



HOW CAN YOU CONTRIBUTE?



- *Welcome to the Neuse River Basin Flood Risk Management Feasibility Study Public Involvement Meeting*
- *<https://www.facebook.com/usace.wilmington>*
- Submit questions via the chat function in FACEBOOK Livestream
- Questions can also be submitted:
 - By Email: CESAW-NeuseRiverBasinFRM@usace.army.mil
using the subject line “Neuse River Basin Study – Scoping Comment”
 - By mail:
U.S. Army Corps of Engineers, Wilmington District
c/o: Neuse River Basin FRM Project, ATTN: CESAW-PM-DJ
69 Darlington Ave
Wilmington, N.C. 28403

NEUSE RIVER BASIN FLOOD RISK MANAGEMENT FEASIBILITY STUDY

PUBLIC INVOLVEMENT MEETING

Western Basin Region:
Johnston, Wake and Durham Counties
Smithfield, Raleigh and Durham

April 1, 2021



US Army Corps
of Engineers®





AGENDA



- ☐ Why are we here today?
- ☐ What and where are we studying?
- ☐ What are the problems?
- ☐ How are we conducting the study?
- ☐ How can we address the problems?
- ☐ What is the study schedule?
- ☐ How can you contribute?

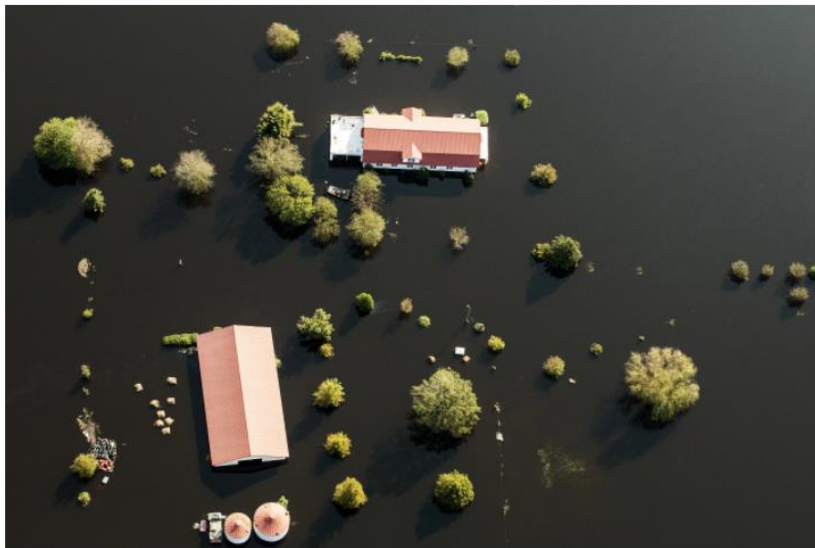




WHY ARE WE HERE?



Glenwood Avenue Closure Near
Crabtree Valley Mall



Photograph by Alex Wroblewski / Bloomberg / Getty



newsobserver.com



files.nc.gov



WHERE AND WHAT ARE WE STUDYING?

