



# Building a Resilient North Carolina

*An Update on State Activities*

Jessica Whitehead, Ph.D.  
Chief Resilience Officer

# NC Climate Change Interagency Council



## Climate Change & Clean Energy: Plans & Progress

Get more info on each cabinet agency's initiatives and progress

Climate Change & Clean Energy

On October 29, 2018, Governor Cooper established the North Carolina Climate Change Interagency Council as part of [Executive Order No. 80 North Carolina's Commitment To Address Climate Change And Transition To A Clean Energy Economy](#) :

*The Secretary or designee of each cabinet agency and a representative from the Governor's Office shall serve on the North Carolina Climate Change Interagency Council ("Council"), which is hereby established. The Secretary of the North Carolina Department of Environmental Quality, or the Secretary's designee, shall serve as the Council Chair. The North Carolina Department of Environmental Quality shall lead the Council by providing strategic direction, scheduling and planning Council meetings, determining the prioritization of activities, facilitating stakeholder engagement, and assisting in the implementation of pathways to achieve the goals provided in Section 1 of this Executive Order.*

<https://deq.nc.gov/energy-climate/climate-change/nc-climate-change-interagency-council>

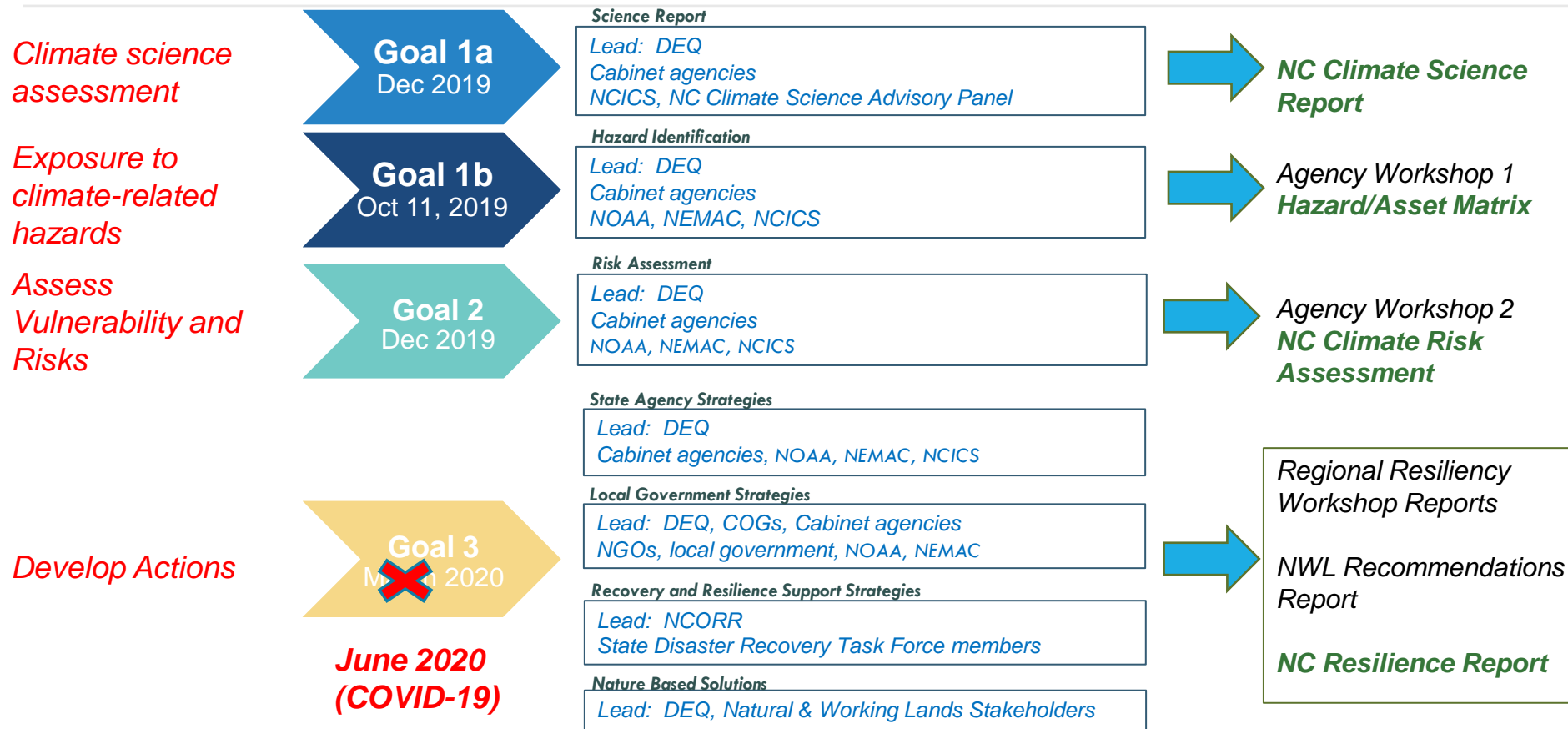
## A new office with a dedicated focus



- Created in November 2018; Resilience Team staffed in Spring 2019
- \$236.5 million CDBG-DR Matthew funds received – *NC a HUD On Pace Spender as of 9/30*
- \$168 million CDBG-MIT Action Plan approved
- \$336.5 million CDBG-DR Florence—Action Plan FIRST IN US APPROVED FOR 2018 STORMS



