surge visualization project
Doug Marcy -Coastal Services Center climate change
Enjoyed the directly applicable/practical presentations that were GIS technical; Gavin's, VCAPS, and so on
Great in # of presenters
Allison Hardin was fabulous!
Greg Carbone
April Turner
Gavin was excellent
All of it was excellent! Great Job!
All were good including Kodi's CI-Flow update. Great partnership example. Also SEACART & GSAA updates
All were great
Day 1 plenary talks were excellent
Opening & closing plenary's were very good. Good quality speakers & relevant material
Thursday's Keynote speakers Trevor Clements and Gavin Smith & breakout session 2B Tom Allen
Gavin Smith keynote and Allison Hardin on the ground, real applications & results
Allison Hardin's presentation from the local perspective was great
Rick Bandy Session 1B - storm surge changes in the analysis and Kodi Monroe CIFLOWS
Keynote session were eye-opening. USGS session and discussion on storm tide housing resulted in interest and possible partnership opportunities. Interaction during breaks was very valuable and resulted in more potential partnership opportunities and just simple awareness of activities. Impromptu NIOS afternoon session was valuable for me coping ideas for a possible coastal initiative due to the people at the meeting
Trevor Clements - new paradigm in water infrastructure is very intriguing

**13. What 2 things would you change about meeting?**

Item 1	Item 2
Small enough to keep it all "plenary"	Keep the breaks long; good networking
Decrease lunch/break times to make meeting 1.5 days	Noticed that participants dwindled by afternoon of day 2
Have more talks like Doug Marcy's	Have "short-term impact talks that warnings or immediate action is required
The food was okay although it kept the registration fee @ \$50 was a plus	Encourage/"mandate" group discussion w/ the breakout sessions by encouraging smaller groups to address specific questions based on the presentation topic. It may help break the ice for those outside of or new to the NOAA family.
Increased attendance -great speakers	Wish more Coastal Managers could attend
No breakouts	Would have liked to see both presentations
Fewer talks & more discussion of collaboration (ex. Social Coast Forum had great alternative formats)	More local level non-NOAA participation - good to catch up but would be better to take advantage of being together to do something new and collaborative
Greater attendance and participation from divisions and affiliated organizations that were not here. There didn't seem to be much representation from NC	Re-schedule the "open-forum" session for earlier in program. We had lost quite a few people by the end of the last day
One dinner together with awards	
Invite FEMA, DOE, other Feds	
Great breakfast - use them again	
Although the content of this NinC meeting was quite good, I'm concerned that the attendance was very low and was not worth the effort to bring the group together	
More time for discussion during breakout sessions	
There were some people that I know that never received an announcement. I think NinC may need to seek to add people to its Listserv	
Fewer/shorter presentations during breakouts - more discussions	
Some sort of first day reception	