

## Memorandum

**To** Peoria County Multi-Jurisdictional Multi-Hazard  
Mitigation Planning Committee (HMPC)  
**From** Cindy Popplewell  
**Tel / Email** (303) 704-8939 / cindy.popplewell@wsp.com  
**Date** February 20, 2023

**Subject** Minutes from Peoria County Multi-Jurisdictional Multi-Hazard Mitigation  
Plan Update – MEETING #2 HIRA

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This memorandum presents the meeting minutes from the February 15, 2023, meeting for the *Peoria County Multi-Jurisdictional Multi-Hazard Mitigation Plan Update*. It provides a review of the benefits of hazard mitigation planning, current planning process and progress, hazard identification and risk assessment (HIRA), mitigation goals, and next steps.

## Attendees

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| Last Name | First Name | Organization  |
|-----------|------------|---|
| Abi-Akar  | Reema      | Tri-County Regional Planning Commission             |
| Braun     | Andrew     | Peoria County                                       |
| Bruner    | Michael    | Tri-County Regional Planning Commission             |
| Crider    | Beth       | Peoria Regional Office of Education                 |
| Haines    | Cody       | Peoria Park District                                |
| Leach     | Tim        | Greater Peoria Sanitary District                    |
| Marks     | Jason      | Director of Emergency Management, Peoria County EMA |
| McLaren   | Amy        | Peoria County                                       |
| O'Neal    | Tony       | Crisis Management Group, Ameren Illinois            |
| Orr       | Roger      | Street Superintendent, Village of Hanna City        |
| Urban     | Kathi      | Peoria County                                       |
| Weindel   | Jack       | Peoria County                                       |

## Benefits of Hazard Mitigation Planning

Cindy Popplewell of WSP presented information on the benefits of participating in the mitigation plan, including eligibility for federal hazard mitigation assistance. The powerpoint slide show that was used for informational purposes during the meeting is included as Attachment A.

## Requirements of Hazard Mitigation Planning

WSP's approach to the Hazard Mitigation Planning process is structured around FEMA's Local Mitigation Planning Handbook (March 2013); FEMA's Local Mitigation Planning Policy Guide (April 2022); and the Community Rating System's (CRS) Floodplain Management Planning requirements (2017 and 2021 Addendum). See the reference table below. This approach will position Peoria County and participating jurisdictions to seek maximum credit under the CRS Program.

Steps highlighted in **red** have been completed and/or are in progress; steps highlighted in **green** were covered during the powerpoint presentation and are in progress. Steps not highlighted will be addressed at the next HMPC planning meeting.

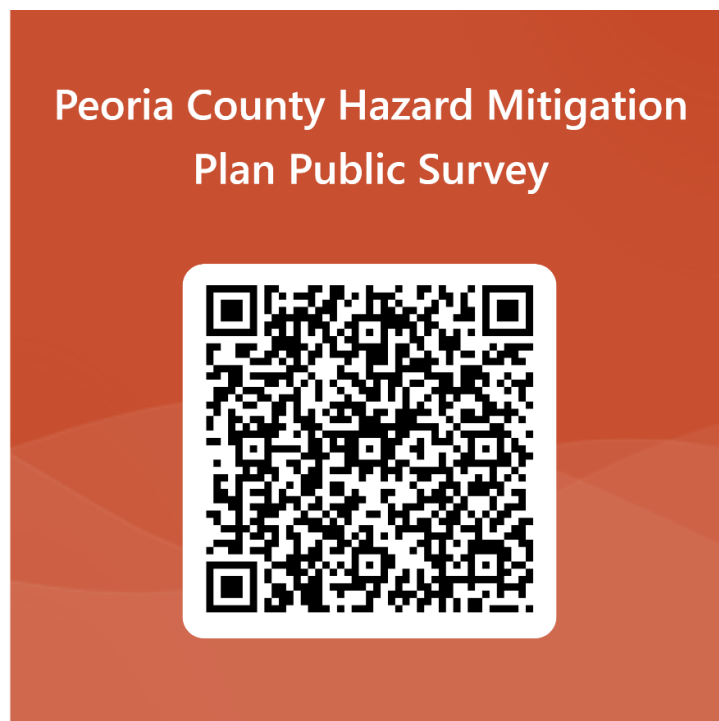
### 10-Step Mitigation Planning Process

| FEMA Planning Elements  | FEMA Local Mitigation Planning Handbook Tasks (44 CFR Part 201)  | Community Rating System (CRS) Planning Steps (Activity 510) |
|---|--|---|
| <b>Element A:</b><br>Planning Process   | <b>Task 1: Determine the Planning Area and Resources</b>   | Step 1. Organize  |
|   | <b>Task 2: Build the Planning Team</b><br>44 CFR 201.6(c)(1)   |   |
|   | <b>Task 3: Create an Outreach Strategy</b><br>44 CFR 201.6(b)(1)   | Step 2. Involve the public                                  |
|   | <b>Task 4: Review Community Capabilities</b><br>44 CFR 201.6(b)(2) & (3)   | Step 3. Coordinate  |
| <b>Element B:</b><br>Risk Assessment<br><b>Element G:</b><br>High Hazard Potential Dams | <b>Task 5: Conduct a Risk Assessment</b><br>44 CFR 201.6(c)(2)(i)<br>44 CFR 201.6(c)(2)(ii) & (iii)                              | Step 4. Assess the hazard(s)                                |
|   |  | Step 5. Assess the problem(s)                               |
| <b>Element C:</b><br>Mitigation Strategy  | <b>Task 6: Develop a Mitigation Strategy</b><br>44 CFR 201.6(c)(3)(i);<br>44 CFR 201.6(c)(3)(ii); and<br>44 CFR 201.6(c)(3)(iii) | Step 6. Set goals   |
|   |  | Step 7. Review possible activities                          |
|   |  | Step 8. Draft an action plan                                |

| FEMA Planning Elements                                | FEMA Local Mitigation Planning Handbook Tasks (44 CFR Part 201)     | Community Rating System (CRS) Planning Steps (Activity 510) |
|---|---|---|
| Element F: Plan Adoption                              | Task 8: Review and Adopt the Plan                                   | Step 9. Adopt the plan                                      |
| Element D: Plan Maintenance<br>Element E: Plan Update | Task 7: Keep the Plan Current                                       | Step 10. Implement, evaluate, revise                        |
|   | Task 9: Create a Safe and Resilient Community<br>44 CFR 201.6(c)(4) |   |
| Element H: Additional State Requirements              |   |   |

## Planning for Public Involvement

A public meeting was held on February 1, 2023, to introduce the public to the planning process. A public survey has been prepared to obtain feedback from our public on priority hazards and mitigation actions. Link to the survey is provided below:



## Risk Assessment and Capabilities Update

Review comments received during the HIRA discussion included:

- Levee failure would impact the Sanitary District and subsequently the communities of Peoria Heights, West Peoria, Bartonville, and the City of Peoria.
- Earthquake event in 2008 was noted for the County, all bridges were inspected following this event. This event will be added to previous occurrences for this hazard.
- Land Subsidence
  - Additional photos to be provided by Amy McLaren
  - Noted locations include near Airport; along I-29/Peoria Heights; and Kickapoo Road – natural springs along hillside
- Wildfire – HMPC agreed this is a low planning priority hazard
- Active Shooter
  - There was an event in 1973 at St. Cecilia School. This event will be added to previous occurrences for this hazard.
  - Additional event noted for Dixon, IL in 2021 – north of Peoria County in Lee County.
- Winter Storm events – noted that overhead powerlines are a concern, as well as power substations, but including distribution infrastructure on mapping is a security concern.
- Terrorism – in addition to a CBRNE attack, additional focus is on high-power rifle attack of power grid components.
- Critical Facilities – Sanitary District and EMA to assist with GIS files for additional critical facilities – including water and wastewater treatment plants and vulnerable areas/ populations (mobile home parks, etc.).