# 2020 NC Climate Risk Assessment and Resilience Report





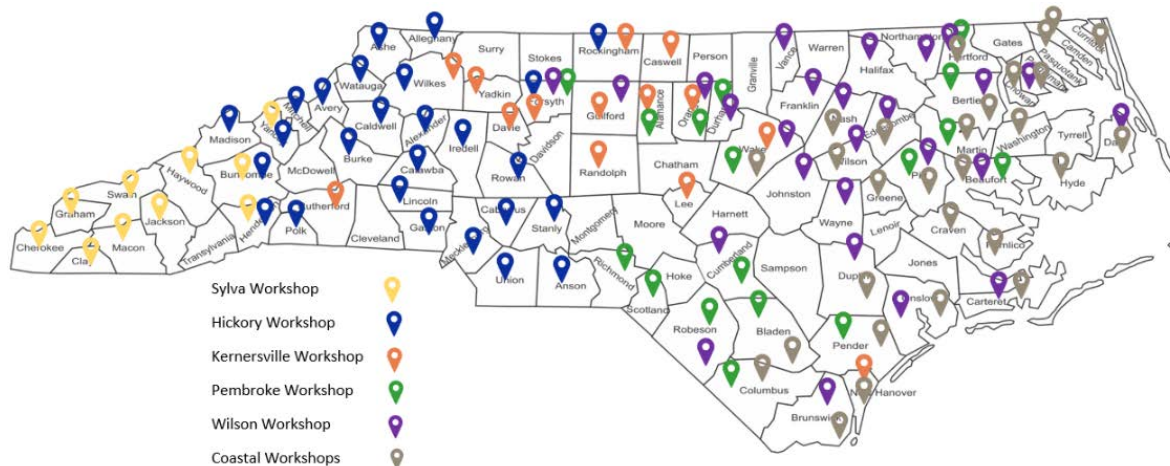
# Local Government Input

## Participant Groups

- Local government officials
- Local Planners
- Community Organizations
- Business, Commerce, and Agriculture
- Supporting Organizations
- State agencies

## Focus Areas

- Public Health
- Agriculture/Business/Commerce
- People and Community
- Environment and Natural Resources
- Local Planning
- Transportation



## Regional Resilience Workshop

**November 7, 2019**  
**9:00 am to 4:00 pm**

**Lumber River Council of Governments**  
**30 CJ Walker Road**  
**COMtech Park**  
**Pembroke, NC 28372**

### Expected Attendees

- City, Town, and County Representatives
- Elected Officials
- Businesses
- Environmental Groups
- Councils of Governments
- Community and Faith-Based Organizations
- Tribal Representatives

The N.C. Department of Environmental Quality, along with its many governmental, private, and non-profit partners are bringing together stakeholders and experts to help shape priorities of the State Climate Risk Assessment and Resiliency Plan under Governor Cooper's Executive Order 80. This workshop will help the team share information about impacts and solutions as well as learn from communities about their greatest resilience challenges in order to guide future state resiliency planning and investments.

**CLICK HERE TO REGISTER!**  
**Cost is Free but Space is Limited!**  
**Lunch Provided to all Attendees**  
**AICP/CFM Credits Available**

**QUESTIONS?**  
For questions about the workshop or registration:  
David Richardson - Executive Director, Lumber River COG  
(910) 775-9752  
david.richardson@lrcog.org

## Vision of Resilience

*A resilient North Carolina is a state where our communities, economies, and ecosystems are better able to rebound, positively adapt to, and thrive amid changing conditions and challenges, including disasters and climate change; to maintain and improve quality of life, healthy growth, and durable systems; and to conserve resources for present and future generations.*

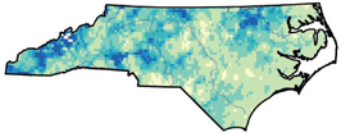


# NC Climate Science Report

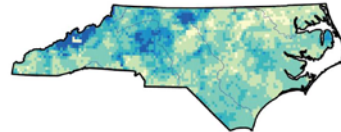


Projected Changes in Annual Number of Extreme Precipitation Events  
Days with Precipitation  $\geq 3$  Inches

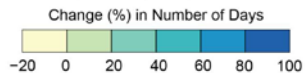
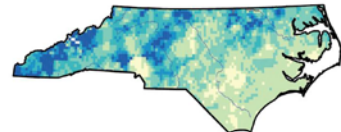
(a) Higher Scenario (RCP8.5), 2021–2040



