SCDRP 10th Annual Meeting
Navigating Extreme Events: Doing More With Less, Together
Lunch and Learns

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Strengthening Regional Disaster Resilience through Collaboration with NOAA Entities in the Southeast & Caribbean

Presenters: Katharine Egan, NOAA Southeast & Caribbean Regional Team, Key West, FL; Emily McGraw, NOAA National Weather Service, Charleston, SC; Allyssa Zebrowski, NOAA Disaster Preparedness Program, Charleston, SC; Tashya Allen, Matt Pendleton, Kate Quigley, and Lindy Betzhold, NOAA Office for Coastal Management (OCM), Charleston, SC; Aranzazu Lascurain, NOAA OCM, Raleigh, NC; Adam Stein, NOAA OCM, Asheville, NC

Abstract:
NOAA's Southeast and Caribbean Regional Team (SECART) is a cross-NOAA network that connects people, programs, and partners to enhance coordination within the agency and improve service delivery to the region. The team works to identify and respond to regional needs by strengthening engagement and improving the use and coordination of NOAA data and services. SECART brings together experts from across NOAA to facilitate information-sharing, advance regional initiatives, and build partnerships with communities and organizations. Through this collaborative approach, the team helps ensure NOAA's capabilities are widely understood, accessible, and effectively applied to support the region. This Lunch and Learn session will focus on listening to participants. We will start with a brief presentation (~5 minutes) about NOAA and set the stage for the session. Following this overview, the session will transition into a series of facilitated roundtable discussions with meeting attendees led by NOAA personnel. These small-group conversations will give participants a dedicated space to share their priorities, challenges, and ideas for enhancing disaster resilience. Below are a few guiding questions to assist with the discussion. What are you currently working on? What problems are you currently dealing with? What may be missing from your toolkit? How do you receive information from us? Where do you see opportunities for more effective collaboration between NOAA and your organization or communities? What would make it easier for your organization to partner with NOAA or access NOAA? By engaging directly with attendees, we aim to better understand what tools, support, and collaborative strategies communities most need from NOAA at this time. Insights gathered during these discussions will help inform NOAA's planning and guide the development of future projects and initiatives across the agency.

Notes/Resources:

- Session introduced NOAA's Regional Collaboration Network, which aims to identify regional needs, improve communication, and strengthen collaboration across NOAA programs and partners.
- The network focuses on connecting people, expertise, and resources to support NOAA's mission and priorities related to disaster resilience.
- NOAA representatives from different programs hosted discussion tables on specific topics, including Training & Economics (Office for Coastal Management), Data & Digital Coast, Weather Service (National Weather Service), Disaster Preparedness Program,

Coastal Management topics, Coastal Ocean Science topics, and General NOAA programs
- Participants were divided into six small groups and joined a table based on their interests.
- Each table discussion was facilitated by a NOAA representative.
- Participants discussed their current work, challenges, and the representatives shared NOAA tools, data, or partnerships that could better support their efforts.

Resources:
- Webpage: NOAA Southeast and Caribbean Region | National Oceanic and Atmospheric Administration

Community Voices in Action: Building Trauma-Informed Flood Resilience Workshops (A Practical Framework + Toolkit)

