

# Alamance, Durham and Orange *Regional Hazard Mitigation Plan Project Kickoff Meeting*

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August 11, 2014



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# Agenda

- Welcome and introductions
- Project overview
- Review and discussion of existing plans
- Plan update and integration process
- Open discussion
- Next steps



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# Handouts

- Meeting agenda
- Meeting sign-in sheet
- Designated “Local Jurisdiction Leads” sign-up sheet



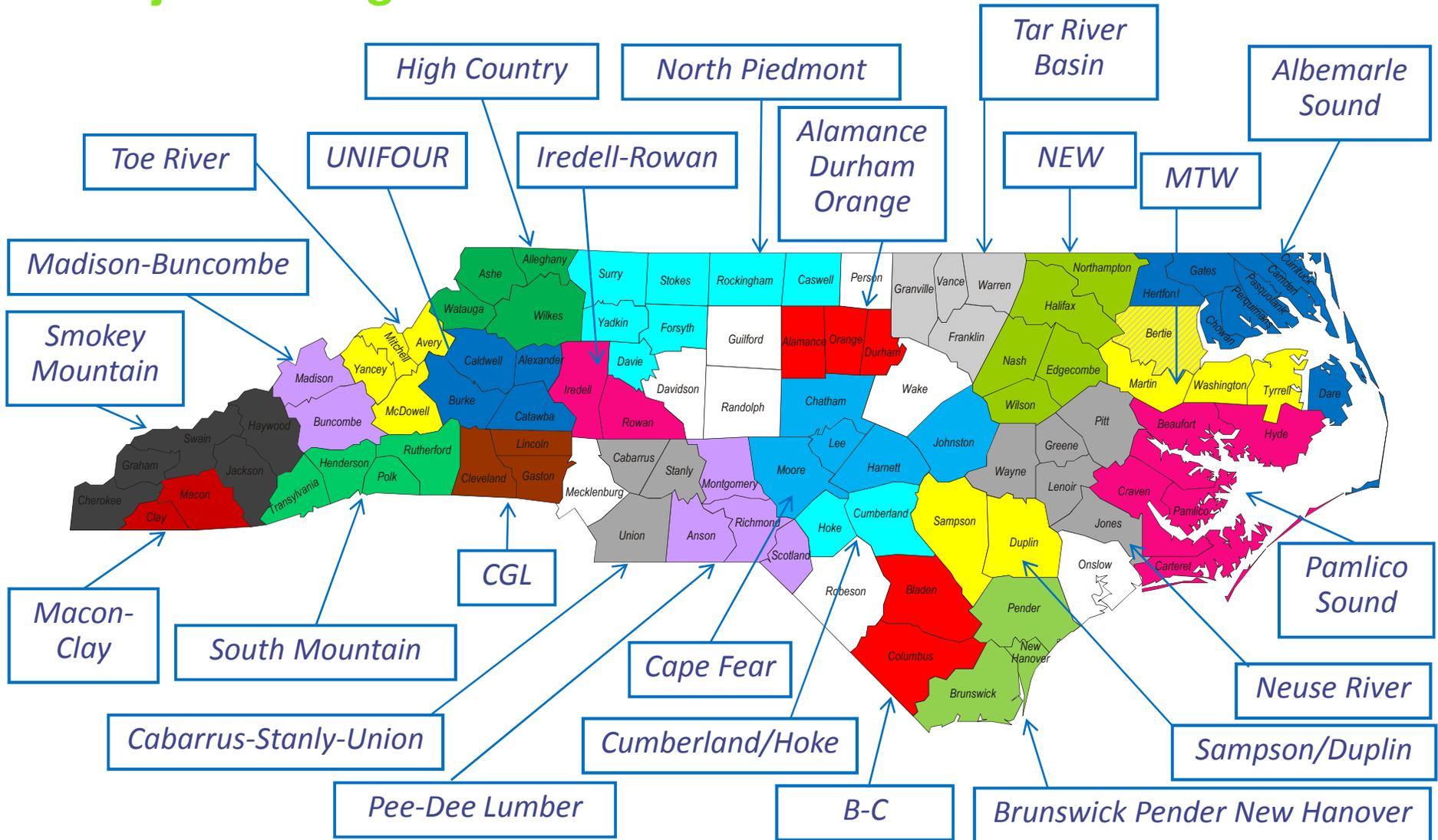
# Welcome and Introductions

- Participating Jurisdictions
  - Alamance County and municipalities
  - Durham County and municipality
  - Orange County and municipalities
- Other local stakeholders
- State and federal partners
- AECOM



# Project Background

17JULY2014



# Project Overview

- Purpose

- To prepare a Regional Hazard Mitigation Plan for the planning area, consisting of three updated multi-jurisdictional hazard mitigation plans incorporated into one regional plan
- To utilize the iRISK Risk Management Tool (RMT)

- Scope

- Counties of Alamance, Durham and Orange
- 17 participating jurisdictions
- Key tasks and subtasks (shown on following slides)

- Schedule

- Complete final draft plan for NCEM / FEMA review by February 27, 2015



# Key Project Tasks

## 1. Planning Process

- 1.1 Project Initiation
- 1.2 Develop Public Outreach Strategy
- 1.3 Facilitate Regional Planning Team Meetings
- 1.4 Conduct Public Outreach
- 1.5 Document Planning Process

