

Carolinas Climate Connection

Carolinas Integrated Sciences & Assessments

Integrating Climate Science and Resource Management in the Carolinas



What is a 'climate resilience' conference?

The impacts of current climate variability and the evidence of climate change are continuing to grow and with them our understanding of the challenges we face in better adapting to climate. Resilience can be defined as the ability to adjust easily to or recover from a stress or change. Building resilience is an important step in preparing to successfully address current and future pressures. The [Carolinas Climate Resilience Conference](#) (CCRC) seeks to assist stakeholders, decision makers and resource managers in building resilience in the Carolinas by providing a platform to share experience and knowledge of opportunities, tools, resources, local initiatives, and expertise. The conference will be geared towards decision-makers with an emphasis on practical decision needs. This newsletter is designed to share more information about the intention of the conference, presentations to be given, and topics to be discussed.

Interactive Presentations: Networking and interaction are a key focus of the conference. Presentations are designed to facilitate interaction, training, collaboration and discussion around conference topics. The presentation descriptions on page 2 provide more information about the different formats included in the various sessions. Different presentation formats included in each session were selected by presenters to best suit the information they will share.

Session Topics: There will be 30 different breakout sessions over the course of the 2-day event. The categories listed below cover the range of issues to be discussed at the conference. Find more information about each of these beginning on page 3.

- Adaptation Planning, Resources & Building Resiliency
- Climate Communication & Community Engagement
- Climate & Public Health
- Climate Impacts, Trends & Projections
- Coastal Management
- Energy, Emissions & Mitigation
- Natural Resources Management
- Water Resources Management

Plenary Speakers: See a full list of speakers and plenary topics on page 5.

Networking Reception: Exhibitor booths and posters will be on display during the Monday evening reception. Exhibitors are listed on page 5.

Sponsors: The conference would not be possible without the support of our generous sponsors, listed on pages 6 and 7.

Additional conference information is posted on the website at www.cisa.sc.edu/ccrc.

Conference Location

Hilton Charlotte University Place
8629 JM Keynes Drive
Charlotte, NC 28262

Don't Miss the Early Registration Deadlines!

March 21st - Early [registration](#) rate deadline

March 28th - Reduced [hotel](#) rate deadline

Find all travel information [here](#).

Upcoming Events

[North Carolina Water Resources Research Institute Annual Conference](#)
Raleigh, NC
March 19-20, 2014

Abstract submission now open for the [2014 SC Water Resources Conference](#)
Columbia, SC
October 15-16, 2014



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Interactive Presentations

Conversations in the hall are often the best part of a conference. Sessions at CCRC are designed around alternative formats to allow for more discussion and audience interaction rather than standard talks. The descriptions below share a bit of information about the different session types. As an attendee, be prepared to take advantage of these interactive formats. You may have specific questions you'd like to ask of a particular presenter or expertise to share with someone giving a 'Connecting the Dots' presentation. We invite all conference attendees to come prepared to share. The symbols shown here will be listed by each presentation title on the conference website and in the printed program to designate the speaker's chosen format.



Ask the Climatologist' Sessions

If you have a question about current climate in the Carolinas, climate variability, or anticipated changes in regional climate consider attending one of the climate sessions. These sessions will include informative presentations from state and regional climatologists with plenty of time for questions and discussion throughout.



Climate Resources and Tools Demonstrations

These sessions will allow for user interaction and a more hands-on approach to tools demonstration and training. Presenters will give a brief introduction to their resource or tool at the beginning of the session, after which participants will break into small groups, circulating to different demonstration tables to learn more about the products or tools most relevant to their work.



Sharing Lessons Learned

Presenters will describe how their actions to address climate variability and change have succeeded (or not) for their organization, providing recommendations for others engaging in similar efforts including what went well and how they might do things differently next time. After the presentation audience members are encouraged to ask specific questions to draw out more information about these lessons for future application.