Presenter: Meredith Hovis, UNC Wilmington

Abstract: Communities across the U.S. Southeast and Caribbean are experiencing more frequent and complex flooding driven by hurricanes, heavy rainfall, sea-level rise, and compound flooding—often alongside long-standing socioeconomic inequities, recovery fatigue, and distrust of institutions. At the same time, state and local entities are increasingly expected to lead disaster preparedness, response, and recovery with limited staff and funding. In this context, community engagement must be both realistic ("doing more with less") and relational, and designed to build trust, reduce barriers to participation, and translate lived experience into actionable resilience strategies. This Lunch and Learn session will provide strategies for designing and facilitating trauma-informed, inclusive flood-resilience workshops. The session is grounded in a manuscript currently under review in Community Science titled "Community Voices in Action: A Framework for Flood Resilience Workshops in a Coastal Community", which documents two community workshops conducted in the Burnt Mill Creek watershed in Wilmington, North Carolina. Developed in collaboration with trusted local partners, these workshops centered on residents' lived experiences, identified flood preparedness and recovery gaps, and co-developed locally relevant ideas for flood safety and communication. Lessons learned from the two-part approach informed a six-principle framework for effective workshop design: (1) understand historical and cultural contexts, (2) listen first, (3) partner with trusted community organizations, (4) design for accessibility and inclusion, (5) build on existing community events, and (6) follow through and design for action. The session will begin with a concise overview of the case study and framework, emphasizing practical decisions that increased accessibility and credibility (e.g., partnering with trusted community organizations, using low pressure participation options such as anonymous sticky notes, providing family-friendly elements, and ensuring meaningful follow-through). The remainder of the session will be a hands-on "Workshop Design Activity" in which participants apply the framework to build (or strengthen) their own community engagement plan. Using guided worksheets, attendees will identify a target community and hazard context, clarify engagement goals, map trusted partners, create an agenda "skeleton," select trauma-informed facilitation practices, and draft a followthrough plan for reporting back and sustaining involvement over time. Brief report-outs and peer feedback will foster cross-sector, collaborative learning.

Participants will leave with (a) a trauma-informed workshop checklist and (b) a draft agenda and follow-through strategy that can be implemented in resource-constrained settings. This Lunch and Learn aligns directly with the SCDRP 10th Annual Meeting theme by equipping researchers, professionals, and practitioners with evidence informed tools to convene communities respectfully, efficiently, and collaboratively—especially where flooding, marginalization, and trauma intersect.

Notes/Resources:

Published Manuscript: **Community Voices in Action: A Framework for Flood Resilience Workshops in a Coastal Community - Hovis - 2026**

Co-production of knowledge: "A collaborative process where communities & community members, practitioners, and researchers jointly create, exchange, and apply knowledge across science, policy, and practice"

Important: understand where communities are coming from and their distrusts on outsiders.

A trauma-informed approach creates a physically and emotionally safe space

> Think of residents not as victims but as stakeholders for future resilience. Communities know themselves best:
>
> - They have skills local, relevant skills
> - They know how to adapt based on previous lived experiences

Case study: Burnt Mill Creek Watershed, Wilmington, NC — support flood resilience through:

- Improve real-time data tools (alerts, water-level sensors)
- Experiential, hands-on learning in elementary schools
    - Exposing youth to climate education

> **Community engagement events in/near community centers**—It is all about meeting people where they are
>
> **Several Workshops:**
>
> 1. Building Community Connections
>   - Experiences with flooding and understand specific needs and priorities
>   - Make sure water level data reflects the real needs
>   i. Data on the ground—hyperlocal
>   - Trauma-informed techniques
> 2. Share Flood Monitoring Initiatives
>   - Share updates on local flood alert systems, how they work, what they mean, and how to access them
>   - Sign up community members to receive flooding update notifications

Co-creation is listening, understanding needs and communicating community needs, technical applications, and political/budget/permitting constraints

Communicating Risk for Disaster Resilience

Presenter: Robin Garcia, COMPASS

Abstract: Every day, we all make decisions that require us to consider risk and uncertainty, but it can be challenging to communicate risk to others in compassionate and meaningful ways. We know more than ever about how risk information is processed in the brain, and applying those insights to our risk communication will help our audiences better understand risk and make more informed decisions about disaster preparedness, response, and recovery. In this 45 minute lunch and learn workshop, you will: gain a deeper understanding of the science behind risk communication; and start drafting your plan for communicating about a risk. You will leave the workshop with a framework for risk messaging and a worksheet for long- term risk communication planning.

Notes/Resources:

Summary of Key Points:

- Risk assessment and risk perception are not typically addressed in parallel, and the speaker emphasized the importance of bringing these processes together.
- Provided a detailed explanation of the risk perception matrix/model and shared several examples.
- Discussed how to communicate risk in context. Risk communication refers to providing individuals with the information needed to independently assess risks to their health.
- Questions raised: examples of effective and ineffective applications of the model.

