

# North Carolina Flood Resiliency Blueprint

NCBIWA

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NC Dept of Environmental Quality





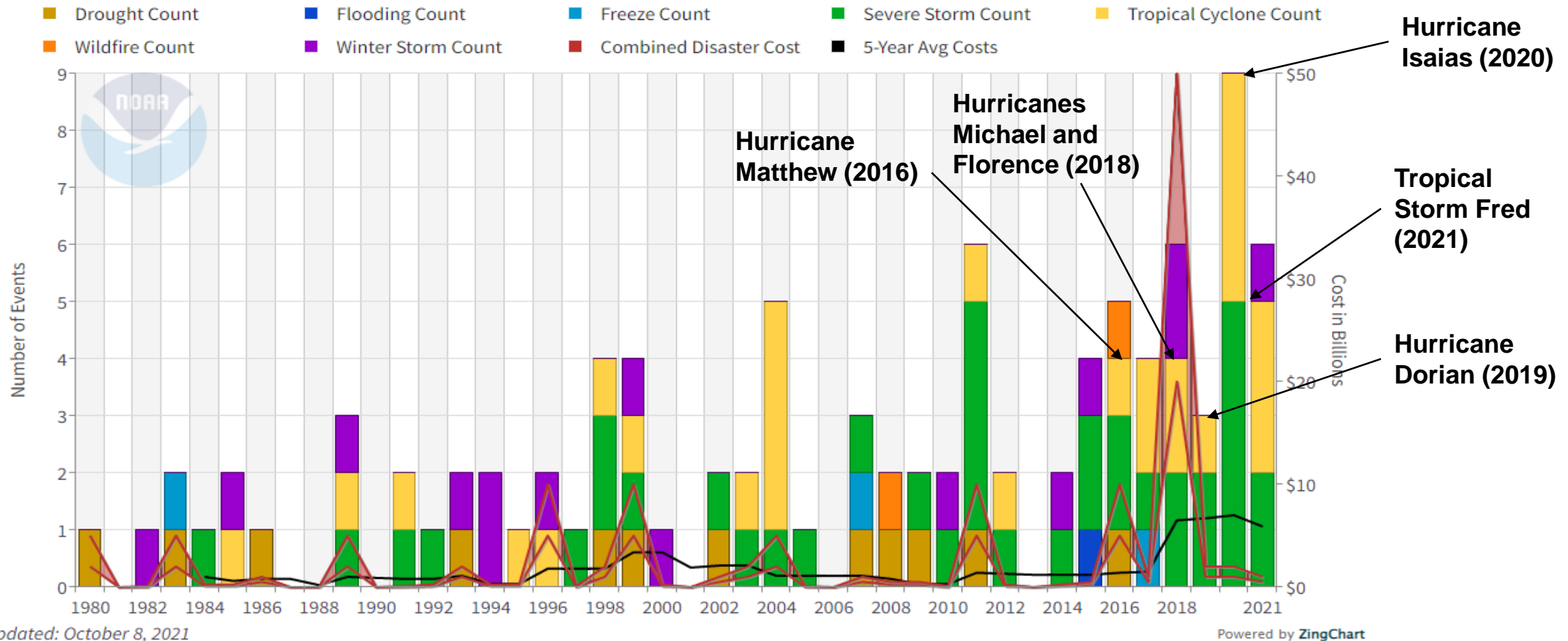
# Background



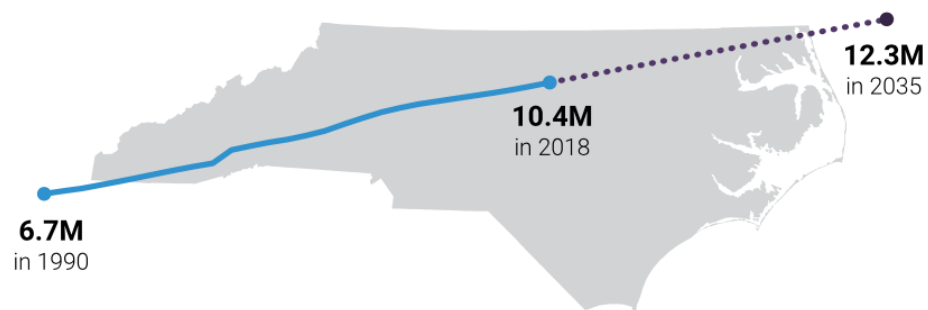
# Billion-Dollar Disaster Events



North Carolina Billion-Dollar Disaster Events 1980-2021 (CPI-Adjusted)

