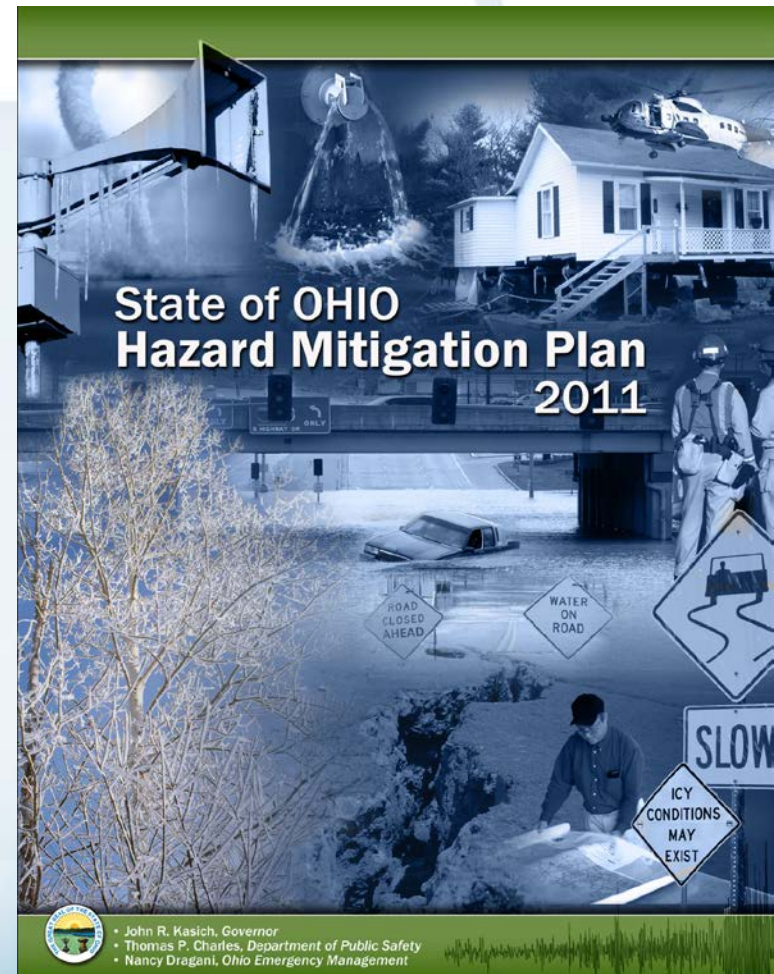




Local Hazard Mitigation Planning

- 44 CFR 201
 - Analyze Hazards
 - Determine Vulnerability
 - Develop a Mitigation Strategy





Review Benefits and Costs

Action: Floodproof 10 businesses in the downtown area

Vulnerability	Before the Action is implemented	After the Action is implemented	Difference
Number of people affected by the hazard	<u>Almost entire community (because downtown is affected)</u>	<u>Same as before but they will be less affected if businesses are able to remain open</u>	<u>Less impact</u>
Area affected (acreage) by the hazard	<u>1 acre</u>	<u>1 acre</u>	<u>Area still affected but less impact</u>
Number of properties affected by the hazard	<u>15</u>	<u>5</u>	<u>10</u>
Property damage (amount in \$)	<u>\$100,000 every year</u>	<u>\$10,000 every year</u>	<u>\$90,000 every year</u>
Loss of use (number of properties/physical assets [e.g., bridges] in number of days)	<u>10 properties for 5 days every year</u>	<u>0</u>	<u>Completely eliminated</u>
Loss of life (number of people)	<u>2 every 20 years</u>	<u>1 every 20 years</u>	<u>Reduced by half</u>
Injury (number of people)	<u>0</u>	<u>0</u>	<u>0</u>



Review Benefits and Costs

Benefits

City's cost to repair flooded properties reduced by 80%; approximate saving of \$5,000 per year

Flooding problem in downtown area solved for the long-term; community's problem of business interruption solved

Federal grants like Flood Mitigation Assistance (FMA) and PDM can be applied for to implement the proposed floodproofing

Will help improve CRS rating in the long term (so entire community's flood insurance premium will be reduced)

More than half the members of the City Council are opposed to buy-outs; it might be easier to get their support for an alternative to buy-outs

Costs

Floodproofing cost = \$10,000 X 10 = \$100,000

Need at least 3 people to administer (after technical assistance from the State)

Need a year to implement



Prioritizing Mitigation Actions

Actions → Criteria ↓	Floodproof 10 properties in the downtown area		Build safe rooms in a neighborhood of 50 homes without basements		Broadcast educational video about hazard mitigation on local channel	
	Cost	Benefit	Cost	Benefit	Cost	Benefit
Social	-	-	L	-	-	-
Technical	M	H	M	M	L	L
Administrative	M	-	M	-	L	-
Political	-	L	-	H	-	-
Legal	-	-	-	-	-	-
Economic	M	H	H	-	-	-
Environmental	-	-	-	-	-	-
Priority	High (priority 1)		Medium (priority 2)		Low (priority 3)	

Definition of rating scale: H=High, M=Medium, L=Low, - None/Not applicable



Prioritizing Mitigation Actions

Actions → Criteria ↓	Floodproof 10 properties in the downtown area		Build safe rooms in a neighborhood of 50 homes without basements		Broadcast educational video about hazard mitigation on local channel	
	Cost	Benefit	Cost	Benefit	Cost	Benefit
Social	0	1	-1	1	0	0
Technical	-1	2	-1	2	-1	1
Administrative	-1	0	-1	0	-1	0
Political	0	1	0	1	0	0
Legal	0	0	0	0	0	0
Economic	-1	2	-1	0	0	0
Environmental	0	0	0	0	0	0
Sub-total of cost/benefit	-3	6	-4	4	-2	1
Total Score	$-3+6 = 3$		$-4+4 = 0$		$-2+1 = -1$	
Priority	No. 1		No. 2		No. 3	

Definition of rating scale: 2=Very beneficial, 1=Favorable, 0=None/Not applicable, -1=Not Favorable



Mitigation Alternative Challenges

- Planning boundaries
- Local expertise
- Local mitigation plan integration
- Public support
- Data to support alternative analysis
- Dollars



USACE Alternative Analysis in Ohio

- City of Marietta
 - Duck bill installation on storm drains
 - Flood warning system
- City of Findlay
 - Current alternative analysis involves ecosystem restoration plan for downstream village and non-structural components for Findlay