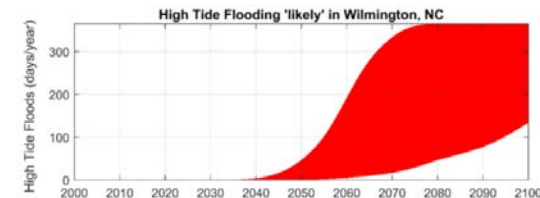
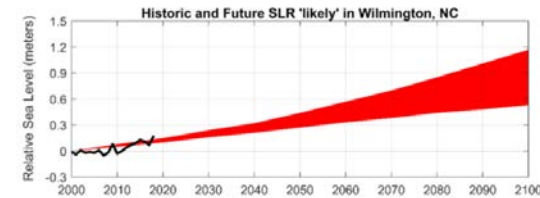
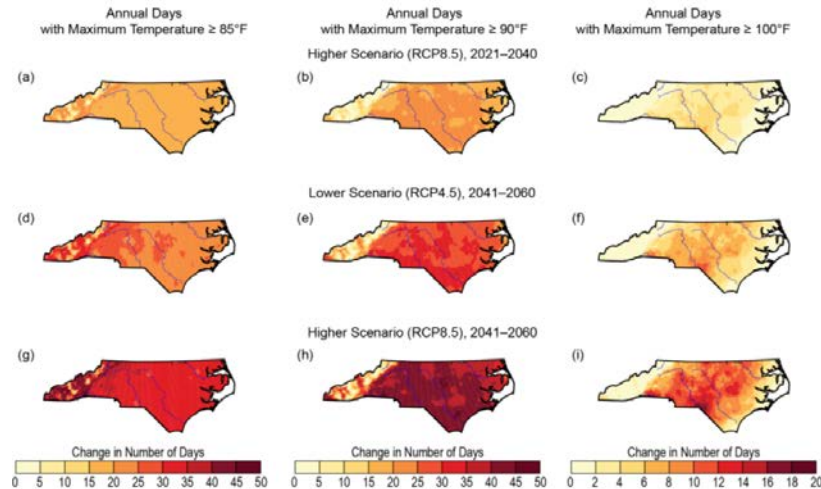
(b) Lower Scenario (RCP4.5), 2041–2060



(c) Higher Scenario (RCP8.5), 2041–2060



Projected Changes in Hot Days: North Carolina



NC Climate Science Report  
(Kunkel et al. 2020):

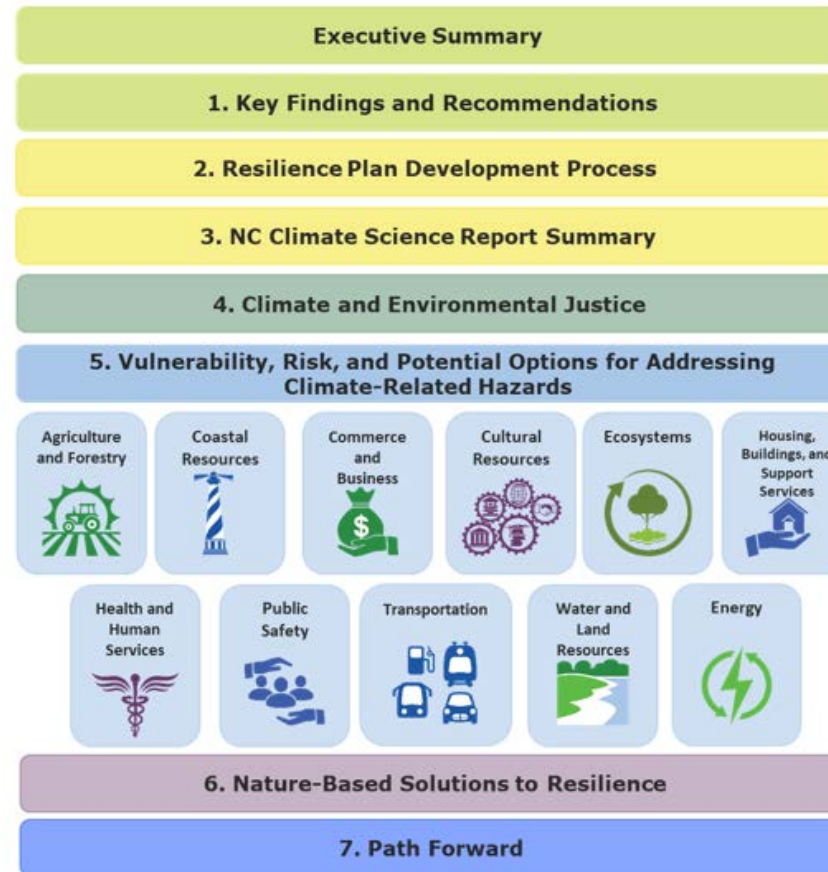
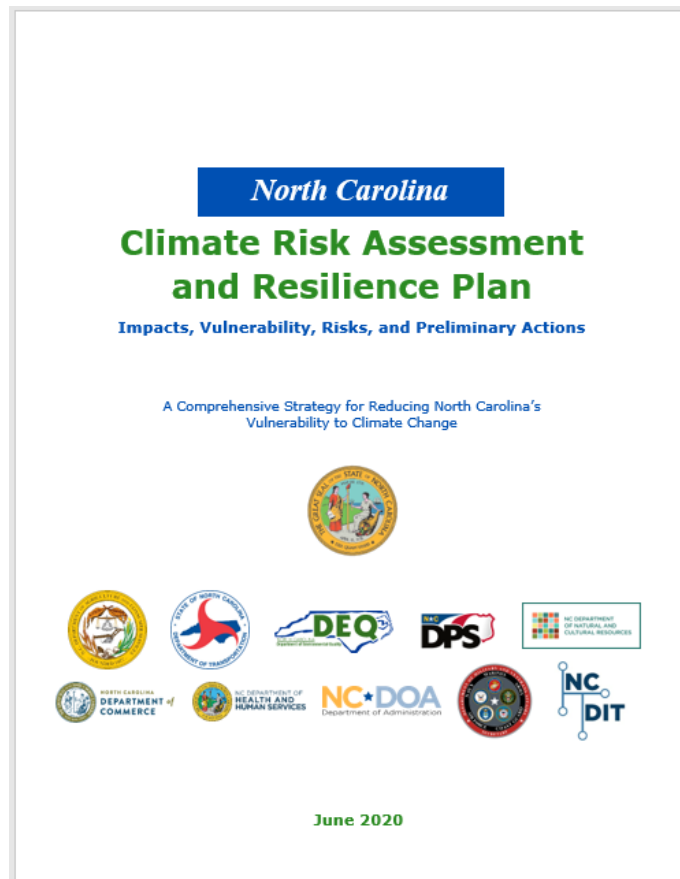
<https://ncics.org/programs/nccsr/>