Resources:

- A Dropbox folder including a PDF of the session slides and the COMPASS Risk Snapshot & Communication Plan Worksheet
- Blog post on positive framing in risk communication
- Blog post on a community member's perspective on effective risk communication
- Upcoming public workshops

RICE in the Lowcountry – Working with Communities to Increase Resiliency

Presenter: Aubrey Anthony, South Carolina AquariumPresenter: Aubrey Anthony, South Carolina Aquarium

Abstract: The South Carolina Aquarium's Resilience Initiative for Community Engagement (RICE) program employs art and citizen science to educate residents and visitors about local flooding of all kinds, empowering them to improve resilience to the flood hazards plaguing our communities. To achieve this, the SC Aquarium works with municipalities and businesses to spread SeaRise, a project housed within the South Carolina Aquarium citizen science app. SeaRise encourages members of the public to create publicly available flooding data simply by snapping a photo of flooding anytime it occurs in their community. The Aquarium has deployed over 30 SeaRise signs throughout the Lowcountry to raise awareness of flooding and encourage submission of flooding observations; each sign includes a ruler and QR code to enter data into the SeaRise project. In partnership with the South Carolina Office of Resilience, the Aquarium distributes yard sticks to encourage SeaRise project members to measure and enter water depth. The Aquarium also provides toolkits for residents who wish to "foster a flood" to consistently collect longitudinal flooding data in one location and leads SeaRise Strolls during king tide floods to demonstrate data collection.

Additionally, the SC Aquarium also works with local partners to install Blue Line projects (BLPs) throughout the Lowcountry. These projects combine art and science to depict sea level rise through the lens of storm surge inundation by using records of the flooding caused by Hurricane Hugo, one of the most devastating hurricanes to hit the SC coast, as a baseline. BLPs can range from a "plug and play" stencil to large-scale murals and art installations, but all focus on bringing into a hyper-local perspective how severe flooding can be, the importance of appropriate preparation & the potential benefits of participatory science.

Notes/Resources:
Resilience: the ability to anticipate, mitigate, and eventually respond fully to misfortune or change.

Community Awareness: Understanding local culture and connecting with people. Much of the work involves showing up for communities and listening. Outreach is conducted through "tabling": presenting information at community events. The approach emphasizes community building and building trust incrementally.

Blue Line Projects: Art-based initiatives that use a blue line to visually represent projected flooding levels at different points in the future (referencing Hurricane Hugo). Projects include a partnership with a brewery to paint a "blue glass of beer," and a digital component that projects water level elevations to show where water would reach.

Citizen Science: The SeaRise Project enables photo documentation of flood levels submitted from anywhere in the world. The SC Aquarium Citizen Science App (anecdata app) supports real-time reporting. During Tropical Storm Debby, Folly Beach was geofenced within the app, allowing staff to monitor incoming reports and photos and make decisions about emergency response deployments. Physical "Flooded?" signs with 36-inch measuring sticks are also deployed in the field.

Habitat & Education: Three channels were hand-dug in the marsh, with oysters and seagrass planted. Sea level stick walks are conducted to educate the public and create space for questions.

Outreach & Partnerships: Interest in expanding engagement with the faith-based community. Considering replacing "SeaRise" terminology with "flooding" to better connect with inland communities for whom sea level rise may feel less relevant.

