

# Northern Kentucky University 2018 Hazard Mitigation Plan

**Public Kick-Off Meeting  
March 20, 2018**

# Agenda

**Welcome**

**Jeff Baker, NKU**

**Hazard Mitigation Planning 101**

**Josh Human, Stantec**

**Hazard Identification Exercises**

**John Bucher, Stantec**

**Next Steps**

**Josh Human, Stantec**

# Introductions

1. What is your name?
2. Where are you from?
3. What is your interest in Hazard Mitigation?

# Hazard Mitigation 101

## Risk

The potential that your community could be affected by a hazard event.

## Mitigation

What your community can do to reduce losses resulting from hazard events.

**COMMUNITY  
RESILIENCE**



**A measure of your community's ability to utilize resources to prepare for, respond to, and recover/bounce forward from disasters.**

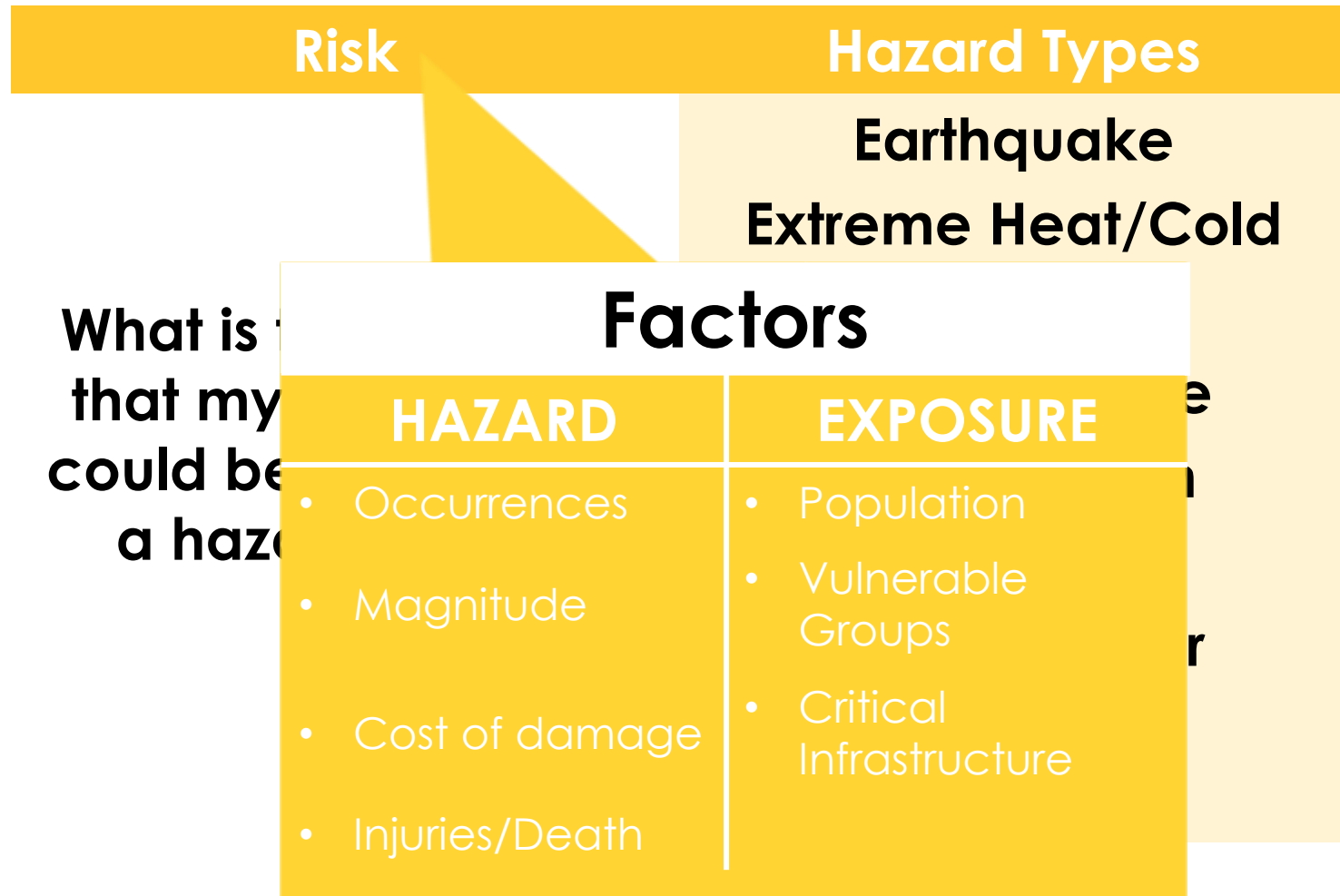
# Aligning our preparedness, response, and recovery activities...

