

## Coastal Resilience Community of Practice Meeting

July 15, 2024 – 1:00 - 3:00pm

**Purpose of the COP:** Bring together diverse coastal stakeholders to focus on how ecosystem resilience can build local community resilience. We don't necessarily have to have a "thing" to work on but will take on projects as appropriate and mutually agreed on. Website: <https://deq.nc.gov/coastal-resilience-cop>

### Notes

#### In attendance:

- Alisa Davis, NC Wildlife Resources Commission
- Amanda Merrill, Moffatt & Nichol
- Amanda Mueller, Climate Leaders Program at North Carolina State University
- Bob Eades, NC Joint Underwriting Association
- Brian Byfield, NC Office of Recovery and Resilience
- Brooke Massa, NC Wildlife Resources Commission
- Cayla Cothron, NC Sea Grant
- Charlie Deaton, NC Division of Marine Fisheries
- Chris DeWitt, Vanasse Hangen Brustlin (VHB)
- Claire Rapp, North Carolina Coastal Federation
- Connor Bone, NC Office of Recovery and Resilience intern
- Craig Harris, City of Wilmington
- Eryn Futral, NC Emergency Management
- Everett Craddock, NC Office of Recovery and Resilience intern
- Forest Shepherd, NC Division of Water Resources
- Giancarlo Richardson, Albemarle Pamlico National Estuary Partnership
- Gina Hardy, NC Joint Underwriting Association
- Hannah Champion, NC Joint Underwriting Association
- Holly White, NC Office of Recovery and Resilience
- Jeff West, Cape Lookout National Seashore
- Jody Standly, pilot
- Joe Heard, Town of Duck
- Kasen Wally, NC Division of Coastal Management
- Kate Mitchell, NC Office of Recovery and Resilience
- Katie Whittington, Albemarle Pamlico National Estuary Partnership intern
- Kiera O'Donnell, Duke University
- Kyle Breuer, Town of Surf City
- Lee Duncan, Pender County
- Les Robertson, NC Joint Underwriting Association
- Lisa Williams, Mid-East Commission
- Lora Eddy, The Nature Conservancy
- Mackenzie Todd, NC Division of Coastal Management
- Marae West, Sandbar Oyster Company
- Mariko Polk, NC Sea Grant
- Meg Perry, SWCA Environmental Consultants
- Michelle Lovejoy, Environmental Defense Fund

- Michelle Raquet, NC Division of Water Resources
- Mike Christenbury, NC Division of Coastal Management
- Nicole Goddard, NC Office of Recovery and Resilience
- Phillip Todd, Freese & Nichols
- Rachel Love-Adrick, NC Division of Coastal Management
- Reide Corbett, Coastal Studies Institute
- Riley Lewis, Coastal Carolina Riverwatch
- Robbie Fearn, Audubon NC
- Robin Hoffman, NC Division of Water Resources
- Sandy Cross, Town of Duck
- Sara Marschhauser, Audubon NC
- Sarah Spiegler, NC Sea Grant
- Savannah Newbern, Wetlands Watch
- Stacey Feken, Albemarle Pamlico National Estuary Partnership
- Steve Bevington, NC Department of Natural and Cultural Resources, Land and Water Fund
- Whitney Jenkins, NC Coastal Reserve & National Estuarine Research Reserve

**Town of Duck Resilience Efforts** – Sandy Cross, Senior Planner with the Town of Duck & Chris DeWitt, Principal of Vanasse Hangen Brustlin (VHB) – [See Slides](#)

- Sandy set the stage: Western Carolina conducted a vulnerability assessment, highlighted a vulnerable section Highway 12
  - Several plans led to development, including 2014 comprehensive pedestrian plan
  - Experienced repeated flooding; only vehicle access for north-south route, only emergency vehicle access, evacuation route
- Chris, project design: Elevate roadway, sidewalks and bike lanes, storm chambers, and living shoreline
  - Existing roadway elevation right at base flood elevation of 4 feet, elevate above fill involved, replaced revetment
  - Living shoreline element, vertical sills with gaps to allow water flow, angles based on wind and wave energy, avoided Submerged Aquatic Vegetation (SAV), protect existing marsh, planted new marsh
  - Storm chambers for infiltration
- Sandy, challenges: funding ([see slide](#) showing funding sources), permitting (many negotiations), timing issues with permitting couldn't always carry money over, storms (finished project just in time)
  - Town of Duck worked as a community with citizens, staff to pull of this collaborative project
  - Lesson learned: start early, be persistent, challenge the status quo,
    - Communicate with stakeholders and agencies, vendors,
    - Document, we took tons of photos, way to communicate with DOT
    - Be prepared for the unexpected with a complex project like this
- Q&A:
  - Sarah: heard updates from Duck over years, cool to see where you are now, was there a driving force besides town, something surprised you in the process? Didn't expect in addition to lessons learned?
    - Joe Heard was our project ambassador; Dare County Emergency Management supported some funding and permitting; the offices of Senators Tillis and Burr helped move along the federal permitting process with phone calls
    - Lessons learned: a handicap ramp connection with local business had to be redesigned; the exact location of a septic system was determined to resolve owner concerns; documentation was necessary to show how the project was completed and why certain aspects were not a