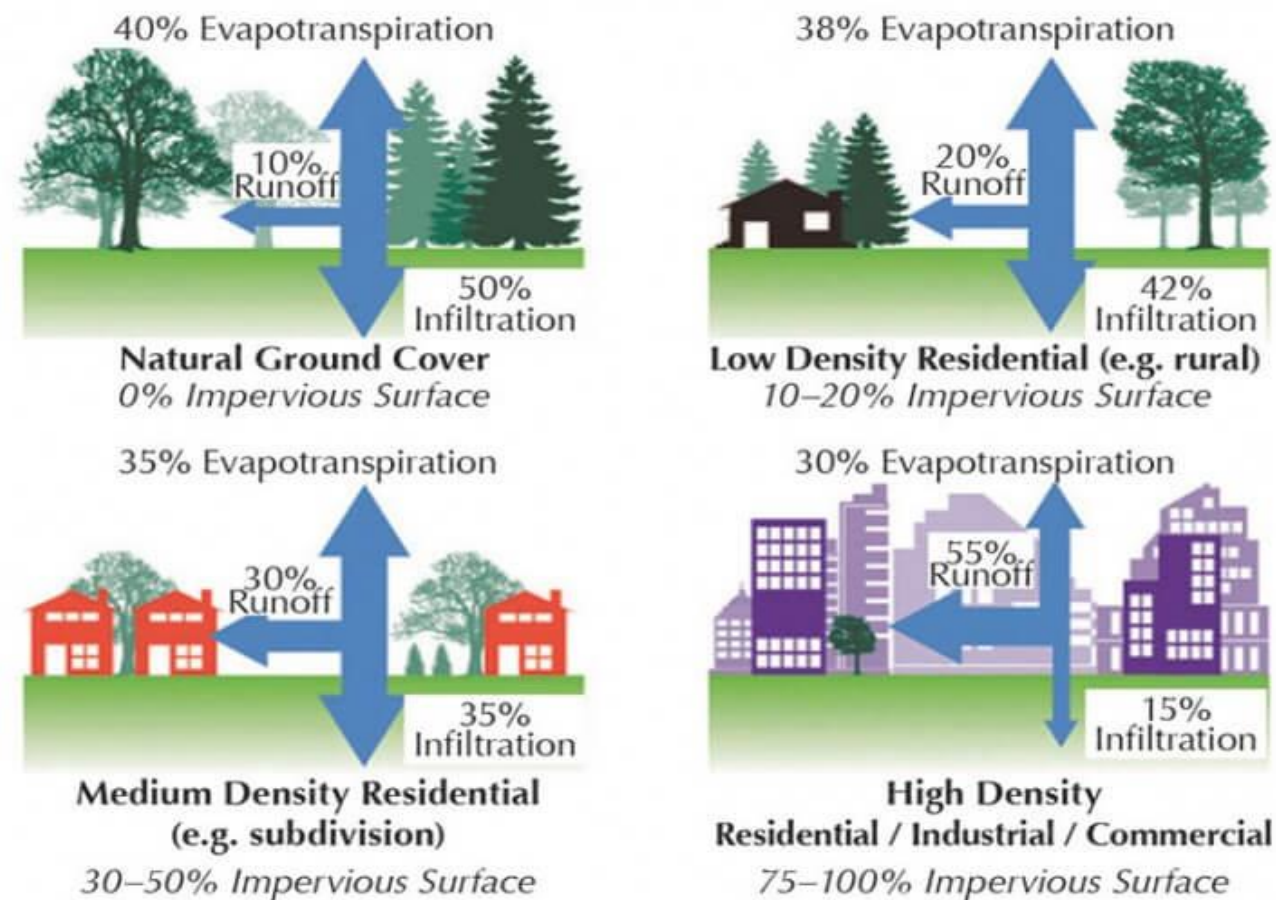


## North Carolina population growth 1990-2035



Source: US Census Bureau, NCOSBM

## EFFECTS OF IMPERVIOUSNESS ON RUNOFF AND INFILTRATION



Source: The Watershed Institute