Climate Communities of Practice Round Table Discussions

These sessions will allow conference participants to discuss climate considerations around certain topics of interest. The sessions will be formatted as a facilitated discussion in order to allow participants to share information and discuss common goals or resource needs. Networking will be a key focus of these sessions.



Connecting the Dots (or 'Ask the Audience')

Presenters who would like to ask for feedback on how to make their research findings or climate resource accessible and useable by local, state and regional partners will present in this format. Presenters will give a brief 10 minute presentation of their project then share specific questions they would like to pose to the audience to discuss how work might best be shared with those who need the information. Questions to be posed during the presentation will be included with the printed abstracts in the conference program. Be sure to check out these sessions – you might have the information these presenters are seeking!



What's Going On?

There are lots of great climate-related regional and local projects taking place in the Carolinas. 'What's Going On?' presentations are designed to share information about ongoing efforts and partnerships in our two states that address climate variability and change so that conference participants can learn more about all of the great things that are happening. Check out these presentations to learn what's going on and find opportunities for connections or collaborations.



Poster Session and 3-Minute Presentations

Posters will be displayed in the central meeting location for the conference where plenaries, lunches, and breaks will be held. In addition, we will host a poster reception on Monday evening with light hors d'oeuvres and a cash bar. So, posters will get plenty of exposure through out the conference. In addition, we'll start sessions throughout the day with 2-3 minute presentation from poster presenters to peak the audiences' interest. The 3-minute presentations are organized in sessions according to poster topics so that presenters will reach the 'right' audience to share their work.

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Session Topics



Adaptation Planning, Resources & Building Resiliency

How might Carolina communities plan and invest in a resilient future? What is happening now, what is working, and what needs to be achieved to enhance the adaptive capacity of our region? These presentations includes compelling case studies that demonstrate how communities, municipalities, and state and federal organizations are negotiating what a resilient future looks like and how that future could be achieved. Presenters share experiences conducting vulnerability assessments, responding to hazards and disasters, and implementing planning processes and protocols designed to enhance resilient practices and infrastructures in local contexts. A series of decision-support and planning tool demonstrations will supplement presentations to provide participants with practical resources available to plan for drought, land-use and land-cover change, extreme precipitation, and community development. Sessions include:

- Upgrade your Climate Toolbox: Demonstrating Practical Resources
- Local Action: Climate Adaptation Planning in the Carolinas
- Community-Level Adaptation Planning: Introduction & Training on the VCAPS Group Approach
- Integrating Climate Change into Sustainability Planning
- Rebuilding Resiliently: Post-Disaster Recovery and Design
- Round Table Discussion: Bridging Regional Resources & Building Resilience Networks
- Round Table Discussion: Southeast and Caribbean Climate Community of Practice

Climate Communication and Community Engagement

What are the most effective ways to talk about climate and engage communities in initiatives that address climate vulnerabilities and threats? How could climate information be utilized to reduce climate risks and inform activities? This cohort of sessions considers how people perceive environmental change, how they learn about and use information on climate and weather, and helpful strategies to build collaborative, hopeful partnerships that lead to action in our region. Providing relevant and clear information, building coalitions among disparate groups, and developing ways to inform and educate residents, consumers, and visitors in the Carolinas are topics included in this cohort. Sessions include:

- Hopeful Perspectives on Climate Change
- Climate Communications: Creating Messages that Resonate
- Climate, Weather & Tourism in the Carolinas

Climate and Public Health

There is growing evidence that a changing climate poses major human health threats, particularly among individuals with high risk factors or vulnerable populations. With presenters from public health, planning, environmental protection and justice, and emergency management, this cohort of sessions explores significant public health impacts associated with environmental pollution and climate. Research on extreme heat events and heat vulnerability as well as greenhouse gas emissions and air quality highlight two issues of growing concern in the Carolinas. Information concerning how to address these public health threats with attention to equity and environmental justice will help frame conversations about the development of resilient adaptation strategies for vulnerable groups. Sessions include:

- Beating the Heat: Climate, Public Health & Heat Vulnerability
- Protecting Vulnerable Populations in a Changing Climate
- The Air We Breathe: Climate, Public Health & Air Quality

Climate Impacts, Trends, and Projections

Providing a comprehensive look at climate and its impacts in the Carolinas, this cohort of sessions is designed to review historical and projected climate information with particular attention to regional or “downscaled” information and major threats like heat waves, severe storms, droughts, floods, and hurricanes. Presenters will address climate models and how they work, climate variability at seasonal and interannual scales, extreme events, and downscaling climate data in our region. The utility of climate information and applications for planning and decision-making will be explored as well as challenges and improvements in climate change projections. Sessions include:

- Climate in the Carolinas
- Moving from Global to Local: What Regional Climate Models Can Tell Us
- Carolina Connections: Bringing National Climate Assessment Findings Home
- What’s Up with Strange Weather?: Climate Variability and Extremes

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Session Topics

Coastal Management

With significant social, environmental, and economic resources located along the coasts of North and South Carolina, coastal management sessions will focus on the use of climate information for planning, policy, and management of coastal built infrastructures, communities, and natural resources. Data and tools to understand and visualize the impact of sea-level rise in our region, as well as case studies that highlight efforts to mitigate and adapt to shoreline change will help facilitate conversations around the benefits and challenges presented by shoreline protection and management projects. Coastal habitat vulnerability and threats posed by climate changes will be considered, along with tools and resources available to respond to change and cultivate more resilient systems.

Sessions include:

- Rising Waters: How to Use Sea Level Rise Information and Maps
- Protecting Coastal Assets: Shoreline Management in the Carolinas
- Shifting Sands & Seas: Responding to Climate Challenges in Coastal Habitats

Energy, Emissions & Mitigation

Electricity production and transportation continue to be two of the largest sources of greenhouse gas emissions in the U.S. This cohort of sessions will consider the types of and sources of emissions in the Carolinas while highlighting programs, projects, and initiatives designed to promote alternative energy and transportation in the region. Discussions will highlight how efforts around clean energy, alternative fuels, renewable technologies and associated policies help mitigate threats and produce co-benefits that facilitate resilience-building adaptive strategies. Sessions include:

- Reducing the Impact of Emissions from Non-road Sources
- Alternative Fuels & Advanced Transportation Technologies in the Carolinas
- Clean Energy in the Carolinas: Policies and Opportunities for Climate Resilience and Mitigation

Natural Resource Management

Rapid urban growth and human resource demands as well as stress created by a changing climate are placing increasing pressure on the natural resources and landscapes that support the Carolinas. This cohort of sessions explores regional challenges that threaten the health and sustainability of natural resources. Several major resource communities in the region, from fish, to forestry, to farming, will be highlighted. Discussions around strategies to assess vulnerable resources, monitor and predict threats and impacts, and increase the adaptive capacity of ecological communities will allow resource managers to share practices and build networks to facilitate integrated management approaches to climate threats. Sessions include:

- Strategies to Prepare our Natural and Cultural Resources for Change
- From Fish to Forests: Managing and Protecting Natural Resources in a Changing Climate
- Growing the Future: Climate-Resilient Agriculture

Water Resource Management

Focused on the impact of climate and land use change on hydrology in the southeastern U.S., this cohort of sessions explores water availability and use as well as the management challenges raised by growing populations, development, and climate variability. Sessions include information on hydroclimatology, hydrologic modeling, stormwater management, infrastructure and design, and drought planning and preparation. Discussions will focus on current and potential practices designed to increase the resiliency of water resource infrastructure and management practices in the Carolinas. Sessions include:

- Assessing Water Resources in a Changing Climate
- Advances in Water Resources Management
- Managing Runoff: Low Impact Development and Stormwater Control

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Plenary Speakers

Speakers and plenary topics were developed in keeping with the goal of the conference to provide a forum for a wide range of stakeholders, decision makers, planners, resource managers, and researchers to interact and learn from one another about climate issues in the Carolinas.

