

Hazard Mitigation Planning and the Role of Communities

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What matters. Where it matters.



Goals

- Impact of Natural Disasters
- Mitigation Planning Process
- Why is this relevant to the NNIP?

Discussion

The cost of disaster

- The U.S. has sustained **218 weather and climate disasters since 1980** where overall damages/costs reached or exceeded \$1 billion (including CPI adjustment to 2017). **The total cost of these events exceeds \$1.2 trillion.**
- In 2017 (as of October 6), there have been **15 weather and climate disaster events with losses exceeding \$1 billion** each across the United States.

Source: NOAA National Centers for Environmental Information (NCEI)
U.S. Billion-Dollar Weather and Climate Disasters (2016).
<https://www.ncdc.noaa.gov/billions/>

U.S. 2017 Billion-Dollar Weather and Climate Disasters



This map denotes the approximate location for each of the 15 billion-dollar weather and climate disasters that have impacted the United States January through September of 2017, a record pace.

Robert T. Stafford Disaster Relief and Emergency Assistance Act

Passed in 1988

Stipulates that State, Indian Tribal, and local governments are required to develop a [natural] hazard mitigation plan as a condition for receiving certain types of non-emergency disaster assistance.

Disaster Mitigation Act - 2000

- Part of Stafford Disaster Relief and Emergency Assistance Act
- Applies to state, local, and tribal governments as a
- Local government entities **required** to develop and submit **local hazard mitigation plans to be eligible** to receive federal hazard mitigation grant program (HMGP) funds

4:1

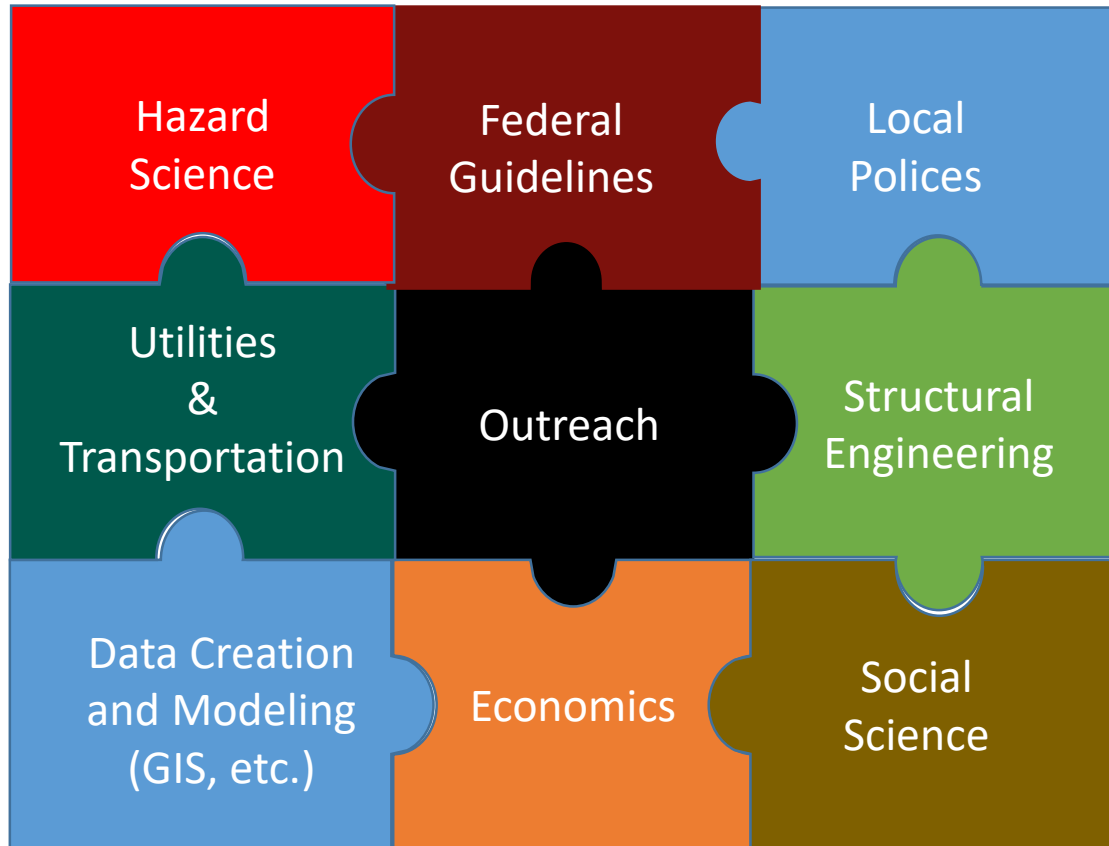
**Likely the most quoted figure
in disaster management**

