

upcoming events

- 8/15 | GEORGETOWN, SC | COMMUNICATING CLIMATE CHANGE: A RESEARCH BASED APPROACH
- 9/14 - 15 | CHARLESTON, SC | CONFLUENCE CONFERENCE
- 10/24 - 27 | CHARLOTTE, NC | RACING TO RESILIENCY: NC ASSOCIATION OF FLOODPLAIN MANAGERS ANNUAL FALL FLOODPLAIN INSTITUTE

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BY THE NUMBERS



2016-2017 cisa annual report
now available

Each June we produce an annual report that captures all of the accomplishments of CISA team members including new projects and partnerships, research findings, key publications, project overviews, and a list of all deliverables. We also use the report as a way to document the impact of the CISA program, sharing stories about projects that have helped to increase climate resilience in the Carolinas by working one-on-one with stakeholders and decision makers to provide tailored climate information. Check out the By the Numbers infographic for a summary of what was produced. **The full 2016 – 2017 CISA Annual Report is available [here](#).**

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Sylricka is the Resilience Program Coordinator for the Charleston Resilience Network (CRN) for the South Carolina Sea Grant Consortium and CISA. She received a B.S. in Geology & Environmental Geosciences and a B.A. in Political Science from the College of Charleston in 2014. She went on to receive her MPA in Environmental Science & Policy at Columbia University's School of International & Public Affairs in New York City in 2016. While at Columbia, Sylricka worked on a variety of projects, including an analysis of the US EPA WaterSense Program, and an in-depth assessment of the *connection between climate change and beef consumption*. She also served as a manager for a project on international wildlife trafficking for the Wildlife Conservation Society (WCS), and together with a team, was able to help the WCS successfully lobby for the international protection of 4 endangered/threatened animal species under the CITES treaty. Sylricka was also able to be a part of a unique research study in conjunction with the China Center for International Economic Exchanges, where she helped the organization develop a set of sustainability metrics for Chinese cities.

Sylricka's work with CISA includes providing logistical + organizational support for various CRN events, planning + preparing for CRN meetings, and managing/designing the CRN website. Outside of work, Sylricka enjoys watching horror flicks with her fiancé, playing tug-of-war with her dog, Lily, traveling, weight training, and plant-based cooking.

FUN FACT: Sylricka's name is 1/2 her mother's name (Sylvia) + 1/2 her father's name (Rick).



Hampton Roads, VA and Charleston, SC share strategies for adapting to sea level rise

by: Joey Holleman, Science Writer, SC Sea Grant Consortium

The Charleston, SC and Hampton Roads, VA regions have common strengths – vibrant economies, historic neighborhoods, major military installations, and beautiful waterfronts. They also share a problem, one that threatens all of those strengths – frequent, persistent flooding. This problem prompted the Hampton Roads and Charleston Coastal Resilience Knowledge Exchange, held June 15 – 16 in Charleston, SC. About 60 local planners, engineers, emergency managers, nonprofit and business leaders from the two coastal regions gathered to discuss strategies for dealing with these shared challenges. The event was coordinated by the *Charleston Resilience Network* with support from CISA and the SC Sea Grant Consortium, two of the network's partnering organizations. The CRN is a public-private collaboration formed in 2015 to foster science-based planning for the area.

Charleston Mayor John Tecklenburg set the stage at the Knowledge Exchange with a brief welcome. "We all know that resilience means a lot of different things to different people – resilience to disaster, to wars, to economic downturns," he said. "But in the next 100 years, there is nothing more pressing on the City of Charleston than sea level rise and its impacts." Water levels have risen more than a foot in the Charleston harbor in the past century and are forecast to rise another 1 ½ to 3 feet in the next 50 years. The Hampton Roads region, which includes the communities of Chesapeake, Hampton, Newport News, Norfolk, Portsmouth, Suffolk, and Virginia Beach, is dealing with similar projections. (cont. on the next page)