## 2. Risk Assessment

- 2.1 Data Collection and Analysis
- 2.2 Hazard Identification
- 2.3 Hazard Profiles and Mapping
- 2.4 Inventory of Community Assets
- 2.5 Vulnerability Assessment
- 2.6 Summarize Findings and Conclusions



# Key Project Tasks

## 3. Capability Assessment

- 3.1 Review Existing Capabilities
- 3.2 Summarize Findings and Conclusions

## 4. Mitigation Strategy

- 4.1 Update Mitigation Goals
- 4.2 Analyze Mitigation Actions and Projects
- 4.3 Prepare Mitigation Action Plans
- 4.4 Complete Mitigation Action Prioritization

## 5. Plan Maintenance Procedures

- 5.1 Plan Implementation
- 5.2 Plan Review and Update
- 5.3 Continued Public Involvement





# Plan Update Process



# Project Overview

- Roles and responsibilities

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- Oversee, support and document the completion of all key project tasks

- Orange County

- Serving as lead coordinating agency
  - The Orange County plan will expire first of the three county level plans
- Designation of local project manager
- Assistance with the collection of documents, data and other information
- Logistics for project meetings
- Hosting and managing project website
- Responding to inquiries from the public or stakeholders
- Coordinating with participating jurisdictions



# Project Overview

- Roles and responsibilities

- All participating jurisdictions

- Designate local jurisdiction lead
- Attend Hazard Mitigation Planning Team meetings
- Coordination between counties, municipalities and local stakeholders
- Data collection and information sharing
- Mitigation strategy development (Mitigation Action Plans)
- Assist with public outreach
- Review and comment on draft plan materials



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# iRISK Risk Management Tool (RMT)

- Digital, online mitigation planning tool
- Provides an interface with iRISK datasets and hazard analysis results
- Provides a series of prompts, dialog boxes, drop-down menus, tips/resources, etc. to help guide users through the mitigation planning process
- Organizes and generates a complete hazard mitigation plan using a combination of iRISK outputs and user-entered information



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# iRISK Risk Management Tool (RMT)

- Key objectives include:

- Guiding and facilitating an enhanced mitigation planning process through maximizing the use of iRISK datasets and tool products
  - The tool does NOT replace the planning process itself
- Assisting local planners to document the process used to prepare, maintain and update the local plan
  - Stores results and outcomes of the planning process in an online digital environment to make maintenance and future plan updates easier
- Assisting local planners to more easily navigate through all current FEMA and NCEM planning requirements
  - Uses an enhanced and flexible step-by-step approach to plan preparation



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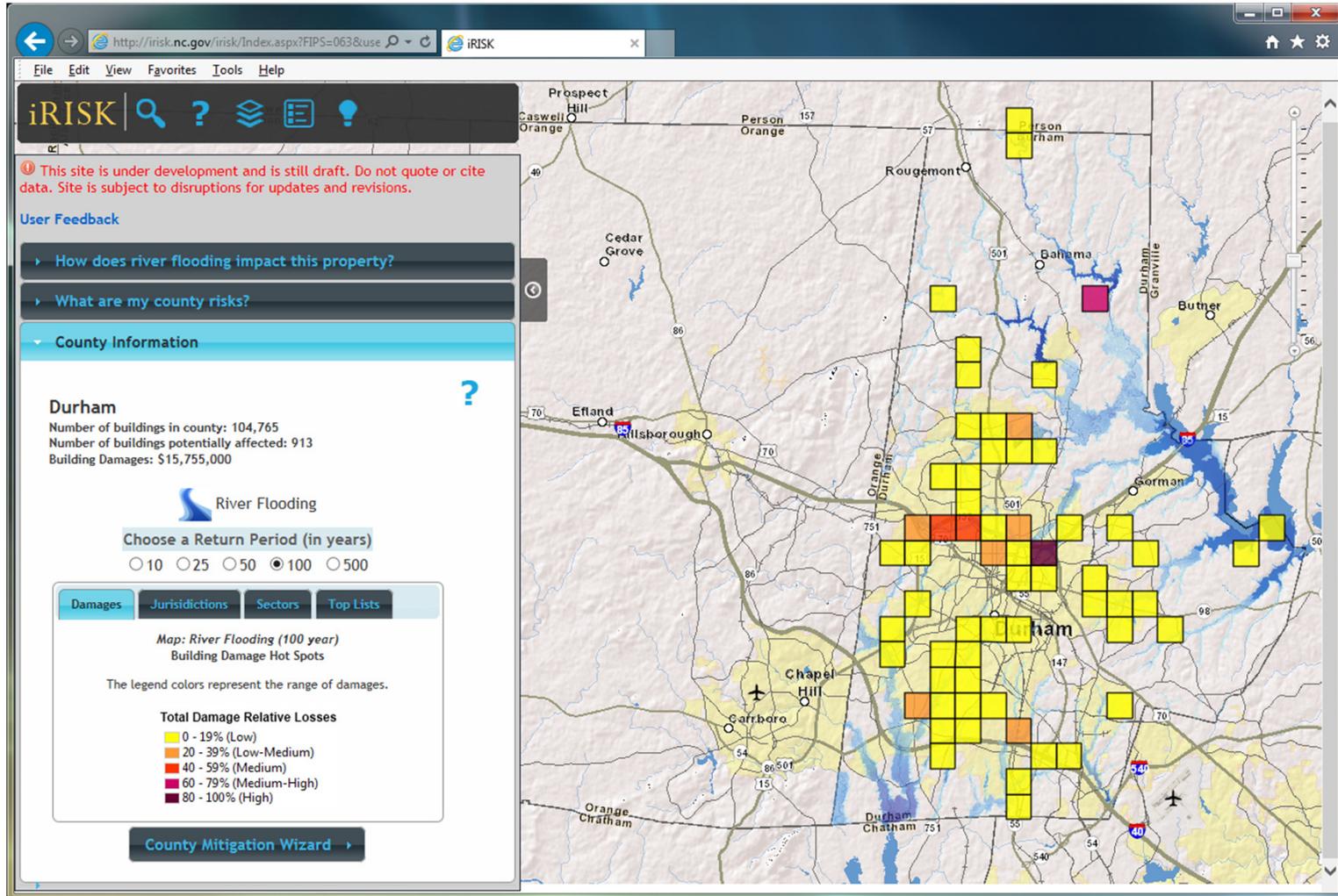
# iRISK Risk Management Tool (RMT)