Resources:

- South Carolina Aquarium Citizen Science app
- Resilience Work | RICE by South Carolina Aquarium
- SeaRise
- Blue Line Project Installations | Charleston, South Carolina
- The Blue Line Project: 3-Pager

Hampton Roads Resilience Project Round Table

Presenter: Garry Harris, Sustainability Solutions Group and Institute (SSG&I) and the Center for Sustainable Communities

Abstract: Hampton Roads VA faces the fastest sea level rise on the East Coast–up to five inches per decade due to rising oceans and sinking land. Current flood maps only show coastal flooding, but miss the full picture. What happens when high tides, coastal flooding, and rainstorms all happen at once? Come help us answer that question. During this session, we will discuss the following questions: What strategies and techniques can be used to strengthen coastal community resilience? How can we use NASA satellite data and prediction models to prepare for storms, flooding and heat waves? How can cumulative information about high tides, coastal flooding, and rain storms be used to inform coastal flood maps? How can these strategies inform coastal community resilience plans and create tools to protect residents, and infrastructure? How can communities be made more resilient using the strategies and techniques developed for the Hampton Roads project?

Notes/Resources:
Session Recording Available Here: https://www.youtube.com/watch?v=LRufK9-RYNI

One Pager: Hampton Roads

Semantics of Resilience: Communication Challenges and Strategies for Talking Resilience

Presenter: Samantha Mosier, Department of Political Science and Water Resources Center, East Carolina University

Abstract: This session explores the semantics of resilience and sustainability and specifically evaluates how the terms are used and communicated in theory and in practice. The concept of resilience has become part buzzword and part driving force behind governmental efforts to be prepared for natural disasters and other system shocks. Yet, resilience is a “vague boundary object” concept, thus contributing to various interpretations, applications, and processes. From a government standpoint, federal, state, and local efforts in the U.S. span the spectrum of resilience to extreme weather to buffering up infrastructure and financial processes, which could be considered more aligned with sustainability. Understanding the differences in how the concepts are used is essential for effective communication and implementation of policies. This session will start by briefly covering sustainability and resilience policies, including dissecting the difference between sustainability, sustainable development, and ecological modernization. The shift from sustainability to resilience-based policies will also be covered. Next, the session will dive into the multifaceted dimensions of the concepts of resilience and sustainability, highlighting how different communities and groups perceive the concepts. This includes highlighting ongoing research at East Carolina University, predominantly within the state of North Carolina, to unpack how the conceptual perceptions differ across different communities. The session will conclude by discussing practical opportunities to improve communication, such as aligning terminology use and fostering shared understanding. Participants are strongly encouraged to contribute by sharing their own experiences and communication strategies.

Notes/Resources:
Session Slides: SCDRP Lunch Session.pdf

- In sustainability policy, words matter
- Quote from Politics of Earth by John Dryzek.
- ‘Sustainability’ and ‘Climate Change’ have become "dirty words" in the last few years.
    - The term ‘resilience’ is culturally replacing ‘sustainability’
- Recommended 3 articles about resilience (in her presentation)
- Resilience is a way of thinking, but it’s malleable
    - can speak across disciplines

    - the term is being used a lot
- Comparison between mixed audiences of defining "sustainability" vs "resilience" vs "resiliency"
    - Display art, imagery & songs to define terminology
    - asking in broad concepts vs specifically
    - comparison between officials vs community member perspectives
- Discussion of exercise to define ‘resilience’ vs ‘sustainability’ and the lessons learned:
    - Sustainability and resilience have different definitions
    - Important to ask audience for their views
    - Use common language to discuss process & include examples for what it means
- Community Resilience Model Training - mentioned this as a nationwide opportunity
- Discussion of ‘resiliency’ being an American term; no other country uses this term
- Emphasis on discussing the benefits of the Environment, Economy and Equity (the three Es) with the audience when discussing these terms
- Recommended having conflict management & resolution tools when preparing to speak to groups of people
    - training was also highly recommended
- Important to have an understanding community history, current concerns & how to meet them before even discussing resilience
- Managing expectations from the jump is key
- Discussed an example of historically marginalized communities in Appalachia were very systematically organized post-Helene
    - Noted that the government can often lean towards “creating” rather than “supporting” systems like this that may already be in place
- Discussion of how music can create/communicate empathy
    - empathy/ethic of care
- Intergenerational Sustainability
    - Something that is not always considered, but should be

Storm Surge and Coastal Inundation Nowcasts/Forecasts During Hurricanes Helene and Milton