## Emergency Support Function Plans

to effectively & collectively  
*respond to events*  
to reduce loss  
of life and property

**Hazard Mitigation Plan**  
to effectively & collectively  
*develop a strategy & methods*  
to reduce *the risk* of loss  
of life and property

# The lingo of the mitigation plan...



# The lingo of the mitigation plan...

## Mitigation

**What can my community do to reduce death and damages resulting from hazard events?**

## Strategy Types

- **Prevention**
- **Property Protection**
- **Structural Projects**
- **Natural Resource Protection**
- **Emergency Services**
- **Public Information and Awareness**

# Disaster Mitigation Act of 2000



**FEMA**

## Mandates a Plan

Communities must have an approved plan in order to be eligible for Post-Disaster HMGP funding (projects and planning).

## Establishes a process

What hazards affect our community?  
What can we do to reduce losses from events?

## Enables multi-sector participation

Encourages stakeholder involvement at all levels from initial planning to implementation of hazard mitigation activities

## Enables community representation

Encourages equitable planning processes by including stakeholder involvement of vulnerable populations.

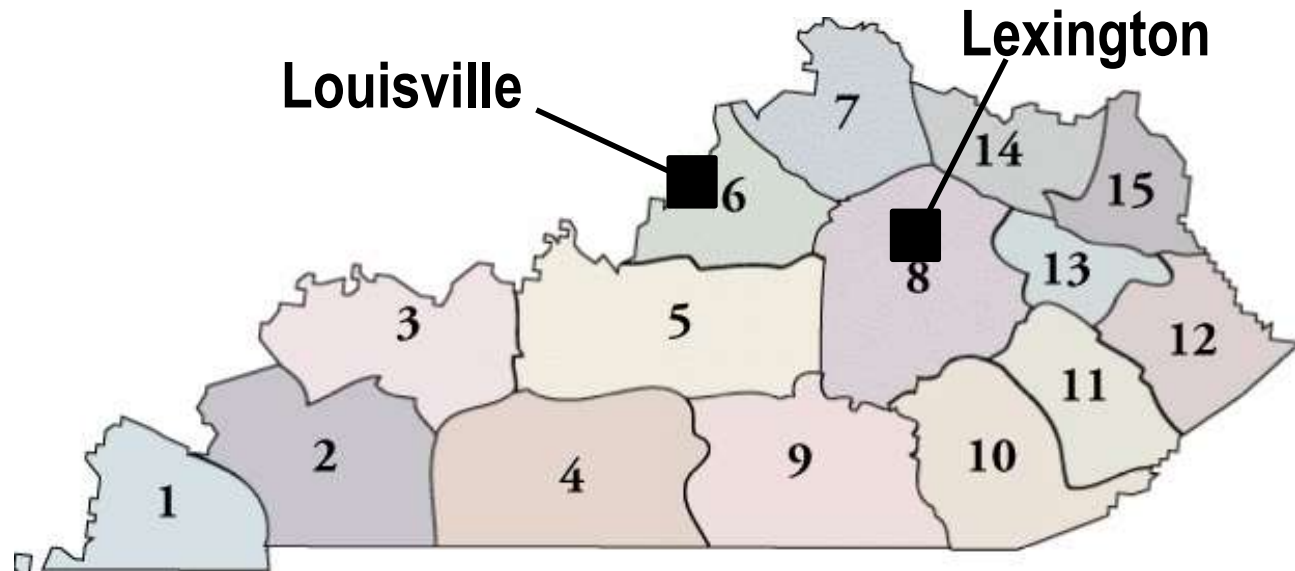