The screenshot shows the iRISK Risk Management Tool (RMT) web application interface. The browser address bar displays the URL <http://irisk.nc.gov/irisk/Home.aspx>. The page features a dark blue header with the iRISK logo and the tagline "Am I at Risk?". Navigation buttons for "Mitigation Plans", "Getting Started", and "About IHRM" are visible. A user selection dropdown is set to "Planner", and a county selection dropdown is present. A row of hazard icons includes wind, rain, pollen, wildfire (highlighted), and others. A map of North Carolina is shown with a wildfire risk overlay. Below the map, a "Wildfire" section provides a definition: "A wildfire is an uncontrolled burning of grasslands, brush, or woodlands. People living near undeveloped lands or visiting wilderness areas for recreational purposes are particularly at risk. Wildfires are most likely in areas that are hot and dry with flammable vegetation. The fall is an especially dangerous time." A disclaimer at the bottom states: "This site is under development and is still draft. Do not quote or cite data. Site is subject to disruptions for updates and revisions."



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# iRISK Risk Management Tool (RMT)



# iRISK Risk Management Tool (RMT)

[How does river flooding impact this property?](#)  
[What are my county risks?](#)  
**County Information**

**Durham**  
 Number of buildings in county: 104,765  
 Number of buildings potentially affected: 913  
 Building Damages: \$15,755,000

River Flooding  
 Choose a Return Period (in years)  
 10  25  50  100  500

**Damages** | Jurisdictions | Sectors | Top Lists

Buildings: 10 | Type of Damage: Residential | [Go](#)

PID	Value (\$)	Replacement Value (\$)	Damages (\$)
0834-02-46-1618	610,770	610,770	237,565
0820-11-65-7718	161,731	696,829	215,739
0719-03-31-8397	343,291	463,187	183,580
0822-11-77-0141	369,081	837,453	167,824
0719-03-31-8397	424,046	516,358	160,897
0728-01-19-3409	758,120	796,612	138,452
0834-02-46-1618	304,155	304,155	132,307
0719-03-31			



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# iRISK Risk Management Tool (RMT)

The screenshot shows a web browser window displaying the iRISK Risk Management Tool (RMT) interface. The browser's address bar shows the URL <http://irisk.nc.gov/irisk/Planning.aspx>. The page title is "iRISK Risk Management Tool". A navigation menu at the top includes "Planning Process" (selected), "Communities", "Capability", "Hazards", "Risk Management", "Action Plan", "Maintenance", and "Checklist". A "View Comments" button is located in the top right corner.

The main content area features a heading "Welcome to the Risk Management Tool (RMT)" and a sub-heading "In this section you will name your plan and select the counties and jurisdictions covered by the plan." Below this, two steps are listed: "Step 1: Define your plan" and "Step 2: Select your planning area".

Two tables are displayed:

My Plans			
Edgecombe County Hazard Mitigation Plan (Copy 07172013)	Continue	Export	Copy
New Hanover Multi-Jurisdictional Hazard Mitigation Plan	Continue	Export	Copy

A "New Plan" button is located below the "My Plans" table.

Select A Plan To Review		
New Hanover Planning	Continue	Export
Edgecombe County Hazard Mitigation Plan	Continue	Export

At the bottom of the page, there are "Previous" and "Next" navigation buttons.



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# iRISK Risk Management Tool (RMT)

http://irisk.nc.gov/irisk/Planning.aspx

RMT

iRISK Risk Management Tool Current Plan : Edgecombe County Hazard Mitigation Plan (Copy 07172013) Export View Comments

Communities >> Demographics

Planning Process Communities Capability Hazards Risk Management Action Plan Maintenance Checklist

### Demographics Check When Page Complete

Enter a brief narrative description of the demographics for the planning area, including general information about population, housing, and land use patterns. Consider including brief descriptions for each participating jurisdiction if this is a multi-jurisdictional plan.