A summary of planning priorities for each hazard is presented in the table below:

| Hazard                        | Geographic Location (Percentage of People) | Probability of Future (Frequency) | Magnitude/ Severity | Hazard Rating | Hazard Rating Variation for other jurisdictions                 |
|-------------------------------|--|-----------------------------------|---------------------|---------------|---|
| Earthquake                    | Low  | Low                               | Low                 | Low           |   |
| Wildfire                      | Medium                                     | Low                               | Low                 | Low           |   |
| Land Subsidence               | Medium                                     | Low                               | Low                 | Guarded       | Low<br>Chillicothe, Peoria Heights                              |
| Landslide                     | Low  | Medium                            | Low                 | Guarded       | Low<br>Hanna City   |
| Dam/Levee Failure             | Low  | Low                               | High                | Elevated      | Low<br>Chillicothe, Hanna City                                  |
| Drought                       | High                                       | Low                               | Low                 | Elevated      |   |
| Terrorism Events              | Low  | Low                               | High                | Elevated      |   |
| Active Shooter                |  |                                   |                     |               |   |
| Hazardous Materials Incidents | Medium                                     | High                              | Low                 | High          |   |
| Extreme Temperatures          | High                                       | Medium                            | Medium              | High          |   |
| Flood                         | Medium                                     | High                              | High                | Severe        | Low –<br>Hanna City<br>Guarded –<br>Chillicothe, Peoria Heights |
| Severe Thunderstorms          | High                                       | High                              | Medium              | Severe        |   |
| Tornado                       | High                                       | Medium                            | High                | Severe        |   |
| Severe Winter Storm           | High                                       | High                              | Medium              | Severe        |   |

## Goals

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The goals of the 2018 State of Illinois Hazard Mitigation Plan, the 2018 Peoria County Hazard Mitigation Plan, and the 2019 Tri-County Hazard Mitigation Plan were reviewed. The following updated goals were agreed upon by the HMPC:

**Goal 1: Reduce the vulnerability of current and future people, property, and environment of Peoria County from the effects of natural and man-made hazards.**

- Strengthen protection of critical facilities and infrastructure to create a safer, more sustainable community.
- Build and support local capabilities to respond and recovery from natural and man-made hazard events.
- Increase the local floodplain management activities and participation in the NFIP.
- Protect community historic/cultural/environmental resources from identified natural and man-made hazards

**Goal 2: Enhance public education programs to raise awareness of and preparedness for hazard events.**

**Goal 3: Improve and coordinate mitigation activities with surrounding communities, non-profits, and private businesses.**

**Goal 4 - Incorporate natural and man-made hazard mitigation into community plans, regulations and activities.**

## Next Steps

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### HMPC Members/Attendees

- Please take a moment to complete the Public Survey!
- Review draft documents once received from WSP.

### WSP

- Finalize HIRA
- Submit Draft Chapters 1, 2, and 3 for HMPC review – week of February 27th
- Prepare for upcoming HMPC Meeting #3 – Mitigation Strategy

### Upcoming Meetings



- March 15<sup>th</sup>, Wednesday
  - HMPC Meeting – In Person – 1:30pm  
Tri-County Regional Planning Commission Office/Conference Room  
456 Fulton St., Suite 420, Peoria, IL 61602
  - Public Meeting – Virtual/In-Person Combination – 5:30pm  
Tri-County Regional Planning Commission Office/Conference Room  
456 Fulton St., Suite 420, Peoria, IL 61602

## **Attachment A – Powerpoint Presentation**



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|   |  |
|---|--|
|   <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Peoria County, IL Hazard Mitigation Plan Update</p> <p>2</p> | <p>Introductions</p> <h2>Introductions</h2> <ul style="list-style-type: none"> <li>• Welcome!</li> <li>• Opening Remarks</li> </ul> <div> <p><b>Peoria County Project Leads</b></p> <p>Reema Abi-Akar, Tri-County Regional Planning Commission</p> </div> <div> <p><b>WSP Planning Consultant &amp; Contact Info</b></p> <p>Cindy Popplewell – <a href="mailto:cindy.popplewell@wsp.com">cindy.popplewell@wsp.com</a></p> </div> |
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Peoria County, IL Hazard Mitigation Plan Update

Introductions

## Agenda

- Review
  - Benefits of the Hazard Mitigation Plan
  - Planning process and our progress
- Hazard Identification and Risk Assessment (HIRA)
  - Review hazard profiles
  - Discuss planning significance/relative risk
  - Discuss data gaps and analysis needs
- Review/Update Mitigation Goals
- Project Schedule and Next Steps

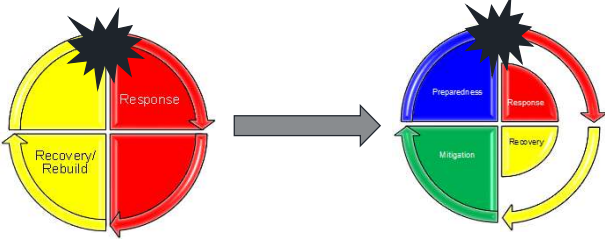
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## Benefits of the Hazard Mitigation Plan

1. Eligibility for federal disaster assistance (mitigation funding)
  - ✓ March 2020 – COVID Pandemic
2. Reduced losses from hazard events
3. Reduced local, state, and federal expenditures



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Peoria County, IL Hazard Mitigation Plan Update

## 10 Step Planning Process



| DMA Process                            | CRS Process                                       |
|--|---|
| <b>Phase I – Organize Resources</b>    |   |
| §201.6(c)(1)                           | Step 1. Organize to Prepare the Plan              |
| §201.6(b)(1)                           | Step 2. Involve the Public                        |
| §201.6(b)(2) & (3)                     | Step 3. Coordinate                                |
| <b>Phase II – Risk Assessment</b>      |   |
| §201.6(c)(2)(i)                        | Step 4. Assess the Hazard                         |
| §201.6(c)(2)(ii) & (iii)               | Step 5. Assess the Problem                        |
| <b>Phase III – Mitigation Strategy</b> |   |
| §201.6(c)(3)(i)                        | Step 6. Set Goals                                 |
| §201.6(c)(3)(ii)                       | Step 7. Review Possible Activities                |
| §201.6(c)(3)(iii)                      | Step 8. Draft an Action Plan                      |
| <b>Phase IV – Plan Maintenance</b>     |   |
| §201.6(c)(5)                           | Step 9. Adopt the Plan                            |
| §201.6(c)(4)                           | Step 10. Implement, Evaluate, and Revise the Plan |



Peoria County Hazard Mitigation  
Plan Public Survey

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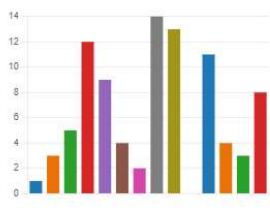




Peoria County, IL Hazard Mitigation Plan Update

4. What natural and man-made hazards do you feel pose a threat to Peoria County? Please check all that apply.

[More Details](#)

|                                  |    |
|----------------------------------|----|
| ● Dam/Levee Failure              | 1  |
| ● Drought                        | 3  |
| ● Earthquake                     | 5  |
| ● Extreme Temperatures           | 12 |
| ● Flood                          | 9  |
| ● Land Subsidence/Sinkholes      | 4  |
| ● Landslide                      | 2  |
| ● Severe Thunderstorms/High Wind | 14 |
| ● Tornadoes                      | 13 |
| ● Wildfire                       | 0  |
| ● Winter Storms                  | 11 |
| ● Hazardous Materials Incidents  | 4  |
| ● Terrorism Events               | 3  |
| ● Active Shooter                 | 8  |



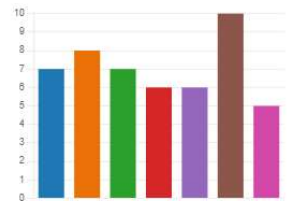


Peoria County Hazard Mitigation  
Plan Public Survey

7. What types of mitigation actions should have the highest priority?



[More Details](#)

|                                       |    |
|---------------------------------------|----|
| ● Hazard education and risk aware...  | 7  |
| ● Local plans and regulations that... | 8  |
| ● Projects that involve modifying ... | 7  |
| ● Protect or relocate flood prone ... | 6  |
| ● Projects that minimize damage ...   | 6  |
| ● Provide Back-up power for critic... | 10 |
| ● Construct tornado safe rooms a...   | 5  |



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Peoria County, IL Hazard Mitigation Plan Update

## Phase II: Risk Assessment

**2018 Peoria County HMP**



| 2018 Peoria County HMP                          | 2018 Illinois HMP |
|---|-------------------|
| Dam/Levee Failure                               | ✓                 |
| Drought   | ✓                 |
| Earthquake                                      | ✓                 |
| Extreme Temperatures                            | ✓                 |
| Flood   | ✓                 |
| Land Subsidence/Sinkhole                        | ✓                 |
| Landslide                                       | ✓                 |
| Severe Thunderstorm (hail, lightning, and wind) | ✓                 |
| Severe Winter Storms                            | ✓                 |
| Tornado   | ✓                 |
| Wildfire  | ✓                 |
| Hazardous Materials Incidents                   |                   |
| Terrorism Event                                 |                   |
| Active Shooter                                  |                   |

**Profile the Hazards:**

- Hazard Description
- Geographic Location
- Magnitude/Severity
- Past Occurrences
- Probability of Future Occurrence
- Future Conditions

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▪ **Hazard Description**

▪ **Geographic Location**

- High (18) - More than 25% of population
- Medium (12) - 10 to 25% of population
- Low (6) - less than 10% of population

▪ **Magnitude/Severity**

- High (18) - 5+ fatalities, property destroyed/damaged (\$15,000,000), or 3+ days of shutdown for essential facilities.
- Medium (12) - Serious injuries (more than 50), property destroyed/damaged (\$1M to \$15M), or 24-72 hrs of shutdown for essential facilities.
- Low (6) - Minor injuries (under 50), property destroyed/damaged (under \$1M), or less than 24 hr shutdown for essential facilities.