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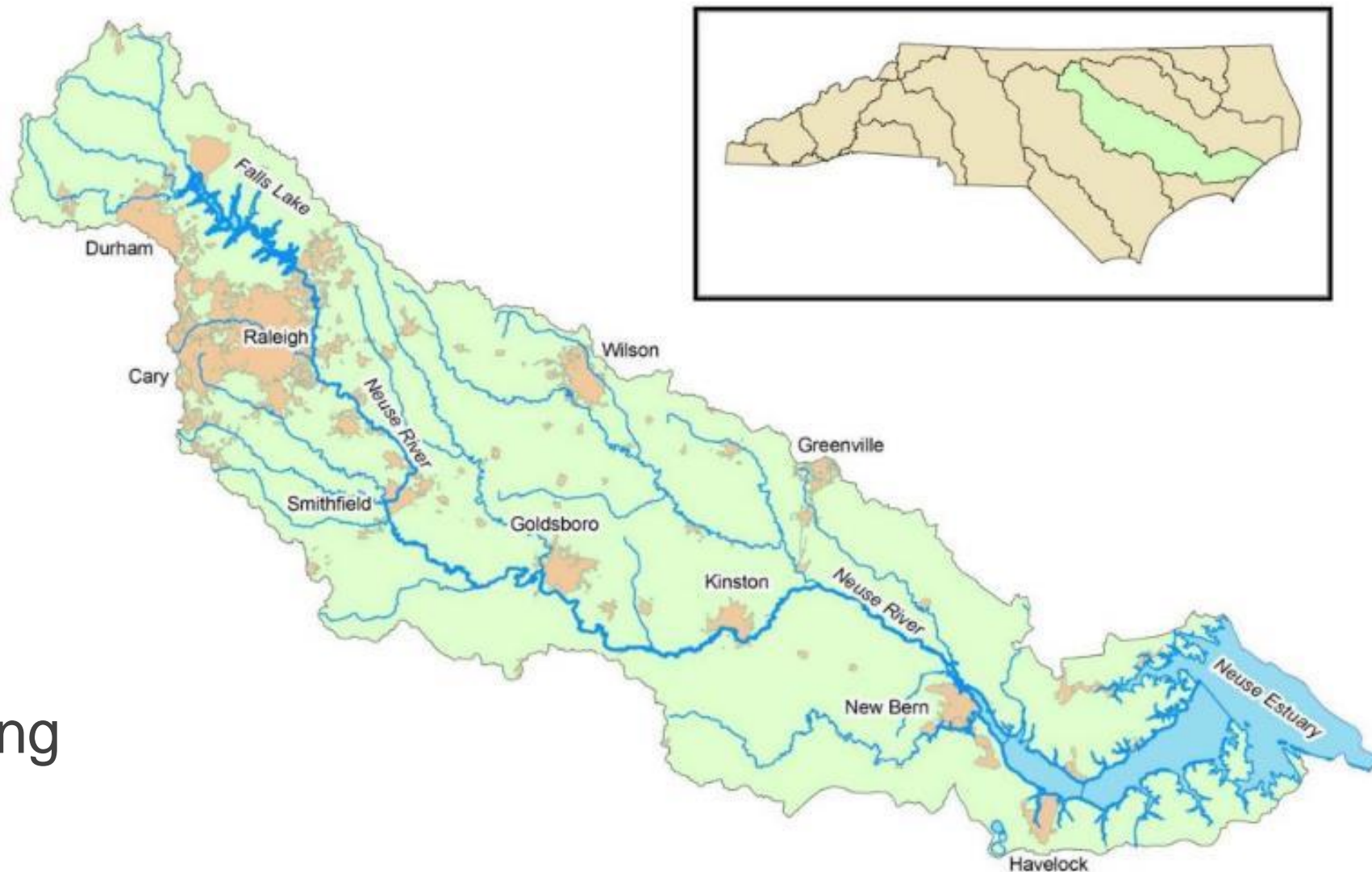


Neuse River Basin

- Population
 >1.4 million
- 18 counties
 >8 population
 centers

Flood Risks

- Riverine and
 tributary flooding



WHAT ARE THE PROBLEMS?



1. Economic damages

- Residential and commercial structures
- Impacts to industry and commerce
- Public infrastructure
- Traffic delays and detours
- Environmental remediation

2. Life safety risks

- Inundation of structures
- Loss of evacuation routes
- Access to critical facilities/recovery aid
- Inundation of occupied vehicles
- Impacts to critical infrastructure





HOW ARE WE CONDUCTING THE STUDY?



Planning Process

Identify
problems &
opportunities

- Charrette
- Information gathering meetings (2020)
- *Public meetings (March-April 2021)*



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Inventory &
forecast
conditions

- Hydrologic & hydraulic models
- Economic models
- Environmental conditions
- Current & future conditions



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Develop
alternative
plans

- *Identify & screen management measures*
- Combine into basin-wide alternatives



HOW ARE WE CONDUCTING THE STUDY?

10



Planning Process

Identify
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Develop
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- *Identify & screen management measures*
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Evaluate &
compare
alternatives