- Global State of the Science
- Historical Changes in NC
- Projections for NC



# North Carolina Resilience Plan



Science Report Contributors:  
50+

Sector Strategy Developers:  
200+

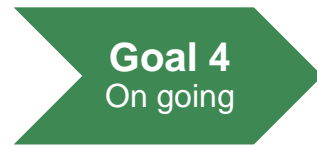
Community Workshops  
Participants: 300+

NWL Stakeholders:  
100+



# NC Resilience Plan: Path Forward

Local  
Government and  
Community  
Assistance

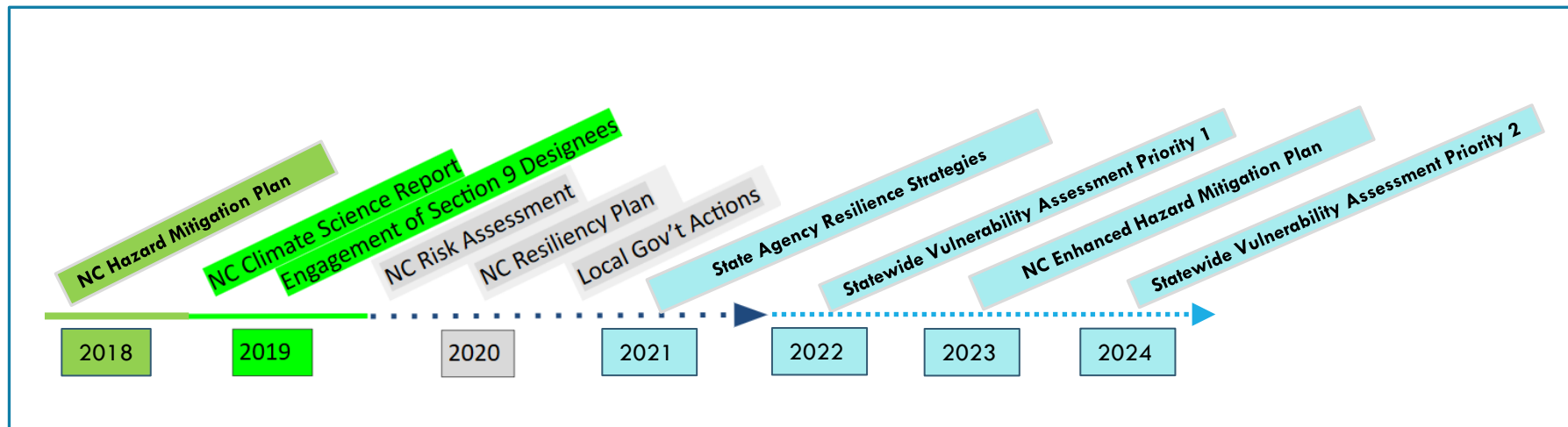


## Local and Regional Resilience Plans & Actions

Lead: NCORR  
Cabinet agencies, COGs, local  
governments, NGOs



Local Government  
Assistance Tools,  
Funding, Resources, etc.