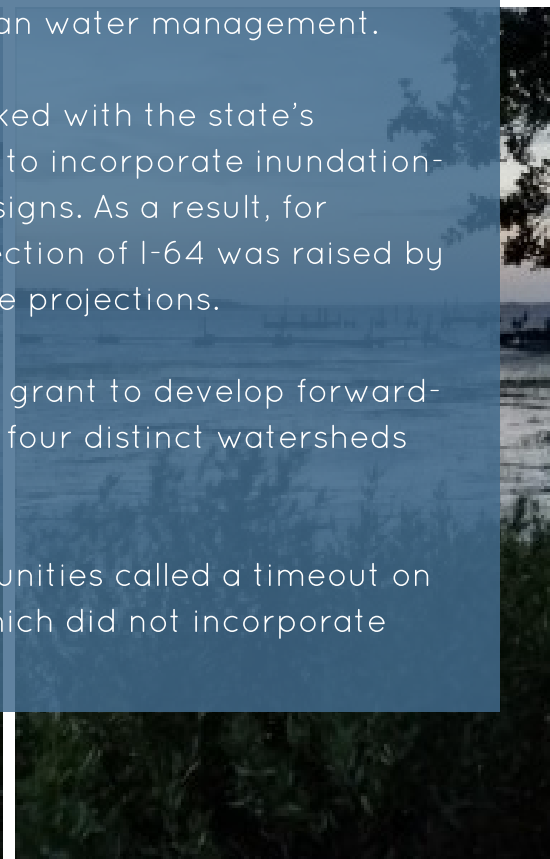
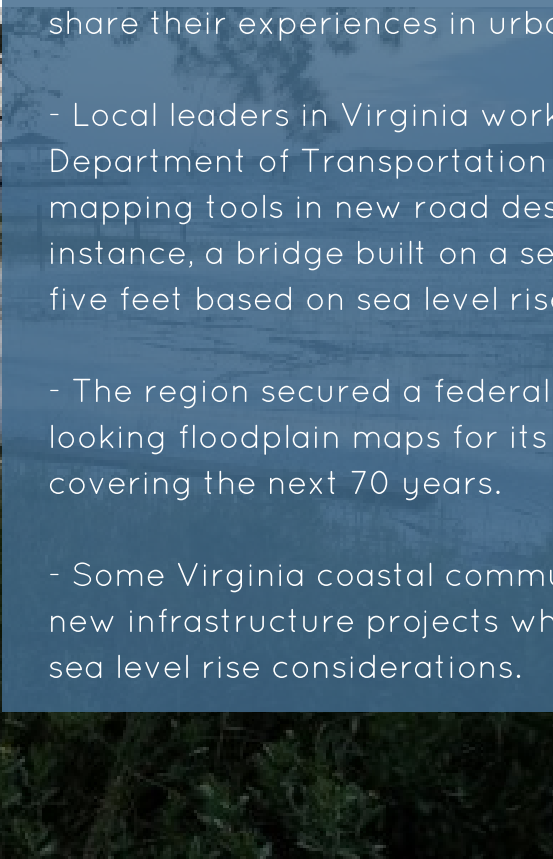
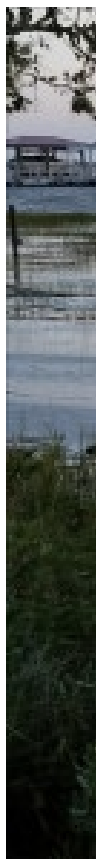
SOURCE: MyCoast SC

Nuisance flooding has been on the rise for years in both regions. Extreme astronomical tides, also known as King Tides, as well as persistent weather fronts push seawater into streets, yards, and structures dozens of times each year. Extremely heavy rain events, referred to as "rain bombs", can cause minor flooding on their own and catastrophic flooding when combined with King Tides. "This is a threat that is creeping up, not coming suddenly," said Brian Swets, planning administrator for Portsmouth, VA. "We don't need to say the sky is falling. We have time to act if we plan responsibly."

The coordinated resilience effort in Hampton Roads began a few years before a similar movement in the Charleston region. But the South Carolina effort has gained traction with the formation of the Charleston Resilience Network, the city of Charleston's adoption of a sea level rise strategy in 2015, and the city's appointment of Mark Wilbert as director of emergency management and resilience in 2017. In addition to the Knowledge Exchange, in early 2016 the CRN coordinated a symposium recapping the impacts of, and community response to, the October 2015 floods. More recently, the CRN has facilitated informal gatherings of municipal, state, corporate, and non-profit stakeholders to build network participation and encourage sharing of information on flood-related issues. Dan Burger, the CRN chair and director of the Coastal Services Division in the Ocean and Coastal Resource Management office of the SC Department of Health and Environmental Control, said the presentations and discussions at the Knowledge Exchange were just the start. "We have our work cut out for us," Burger said. "Now we need to engage the energy and the best minds to keep this momentum going."