Mitigation Planning Overview



Source: FEMA

What do you need to know?



Advisory Committee

Stakeholders

- Individuals or groups affected in any way by a mitigation action or policy (e.g., businesses, private organizations, and citizens)

Typically include:

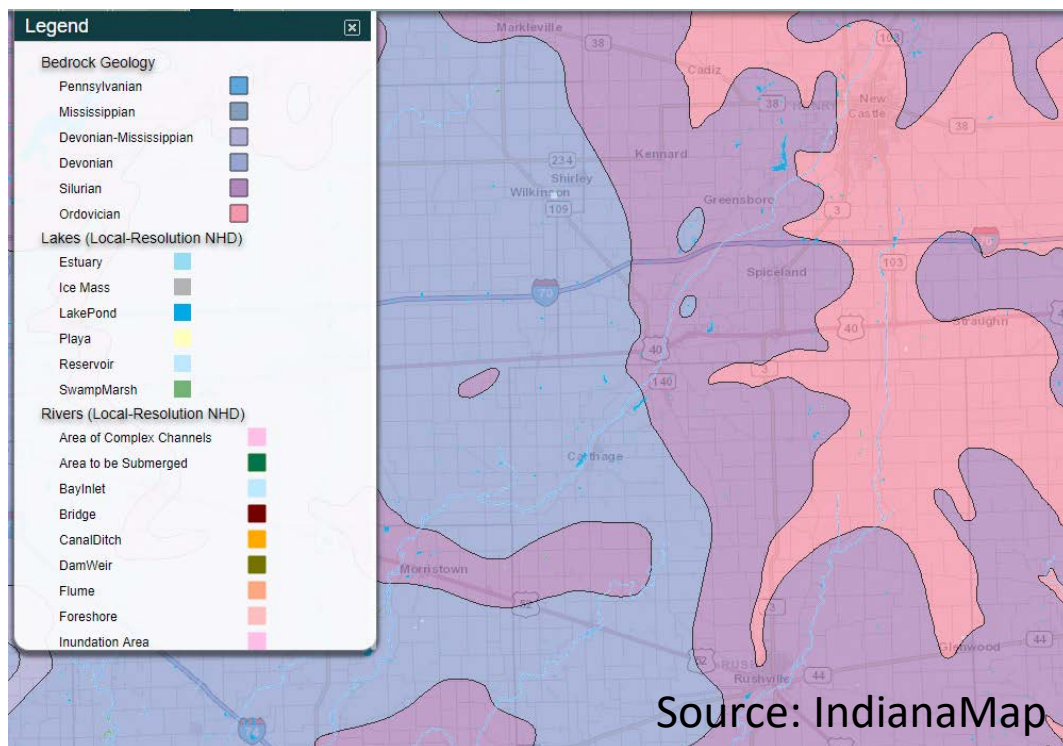
- Neighborhood groups, non-profit organizations
- State, regional, and local government representatives
- Businesses and development organizations
- Elected officials
- Federal agency representatives
- Academic institutions