▪ **Past Occurrences**

▪ **Probability of Future Occurrence**

- High (18) - More than 60 occurrences
- Medium (12) - 13 to 60 occurrences
- Low (6) - 0 to 12 occurrences

▪ **Future Conditions**

▪ **Planning Significance**

- Severe - 49 to 60 points
- High - 37 to 48 points
- Elevated - 25 to 36 points
- Guarded - 13 to 24 points
- Low - 0 to 12 points

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# Hazard Summary

Peoria County, IL Hazard Mitigation Plan Update

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| Hazard                        | Geographic Location (Percentage of People) | Probability of Future (Frequency) | Magnitude/Severity | Hazard Rating | Hazard Rating variation for other jurisdictions             |
|-------------------------------|--|-----------------------------------|--------------------|---------------|---|
| Earthquake                    | Low  | Low                               | Low                | Low           |   |
| Land Subsidence               | Medium                                     | Low                               | Low                | Guarded       | Low<br>Chillicothe, Peoria Heights                          |
| Landslide                     | Low  | Medium                            | Low                | Guarded       | Low<br>Hanna City   |
| Wildfire                      | Medium                                     | Low                               | Low                | Guarded       |   |
| Dam/Levee Failure             | Low  | Low                               | High               | Elevated      | Low<br>Chillicothe, Hanna City, Peoria Heights, West Peoria |
| Drought                       | High                                       | Low                               | Low                | Elevated      |   |
| Terrorism Events              | Low  | Low                               | High               | Elevated      |   |
| Active Shooter                | Low  | Low                               | High               | Elevated      |   |
| Hazardous Materials Incidents | Medium                                     | High                              | Low                | High          |   |
| Extreme Temperatures          | High                                       | Medium                            | Medium             | High          |   |
| Flood                         | Medium                                     | High                              | High               | Severe        | Low - Hanna City<br>Guarded - Chillicothe, Peoria Heights   |
| Severe Thunderstorms          | High                                       | High                              | Medium             | Severe        |   |
| Tornado                       | High                                       | Medium                            | High               | Severe        |   |
| Severe Winter Storm           | High                                       | High                              | Medium             | Severe        |   |

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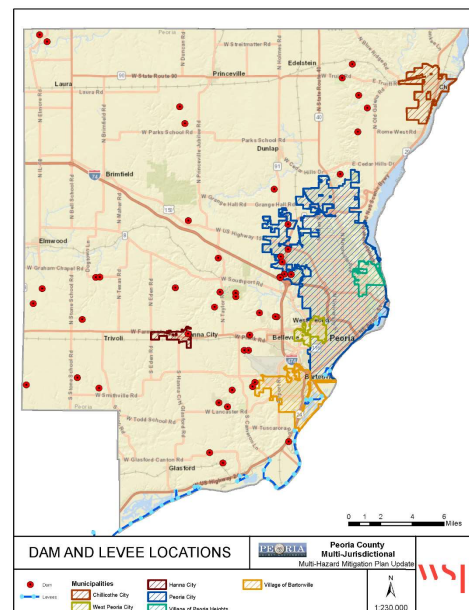


## Dam/Levee Failure

- **Dams**
  - 49 State Regulated Dams
  - Average Age of 52 years
  - 7 High Hazard Potential
- **Levees**
  - 11 Levee systems
  - 24 Miles of Levees
  - Average Age of 82 years
    - Banner Marsh Levee
    - Banner Special Levee
    - Pekin and La Marsh Levee
    - Greater Peoria Sanitary District
    - Evonik Mapleton Plant Site
    - Lonza
    - Keystone Steel
    - Komatsu

Peoria County, IL Hazard Mitigation Plan Update

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## Dam/Levee Failure

- **Location:** Low - Less than 10% of the total population adversely affected should the hazard occur
- **Previous Occurrences:**
  - 2011 - Waltonville Lake Dam located in Jefferson County failed in June 2011 resulting in temporary flooding of the state highway.
  - 2013 - A private dam for farming purposes failed in May 2013 resulting in downstream damage at Bartholomew Road.
  - 2013 - Farm levee on Kickapoo breached
- **Probability:** Low - 0 to 12 occurrences in the last 60 years
- **Magnitude/Severity:** High – Multiple deaths (more than 5), property destroyed or damaged beyond repair (more than \$15M), or more than 3 days of shutdown for essential facilities.
- **Elevated; Low – Chillicothe, Hanna City, Peoria Heights, West Peoria**



## Drought

- A period of excessive dryness long or intense enough to result in water-related problems.
- Slow moving hazard which causes losses to agriculture; contributes to wildfire; and affects domestic water supply, energy production, public health, and wildlife.
- Agricultural Areas
  - 250,070 acres of land in farms; 92% insured

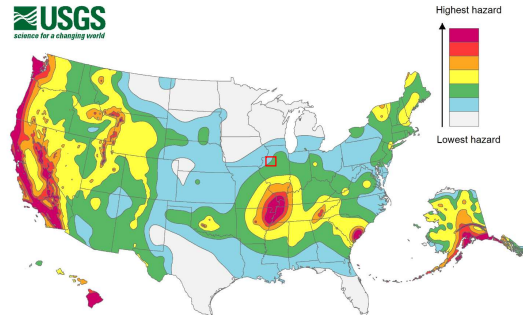
| 20-Year Drought Insurance Paid | Adjusted 20-Year Drought Losses (considering 92% insured) | Estimated Annualized Losses | 2017 Value of Crops | Annualized Crop Loss ratio (Losses/Value) |
|--------------------------------|---|-----------------------------|---------------------|---|
| \$17,820,147                   | \$19,369,725  | \$968,486                   | \$145,196,000       | 0.67%                                     |





## Earthquake

- **Location:** Low - Less than 10% of the total population adversely affected should the hazard occur
- **Previous Occurrences:** No recorded earthquakes within a 50-mile radius of central Peoria County since 1973
- **Probability:** Low - 0 to 12 occurrences in the last 60 years (Less than 20% chance of occurrence each year)
- **Magnitude/Severity:** Low – Minor injuries (under 50) & property damage (under \$1,000,000), or less than 24 hour shutdown of essential facilities
- **Low**



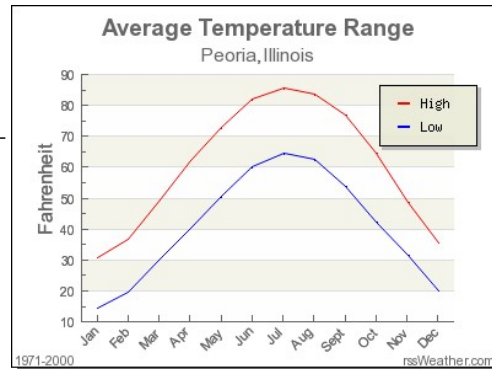
## Extreme Temperatures

- **Summer Average High – 85.6°**
  - Temperatures consistently stay 10° above average high temperature
- **Winter Average Low - 17°**
  - Wind Chill Advisory when temperatures are expected to reach -5°F to -14°F and winds of greater than 10 mph for at least 3 hours.
- Urban areas develop and buildings and roads replace open land and vegetation, urban regions become warmer than their rural surroundings, forming an “island” of heat.
- Persons over 65 and under 5 yrs are especially vulnerable.