# Foundation for a Path Forward: Principles of Effective Resilience Plans

Principle	Definition	Components of Principle
<b>Goals</b>	Future desired conditions	Plan purpose, vision, goals, and objectives
<b>Fact Base</b>	Empirical foundation that identifies and prioritizes issues to ensure that strategies are well informed	Data sources; analysis of current conditions; climate change exposure; vulnerability and risk assessment
<b>Strategies</b>	Guide to decision making to assure plan goals are achieved	Capacity building, land use, green infrastructure etc.; cost and co-benefits of strategy options; prioritization of strategies
<b>Public Participation</b>	Recognition of actors engaged in preparing the plan	Description of planning process and techniques to engage stakeholders; Identify individuals involved in preparation of the plan
<b>Coordination</b>	Recognition of the interdependent actions of multiple organizations and the need for coordination	Engagement of local universities, state agencies, businesses, neighboring jurisdictions, etc. in the planning process
<b>Implementation and Monitoring</b>	Guidance to translate plan strategies into action and track progress towards goals	Organizational responsibilities, timelines, and funds for implementation and monitoring
<b>Uncertainty</b>	Plans recognition of and approaches to overcome uncertainty in future climate projections	Recognize sources of uncertainty; consider multiple future scenarios; flexible, robust, or no-regret strategies

(S. Woodruff, 2019, National Adaptation Forum)

# Resilient NC Guiding Principles

1. Act quickly and decisively to reduce the most harmful impacts of climate change—flooding, drought, landslides, and wildfires
2. Act thoughtfully and collaboratively to develop equitable solutions for the most socially challenging effects of climate change
3. Invest in safe, affordable, and connected communities
4. Strengthen regional economies
5. Support healthy communities, local identity, and recreational access to nature
6. Implement resilience best practices





# Cross-sector Resilience Strategies

- Consider resilience criteria in making investments
- Update plans, standards, and design values
- Increase resilience capacity in state agencies and at local governments
- Identify sustainable funding sources for building resilience
- Increase communication, outreach, and engagement on resilience needs and solutions