The 2000 Census lists the population of Edgecombe County at 55,606. According to the Office of State Planning, the County population decreased at a marginal rate between 2000 and 2002. State estimates show a decrease of a little over 1,000 persons during the 10-year period between the 1990 and 2000 Census, or just under -1% which is relatively stable. However, with the State's overall growth average around 3.4%, Edgecombe County lags 4.4% behind the state average.

The population is consistent with state averages with a lean toward youth in terms of age with nearly 30% of the population under 19 years of age. Another 42% are younger than 49. The median age is 36.2 compared to the state median of 35.3. On a county by county basis, Edgecombe shows as being weighted to the young. This is particularly evident once coastal and mountain counties with large retiree populations are factored in.

Select from the list below to view 2010 census data. This table will be inserted into your plan when the document is exported.

View Population Data: Choose County

Overall: 2 of 149 complete Section: 0 of 11 complete



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# iRISK Risk Management Tool (RMT)

The screenshot displays the iRISK Risk Management Tool (RMT) web interface. The browser address bar shows the URL <http://irisk.nc.gov/irisk/Planning.aspx#>. The current plan is set to "Edgecombe County Hazard Mitigation Plan (Copy 07/17/2013)". The navigation menu includes "Planning Process", "Communities", "Capability", "Hazards", "Risk Management" (selected), "Action Plan", "Maintenance", and "Checklist".

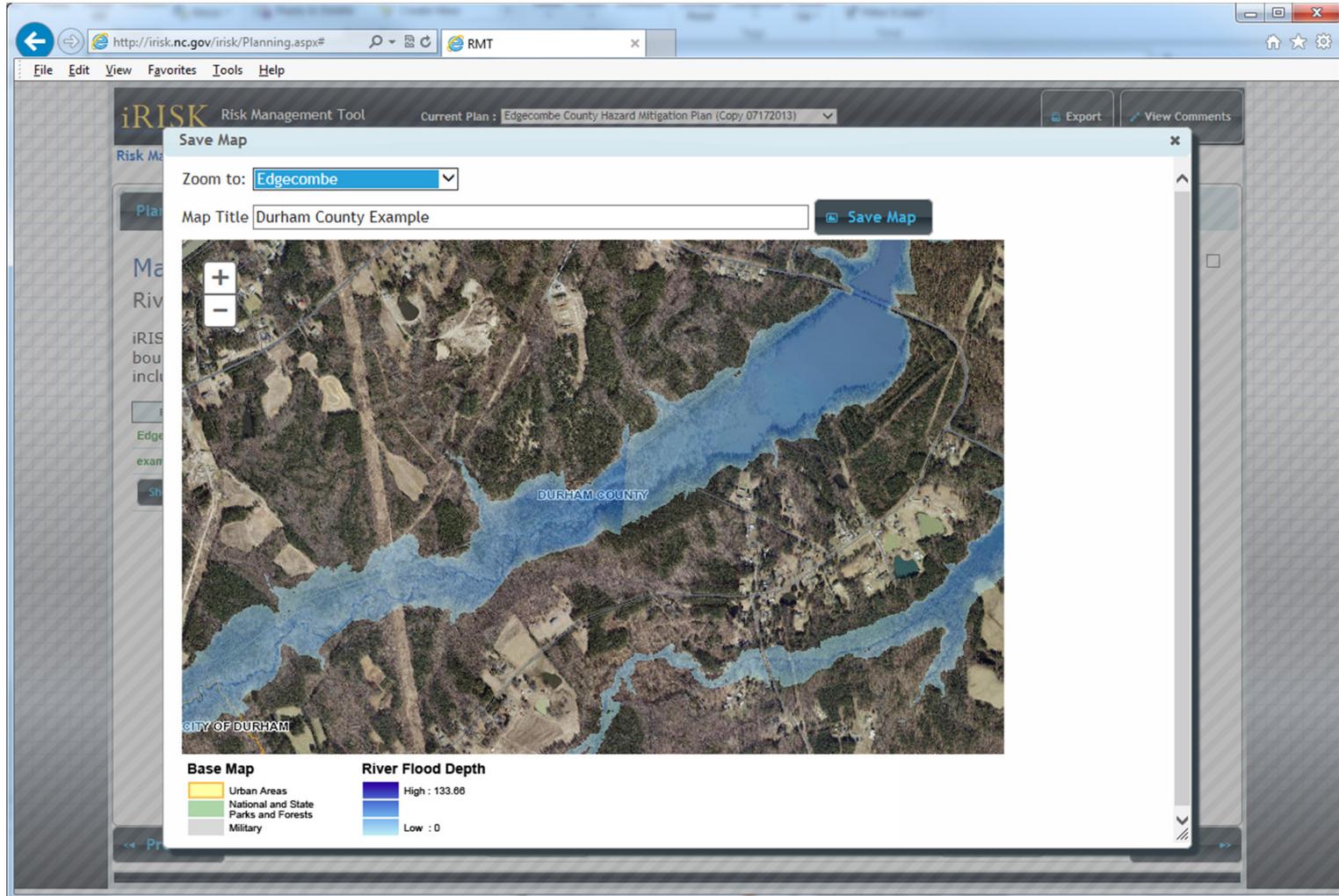
The main content area is titled "Historical Occurrences" and "River Flood". It lists notable reports of hazard instances identified by the hazard mitigation planning committee. The data is presented in a table with columns for Date, Description, Location, Magnitude, Deaths, Injuries, Property Damage, and Crop Damage. Each row also includes a trash icon for deletion.