## Extreme Temperatures

- **Location:** High - More than 25% of the total population adversely affected should the hazard occur
- **Previous Occurrences:** NCEI Database - 24 extreme events in 26 years (1996-2022)
- **Probability:** Medium - 12 to 60 occurrences in the last 60 years (20-100% chance of occurrence each year)
- **Magnitude/Severity:** Medium – Serious injury (more than 50), major property damage (\$1,000,001 to \$15,000,000), or 24 to 72 hour shutdown of essential facilities
- **High**

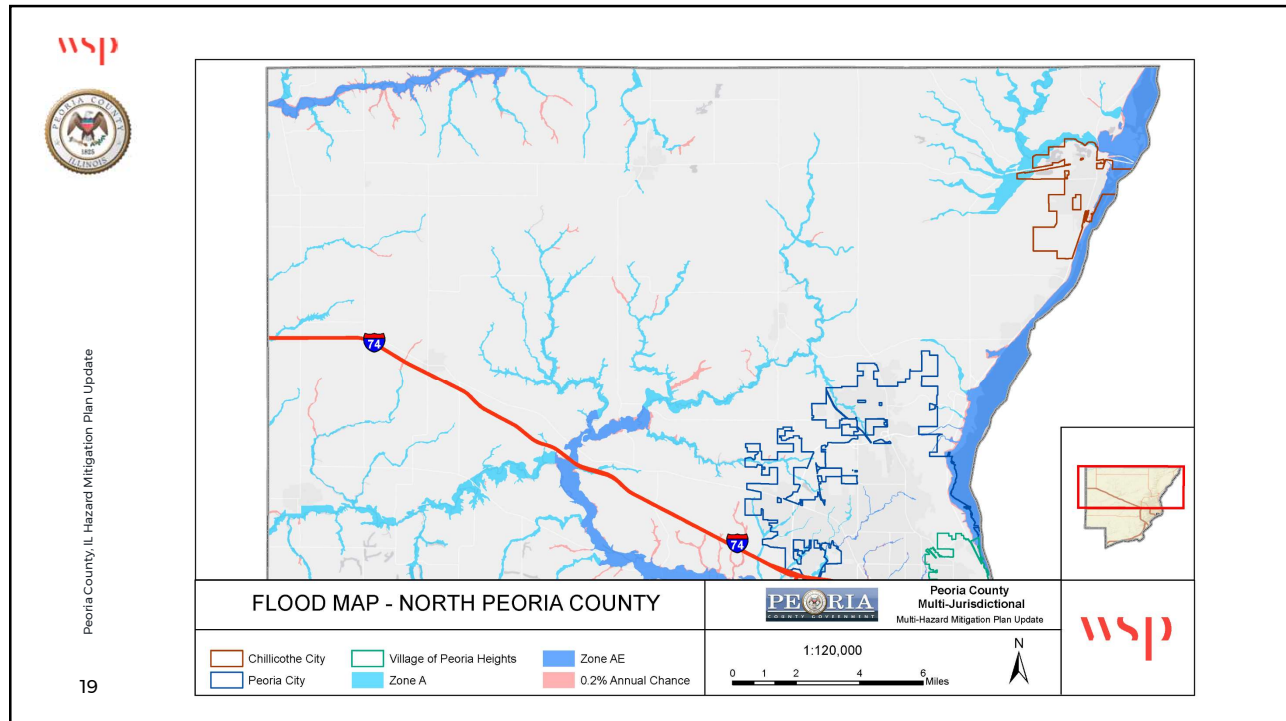


## Flood

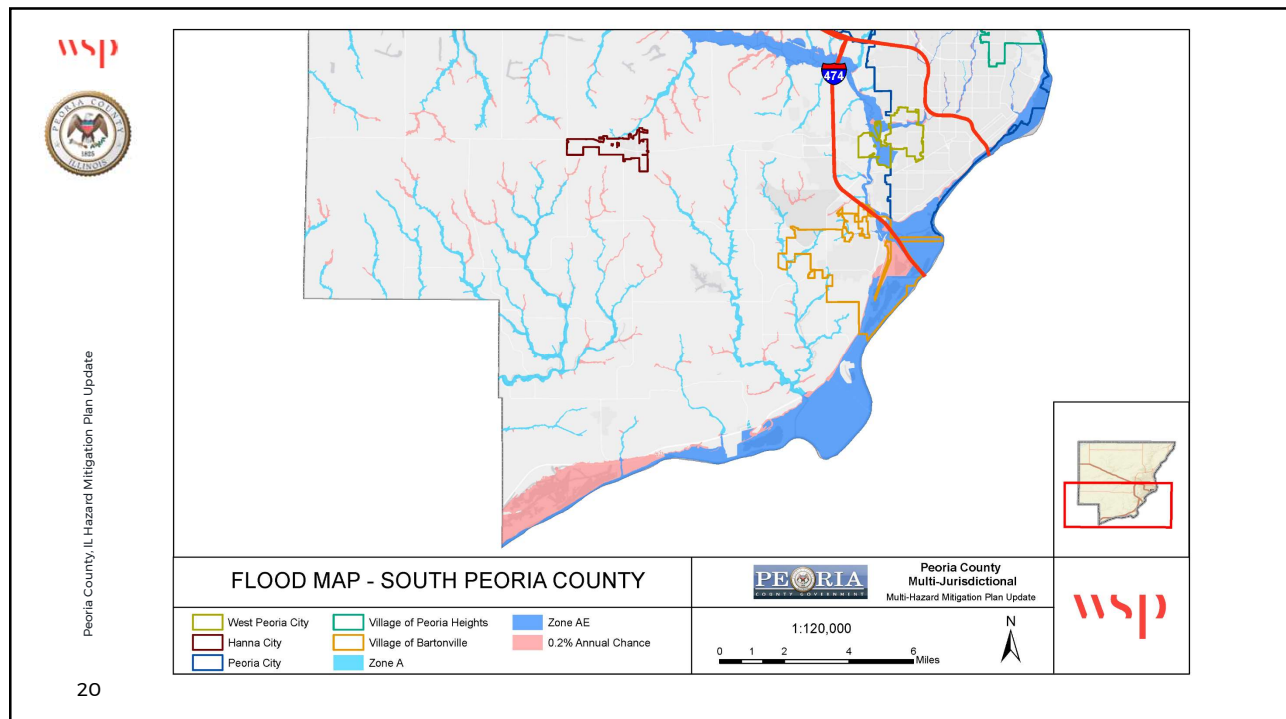
Floods are among the most frequent and costly natural disaster in terms of human hardship and economic loss

- **Flash Flooding** – localized floods of great volume and short duration
- **Riverine** – an event when a watercourse exceeds its “bank-full” capacity and is the most common type of flood event. Riverine floods result from precipitation over large areas.
- **Urban Stormwater** – land loses its ability to absorb rainfall as it is converted from fields or woodlands to roads, buildings, and parking lots