# Hazard Mitigation in Kentucky

**STATE**

**REGIONAL**  
*multiple  
jurisdictions*

**LOCAL**  
*single  
jurisdiction*



## Regional Plans

Area Development Districts

## Local Plans:

Louisville Metro

Lexington-Fayette Urban County Government

University of Louisville

University of Kentucky

Kentucky Community & Technical College System

Kentucky State University

Northern Kentucky University

# Sections of The Plan

**Element A. Planning Process**

**Element B. Hazard Identification & Risk Assessment**

**Element C. Mitigation Strategy**

**Element D. Plan Maintenance**

**Element F: Plan Adoption**



## Local Mitigation Planning Handbook

March 2013



# Planning Process

**Guiding Principle:**

**Process is as important as the plan itself**



# Planning Process

## Involve stakeholders and the public

To ensure stakeholders and citizens understand risks & vulnerability, and can work to support mitigation policies, actions, & tools.

## Document the process

The plan will document the planning process, how it was prepared, who was involved, and how the public was involved.

## Other elements of the Planning Process

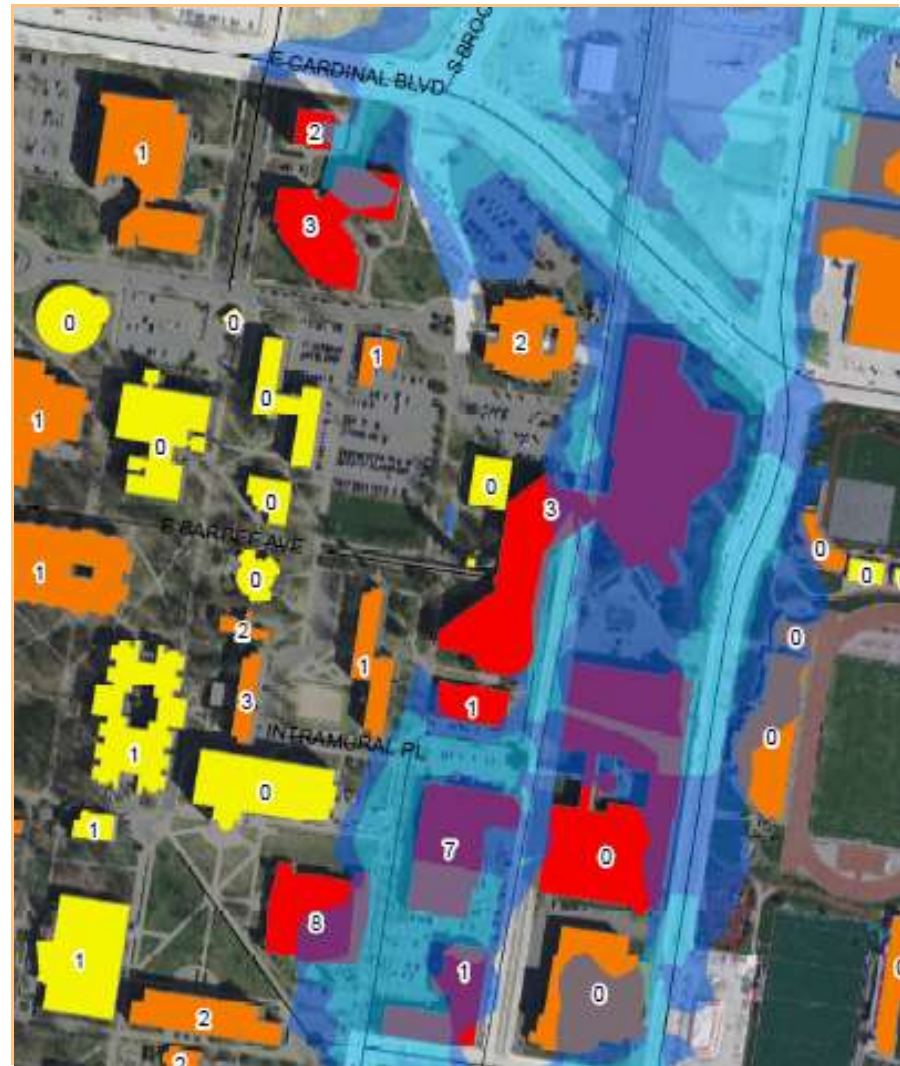
What plans or studies were incorporated?  
How will the plan be implemented?