Date	Description	Location	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
Tue Oct 5 1954	Hurricane Hazel was the most destructive storm in the history of North Carolina. The storm crossed the coast just north of Myrtle Beach, South Carolina, as hurricane winds hit the Atlantic coast between Georgetown, South Carolina, and Cape Lookout, North			0	0	0	0
Wed Aug 3 1955	Hurricane Connie entered North Carolina close to Cape Lookout at about 8:30 a.m. on August 12. The prolonged pounding of high waves against the coast caused tremendous beach erosion, probably worse than that caused by Hazel in 1954. Storm tides along th			0	0	0	0
Sun Aug 7 1955	Five days after Hurricane Connie, and before the damage from that storm could be estimated, Hurricane Diane struck the coast near Carolina Beach about 6 a.m. on August 17. The highest wind speed reported during this storm was 74 mph at Wilmington Airport			0	0	0	0
Sat Sep 10 1955	Hurricane Ione moved up from the south and crossed the North Carolina coast near Salter Path, 10 miles west of Morehead City, at about 5 a.m. on September 19. It then slowly curved to the northeast and went out to sea near the Virginia border early on Se			0	0	0	0
Sun Sep 21 1958	Hurricane Helene was one of the most powerful storms of recent history. Fortunately for the people of North Carolina, the storm center was well out at sea as it moved north on September 26 and 27. Nevertheless, high winds were recorded at Wilmington, wi			0	0	0	0
Mon Aug 29 1960	Hurricane Donna crossed the North Carolina coast between Wilmington and Morehead City of September 11, 1960. The center of the storm passed a few miles east of Wrightsville Beach, although Wilmington and Wrightsville Beach were each in the eye for about			0	0	0	0
Thu Sep 13 1984	The landfall location of Diana was 38 miles south of Wilmington with 90 mph winds at its closest approach to Wilmington. Diana had 115 mph sustained winds before landfall. Storm surge was approximately 5-6 feet.			0	0	0	0

At the bottom of the page, there are navigation buttons: "Previous", "Next", and a progress indicator showing "Overall: 2 of 149 complete" and "Section: 0 of 106 complete".



# iRISK Risk Management Tool (RMT)



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# iRISK Risk Management Tool (RMT)

**iRISK Risk Management Tool** Current Plan : **Edgecombe County Hazard Mitigation Plan (Copy 07/17/2013)** Export View Comments

Action Plan >> **Develop A Mitigation Action Plan**

Planning Process Communities Capability Hazards Risk Management **Action Plan** Maintenance Checklist

### Develop A Mitigation Action Plan

Check When Page Complete

Develop a mitigation action plan by adding actions to specific goals. For each action create or load a project to complete the action.

Mitigation Action Plan			
Action	All Hazards	All Jurisdictions	
Routinely clean debris from support bracing underneath low-lying bridges	River Flood	Edgecombe County	<a href="#">Add Projects</a>
Routinely clean debris from support bracing underneath low-lying bridges	River Flood	Town Of Conetoe	<a href="#">Add Projects</a>
Routinely clean debris from support bracing underneath low-lying bridges	River Flood	Town Of Macclesfield	<a href="#">Add Projects</a>
Routinely clean debris from support bracing underneath low-lying bridges	River Flood	Town Of Pinetops	<a href="#">Add Projects</a>
Routinely clean debris from support bracing underneath low-lying bridges	River Flood	City Of Rocky Mount	<a href="#">Add Projects</a>
Routinely clean debris from support bracing underneath low-lying bridges	River Flood	Town Of Speed	<a href="#">Add Projects</a>
Routinely clean debris from support bracing underneath low-lying bridges	River Flood	Town Of Tarboro	<a href="#">Add Projects</a>
Routinely clean debris from support bracing underneath low-lying bridges	River Flood	Town Of Leggett	<a href="#">Add Projects</a>
Routinely clean debris from support bracing underneath low-lying bridges	River Flood	Town Of Princeville	<a href="#">Add Projects</a>
Routinely clean debris from support bracing underneath low-lying bridges	River Flood	Town Of Sharpsburg	<a href="#">Add Projects</a>
Design an early warning system for hazard events	Levee Failure	Edgecombe County	<a href="#">Add Projects</a>
Design an early warning system for hazard events	Levee Failure	Town Of Conetoe	<a href="#">Add Projects</a>
Design an early warning system for hazard events	Levee Failure	Town Of Macclesfield	<a href="#">Add Projects</a>

[<< Previous](#) Overall: 2 of 149 complete  Section: 0 of 3 complete  [Next >>](#)



## Review and Discussion of Existing Plans

- Alamance County Hazard Mitigation Plan (November 2010)
- Durham County Hazard Mitigation Plan (October 2012)
- Orange County Hazard Mitigation Plan (July 2010)
- Town of Chapel Hill Hazard Mitigation Plan (June 2011)