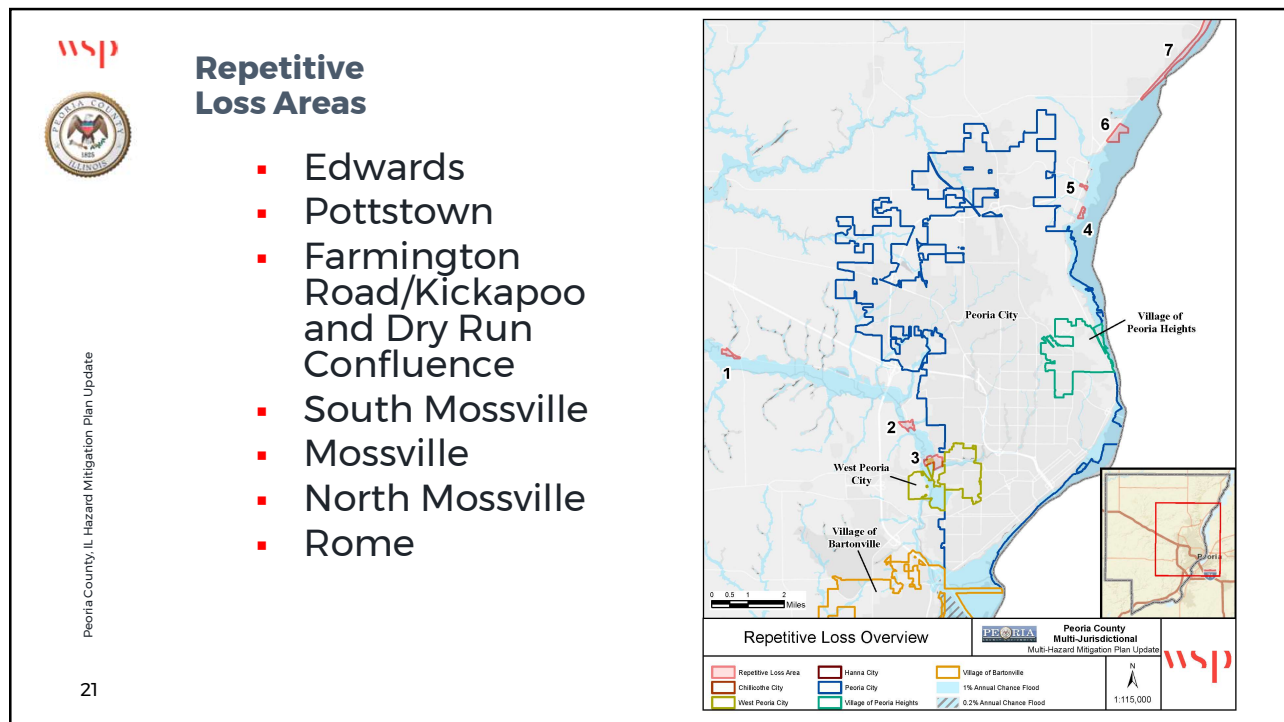


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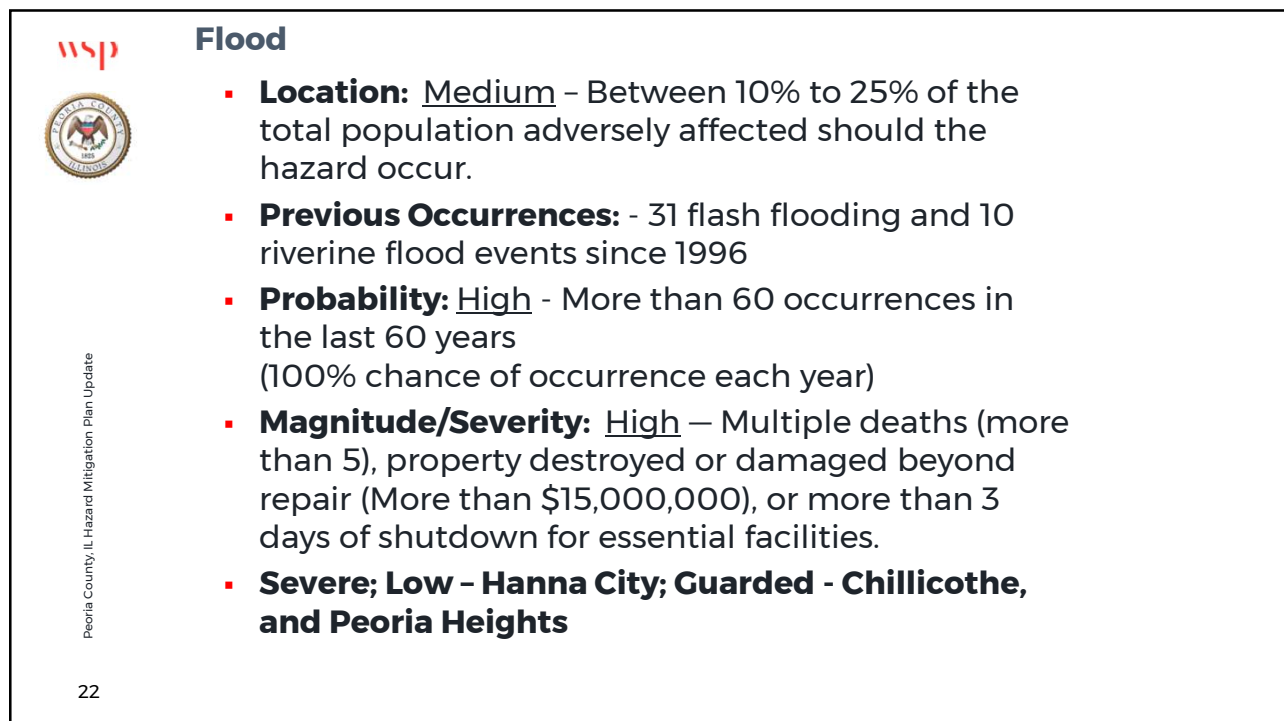


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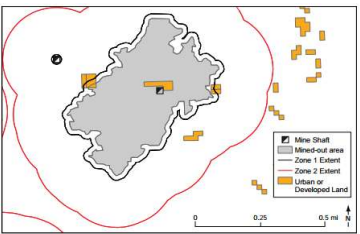
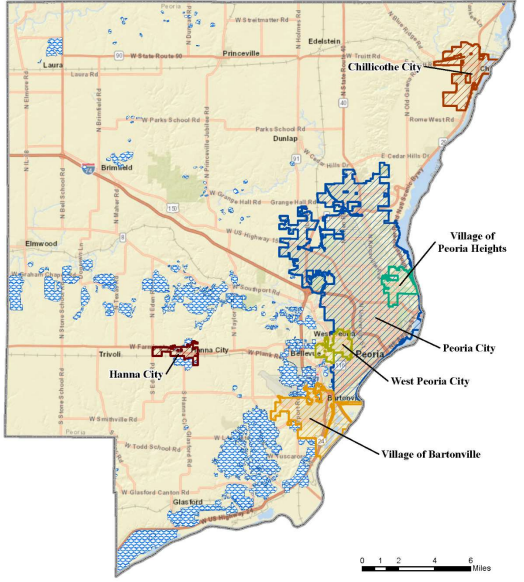
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Peoria County, IL Hazard Mitigation Plan Update

## Land Subsidence



- Ground above a manmade or natural void collapses
- In Peoria County, attributed to mine subsidence due to coal mine industry

| MINE LOCATIONS |                                  |  |
|----------------|----------------------------------|--|
|                | Chillicothe City                 |  |
|                | West Peoria City                 |  |
|                | Greater Peoria Sanitary District |  |
|                | Village of Bartonville           |  |

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Peoria County, IL Hazard Mitigation Plan Update

## Land Subsidence

- Location:** Medium – Between 10% to 25% of the total population adversely affected should the hazard occur
- Previous Occurrences:** –
  - US Route 24, during installation of soldier piles for retaining wall, IDOT encountered underground cavities
  - Charter Oak Road, approximately 10 to 15 years ago a mine subsidence incident was noted impacting 2 houses, 2005-2010
  - South Airport Road, 2014
  - Bellevue area.
- Probability:** Low - 0 to 12 occurrences in the last 60 years (Less than 20% chance of occurrence each year)
- Magnitude/Severity:** Low – Minor injuries (under 50) & property damage (under \$1,000,000), or less than 24 hour shutdown of essential facilities
- Guarded; Low for Chillicothe and Peoria Heights**



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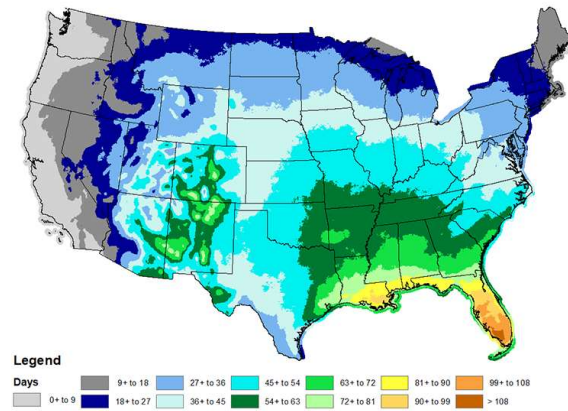




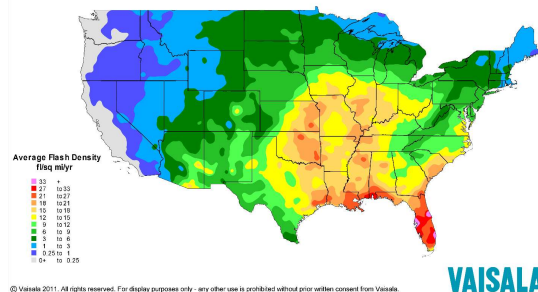
## Severe Storms

- Localized storms accompanied by hail, high winds, lightning, heavy rain causing flash flooding and sometimes tornadoes.
- Power outages from downed power lines. Manufactured homes, campers and light buildings at increased risk of damages.

