



URS

Storm Tracks



IMPACTS

- 1.5 million residents seeking Individual Assistance
- 600,000 people needing shelter
- 250,000 homes destroyed or damaged
- 1,200 fatalities
- \$50–\$100 billion required for recovery



FEMA MITIGATION ACTIVITIES

- Remote Sensing to Assess Damage
- Mitigation Assessment Team Report
- High Water Mark Data Collection
- Wind / Water Line Investigation
- Substantial Damage Assessment Support
- Flood Recovery Data and Reconstruction Guidance
- Long-Term Recovery Support
- Mitigation Planning
- Hazard Mitigation Projects

REMOTE SENSING



MITIGATION ASSESSMENT TEAM (MAT) REPORTS



HIGH WATER MARK DATA

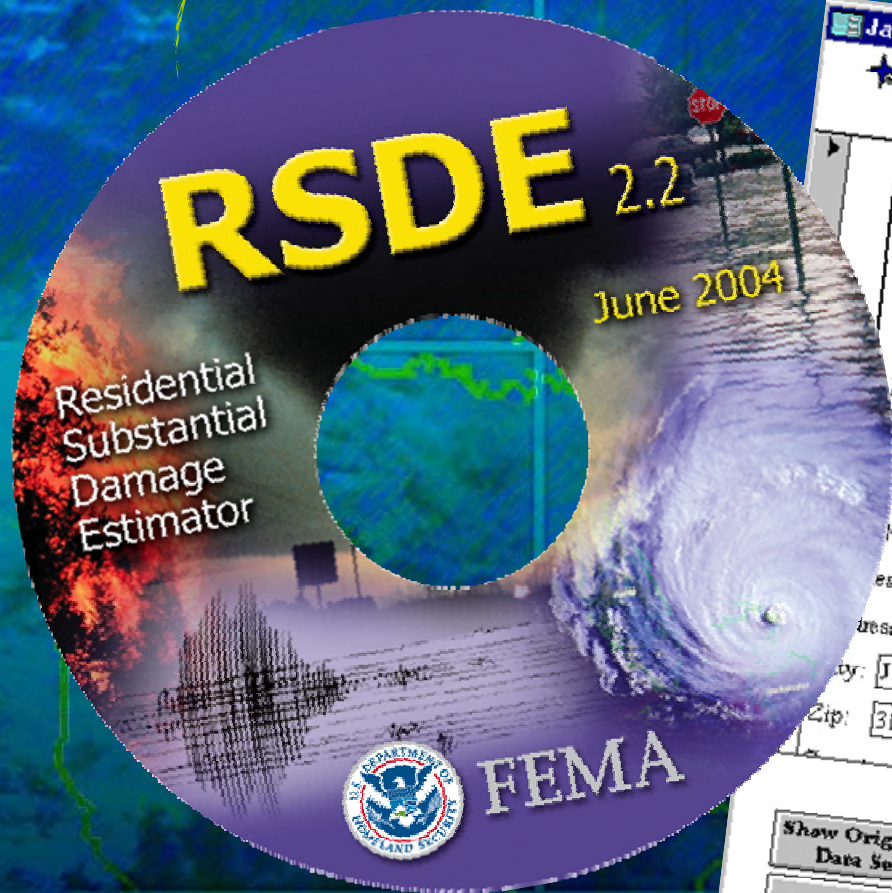
- Collecting both coastal and riverine high water mark data
- Collecting both surge and wave data
- Observations as high as 28 feet storm surge



WIND / WATER LINE EVALUATION



SUBSTANTIAL DAMAGE ASSESSMENT SUPPORT



Jackson, TN

Residential Substantial Damage Estimator Ver. 1.1

Subdivision		Community Name	
Subdivision:	Fordale	Community Name	Jackson, TN
Parcel #:	12		
Lot Number:	8		
Latitude:			
Longitude:			

Building Address		Mailing Address	
Name:	Jim	1st Name:	Jim
Name:	Myers	Last Name:	Myers
Address Number:	123	Address Number:	12987
Address Street:	Bell Street	Address Street:	Mountain Road
City:	Jackson	City:	Aspen
State:	TN	State:	CO
Zip:	31235-8766	Zip:	24556-1214
Phone:	(896) 345-5441	Phone:	(303) 254-4554