problem when concerns were raised. For instance, one 50-foot section of sidewalk had an unexpected failure near an existing pier. It was documented that this area was left exposed for an extended period of time, which led to the base layer of rock being undermined. The contractor was required to reconstruct based on documentation.

- Reide: Do you have a post-construction monitoring plan? Given the scale of sills and existing marsh, curious what might happen, could help other communities trying to protect marsh and infrastructure.
  - There is detailed monitoring required for five years; the Town will use drones to document progress, including marsh grasses; Dr. Nick Cohn, with interns from the Duck Field Research Facility, will help do research over summer; Capstone students from the Coastal Studies Institute will continue in the fall; beyond that put something in written format for future communities to utilize; a formal monitoring plan is on our radar but there's no exact plan yet.
  - Chris: location of the sills was limited by permitting agencies; unexpected accumulation of sand behind sills occurred early on, followed by thin layer placement and equilibration, requiring some adaptation to the proposed location of wetland plantings.

#### **Lower New River Watershed Restoration Plan – Riley Lewis, Coastal Carolina Riverwatch – [See Slides](#)**

- Early stages of process, will discuss ways to engage at the end of the presentation
- Coastal Carolina Riverwatch (CCR) is a water quality non-profit, riverkeeper for White Oak River basin, work includes research and advocacy
- Lower New River watershed restoration plan identified as a need by community members, help with grant funding and project identification, funded through NC Land and Water Fund, thank you!
- Creating an EPA nine-element plan, to be eligible for 319 grant funding. Identifying existing data and gaps to determine project ideas
- New River is unique, exclusively in Onslow County. Working with county staff, marine base, unincorporated areas of Sneads Ferry and Topsail. Camp Lejeune is such a large piece, they have their own criteria for water quality
- One reason for the restoration plan, algal bloom, first time seeing this type algae this far south. Need to find sources of contamination. There are more impacts, industries, shellfish farms, oyster mortality events. There is something going on that needs to be addressed. Waters on the 303d list as well as outstanding resource waters that need protecting.
- Goals: get involved with community members, collect data, on ground assessments, fact check data collecting, develop projects, BMPs, restoration projects, etc. Shovel ready project development for future funding. Aimed at county staff, municipalities, community organizations, etc. that have capacity.
- The process: community advocacy group, community members concerns, their advice helps tackle issues. Analyze chemical and biological factors of lower New River, military has some data, Cooperative Extension no longer monitors, and there is a lack baseline from the last five years.
- Community engagement: A lot of way engage and develop plan, work with multiple stakeholders, county officials. New River Roundtable started up again early last year, and includes representatives from Sneads Ferry, the military base, City of Jacksonville, Onslow County. We host monthly meeting, like this group but a smaller scale, focused on the New River area.
- How you can help? Share your perspective, submit ideas for the completed plan, join the New River Roundtable, share data.
- Public survey – asks how long folks have been in the area, their perceptions of water quality, how they would like to be engaged:

[https://docs.google.com/forms/d/e/1FAIpQLScJwha0sLEatyOPAu8pU7Fg9QkVJsethmahloVNBjuaRKfDkw/viewform?usp=sf\\_link](https://docs.google.com/forms/d/e/1FAIpQLScJwha0sLEatyOPAu8pU7Fg9QkVJsethmahloVNBjuaRKfDkw/viewform?usp=sf_link)