Annual Mean Thunderstorm Days (1993-2018)



Vaisala's National Lightning Detection Network® (NLDN®)  
Cloud-to-Ground Lightning Incidence in the Continental U.S. (1997 - 2010)



VAISALA

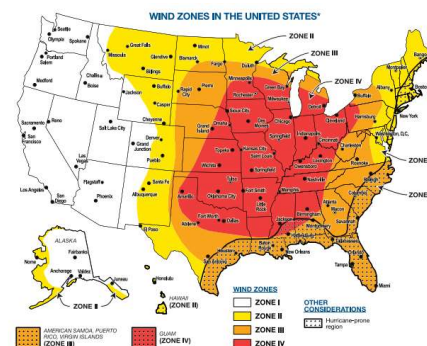


Figure 2-7: Wind Zones in the United States\*





## Severe Storms



Peoria County, IL Hazard Mitigation Plan Update

- **Location:** High - More than 25% of the total population adversely affected should the hazard occur
- **Previous Occurrences (Since 1996):**
  - **High Wind** – 138 Severe thunderstorms with high wind
  - **Hail** – 91 events
  - **Lightning** – 8 events
- **Probability:** High - 100% chance of occurrence each year
- **Magnitude/Severity:** Medium – Serious injury, major property damage (\$1,000,001 to \$15,000,000), or 24 to 72 hour shutdown of essential facilities
- **Severe**

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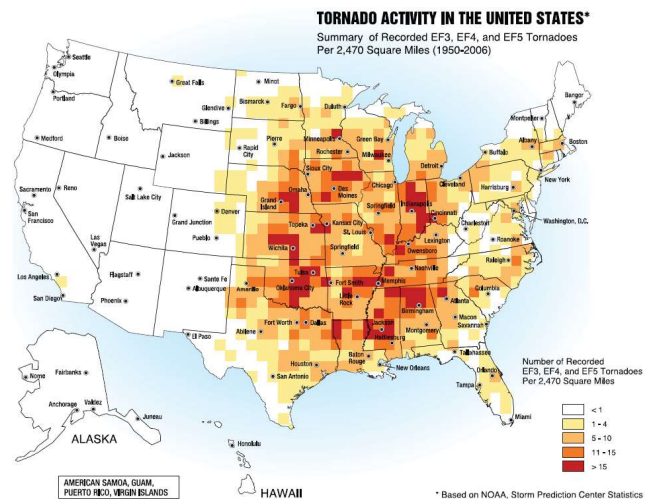


## Tornado



Peoria County, IL Hazard Mitigation Plan Update

- Tornado: violently rotating column of air pendant from a thunderstorm cloud that touches the ground
- Existing Capabilities: shelters, warning systems, NOAA radios, weather announcements, public education



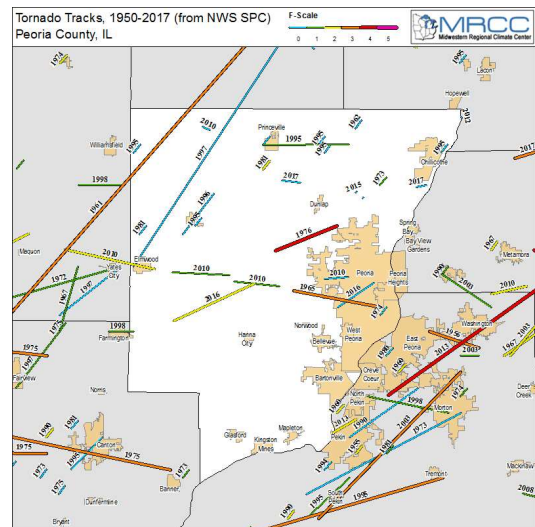
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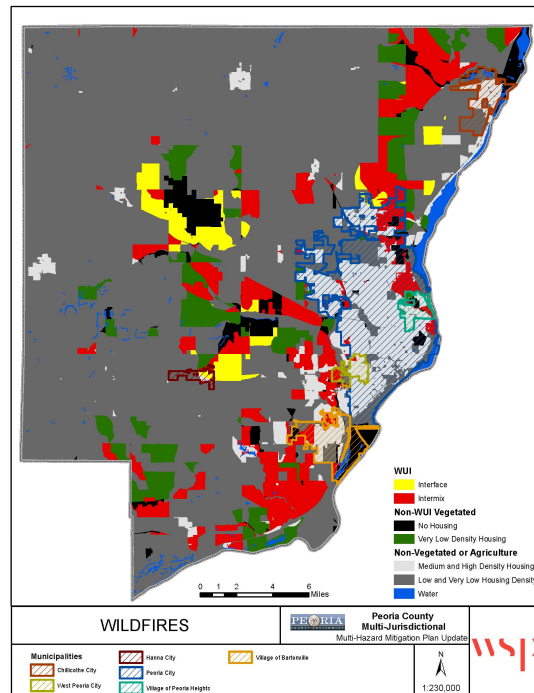
## Tornado

- **Location:** High - More than 25% of the total population adversely affected should the hazard occur
- **Previous Occurrences (Since 1961):** 24 tornado events
- **Probability:** Medium - 12 to 60 occurrences in the last 60 years (20-100% chance of occurrence each year)
- **Magnitude/Severity:** High – Multiple deaths (more than 5), property destroyed or damaged beyond repair (More than \$15,000,000), or more than 3 days of shutdown for essential facilities.
- **Severe**



## Wildfire

- Uncontrolled fire in combustible vegetation that occurs in the countryside or wilderness area
- WUI – Interface/Intermix Area
- Existing Capabilities: building codes; burn permits; TN Wildfire laws





## Wildfire

- **Location:** Medium – Between 10% to 25% of the total population adversely affected should the hazard occur
- **Previous Occurrences:** 0 events noted in NCDC
- **Probability:** Low - 0 to 12 occurrences in the last 60 years  
(Less than 20% chance of occurrence each year)
- **Magnitude/Severity:** Low – Minor injuries (under 50) & property damage (under \$1,000,000), or less than 24 hour shutdown of essential facilities
- **Guarded - Low?**

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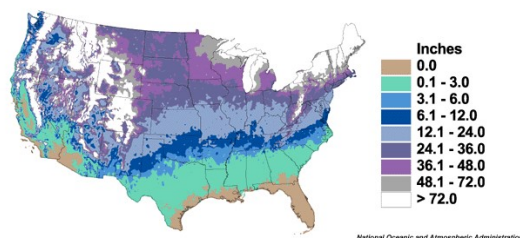
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## Severe Winter Storms

- Winter precipitation includes freezing rain, sleet, and snow (flurries, showers, blowing, blizzard)
- Property damage, power, phone outages, and closures of streets, highways, schools, businesses, and nonessential government operations

### Annual Mean Total Snowfall



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## Severe Winter Storms

- **Location:** High - More than 25% of the total population adversely affected should the hazard occur
- **Previous Occurrences (since 1996):** 63 winter storm events
- **Probability:** High - 100% chance of occurrence each year
- **Magnitude/Severity:** Medium – Serious injury (more than 50), major property damage (structural stability) (\$1,000,001 to \$15,000,000), or 24 to 72 hour shutdown of essential facilities
- **Severe**



## Hazardous Materials Incidents

- Fixed Facility
- Transportation Routes

- Hazard distances specified in the Non-Radioactive Hazardous Materials (NRHM) Routing guidelines
- Identify major transportation routes and apply distances

| Hazmat Category  | Hazard Distances (miles) |
|--|--------------------------|
| Explosives   | 1                        |
| Flammable Gas  | 0.5                      |
| Toxic Gases  | 5                        |
| Flammable/Combustible Liquid                                   | 0.5                      |
| Flammable Solid, Spontaneously Combustible, Dangerous when Wet | 0.5                      |
| Oxidizer/Organic Peroxide                                      | 0.5                      |
| Poisonous (not gas)  | 5                        |
| Corrosive Material   | 0.5                      |







## Hazardous Materials Incidents

- **Location:** Medium – Between 10% to 25% of the total population adversely affected should the hazard occur
- **Previous Occurrences (since 2006):** 14 highway incidents
- **Probability:** High - More than 60 occurrences in the last 60 years  
(100% chance of occurrence each year)
- **Magnitude/Severity:** Low — Minor injuries (under 50) & property damage (under \$1,000,000), or less than 24 hour shutdown of essential facilities
- **High**



## Terrorism

- "The unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives" (28 C.F.R. Section 0.85).
- The threat of terrorism, both international and domestic, is ever present, and an attack is likely to occur when least expected.
  - **Location:** Low - Less than 10% of the total population adversely affected should the hazard occur
  - **Previous Occurrences:** **None reported**
  - **Probability:** Low - 0 to 12 occurrences in the last 60 years  
(Less than 20% chance of occurrence each year)
  - **Magnitude/Severity:** High — Multiple deaths (more than 5), property destroyed or damaged beyond repair (More than \$15,000,000), or more than 3 days of shutdown for essential facilities.
  - **Elevated**



## Active Shooter

- “An individual actively engaged in killing or attempting to kill people in a confined and populated area.”
- Implicit in this definition is that the subject’s criminal actions involve the use of firearms.