# Risk Assessment

**Includes a description of the type, location, and extent of all hazards that can affect the jurisdiction.**

**Includes previous hazard events and probability of future events.**

Looking forward and backward  
What could occur? Has occurred?  
Where are our assets?  
Where are our vulnerabilities?



# Hazard Identification

- Identify Hazards
- Profile Hazards
- Assess Vulnerability

Dam/Levee Failure

Drought

Earthquake

Extreme Heat

Extreme Cold

Flood

Hail

Haz/Mat

Karst/Sinkhole

Landslide

Mine Subsidence

Severe Storm

Severe Winter Storm

Tornado

Forest fire



# Risk Assessment

**Vulnerability Score = Exposure Score x Hazard Score**

**Vulnerability methodology was designed to be flexible and rely on GIS production.**

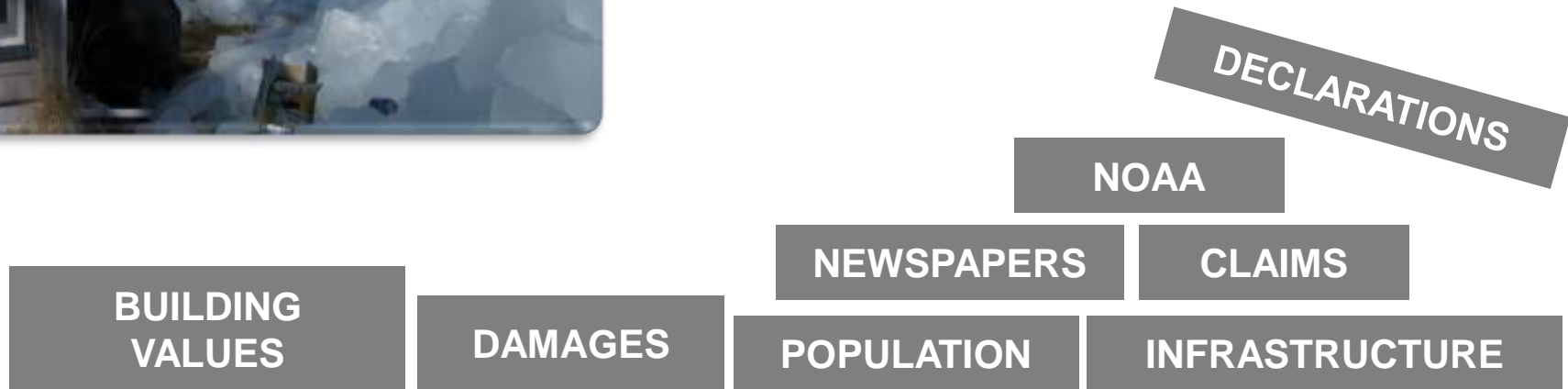
**Methodology to achieve a “Vulnerability Score” is the foundation in our vulnerability/risk assessment. This Vulnerability Score is built on multiple layers of data and provides the foundation for the Plan.**