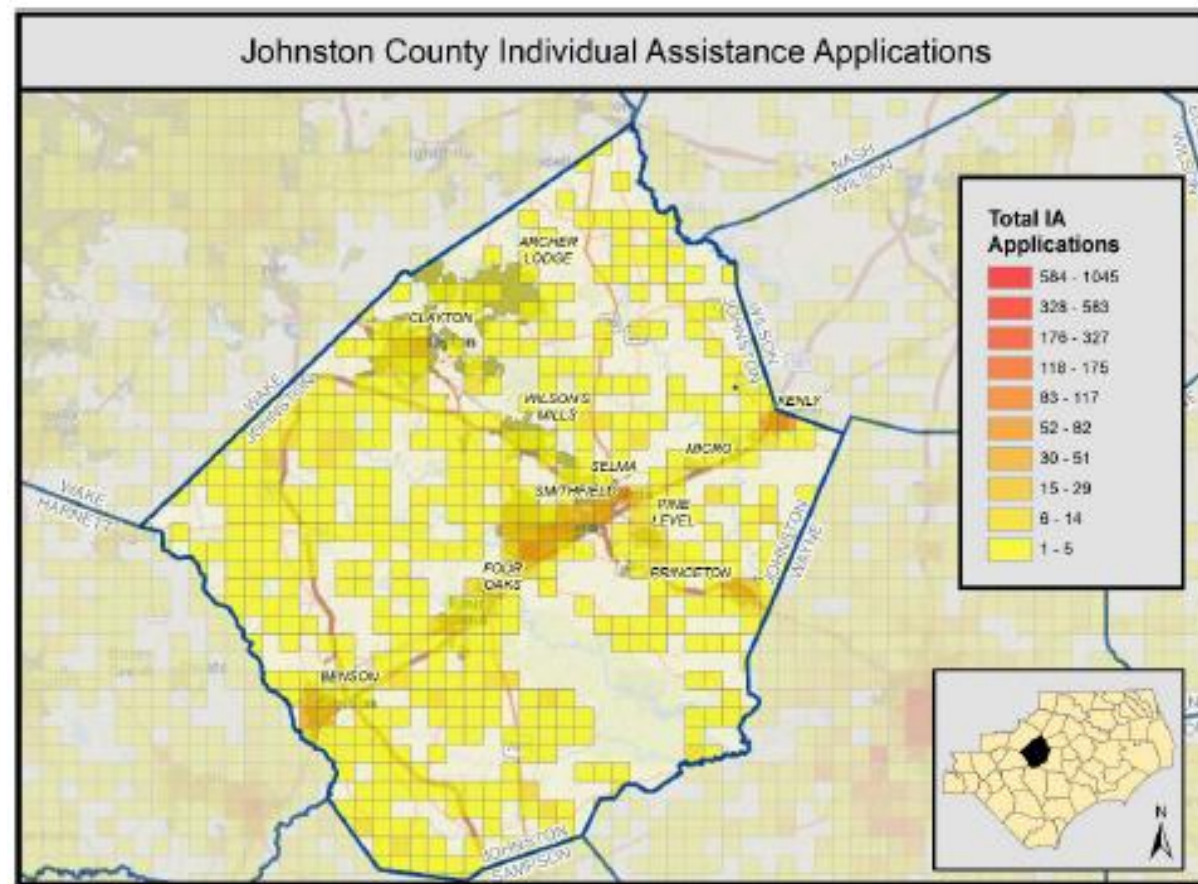
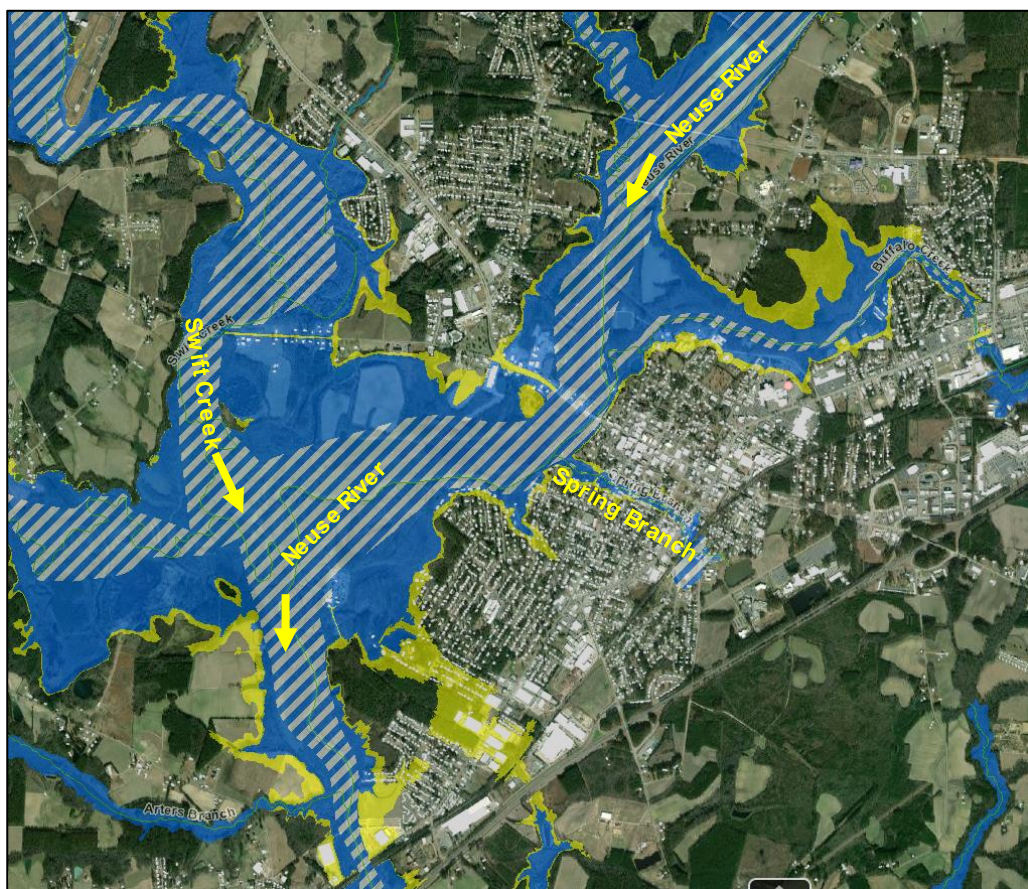
- Economic impact
- Life safety
- Environmental quality
- Select plan

HOW CAN WE ADDRESS THE PROBLEMS?