Mitigation Plan Components

The Role of Data

Community Profile

- Physical characteristics

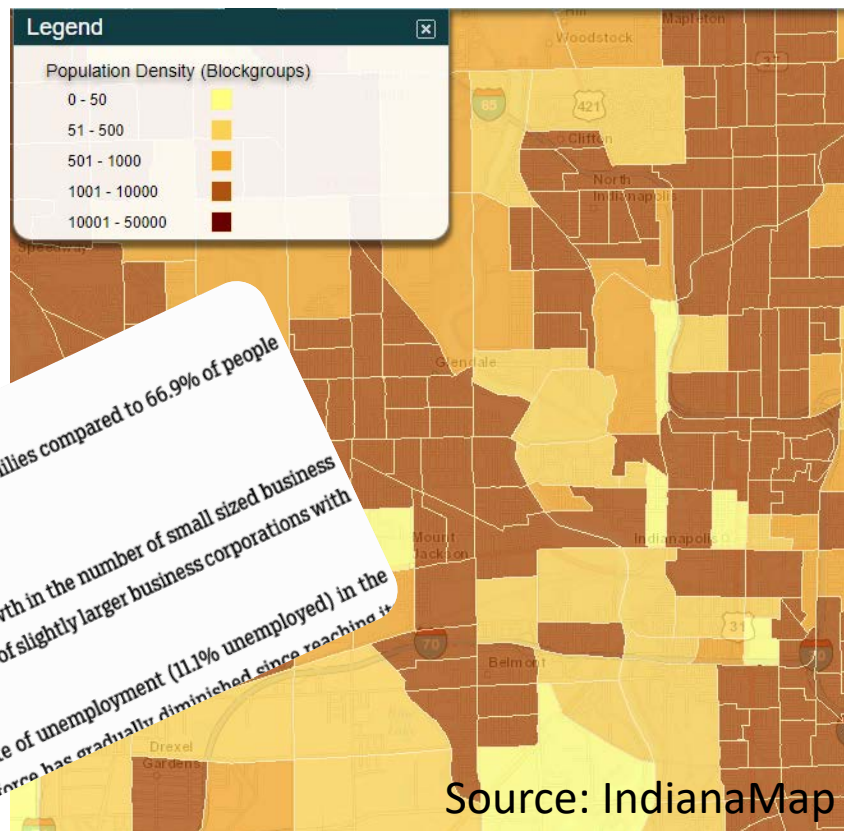


Mitigation Plan Components

The Role of Data

Community Profile

- Physical characteristics
- Demographic information



Housing

Approximately, 68% of Ohio County households consist of families compared to 66.9% of people in Indiana living with families.

Workforce

In recent years, Ohio County has incurred the most growth in the number of small sized business establishments with 1-9 employees, while the number of slightly larger business corporations with 10-19 employees has decreased.

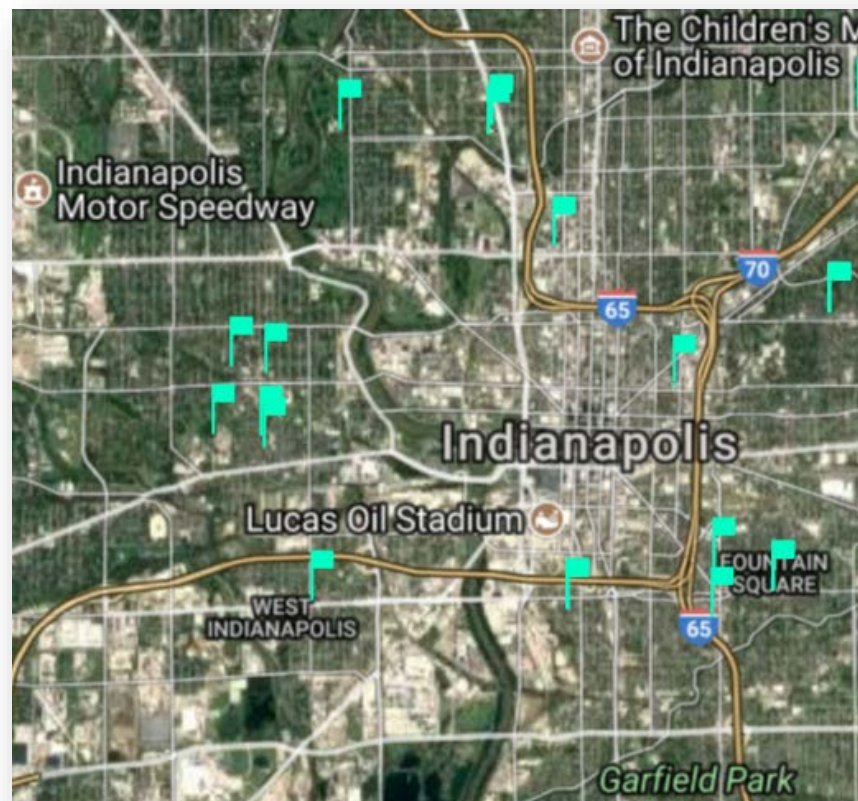
During 2010, Ohio County reached its highest rate of unemployment (11.1% unemployed) in the last decade. Unemployment among the labor force has gradually diminished since reaching it