Opening Plenary, Monday, April 28th: This panel discussion will focus on local actions to address climate issues in communities throughout the Carolinas.

- **Frank Knapp** - President and CEO, South Carolina Small Business Chamber of Commerce
- **Allison Hardin** - Planner, City of Myrtle Beach, SC
- **Phil Prete** - Senior Planner, City of Wilmington, NC
- **Skip Stiles** - Executive Director, Wetlands Watch, Norfolk, VA

Tuesday Morning Keynote Address, April 29th: National Climate Assessment Overview

- **Kathy Jacobs** - Director of the National Climate Assessment

Closing Plenary, Tuesday, April 29th: this final panel will focus on communicating issues about climate with speakers presenting different perspectives and their successes.

- **Jim Gandy** - Chief Meteorologist, WLTX Columbia, SC
- **David Shelley** - Education Coordinator, Congaree National Park
- **Kelly Spratt** - Local Government Outreach Coordinator, Georgia Sea Grant and UGA Marine Extension Service
- **Tim Watkins** - Science and Education Coordinator, National Park Service Climate Change Response Program
- **Jessica Whitehead** - Coastal Communities Hazards Adaptation Specialist, North Carolina Sea Grant

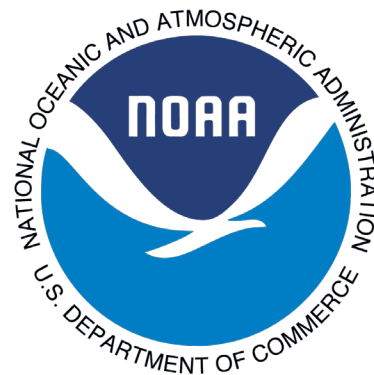
Networking Reception

As an additional opportunity to talk with other attendees more informally, a reception will be held on Monday, April 28th from 5:00 to 6:30. A cash bar and hors d'oeuvres will be available. The poster session and exhibitor booths will be open during the reception. Posters and exhibitor booths will also be on display throughout the conference.

Exhibitors



Your advocates for healthy air



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North Carolina Sea Grant's research, education and outreach projects focus on current issues affecting North Carolina ecosystems and economies. Since 1970, the program has been a valued resource for scientists, educators, local officials, government agencies, coastal businesses and the public to find unbiased, scientifically sound information across a broad portfolio. Our initiatives result in tangible impacts over a range of topics, including fisheries, seafood science and technology, water quality, aquaculture, community development, law and policy, and marine education. North Carolina Sea Grant takes a multidisciplinary approach to issues such as adaptation to changing climate and coastal hazards. Headquartered at North Carolina State University, the inter-institutional program within the University of North Carolina system also has offices in Manteo, Moorehead City and Wilmington.

The S.C. Sea Grant Consortium, a university-based state agency, develops and supports integrated research, education, and outreach programs that provide future economic opportunities, improve social well-being of citizens, and ensure wise use of coastal and ocean natural resources. The Consortium is a member of the nationwide network of 33 Sea Grant Programs which are part of the NOAA National Sea Grant College Program (NSGCP), U.S. Department of Commerce. The Consortium was the first Sea Grant program to receive an award in 2006 from the NSGCP and the NOAA Climate Program Office to support coastal climate extension efforts, which continue today as a partnership with the NSGCP, the S.C. Sea Grant Consortium, and the NOAA-funded Carolinas Integrated Sciences and Assessments program at the University of South Carolina.



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The North Carolina Water Resources Research Institute supports statewide research and outreach efforts related to water resources. Housed at North Carolina State University, we conduct training workshops, forums, and seminars with government agencies, academic institutions, and other state and local organizations. Additionally, we fund an annual research proposal competition and sponsor an annual water research conference.

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