Smithfield/Johnston County

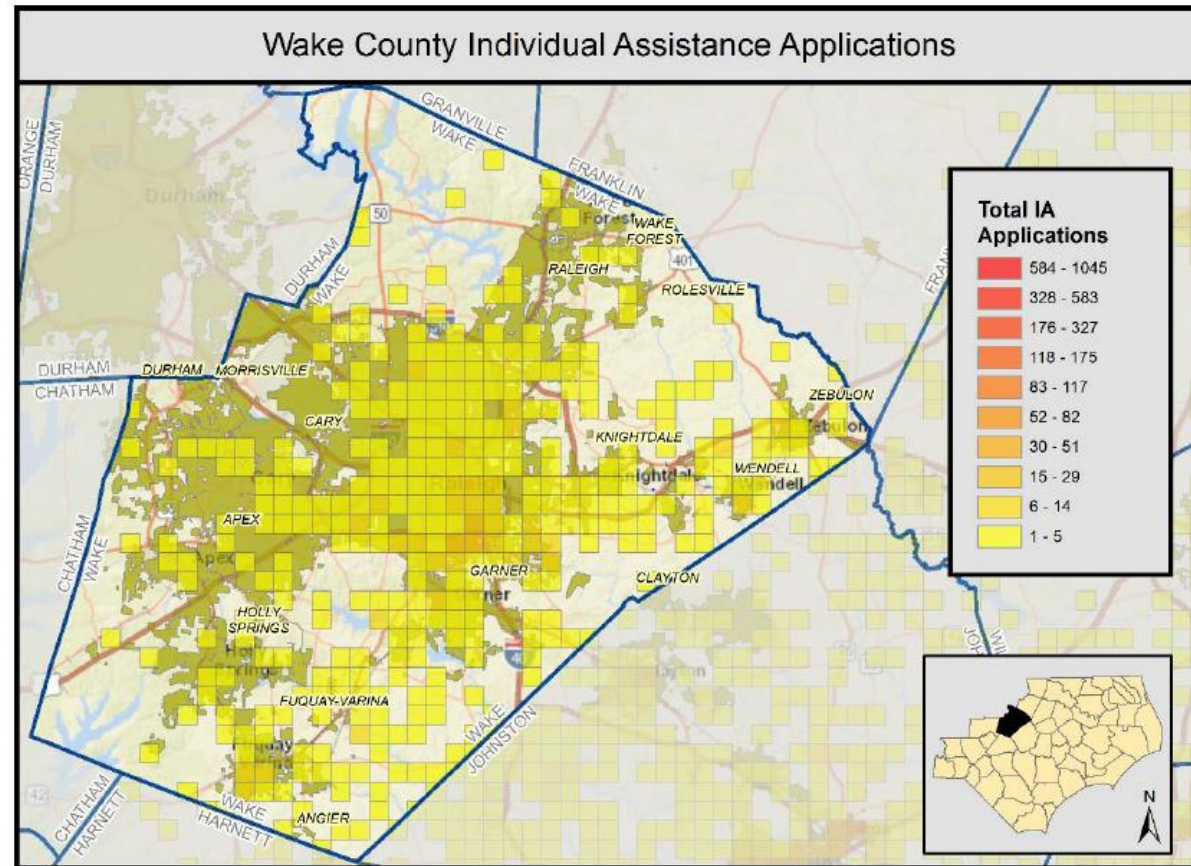
County Flood Areas (Matthew Info)



HOW CAN WE ADDRESS THE PROBLEMS?

Raleigh/Wake County

County Flood Areas (Matthew Info)