Mitigation Plan Components

The Role of Data

Community Profile

- Physical characteristics
- Demographic information
- Community services and infrastructure



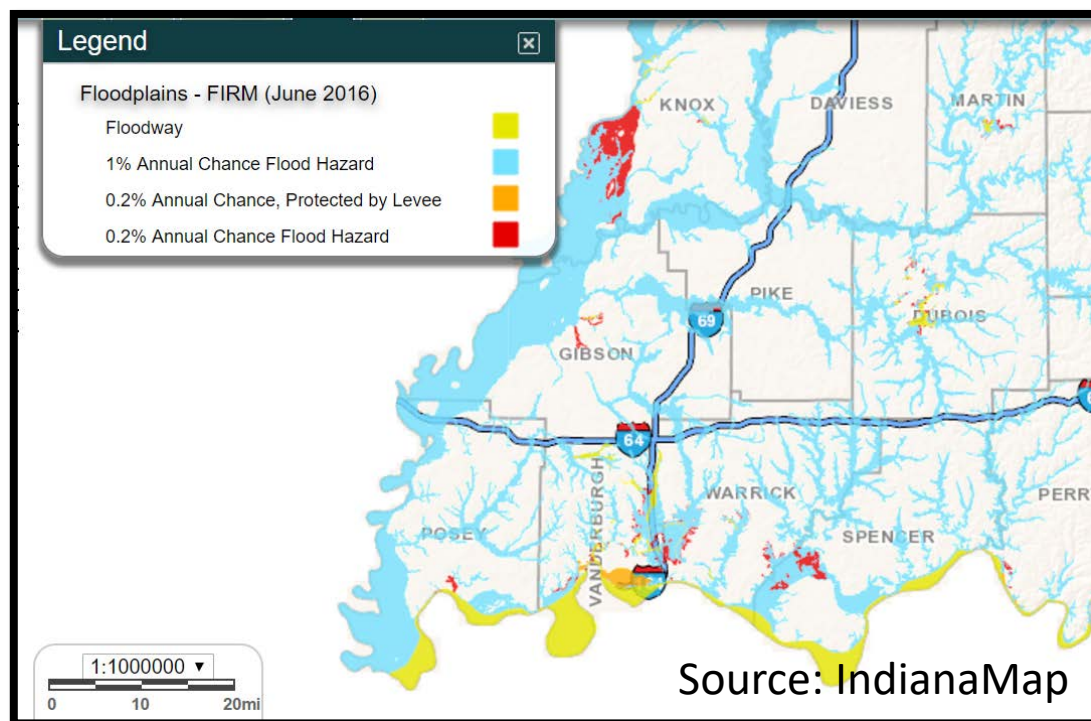
Indianapolis Community Centers, SAVI 2017