Structure 1 of 1

Show Original Data Set	Find Record...	Import/Export Database	Choose Report to Print	Print Individual Sheets	Exit Database
1. Base Cost	2. % Breakdown	3. Output Summary	Add Residence	Delete Residence	

FLOOD RECOVERY DATA

Phased Approach

Phase I:

- ▶ Basic Storm Surge and Wave Height Data

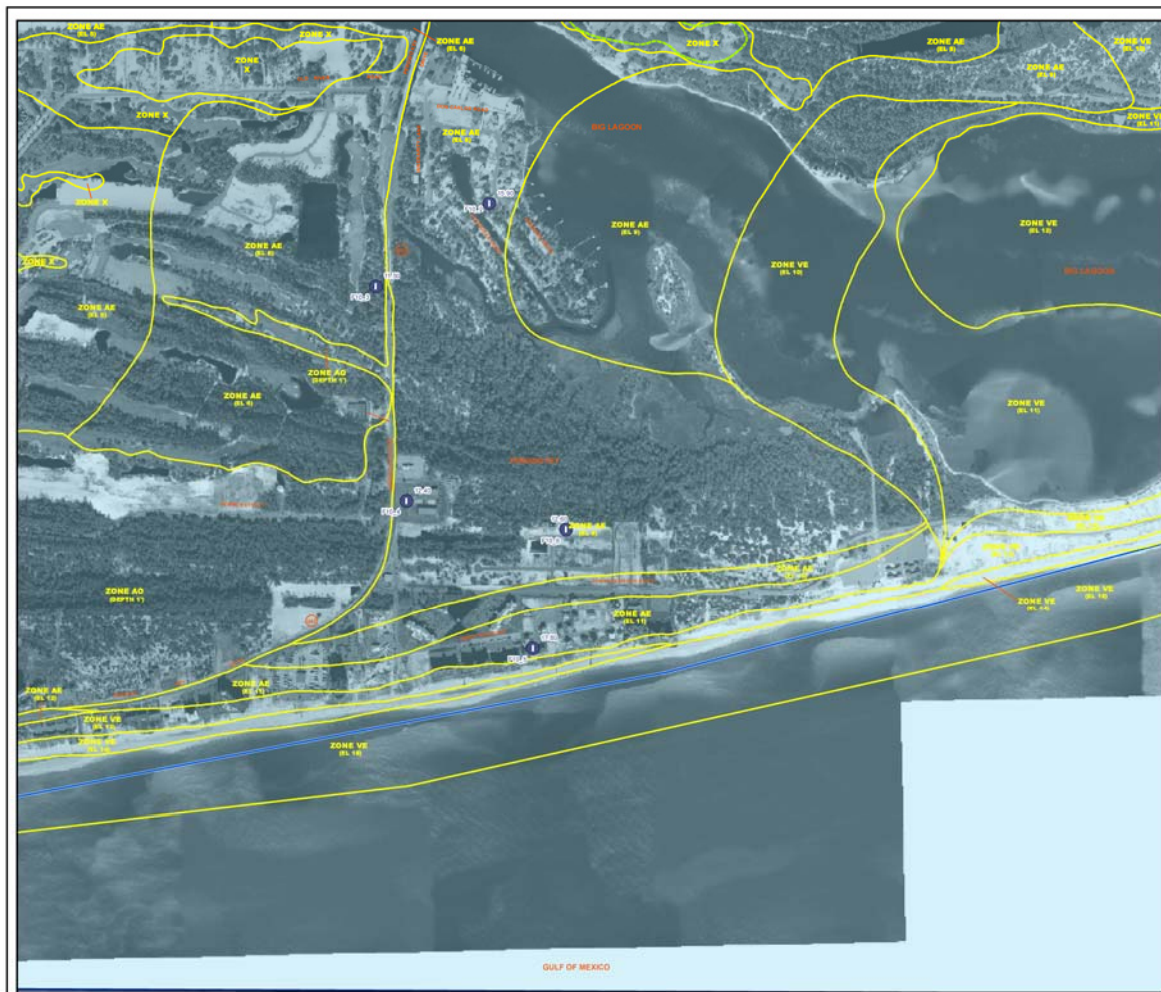
Phase II:

- ▶ Refined data based on details from high water mark data

Phase III:

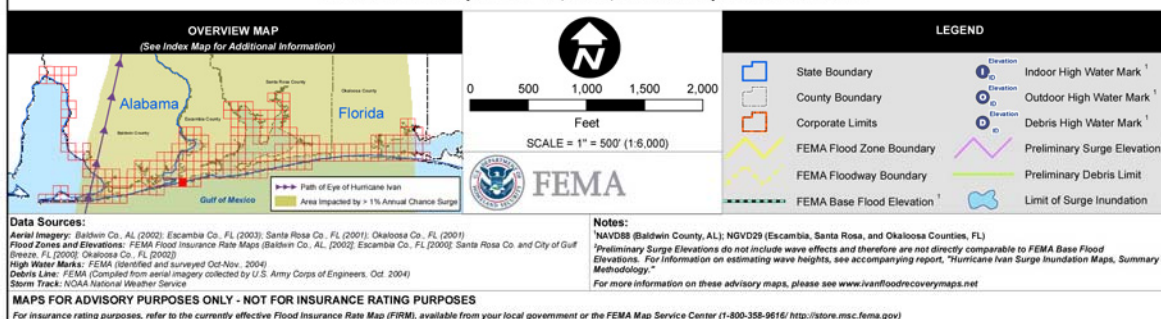
- ▶ Updated surge and wave height data based on analysis and modeling

FLOOD RECOVERY DATA



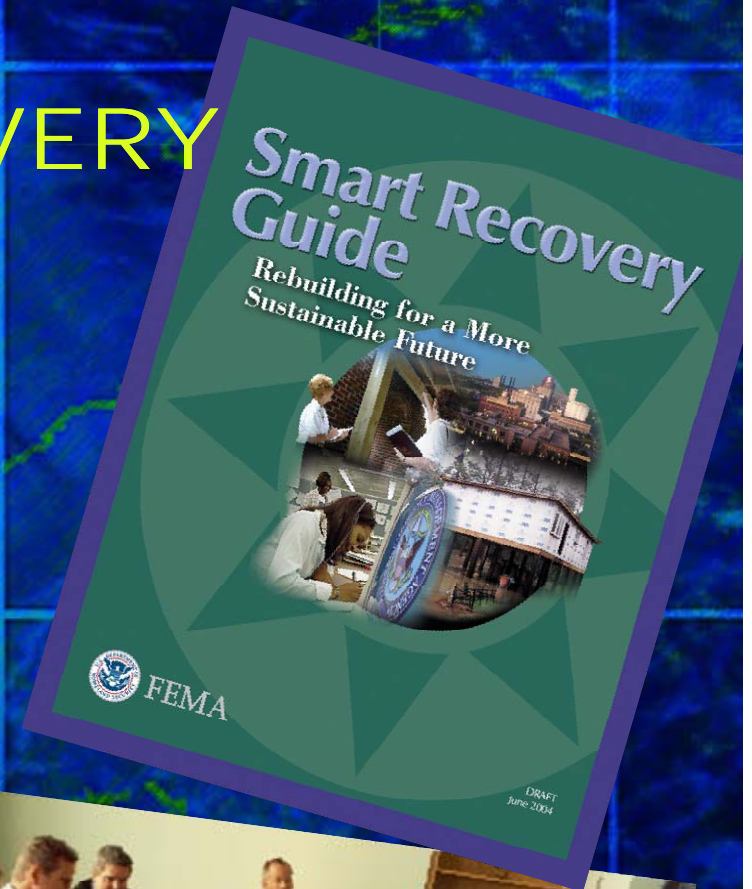
HURRICANE IVAN SURGE INUNDATION MAP

Map Number: C20 Estimated Surge Elevation: 12-14 ft
Date of Event: September 16, 2004; Date of Map: December 2004