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# Hazards Addressed

ALAMANCE	DURHAM	ORANGE	CHAPEL HILL	RMT
Flooding	Flooding	Floods	Flash Floods/High Water	River Flooding
Hurricanes	Hurricanes	Hurricanes	Hurricanes	Hurricane Winds
Thunderstorms (including wind and lightning)	Severe Thunderstorms	Thunderstorms	Thunderstorms	Thunderstorm Winds and Hail
Severe Winter Storms	Severe Winter Storm	Severe Winter Storms	Severe Winter Storms	Snow and Ice
Tornadoes	Tornadoes	Tornadoes	Tornadoes	Tornado
Earthquake	Earthquake	Earthquake	←	Earthquake
Wildfire	Wildfire	Wildfire	←	Wildfire
Dam Failure	Dam Failure	River Basins Dam Failure	←	Dam Failure
Drought	Drought and Heat Wave/Extreme Heat	Droughts and Heat Waves	←	
	Landslides/Sinkholes	Landslides	←	
			Windstorms/High Winds ↑	
		Nor'easters ↑		
		Chemical Spills		
		Plane Crash		



# Mitigation Strategy

ALAMANCE	DURHAM	ORANGE	CHAPEL HILL
	Mission Statement (1)		
Goals (3)	Goals (5)	Goals (7)	Goals (6)
Strategies (32)	Strategies (24)	Action Items (22)	Strategies (12)

# Capability Assessment

ALAMANCE	DURHAM	ORANGE	CHAPEL HILL
Capability Assessment (Section)	Capability Assessment (Section)	Capability Assessment (Appendix)	Community Capability (Appendix)