Mitigation Plan Components

The Role of Data

Risk Assessment

- Hazard profiles



Mitigation Plan Components

The Role of Data

Risk Assessment

- Hazard profiles
- Vulnerability Assessment

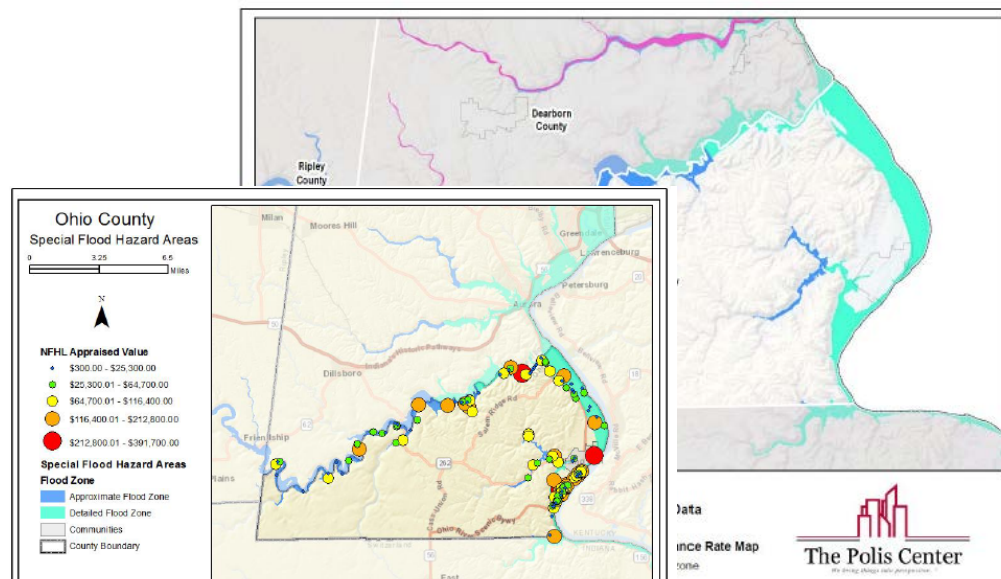


Table 4-21: Estimated Losses by Zone

Occupancy	Zone 1	Zone 2	Zone 3	Zone 4
Residential	\$8,709,917	\$6,501,977	\$7,462,611	\$974,225
Commercial	\$0	\$310,895	\$2,216,508	\$32,385
Industrial	\$0	\$0	\$0	\$0
Agriculture	\$742,420	\$643,566	\$814,643	\$295,523
Religious	\$6,918,570	\$332,291	\$0	\$0
Government	\$0	\$157,044	\$1,859,992	\$19,631
Education	\$0	\$0	\$0	\$0
Total	\$16,370,907	\$7,945,773	\$12,353,754	\$1,321,764

Mitigation Plan Components

The Role of Data

- Mitigation Strategies
 - Community Capability Assessment
 - Mitigation Actions and Projects

30	Multiple Hazards	Emergency Services	Promote continuity of mutual aid plans	County, City	Identified	Low	EMA	FEMA/ IDHS	HMP
31	Multiple Hazards	Emergency Services	Promote local utilities for increased capability of emergency communications	County, City	Identified	Medium	EMA	FEMA/ IDHS	HMP
32	Multiple Hazards	Emergency Services	Identify all problem roadway areas and install improved signage	County, City	Ongoing	Low	EMA Local jurisdictions	FEMA/ FHW/ INDOT	HMP
33	Multiple Hazards	Emergency Services	Promote installation of back up power generator for senior center	County	Identified	High	EMA Local jurisdictions	FEMA/ IDHS	HMP
34	Hazmat	Property Prevention	Transportation plan - mapping to reroute traffic around incidents for each segment of state highway	County, City	Identified	Medium	EMA Local jurisdictions	FEMA/ FHW/ INDOT	HMP
35	Multiple Hazards	Property Prevention	Construction of new hardened fire station in Cass/ Union Township	County	Identified	Low	EMA Local jurisdictions	FEMA/ IDHS	HMP

Why is this relevant to NNIP?

'10,000 Foot Perspective'



Source: Esri Digital Globe GeoEye, Earthstar Geographics CNES Airbus DS USDA USGS AeroGRID IGN and the GIS User Community

Potential roles

- Experts on the ‘neighborhood perspective’
- Mitigation Planning Committee participants
 - What are the issues in a community?
 - Where are the issues found?
 - What problems should be prioritized?

Potential roles

- Data contributors – especially socio-economic characteristics
- Supporting education of community stakeholders on mitigation reasons, options and incentives

Discussion



Thank you!



What matters. Where it matters.