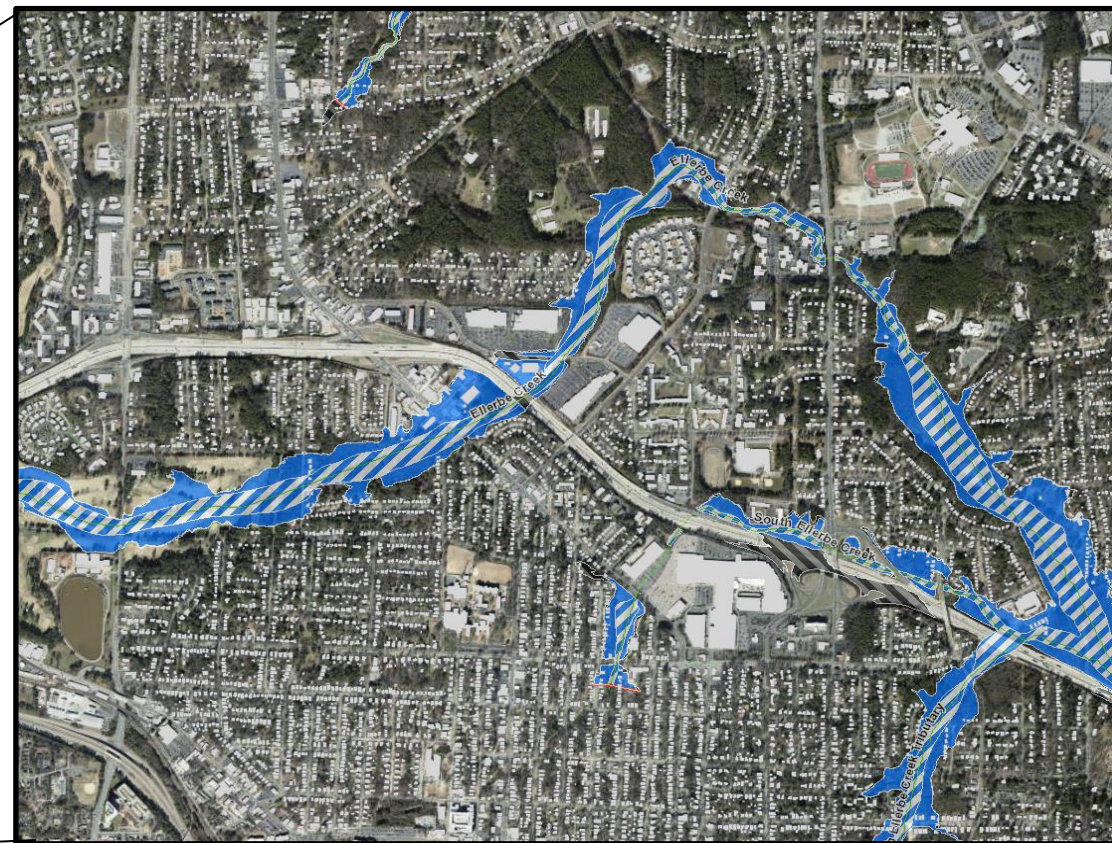
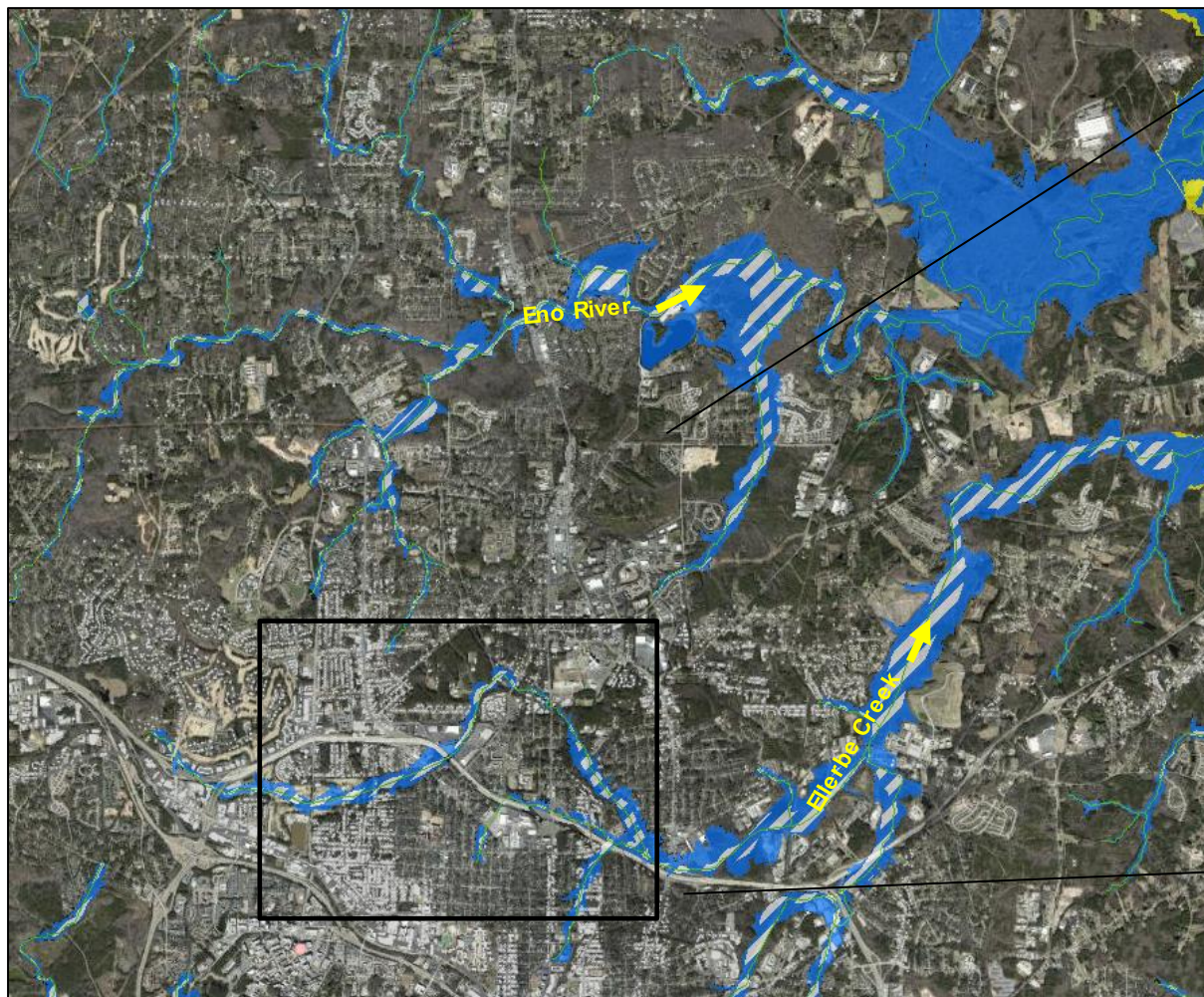
<https://www.rebuild.nc.gov/resiliency/hurricane-matthew-resilient-redevelopment-plans>