# Risk Assessment



**What hazards have occurred?**

**Where is our potential exposure?**



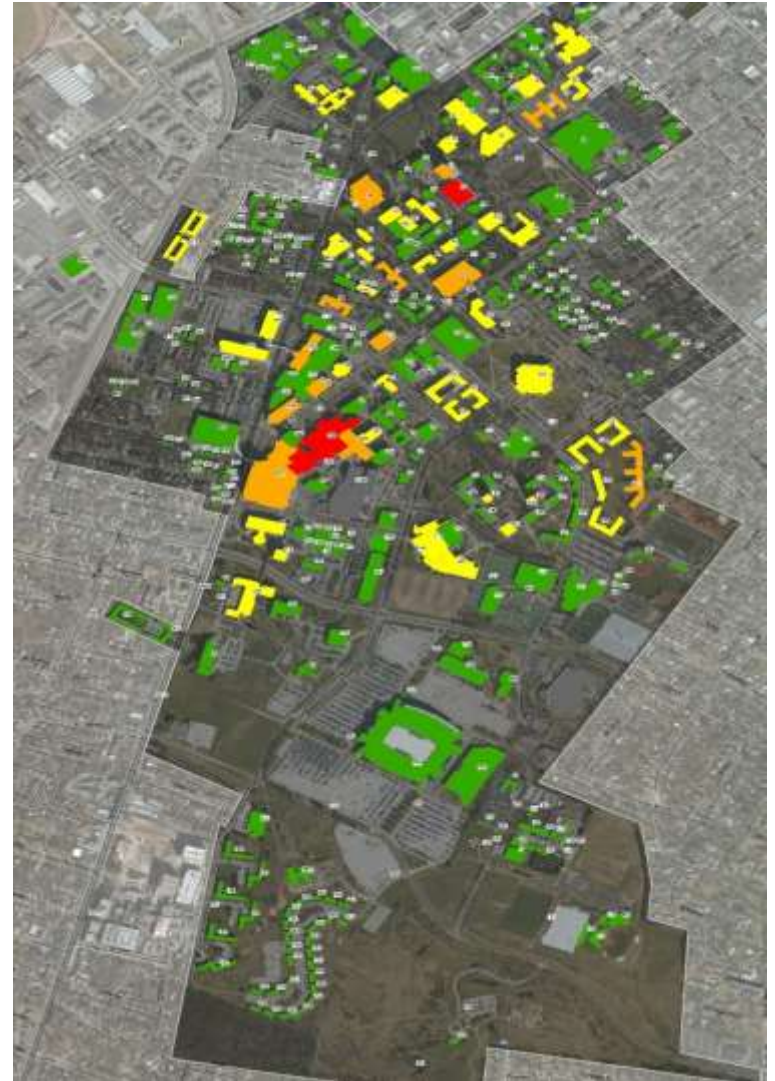
**Building Blocks to  
Assessing Vulnerability**



# Risk Assessment

## Mapping Your Campus's Vulnerability

- Identifying vulnerable properties
- Target project areas
- Use assessment results to drive other planning initiatives



# Mitigation Strategy

Guides the selection of activities to mitigate and reduce potential losses based on the risk assessment

Goals                      What long-term outcomes do you want to achieve?

Action Items              What specific actions will the community take to reduce risk to hazards?

Action Plan                How will the actions be prioritized and implemented?