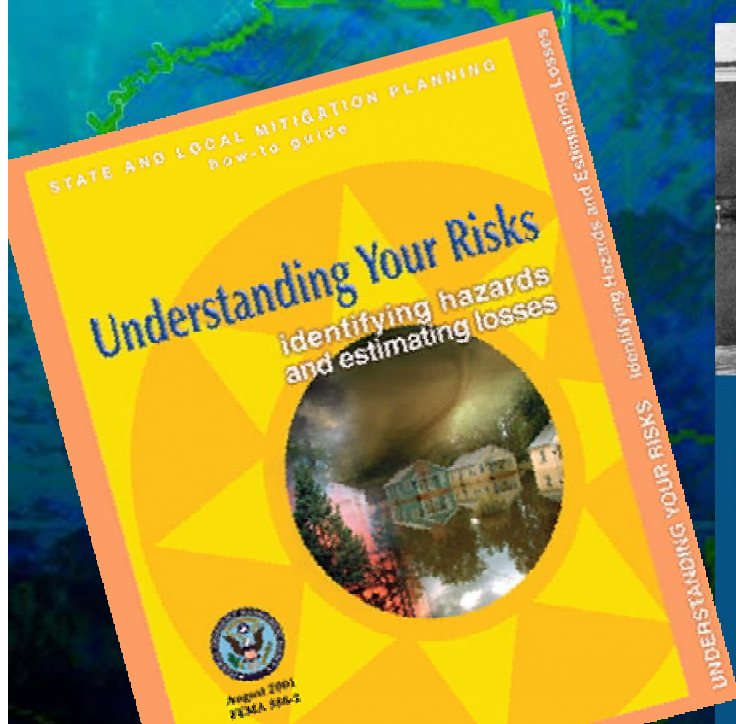
LONG-TERM RECOVERY

- Economic Issues
- Prioritization of Recovery Projects
- Planning Charettes
- Public Outreach
- Short and Long-Term Housing Needs



MITIGATION PLANNING

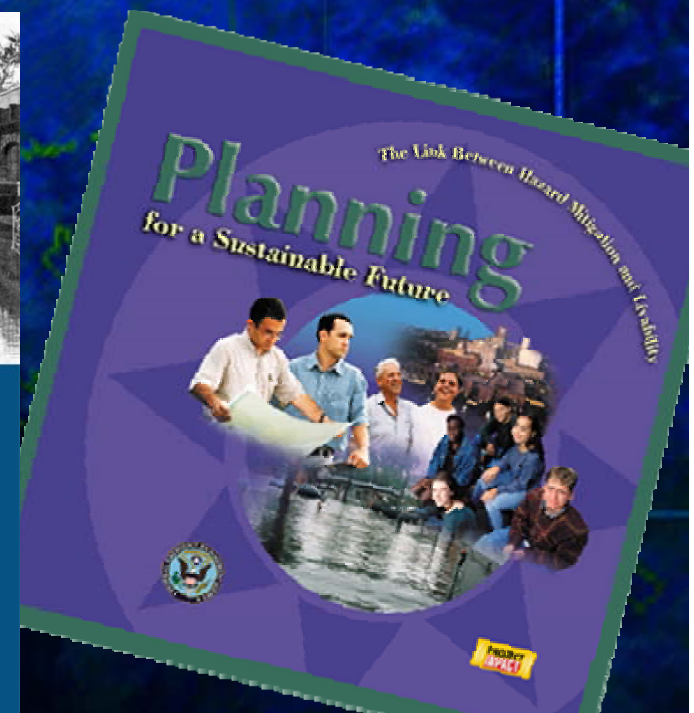
- Examining Risk and Mitigation Priorities in Approved Pre-Disaster Mitigation Plans
- Technical Support to Communities in the Plan Review Process



Integrating Historic Property and Cultural Resource Considerations Into Hazard Mitigation Planning