HOW CAN WE ADDRESS THE PROBLEMS?



Durham/Durham County

Ellerbe Creek Detail at I-85



HOW CAN WE ADDRESS THE PROBLEMS?



Basin-scale potential management measures

1. Upstream detention/reservoir

- Reservoir: permanent pool
- Detention basin: stores water during peak flows



2. Dispersed water management

- Storage of water on public/private property
- Property owners are compensated
- “Water farming”



3. Floating debris management



HOW CAN WE ADDRESS THE PROBLEMS?

Nonstructural potential management measures

1. Acquisition/
relocation



2. Structure
elevation



3. Floodproofing
– Wet floodproofing
– Dry floodproofing



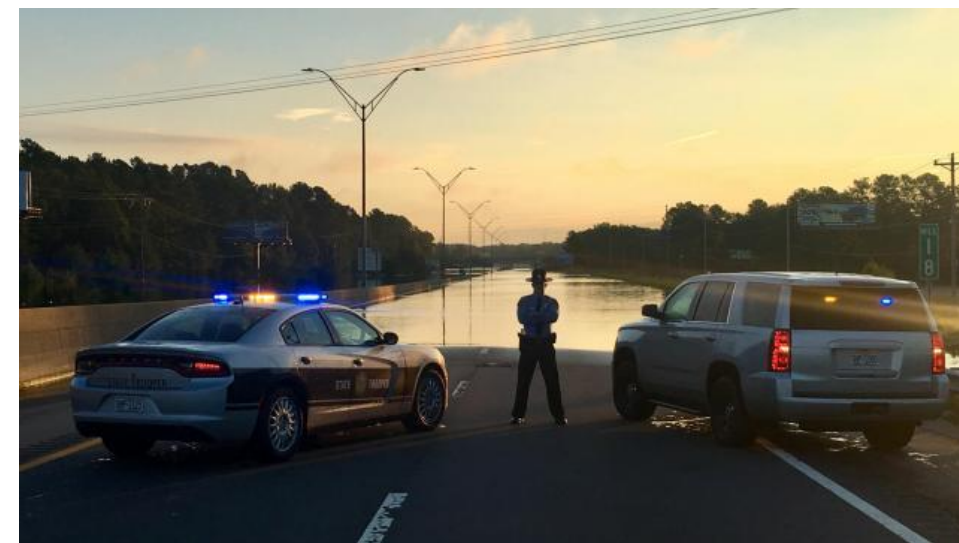
4. Planning &
preparedness

- Flood warning
- Emergency evacuation planning
- Floodplain management
- Flood awareness/education

Transportation

Local modifications to infrastructure that:

- Improve evacuation
- Improve access to critical facilities
- Reduce significant life safety concerns

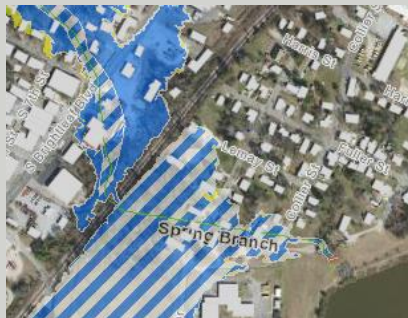


HOW CAN WE ADDRESS THE PROBLEMS?