- **Location:** Low - Less than 10% of the total population adversely affected should the hazard occur

- **Previous Occurrences:** 4 active shooter events within Illinois

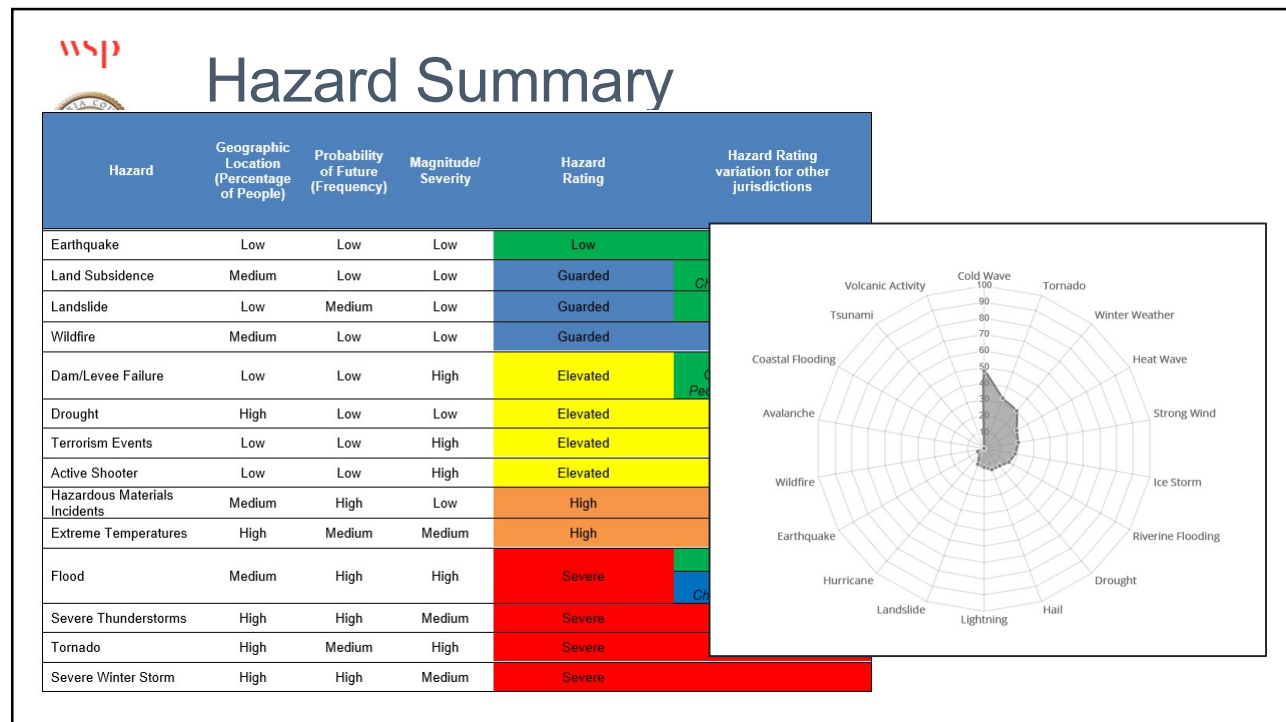
|                                       |                         |            |
|---------------------------------------|-------------------------|------------|
| Highland Park July 4 parade shooting  | Highland Park, Illinois | 7/4/2022   |
| Harry Pratt Co. warehouse shooting    | Aurora, Illinois        | 2/15/2019  |
| Mercy Hospital shooting               | Chicago, Illinois       | 11/19/2018 |
| Northern Illinois University shooting | DeKalb, Illinois        | 2/14/2008  |
| Navistar shooting                     | Melrose Park, Illinois  | 2/5/2001   |

- **Probability:** Low - 0 to 12 occurrences in the last 60 years (Less than 20% chance of occurrence each year)
- **Magnitude/Severity:** High — Multiple deaths (more than 5), property destroyed or damaged beyond repair (More than \$15,000,000), or more than 3 days of shutdown for essential facilities.
- **Elevated**