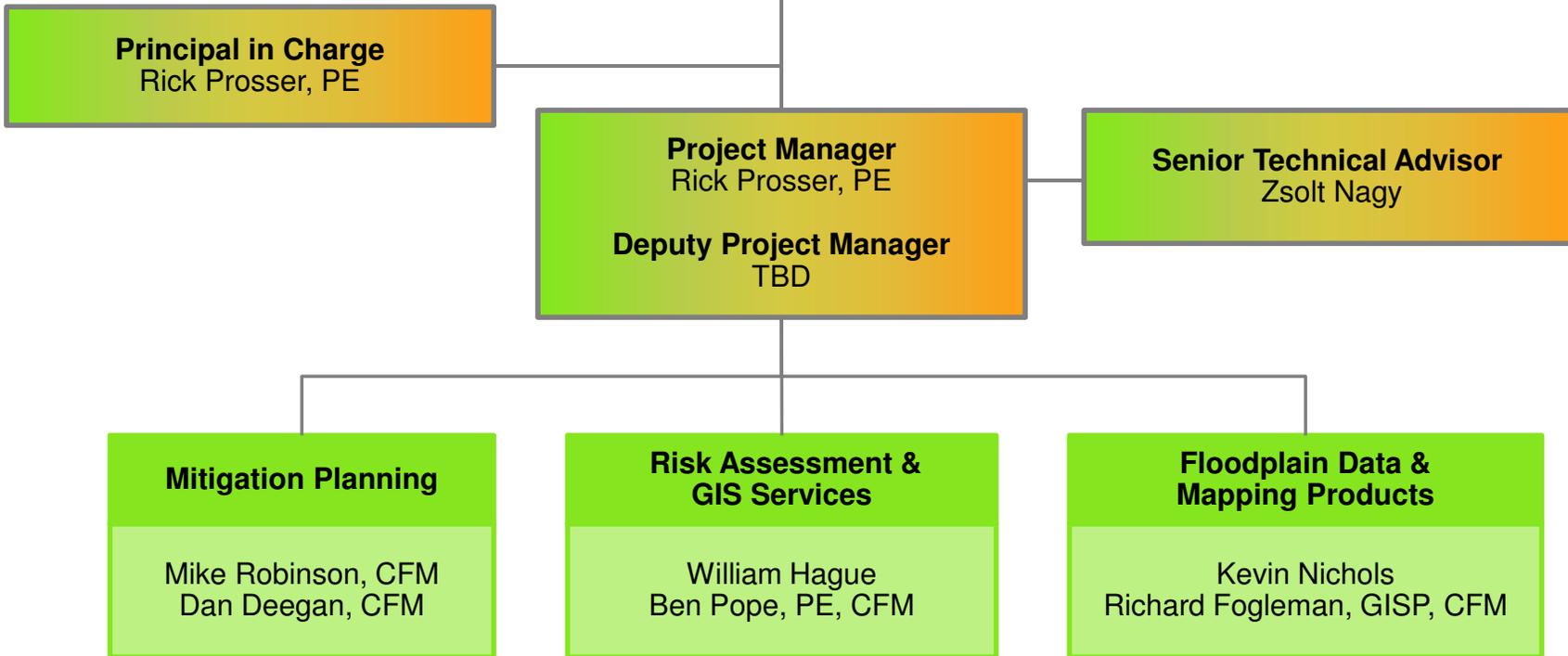


# Plan Update and Integration Process

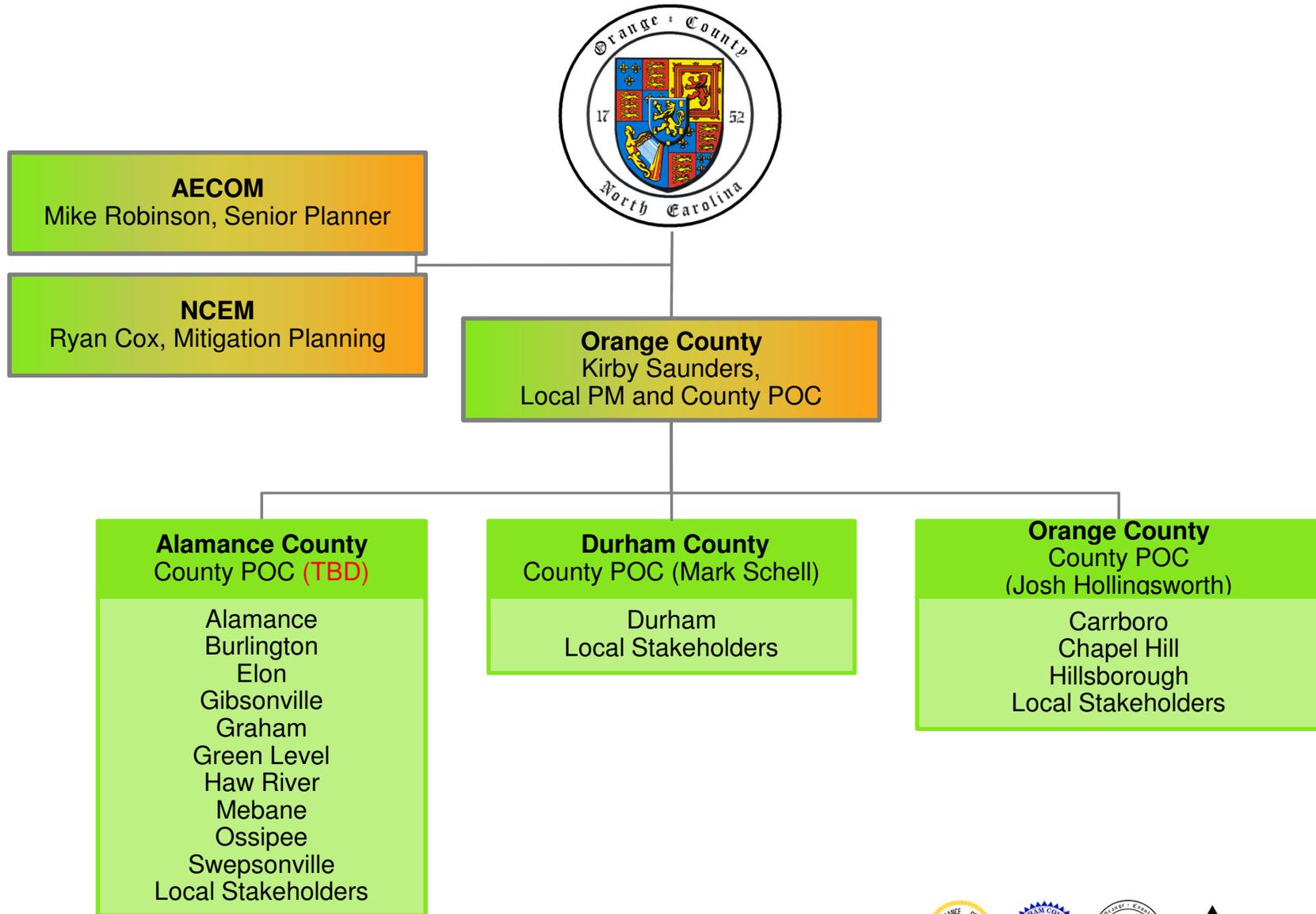
- Planning team organization
- Leveraging existing resources
- Communication
- Data collection (if needed)
- Public outreach/stakeholder engagement



# AECOM Team



# Planning Team Organization



# Leveraging Existing Resources

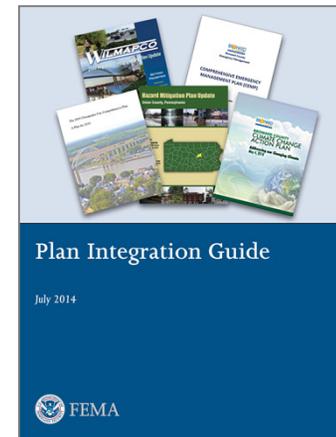
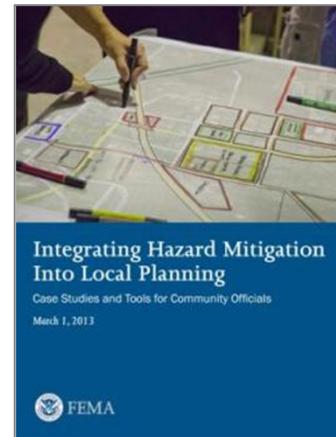
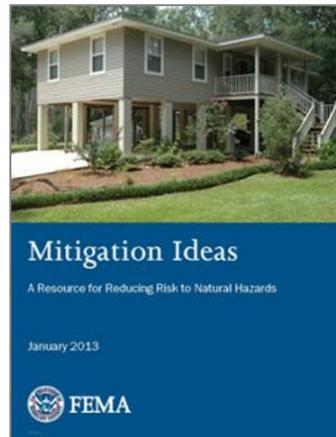
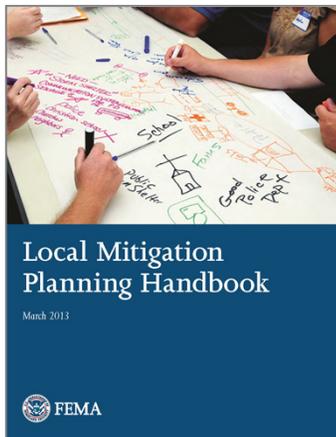
- Existing plans, studies and reports
  - Including existing mitigation plans
- Existing data and information
  - Including RMT
  - Including additional GIS data, if needed
- Local knowledge sharing
- Other resources?