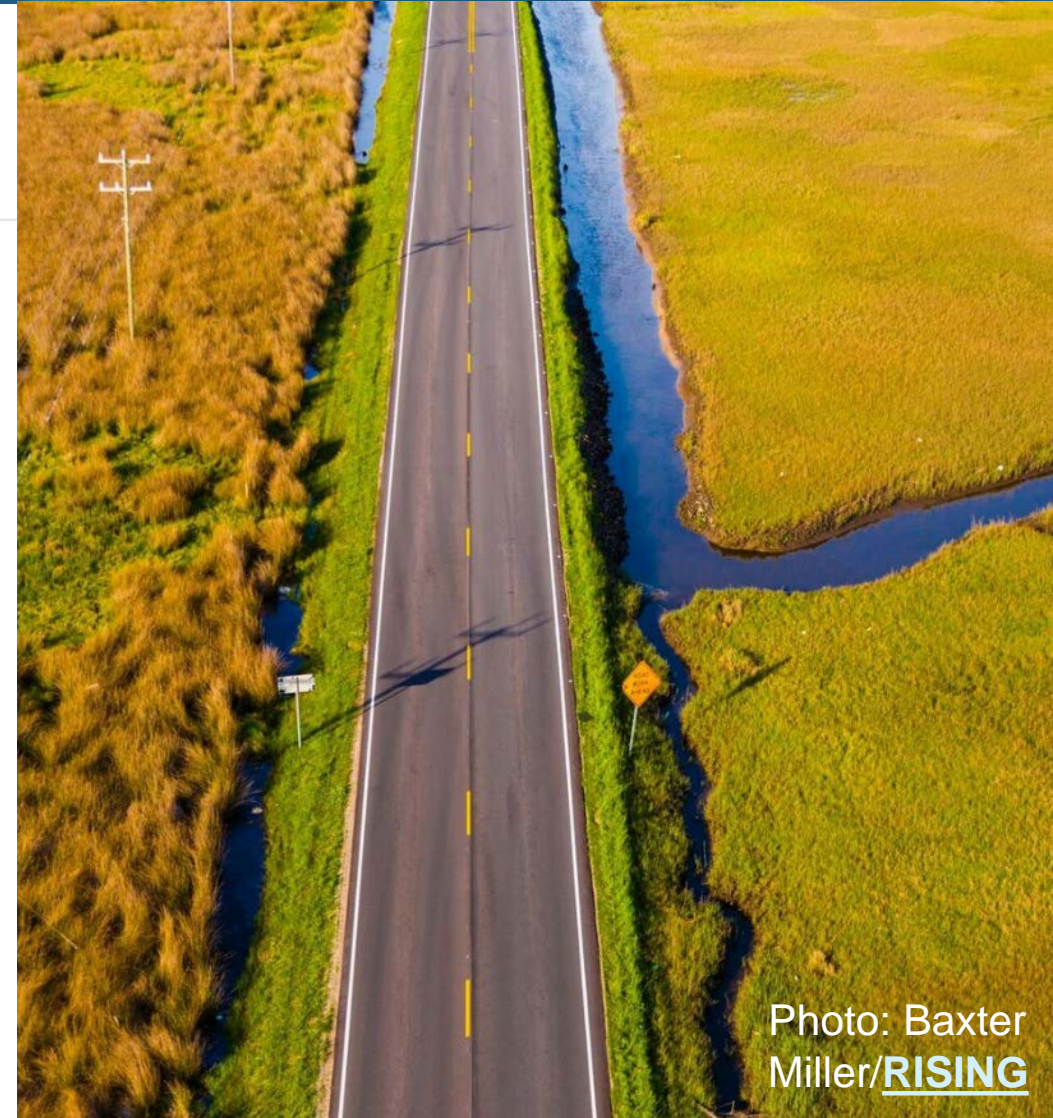


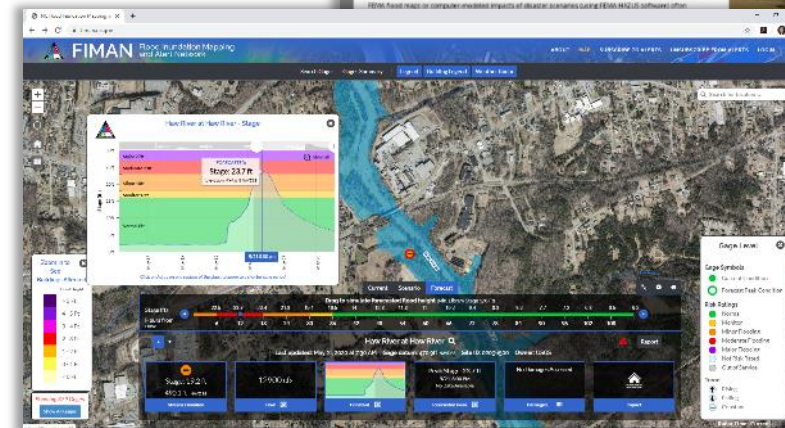
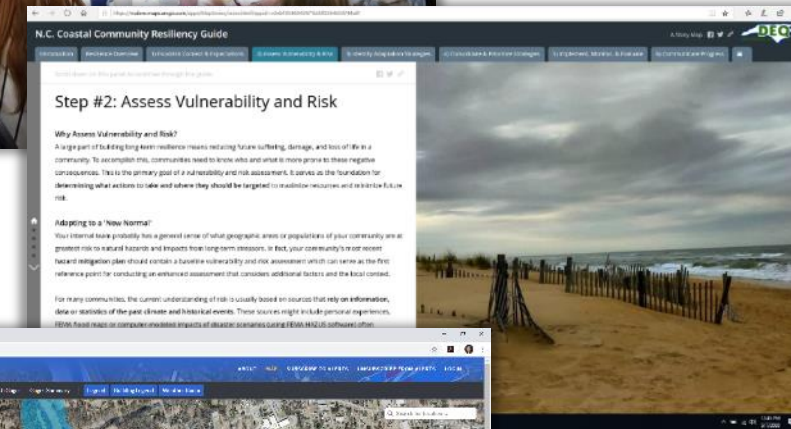
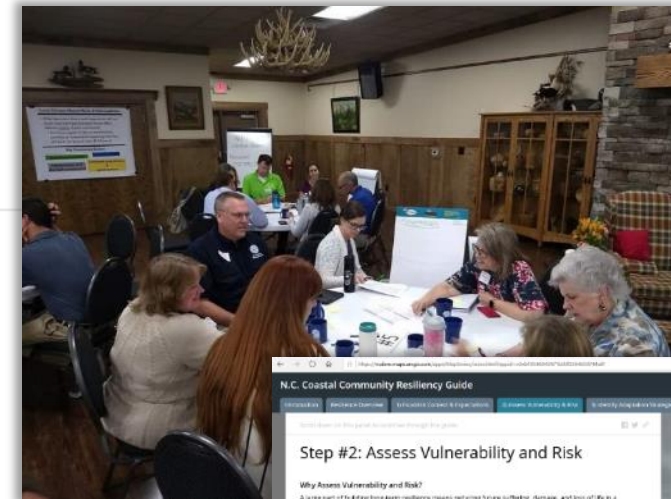
Photo: Baxter Miller/**RI**SING



# Priority Initiatives

- ✓ Manage and coordinate statewide resilience
- ❑ Convene a dedicated Interagency Resilience Team
- ✓ Continue resilience efforts through the North Carolina Climate Change Interagency Council
- ❑ Establish the NC Resilient Communities program
  - ❑ Online Climate Resilience Clearinghouse and Toolbox
  - ★❑ Resilience training programs for communities
  - ★❑ Establish NC Resilient Communities Grant Program

Pilot grant opportunities: NFWF (DCM); EDA (NCORR)