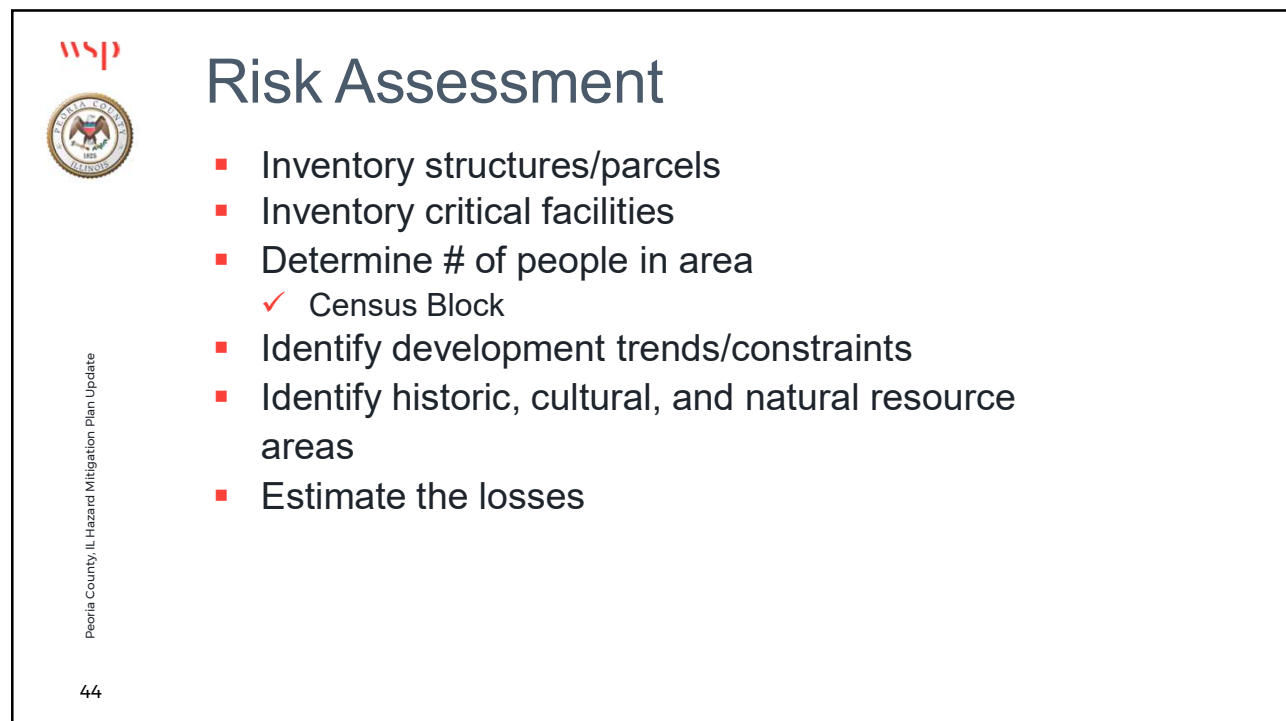


## Hazard Summary

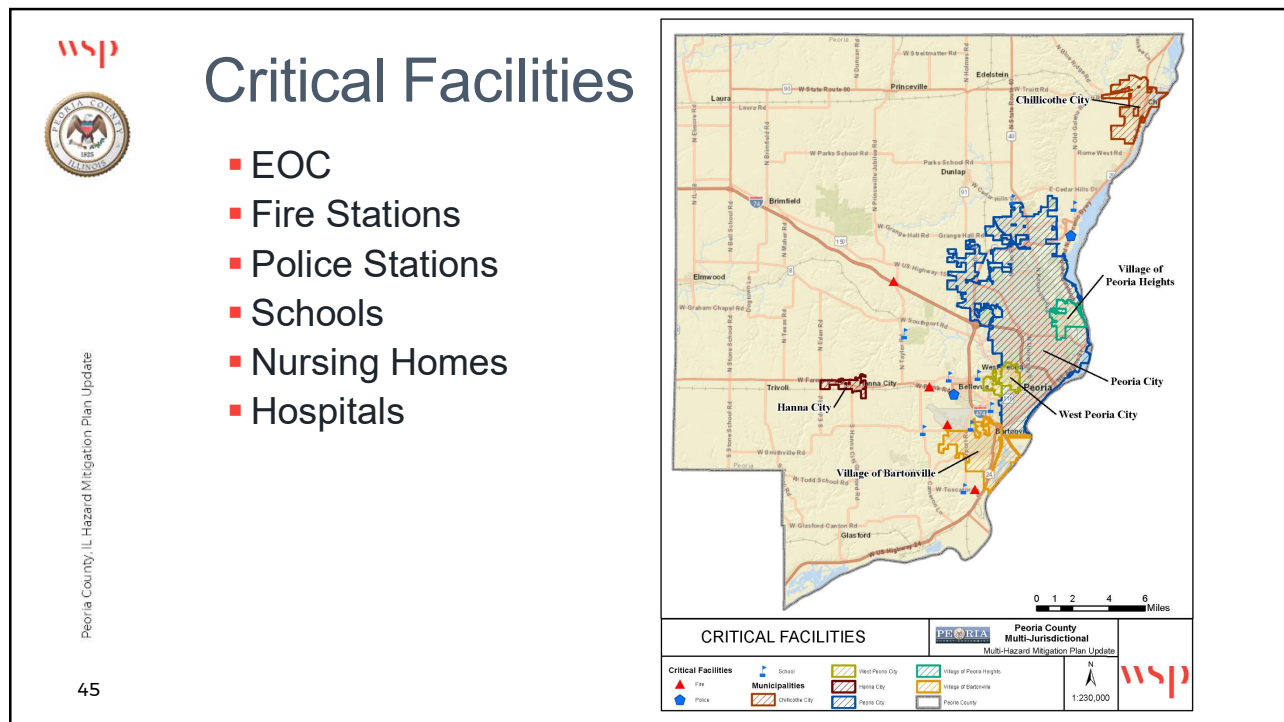
| Hazard                        | Geographic Location (Percentage of People) | Probability of Future (Frequency) | Magnitude/Severity | Hazard Rating | Hazard Rating variation for other jurisdictions             |
|-------------------------------|--|-----------------------------------|--------------------|---------------|---|
| Earthquake                    | Low  | Low                               | Low                | Low           |   |
| Land Subsidence               | Medium                                     | Low                               | Low                | Guarded       | Low<br>Chillicothe, Peoria Heights                          |
| Landslide                     | Low  | Medium                            | Low                | Guarded       | Low<br>Hanna City   |
| Wildfire                      | Medium                                     | Low                               | Low                | Guarded       |   |
| Dam/Levee Failure             | Low  | Low                               | High               | Elevated      | Low<br>Chillicothe, Hanna City, Peoria Heights, West Peoria |
| Drought                       | High                                       | Low                               | Low                | Elevated      |   |
| Terrorism Events              | Low  | Low                               | High               | Elevated      |   |
| Active Shooter                | Low  | Low                               | High               | Elevated      |   |
| Hazardous Materials Incidents | Medium                                     | High                              | Low                | High          |   |
| Extreme Temperatures          | High                                       | Medium                            | Medium             | High          |   |
| Flood                         | Medium                                     | High                              | High               | Severe        | Low – Hanna City<br>Guarded – Chillicothe, Peoria Heights   |
| Severe Thunderstorms          | High                                       | High                              | Medium             | Severe        |   |
| Tornado                       | High                                       | Medium                            | High               | Severe        |   |
| Severe Winter Storm           | High                                       | High                              | Medium             | Severe        |   |





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Peoria County, IL Hazard Mitigation Plan Update

## Risk Assessment Methodology

| Vulnerability and Loss Estimation Method |  |
|--|--|
| <b>Dam/Levee Failure</b>                 | <ul style="list-style-type: none"> <li>Need inundation mapping for full loss estimation</li> <li>Utilize FIRM for areas behind levee</li> </ul>  |
| <b>Earthquake</b>                        | <ul style="list-style-type: none"> <li>HAZUS-MH Loss Estimation</li> <li>Newer version of HAZUS since 2010 plan, identified critical facilities</li> </ul>   |
| <b>Flood</b>                             | <ul style="list-style-type: none"> <li>HAZUS-MH Loss Estimation</li> <li>Newer version of HAZUS since 2010 plan, FIRM Mapping, identified critical facilities</li> </ul>   |
| <b>Land Subsidence</b>                   | <ul style="list-style-type: none"> <li>GIS-based risk modeling</li> <li>Identified Mine locations</li> </ul>   |
| <b>Landslide</b>                         | <ul style="list-style-type: none"> <li>GIS-based risk modeling</li> <li>Areas of high susceptibility and high incidence</li> </ul>   |
| <b>Wildfire</b>                          | <ul style="list-style-type: none"> <li>GIS-based risk modeling</li> <li>Wildfire Urban Interface and Intermix areas</li> </ul>   |
| <b>Hazardous Materials Incidents</b>     | <ul style="list-style-type: none"> <li>GIS-based risk modeling</li> <li>Tier-II facilities; Interstates and Railways – boundary area</li> <li>Population and buildings within identified area</li> <li>Hypothetical Scenario Based Estimates</li> </ul>  |
| <b>Terrorism Events</b>                  | <ul style="list-style-type: none"> <li>Analysis of vulnerable populations is aided by a program developed by Johns Hopkins University in 2006 called Electronic Mass Casualty Assessment and Planning Scenarios (EMCAPS) which utilizes scenarios developed by the Department of Homeland Security.</li> </ul> |

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Peoria County, IL Hazard Mitigation Plan Update

## Mitigation Strategy

- Goals
  - 2018 Peoria County Plan
  - Tri-County Regional Mitigation Plan
  - 2018 Illinois State Mitigation Plan
- Action Items – Next HMPC Meeting
  - Status Update of Existing Action Items – homework!
  - Additional Action Items
  - Prioritization of all Action Items

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Peoria County, IL Hazard Mitigation Plan Update

## 2018 State Mitigation Goals

- Maintain and enhance the State of Illinois's capacity to continuously protect the lives, health, and safety of the public in Illinois from the impact and effects of natural hazards.
- Build and support local capacity and commitment to continuously become less vulnerable to natural hazards with a focus on Repetitive and Severe Repetitive Loss Properties.
- Improve coordination and communication with other relevant entities.
- Increase public understanding, support, education and demand for hazard mitigation planning and projects; to protect public services, utilities and critical facilities from potential damage from natural hazard events.

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## 2018 Peoria County Mitigation Goals

### **Goal 1: Reduce the vulnerability of the people, property, and environment of Peoria County from the effects of natural and man-made hazards.**

- Strengthen protection of critical facilities and infrastructure to create a safer, more sustainable community.
- Build and support local capabilities to respond and recovery from natural and man-made hazard events.
- Increase the local floodplain management activities and participation in the NFIP.
- Protect community historic/cultural/environmental resources from identified natural and man-made hazards

### **Goal 2: Enhance public education programs to raise awareness of and preparedness for hazard events.**

### **Goal 3: Improve and coordinate mitigation activities with surrounding communities, non-profits, and private businesses.**





## Tri-County Regional Mitigation Goals

- Goal 1 - **Educate people** about the natural hazards they face and the ways they can protect themselves, their homes, and their businesses from those hazards.
- Goal 2 - **Protect the crops and lives, health, and safety of the people and animals** in the County from the dangers of natural hazards.
  - Goal 3 - Protect existing **infrastructure** and design new infrastructure (roads, bridges, utilities, water supplies, sanitary sewer systems, etc.) to be resilient to the impacts of natural hazards.
  - Goal 5 - Place a priority on protecting public services, **including critical facilities**, utilities, roads and schools.
  - Goal 6 - Preserve and protect the rivers and **floodplains** in our County.
  - Goal 8 - Protect historic, cultural, and natural resources from the effects of natural hazards.
- Goal 4 - Incorporate natural hazard mitigation into community plans, regulations and activities.
- Goal 7 - Ensure that new developments do not create new exposures to damage from natural hazards.

# Project Schedule and Next Steps

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Peoria County, IL Hazard Mitigation Plan Update

Project Schedule

## Planning Process Timeline and Milestones

**February**

Meetings

- HMPC Meeting #2 – Risk Assessment Results and Mitigation Goals

Tasks

- February 27 – WSP to provide Draft Chapters 1, 2, and 3 for review/comment

**March**

Meetings

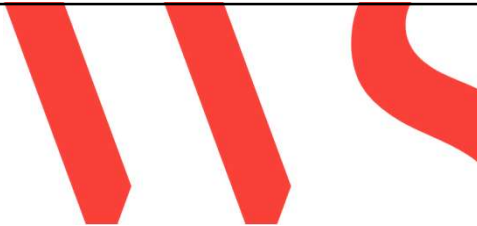
- HMPC Meeting #3 – New Mitigation Actions; Document Review Process
- Hold Public Meeting #2 – VIRTUAL - Document Review Process and Comment Period

Tasks

- March 20 – WSP to provide Draft Chapters 4 and 5 for review/comment





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# Thank you

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