Knowledge Exchange speakers from Virginia discussed some of the preliminary steps they are taking to deal with the impacts of sea level rise:

- Hampton Roads leaders began holding quarterly adaptation forums in 2013, which drew 60 to 80 people. These gatherings keep the various entities dealing with flooding issues up to date on what others are doing.
- In June 2015, experts from New Orleans and the Netherlands were invited to the Hampton Roads area to share their experiences in urban water management.
- Local leaders in Virginia worked with the state's Department of Transportation to incorporate inundation-mapping tools in new road designs. As a result, for instance, a bridge built on a section of I-64 was raised by five feet based on sea level rise projections.
- The region secured a federal grant to develop forward-looking floodplain maps for its four distinct watersheds covering the next 70 years.
- Some Virginia coastal communities called a timeout on new infrastructure projects which did not incorporate sea level rise considerations.



At the 2016 Carolinas Climate Resilience Conference, a pre-conference workshop entitled Inclusive Climate Adaptation and Resilience Building focused on the idea that climate change disproportionately affects certain priority populations in the Carolinas. This includes communities of color, low income communities, tribal communities, and other high-risk groups that have historically not been involved in adaptation planning and resilience activities and have the least resources to prepare and recover from impacts. Discussion during the workshop identified the need for more interconnected goals, social justice issues, and fair and equal representation in climate change and emergency planning. A primary obstacle is often the absence of local community key players or leaders to participate in the discussion; therefore, communities don't have a voice in the development of strategies because of minimal social engagement with the people who make decisions that impact them. Participants and facilitators in the workshop included Jacqueline Patterson (NAACP Environmental and Climate Justice Program), Ronny Bell (East Carolina University Department of Public Health), and Reverend Leo Woodberry (Woodberry & Associates and pastor of Kingdom Living Temple).

But what is inclusive climate adaptation? One might initially assume it means that all populations should be included in the efforts to adapt to climate change. While this is part of the idea, inclusive climate adaptation also focuses on the opportunity to forge a more just and equal society by including social policies such as health care access, infrastructure, and affordable housing while creating strategies to deal with climate change. A study published in *Climate Policy* concluded "more inclusive planning processes correspond to higher climate equity and justice outcomes in the short term." The success of the CCRC collaborative workshop inspired a collective and successful grant application led by the NC Interfaith Power & Light organization to the US Climate Action Network (USACN) to begin development of a Carolinas Climate Action Faith Leaders Network. The goal of this network is to support lay and ordained faith leaders in learning to discuss local and state-level energy and climate issues in order to develop relationships with elected officials and participate in constructive and collaborative ways to influence energy policy and foster local and state-wide resilience.

In order to connect the Carolinas network to those working on these issues at the national level, CISA provided travel support for workshop speakers to conduct a similar session at the 2017 National Adaptation Forum (NAF) St. Paul, MN. Building off the knowledge and success of the CCRC workshop, this second workshop continued the discussion of involving minority populations in climate adaptation and raised stakeholders' issues that researchers and planners should take into consideration. Discussions encompassed a range of ideas such as scheduling meetings when community members are able to attend, working through language barriers, and ensuring government decisions at every level include human life values as well as economic values. The discussions and collaborations borne from these two workshops continue to strengthen this network. Information gathered during the workshops will also help to inform the development of a toolkit and formulate a "training the trainers" workshop - to focus more on implementation strategies rather than just educational overviews for the 2018 Carolinas Climate Resilience Conference.



National Adaptation Forum Attendees

From left to right: Susannah Tuttle (NC Interfaith Power & Light), Ayanna Woodberry, Danielle Purifoy (NC Environmental Justice Network), Jacqueline Patterson (NAACP), Reverend Leo Woodberry (Kingdom Living Temple), and Nakisa Glover (Hip Hop Caucus)