# Mitigation Goals

1. Protect lives
2. Protect Property
3. Policies and Practices
4. External Partnerships
5. Education and Outreach

# Developing Mitigation Actions

## UK Mitigation Action Plan

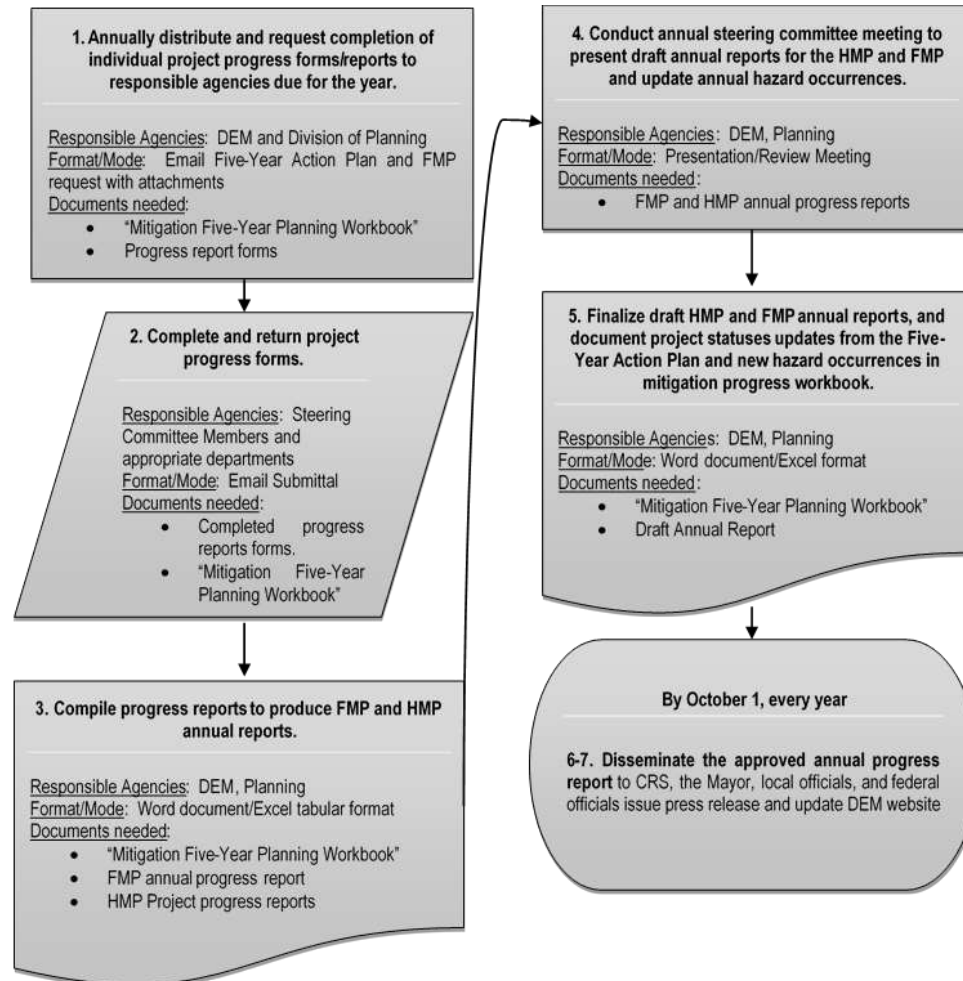
In accordance to FEMA regulations, the Mitigation Action Plan must be updated every five years. We need your help providing updates and feedback on the below action items so we can demonstrate progress to FEMA and maintain our eligibility for future mitigation funding and guide our Emergency Planning Workgroup efforts (see proposed action item #37). In addition, this is an opportunity to identify new action items to add to the plan.

If you have updates, additions, or corrections that you would like to submit, please contact Andrea Pompei Lacy at [andrea.pompei@louisville.edu](mailto:andrea.pompei@louisville.edu) or Laurel Wood at [laurel.wood@uky.edu](mailto:laurel.wood@uky.edu)