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# Planning Resources

- **FEMA planning guidance**
  - *Local Mitigation Planning Handbook*
  - *Mitigation Ideas*
  - *Integrating Hazard Mitigation Into Local Planning*
  - *Plan Integration Guide*



- **Links to other online planning resources**



# Communication

- Planning team organization
- Work through channels (2-way communication)
  - RMT online content management
  - Electronic worksheets and surveys to be used for collecting information from all local participating jurisdictions
  - Jurisdiction Leads / POCs assigned primary responsibility, but must coordinate with other local staff
- Project website
- Responsiveness in light of aggressive schedule
- Participation is crucial!



# Data Collection

- For any hazards not included in the RMT
- Use same communication channels
- Best readily available data in usable format
- Reasonable consistency across the planning area
- NC OneMap



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# Public Outreach Strategy

- **Goals**
  - Generate public interest
  - Solicit citizen input
  - Engage additional partners in the planning process
- **Identification of specific opportunities for participation**
  - In-person meetings (2)
  - Project information website
  - Web-based survey(s)
  - Social media (Facebook, Twitter, RSS, etc.)
- **Products/resources**
  - Project information fact sheet



# Open Discussion

- Potential opportunities in regionalizing the plans
- Potential obstacles or barriers
- Naming the regional plan
- Other local issues, concerns or ideas



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## Next Steps

- Next meeting: **Monday, September 15**
- Assignment of Jurisdiction Leads / POCs (**ASAP**)
- Finalize *Public Outreach Strategy* (by **September meeting**)
- Discuss preliminary risk assessment results and map templates (by **September meeting**)

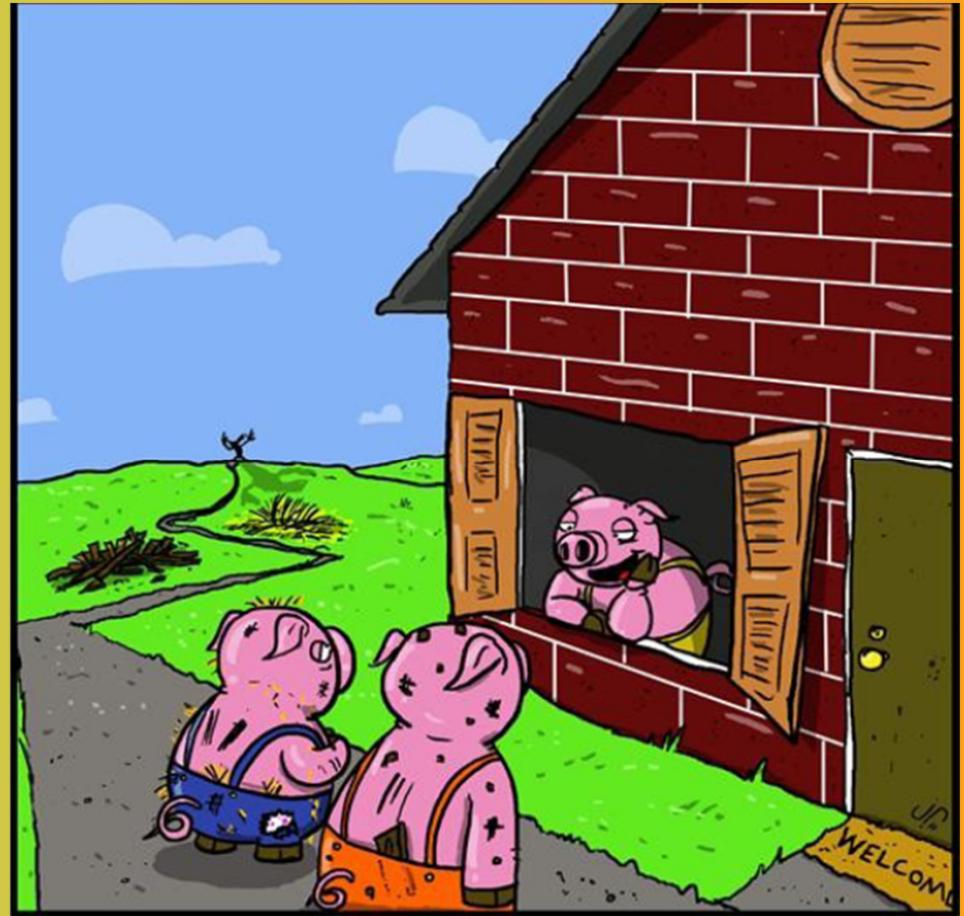


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# Thank You

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[ryan.cox@ncdps.gov](mailto:ryan.cox@ncdps.gov)



"Mitigation isn't so funny now, is it?"



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