# What is Blueprint?

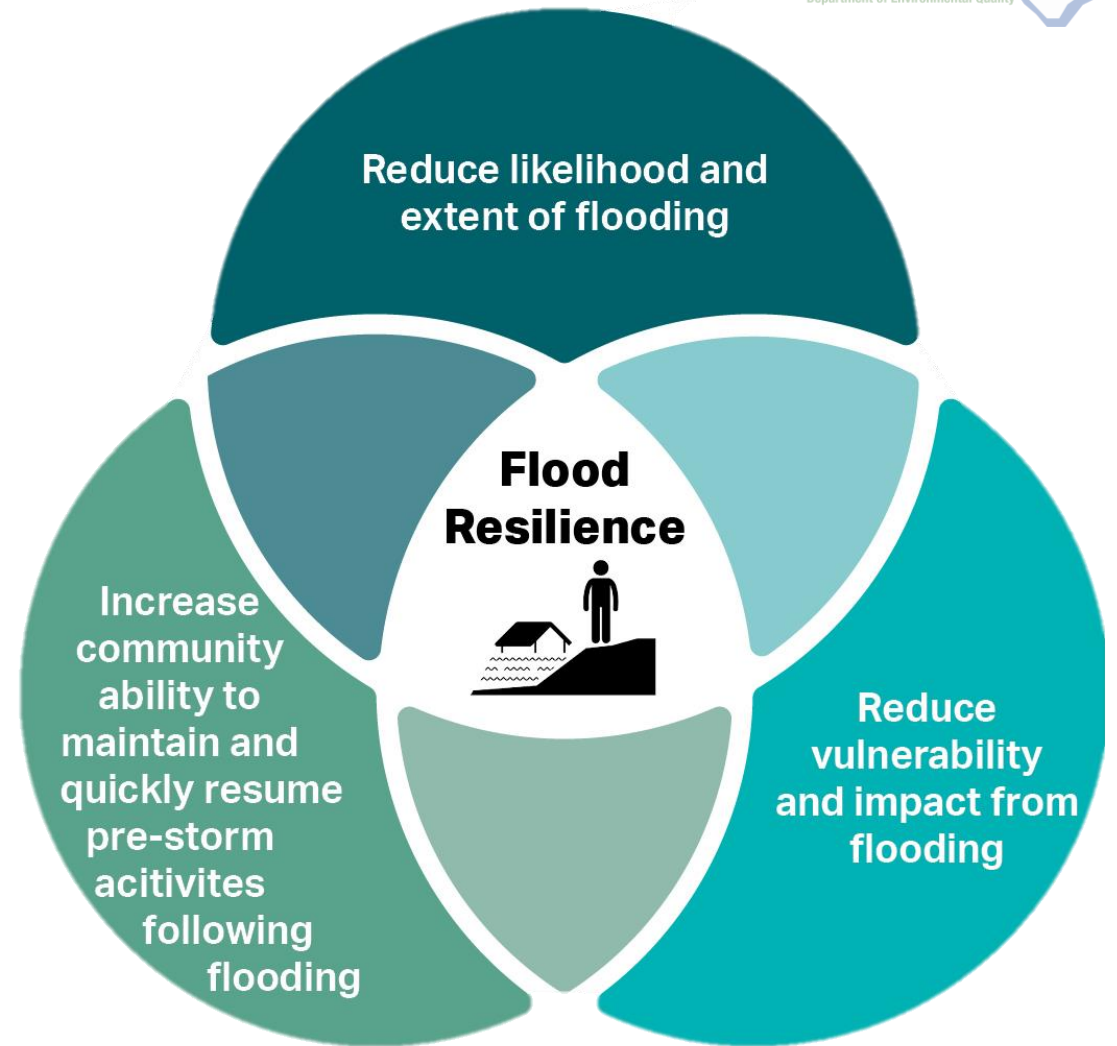
Purpose and Goals



# Blueprint – Core Outcomes

The three core high level goals that all actions are evaluated against:

1. Reduce likelihood and extent of flooding
2. Reduce vulnerability and impact
3. Increase community ability to recover and resume pre-storm activities



# Blueprint Components





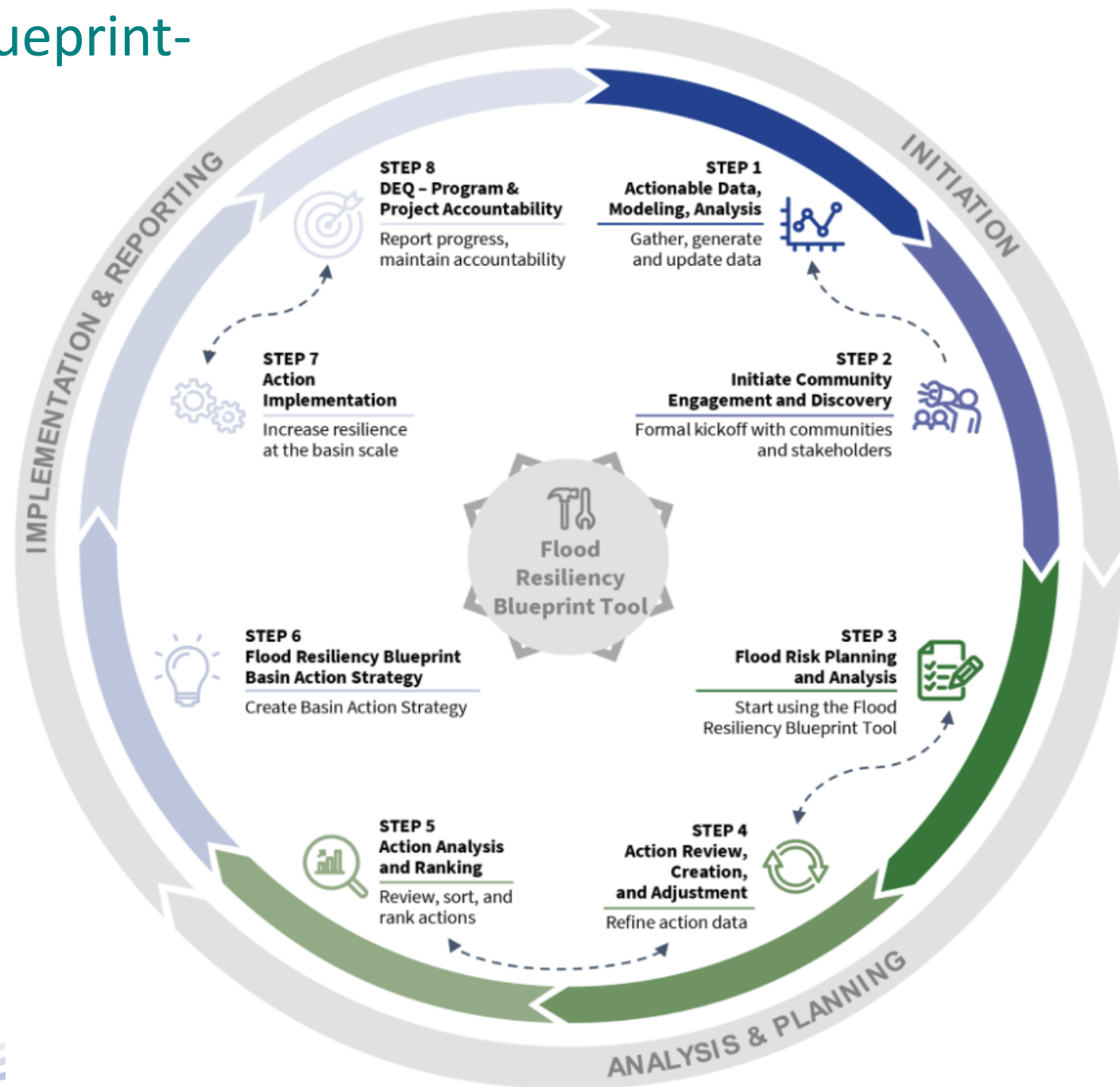
# Looking Ahead





# North Carolina Flood Resiliency Blueprint- Differentiators

- **Future Conditions Modeling**
- **Detail Profiles** (*hazard, community, actions, funding*)
- **Quantifiable Metrics**
- **Impacts** (*population, environment, structures, infrastructure, economy*)