# NCORR: Steps toward resilience

Executive Order  
80 Addressing  
Climate Change

State Disaster  
Recovery Task  
Force

“Quick Start  
Guide” for Local  
Government

EDA Application:  
Resilient NC  
Regional  
Portfolio  
Program

Statewide  
Vulnerability  
Assessment  
Cross-Cutting  
Strategies

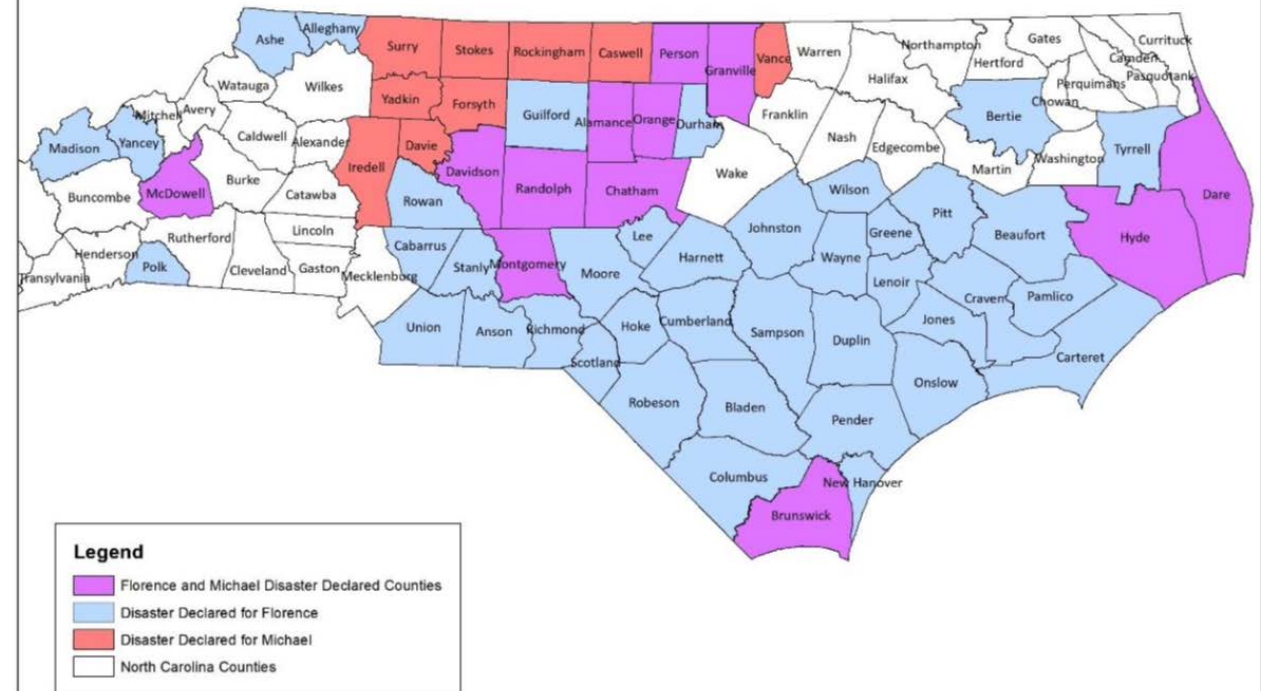
Support NCEM  
State Hazard  
Mitigation Plan  
Update