Action	Description	Offices Responsible	2015
1	Conduct fuel break restoration (4-H camps).	Agriculture	
2	Work to connect 4-H camps to city sewer (London and Dawson Springs).	Agriculture	Complete
3	Construct retention and channel modification projects (Alumni Drive).	Facilities Management	In progress
4	Construct underground retention for Press Avenue watershed.	Facilities Management	Future
5	Create a bypass for main campus near Newtown Pike.	Facilities Management	
6	Identify NWS approved shelters in new and existing buildings.	EHS CMP	Ongoing
7	Educate on personal preparedness and usage of disaster supply kits.	CMP Housing Div. of Student Affairs	Ongoing
8	Complete Stormwater credit project.	Facilities Management EHS	Complete
9	Install Lightning Protection for campus buildings.	Facilities Management Parking & Transportation	Ongoing
10	Build storm shelters for extension facilities (4-H camps).	Agriculture	
11	Establish procedures and guidance for Student Affairs to manage hazardous events that might affect students and campus community.	CMP Div. of Student Affairs	Complete
12	Re-do utility lines at all 4-H camps throughout the state so that they are underground.	Agriculture	
13	Install Generators at all 4-H Camps and other Agriculture research facilities across the state.	Agriculture	
14	Schedule yearly visit by trained arborist to all 4-H Camps and other Agriculture facilities in order to assess trees and provide suggestions for regular branch trimming and tree removal.	Agriculture	
15	Develop and distribute baseline informational materials (print, video, etc.) on shelter recommendations.	Institution-wide	Ongoing

# Plan Maintenance

## Monitoring, Evaluating, and Updating the Plan

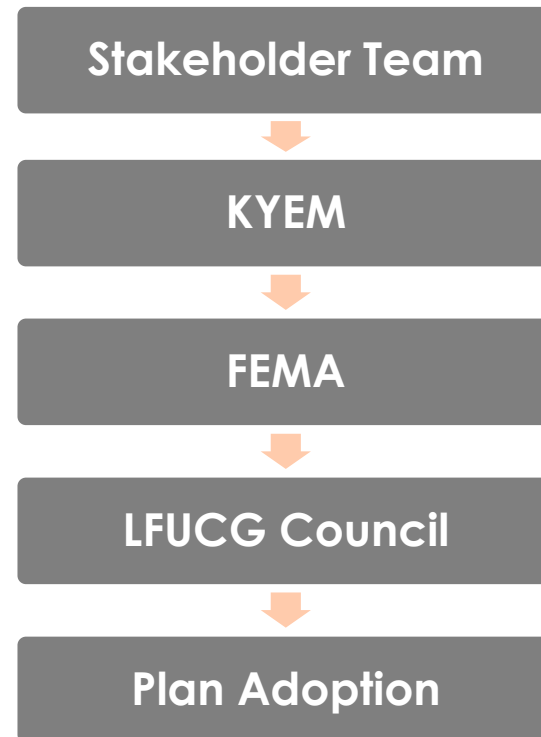


# Plan Adoption

- The initial review will be by local Stakeholders (You)
- The plan will be sent to KYEM for initial review
  - Necessary fixes will be completed
- Off to FEMA for review
  - Necessary fixes will be completed
- NKU will adopt the plan and the plan will be valid for 5 years

**Target  
Completion**

*Early Fall*





# Recap: Mitigation Plan Elements

**Element A. Planning Process**

**Element B. Hazard Identification & Risk Assessment**

**Element C. Mitigation Strategy**

**Element D. Plan Maintenance**

**Element F: Plan Adoption**



# Plan Workflow



**Individual Stakeholder Meetings**

- Data collection
- Mitigation Strategy Development
- Plan Maintenance
- Adoption Requirements



# Hazard Identification Exercise

## Dots and Hazards

## Three Tables

1. Atmospheric: Severe Storms, Severe Winter Storms, Hail, Tornado, Extreme Heat, Extreme Cold
2. Geologic: Karst/Sinkhole, Earthquake, Mine Subsidence, Landslide
3. Other: Forest fire, Haz/Mat, Drought, Flood, Dam/Levee Failure

# Next Steps

- Data and Information Capture
- Capability and Public Survey  
<https://www.questionpro.com/t/AJ8IIZbnMB>
- Set Date for Next Meeting

# NKU Hazard Mitigation Plan Contacts

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