Smithfield (Johnston County)

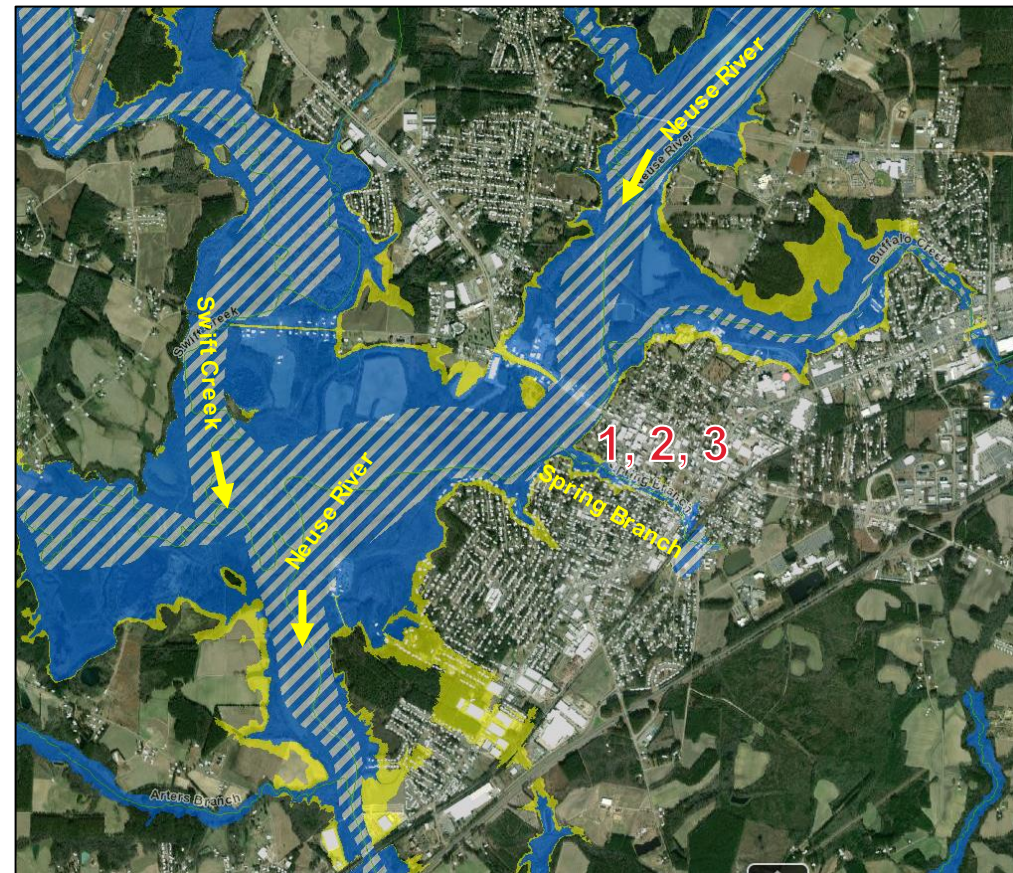
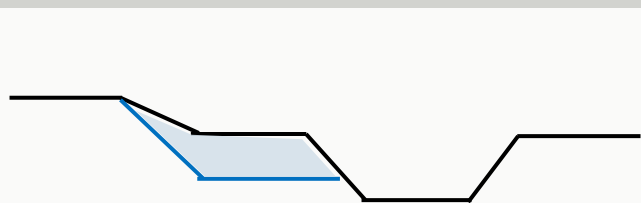
1. Road / bridge modification



2. Building acquisition/ modification



3. Channel modification



Note: Measures shown are not based on final analyses. Thus, applicability and locations of measures are subject to change.

HOW CAN WE ADDRESS THE PROBLEMS?

Raleigh (Wake County) – Potential Management Measures

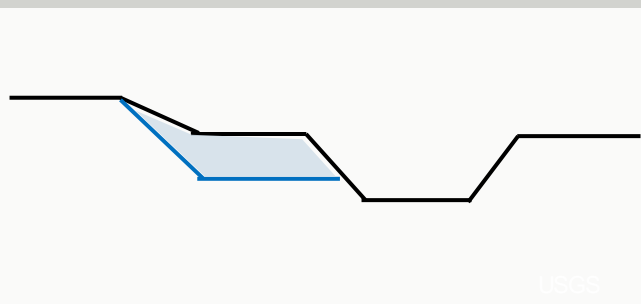
1. Road / bridge modification



Building acquisition/ modification



2. Channel modification



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HOW CAN WE ADDRESS THE PROBLEMS?