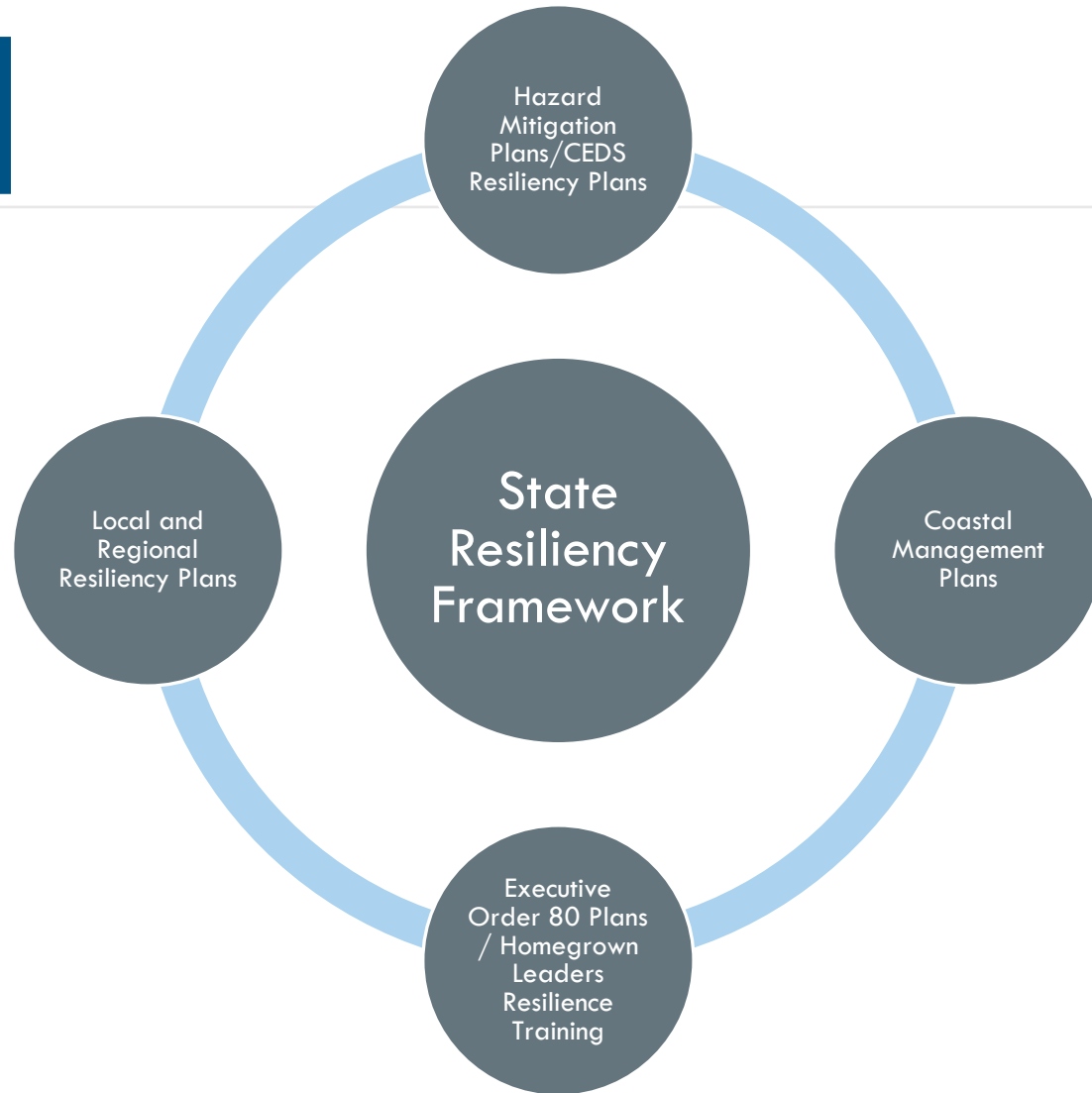
# Resilient NC Regional Portfolio Program

**How:** EDA FY19 Disaster Supplemental Funding for Florence and Michael

**What:** NCORR and NC Rural Center develop statewide framework on disaster resilience planning and provide economic guidance and strategic training

Hurricane Florence and Michael Disaster Declarations





## Why:

There are numerous state, regional, and local resiliency Plans and efforts, but efforts are not as aligned and coordinated as they could be

No set framework currently exists guiding key considerations to develop and implement these plans



# *DIMENSIONS OF RESILIENCE*

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*Prepared*

*Connected*

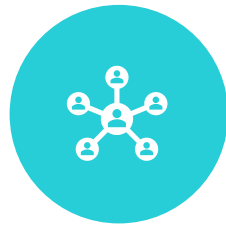
*Adaptive*



# Resilience thinking every day



LEARN ABOUT  
FUTURE RISKS



CONNECT INSIDE  
AND OUTSIDE YOUR  
COMMUNITY



AVOID FUTURE  
SUFFERING IN RISKY  
AREAS



INVEST AND  
UPGRADE WISELY



INTEGRATE  
RESILIENCE  
ACROSS PLANS  
AND PROGRAMS

*Tailor assessment on physical science, risks, impacts, and response options to give  
INFORMATION WE CAN USE without prescribing policy*

# Deliverable 1: Statewide Resiliency Framework



Creation of Advisory Committee



NCORR conducts needs assessment



NCORR staff and Advisory Committee develop Resilient NC Goals, Principles, and Strategies



Release NC Resilience Local and Regional Resilience Guidebook



Develop lessons learned and recommended next steps report to inform future state resilience efforts

## Deliverable 2: Disaster Resilience Leadership Training for Local Governments, Nonprofits, Education, Business, and Faith Sectors

NC Rural Center and NCORR integrate resiliency curriculum into Homegrown Leaders East Initiative

NC Rural Center identify locations of up to 5 trainings (shift virtually if needed)

NC Rural Center, NCORR, and Advisory Committee identify and invite participants

NC Rural Center integrate resiliency training into other programs like Faith in Rural Communities





Locations of up to 10 Regional Resilience Partnerships will be identified (regions based upon shared interest such as watersheds or Council of Government affiliation)



Day-long kick-off for Regional Resilience Partnerships held in selected region (virtually if desired)



Coaches provide support to identify, prioritize, implement, and evaluate resilience projects



NCORR technical expertise augments support coaches offer each region in assessing risks, prioritizing, and implementing their resilience projects

## Deliverable 3: Build Resilience Capacity through Coaches and Regional Resilience Partnerships

# THANK YOU

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