Presenter: Yonggang Liu, College of Marine Science, University of South Florida

Abstract: A daily automated coastal water level (storm surge) nowcast/forecast guidance system has been developed by the USF Ocean Circulation Lab based on the West Florida Coastal Ocean Model (WFCOM) and the very high resolution Tampa Bay Coastal Ocean Model (TBCOM). Both models are configured to perform realistic simulations of ocean circulation and water levels which are then combined with tide gauge observations to provide 3-day hindcasts and 3.5-day forecasts of coastal water level along the West Florida coast (http://ocgweb.marine.usf.edu/Models/SeaLevel/). The experimental product was maintained during the approach and passage of Hurricanes Helene and Milton, and provided critical storm surge forecasts to a broad suite of stakeholders including the public. The system successfully predicted the water level set-up and setdown along the west Florida coast three days in advance of each hurricane, with improved forecasts realized each day prior to landfall. The TBCOM-inundation forecast system was also activated during Hurricane Helene. This modeling system extends its dense grid onto the land, facilitating simulation of inundation and flooding associated with storm surge in coastal areas. During Hurricane Helene, areas of severe inundation were identified along the coastal periphery of Tampa Bay and forecasts were accessible two days in advance of landfall.

Notes/Resources:
Coastal Water Level (Storm Surge) Forecast Guidance Product:
https://ocl.marine.usf.edu/Models/SeaLevel/

This water level forecast guidance product is derived from three numerical models: **the West Florida Coastal Ocean Model** (WFCOM), **the Tampa Bay Coastal Ocean Model** (TBCOM), and the East Florida Coastal Ocean Model (EFCOM), all configured to perform realistic simulation of coastal ocean circulation and run as automated nowcast/forecast systems that updates each day providing 1-day hindcast and a 3.5-day forecast. Click on one of the tide gauge stations to see the movie showing the comparison of model simulated and tide gauge observed water level time series.

Notes:

- The USF Ocean Circulation Lab also runs a model for the east coast of Florida.
- The models ingest near-real time NOAA water level and wind data from Gulf of Mexico stations.
- The model more accurately matched observations of peak flooding than the NOAA STOF model during Hurricane Helene.
- Hurricane Milton arrived 12 days after Hurricane Helene
- We had a lively discussion about the availability of the model output and who actually uses it, which led to discussion about “trusted sources” and how to communicate risk.
- It was acknowledged that while sometimes “local models” may be more accurate under certain conditions, emergency managers typically (exclusively?) rely on NOAA estimates of surge and flooding.
- It was noted that NOAA is the primary trusted source of information regarding storms, surge, and flooding.
- It was also noted that some portions of the population have a distrust of the government and may look to other sources. This is where churches and non-profit organizations can play a critical role in reaching those individuals.

From Reactive to Proactive: Hands-On Workshop for Community-Led Resilient Housing Planning

Presenter: Graham Green, Smart Home America

Abstract: Every dollar spent on disaster mitigation saves society up to $13 in future disaster costs, yet many resource constrained communities struggle to shift from reactive recovery to proactive resilience planning. This interactive 45-minute workshop will address this challenge by guiding participants through the Resilient Housing Planning Workbook—a free, comprehensive tool designed to help communities maximize limited resources while building housing resilience before disasters strike. Participants will work through key exercises from the Workbook, following the six-step planning process: assessing needs, assembling participants, analyzing and envisioning, defining goals and objectives, recommending actions, and charting a path forward. The Workbook is specifically designed for small communities with limited staff and budgets, including those that must rely on consultants for planning processes. By completing this workshop, participants will gain the knowledge to effectively advocate for their communities, ensure consultant deliverables reflect local priorities, and create plans with sufficient community support for codification and implementation.