Durham (Durham County) – Potential Management Measures

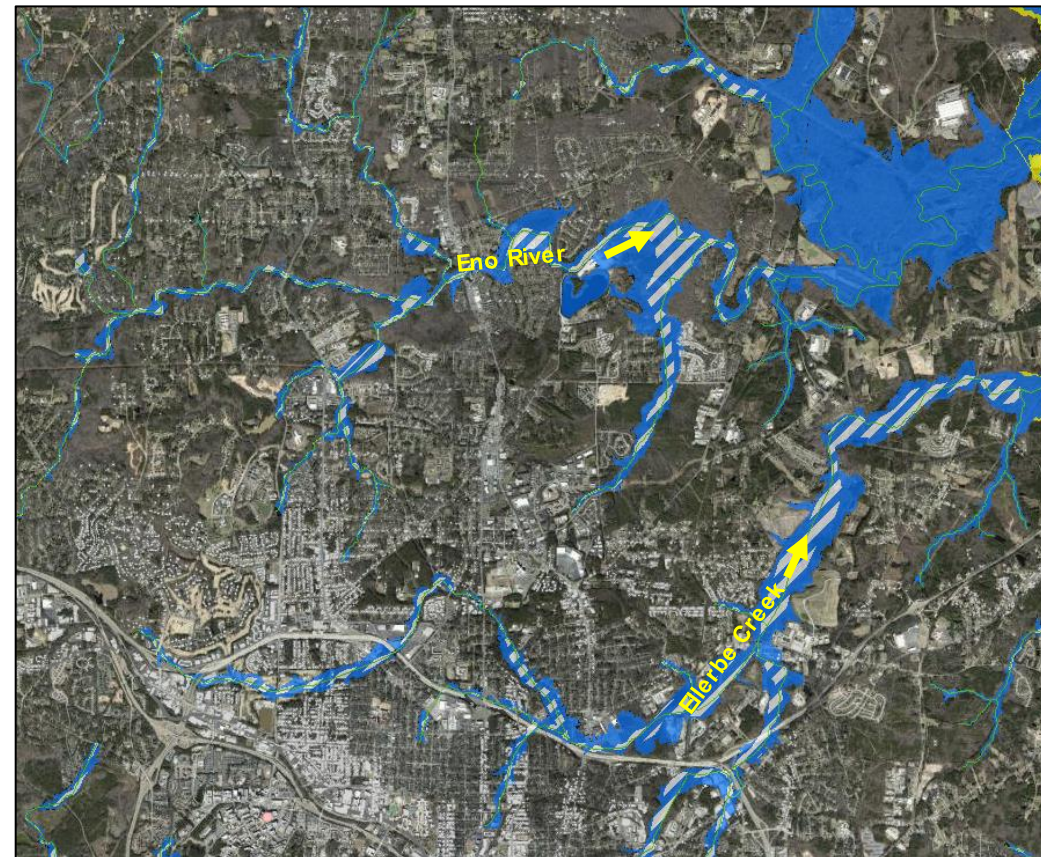
Building
modification



Building
acquisition



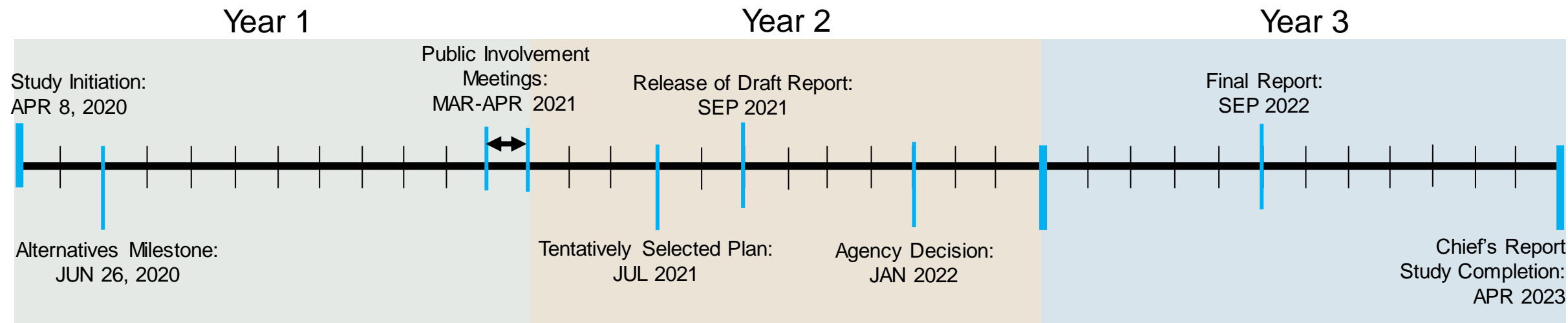
Flood warning
system
enhancements



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TENTATIVE SCHEDULE AND PLANNING PROCESS





HOW CAN YOU CONTRIBUTE?



We'd like for you to tell us:

- What impacts have you experienced because of the floods?
- What concerns do you have with this study?
- Which of the proposed measures would you prefer and why?
- What critical local resources do we need to be aware of to protect or avoid?
- What else we should know about?



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