- **Mitigation / Resilience Action Exploration**
- **ROI / Added Value**
- **Prioritization of Actions – Ranking**
- **Matching Sources of Funding**



# Blueprint Tool

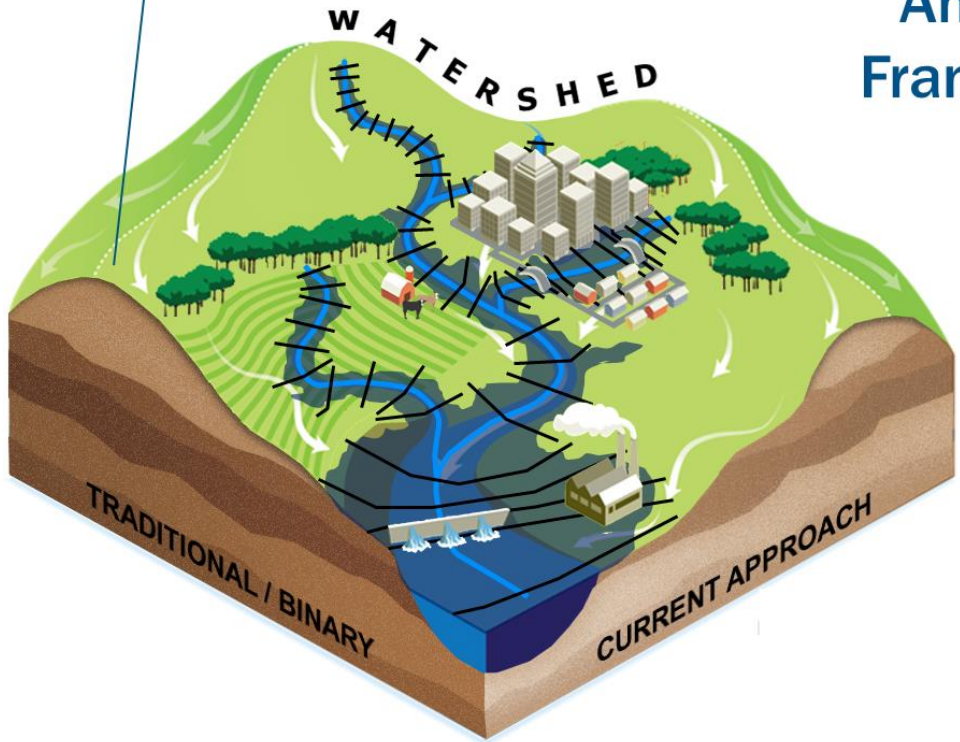
- Expands on existing tools with new data and methodologies
- Integrates forecasted changes
- Allows for integration of future data and logic generated through multiple sources
- Is scalable (catchment to statewide)
- **Is dynamic** and improves as data and methodologies improve