- Survey for organizations, want input from organizations that understand the areas:  
[https://docs.google.com/forms/d/e/1FAIpQLSfCoBbQkZjbFnOJGG89di7x97SxxnH5d7RjLa2O5ZrX6mJFQQ/viewform?usp=sf\\_link](https://docs.google.com/forms/d/e/1FAIpQLSfCoBbQkZjbFnOJGG89di7x97SxxnH5d7RjLa2O5ZrX6mJFQQ/viewform?usp=sf_link)
- Comments:
  - Lora: Onslow soil and water conservation manage various cost share programs for project implementation. And there is a living shoreline suitability analysis conducted by Jenny Davis and Carolyn Currin, viewable on [The Nature Conservancy's Coastal Resilience online tool](#), for Carteret and Onslow counties
- Q&A:
  - Steve: How are you setting project goals?
    - Based on feedback, overcharging, stormwater, help with local ordinances, some special, help implement new policy, package help I, serendipitous, county work on horizon 2040, Cama plan set goals,
    - Steve: Ken Reckhow, retired from Duke University, would say for water quality statistics a true endpoint are oysters at a meal or fish on table, not overarching
  - Stacey: Project challenges?
    - Staffing limitations. Most challenging has been getting the public involved in the process. Excited to go to the Sneads Ferry shrimp festival and ocean festival and canvassing unincorporated areas to share the survey. So far counties and other municipalities have been helpful.
    - Whitney: we've had good success with public participation by attending existing meetings, booths at festivals, hosting community events with free food.
    - Mackenzie: Resilient Coastal Communities Program participants have had success with outreach at festivals, community events, parades, etc.

#### **Fortified Roofs** – Gina Hardy, North Carolina Joint Underwriting Association

- The Association is the market of last resort. If you can't get commercial insurance, you can come to us. We are a non-profit, established in 1969, Insure \$141.2 billion in 18 coastal counties of NC.
- Market share: Insure 80% of the beach area (barrier islands) and 51% coastal area.
- Q&A:
  - Joe: new cycle of funding, what's the timeline? For the Strengthen Your Coastal Roof program, anyone with a policy prior to 7/1/24 is eligible to apply, consumer information session starts this afternoon, roofers and evaluators help walk consumers through this
  - Lisa received a letter about fortified roofs, is that from the NCJUA? Gina can look at the letter, could be from a contractor
  - Sarah: recently got a fortified roof through this program, was a very easy process. How can we get the word out to others? I live in Beaufort and was surprised by the lack of awareness of your program.
    - Consumer education meetings soon.
  - Some content by NC Sea Grant on fortified roofs:
    - <https://ncseagrant.ncsu.edu/currents/2021/03/fortifying-homes-against-wind-and-water-damage/>
    - <https://ncseagrant.ncsu.edu/coastwatch/previous-issues/2018-2/autumn-2018/wind-damage-check-insurance-incentives-when-making-repairs/>
    - <https://ncseagrant.ncsu.edu/coastwatch/current-issue/summer-2021/currents/>

**Round robin** – members share what they are working on related to resilience

- Whitney: NOAA Office for Coastal Management Trainings – let her know if you'd like [something specific offered next year](#) (filter list for on-site delivery, trainings will be held at the NOAA Beaufort Lab).
- Nicole: NCORR will host a webinar to introduce the NC Resilience Exchange and demonstrate its resources and content. The Exchange offers funding opportunities, a directory of experts, interactive mapping tools, model ordinances, and more in a one-stop-shop that is relevant to North Carolina communities: <https://www.rebuild.nc.gov/news/events/webinar-introducing-nc-resilience-exchange-0>
- Robin: 205j RFP coming out on July 26, with a proposal due date of September 19. Grant funds are to be awarded to Regional Commissions and Councils of Governments for water quality management planning: <https://www.deq.nc.gov/about/divisions/water-resources/water-planning/nonpoint-source-planning/205j-wq-management-planning-grant>
- Riley: would like to present on North River community resilience work
- Stacey: Scuppernong water management study has wrapped up Phase I community engagement work, would like our team to present at a future meeting
- Mackenzie: [funding decision for Phases 3 & 4 coming out](#), funding for next phases of RCPP: NFWF grant, phase 1-2 wrapped up

**Next meeting on Tuesday, October 15 from 1:00 - 3:00pm**

- Next meeting topics:
  - Rachel Carson Reserve Living Shoreline – Dawn York & Paula Gillikin
  - Sandbar Oyster Co. project updates – Marae West & Niels Lindquist
- Future topics:
  - Salt marsh impacts/migration, marsh migration corridor mapping
  - SASMI – final conservation plan – Amanda (new coordinator), connection to NC stakeholders – state teams/action plans, get more info. Coastal Fed lead partner in NC
  - Coastal Carolina Riverwatch: community organizing in North River – Riley Lewis, White Oak Waterkeeper with the Coastal Carolina Riverwatch
    - Study on public policy students, protecting wetlands in Carteret County with public policy changes – Riley
  - UNC, ECU drone mapping of SAV. Susan Cohen/ UNC talk more about if interested – Robbie
    - Also, NERR drone mapping/monitoring of oyster reefs and salt marshes