State and Local Mitigation Planning How-To Guide

FEMA 386-6 / May 2005

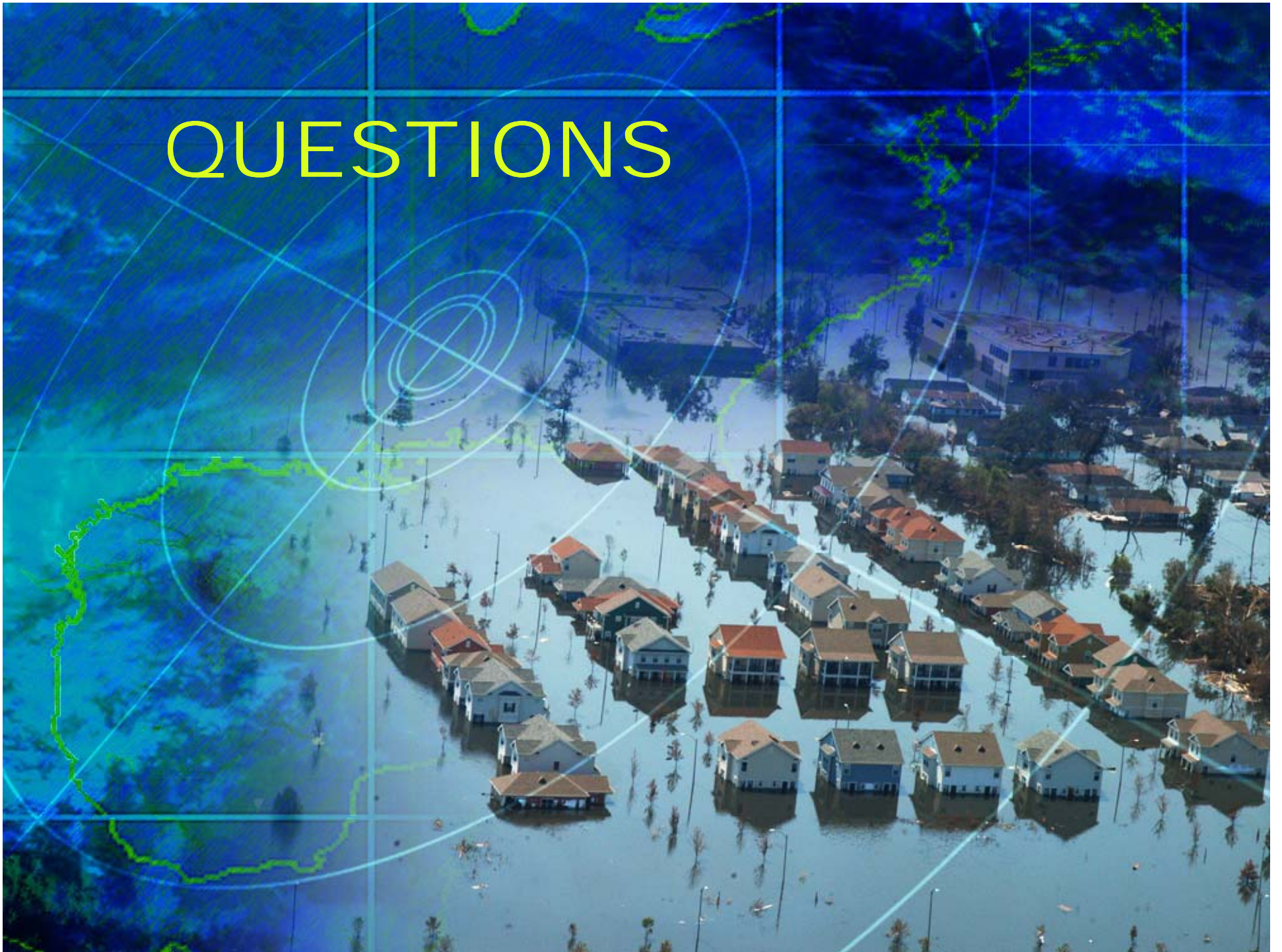


HAZARD MITIGATION PROJECTS

- Benefit-Cost Training
- Acquisition
- Elevation / Flood Proofing
- Planning
- Codes and Design / Construction Standards



QUESTIONS



DISCUSSION TOPICS

- Is rapid documentation of observed flood levels helpful?
- Should communities use rapidly developed data in reconstruction?
- Should Federal / state / local agencies require use of rapidly developed data to qualify for mitigation grants?
- Are there additional post-disaster studies / support that would build flood mitigation into the recovery?