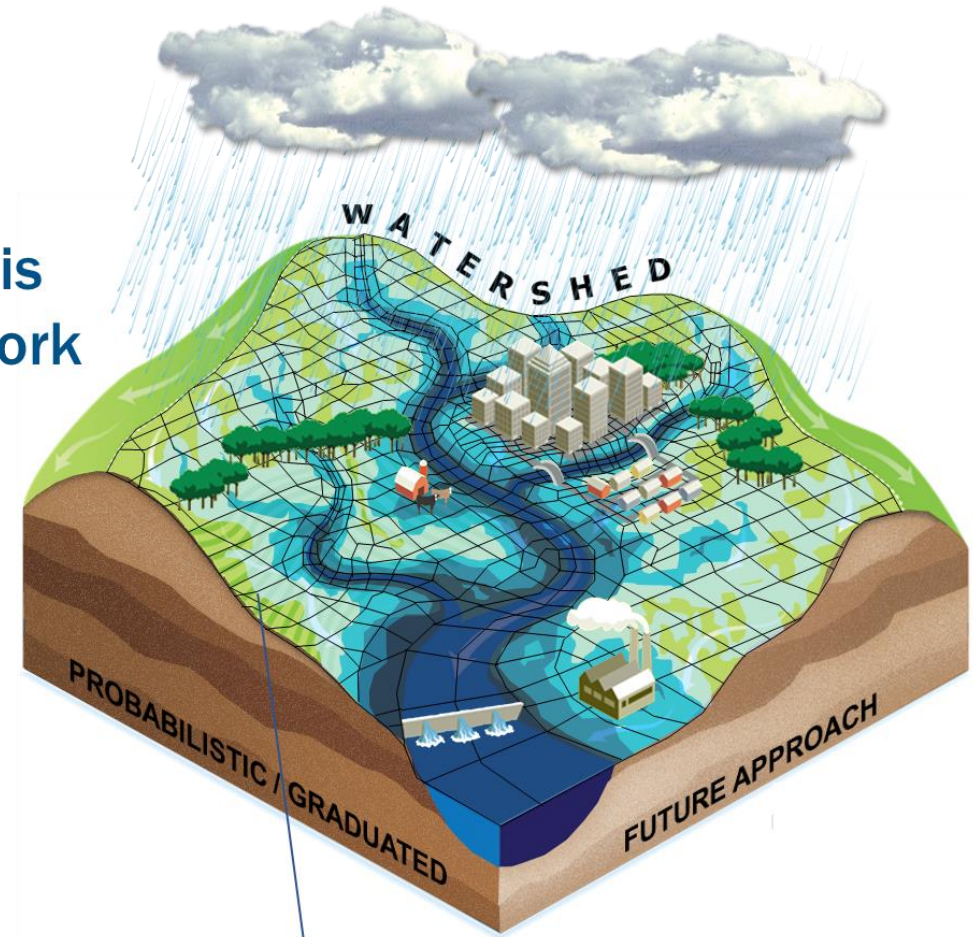
# H&H Modeling Considerations

- 1D Modeling
- Fluvial flooding only
- Event-based analyses



Inland/Riverine Flooding Examples

## Analysis Framework



- 2D Modeling
- Fluvial and pluvial flooding
- Probabilistic analyses

# Website

<https://ncfloodblueprint.com/>

**DEQ** NORTH CAROLINA  
Flood Resiliency  
BLUEPRINT

Home About Progress Stakeholder Engagement Calendar DEQ.NC.GOV NC.GOV

Trees Overhang the Neuse River in Raleigh in Autumn

## North Carolina Flood Resiliency Blueprint

The North Carolina Department of Environmental Quality is developing the first North Carolina Flood Resiliency Blueprint. The Blueprint is a statewide watershed planning effort to establish a framework and tools to assist local communities in decision-making related to reducing flood risk and increasing resilience.

Working with interagency partners and stakeholders, DEQ's Division of Mitigation Services plans a comprehensive approach to identify problems, address barriers, and prioritize solutions.

### UPDATES

- Wednesday, May 3, 2023  
**Second Meeting of the Technical Advisory Groups**
- Wednesday, March 22, 2023  
**NC Flood Resiliency Blueprint Principal Advisory Group Kickoff**
- Wednesday, March 15, 2023  
**NC Flood Resiliency Blueprint Technical Advisory Group Kickoff**

### UPCOMING EVENTS

<b>Jun 30</b> Fri	10:00 AM to 5:00 PM <b>Neuse Basin Advisory Group Meeting 3</b> Raleigh	>
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Show Full Calendar

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