Workshop activities will include: Taking inventory of existing plans and identifying disaster challenges facing your community Building cross-sector planning teams that leverage existing relationships and resources Sketching existing housing conditions and envisioning ideal housing distribution from a resilience perspective Translating analysis into specific, measurable goals and action items Developing implementation strategies that position communities for federal, state, and philanthropic funding opportunities The workshop emphasizes collaborative, cost-effective approaches aligned with the "doing more with less, together" theme. Participants will learn how proactive planning reduces long-term recovery costs, prevents community displacement, and ensures that communities can receive and utilize critical resources in times of crisis. The Resilient Housing Planning Guide and Workbook are freely available online, ensuring all communities can access these resources regardless of budget constraints. Attendees will leave with completed worksheets, digital access to all materials, and a clear roadmap for implementing resilient housing planning in their own communities. Whether you're an emergency manager, planner, building official, housing authority staff member, or community organization leader, this workshop provides practical tools to strengthen your community's resilience while maximizing limited resources. All materials provided; no prior experience necessary.

Notes/Resources:
Resilient Housing Guide Workbook:
https://www.smarthomeamerica.org/assets/uploads/RHP_WorkbookDraft_vFinalx.pdf

Housing Guide and Workbook Overview:
https://www.smarthomeamerica.org/our-work/research-and-projects/community-resilience-housing-guide

Notes:

- The Resilient Housing Planning Workbook was introduced as a tool to help communities move from reactive disaster recovery to proactive resilience planning.
  The session included hands-on exercises that walked participants through a step-by-step process for improving housing resilience before disasters occur.
- Participants worked through selected sections of the workbook during the workshop.
- The session started with Section 1: Assessing Your Needs.
- Participants assessed their communities using a chart to identify disaster challenges such as flooding, hurricanes, extreme heat, wildfires, and other hazards.
- Participants shared their observations about their communities, including existing vulnerabilities and risks.
- The workshop then moved to Section 4: Defining Goals and Objectives.
- Participants translated their analysis into potential strategies and actions.
- Participants shared the ideas related to housing and land use, and housing construction standards.

Let's Write a Grant!

Presenter: Jenna Cormany, RK&K Engineering

Abstract: As the responsibility for disaster preparedness and recovery shifts increasingly toward state, local, and tribal entities, organizations and citizens are being asked to do "more with less". Traditional grant writing is a resource intensive process that often favors larger organizations with dedicated development teams, leaving smaller community groups and local governments at a disadvantage. This interactive Lunch and Learn session will demonstrate how Artificial Intelligence (AI) can serve as a "technical collaborator" to level the playing field. By integrating AI into the grant lifecycle—from automated discovery to sophisticated drafting—practitioners can drastically reduce the time spent on administrative processing and focus on high-impact community solutions. This is not a lecture; it is a hands-on demonstration. We will walk through a real-world resilience project (like a coastal flooding solution) and show you how to: Find Your Match: Use AI to scan hundreds of opportunities from FEMA, NOAA, and private donors to find the 2026 grants that actually fit your project. Write the First Draft: Learn how to "prompt" AI to write a compelling project summary that hits all the right lingo without losing your community's unique voice. Be Your Own Reviewer: Use AI to "grade" your draft against the grant's official rules, catching mistakes and strengthening your argument before you hit submit. Crucially, the session will address the "Human First" necessity of AI authorship and acknowledge the potential environmental impacts of AI technology. We will discuss data privacy, the risk of "AI slop," and the ethical imperative of verifying AI-generated data. Participants will leave this session with a "2026 AI Grant Toolkit." By the end of the hour, attendees will understand how to transform AI from a buzzword into a practical engine for securing funding

Notes/Resources:

Presentation: Handout AI Grant Writing SCDRP 2026.pdf

Five Principles to Build Your Prompt (next page):


Five Principles to
Build Your Prompt
1
ASSIGN THE ROLE
"You are a [role or discipline]"
2
DEFINE THE TASK
"Your task is to [goal or deliverable]"
3
ADD CONTEXT
"Include [project details, data, or constraints]"
4
SPECIFY TONE AND AUDIENCE
"Write in [tone] for [audience]"
5
SET FORMAT AND RESTRICTIONS
"Output as [format, length, or structure]"
RK&K