

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

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

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.

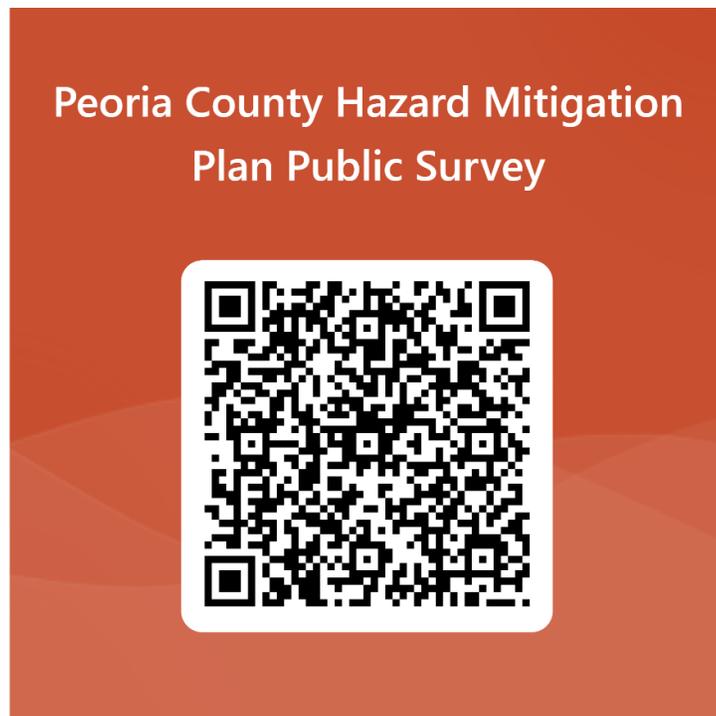
10-Step Mitigation Planning Process

FEMA Planning Elements	FEMA Local Mitigation Planning Handbook Tasks (44 CFR Part 201)	Community Rating System (CRS) Planning Steps (Activity 510)
Element A: Planning Process	Task 1: Determine the Planning Area and Resources	Step 1. Organize
	Task 2: Build the Planning Team 44 CFR 201.6(c)(1)	
	Task 3: Create an Outreach Strategy 44 CFR 201.6(b)(1)	Step 2. Involve the public
	Task 4: Review Community Capabilities 44 CFR 201.6(b)(2) & (3)	Step 3. Coordinate
Element B: Risk Assessment Element G: High Hazard Potential Dams	Task 5: Conduct a Risk Assessment 44 CFR 201.6(c)(2)(i) 44 CFR 201.6(c)(2)(ii) & (iii)	Step 4. Assess the hazard(s)
		Step 5. Assess the problem(s)
Element C: Mitigation Strategy	Task 6: Develop a Mitigation Strategy 44 CFR 201.6(c)(3)(i); 44 CFR 201.6(c)(3)(ii); and 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 Element E: Plan Update	Task 7: Keep the Plan Current	Step 10. Implement, evaluate, revise
	Task 9: Create a Safe and Resilient Community 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 Chillicothe, Peoria Heights
Landslide	Low	Medium	Low	Guarded	Low Hanna City
Dam/Levee Failure	Low	Low	High	Elevated	Low 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 – Hanna City Guarded – Chillicothe, Peoria Heights
Severe Thunderstorms	High	High	Medium	Severe	
Tornado	High	Medium	High	Severe	
Severe Winter Storm	High	High	Medium	Severe	

Goals

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

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 15th, 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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Peoria County, IL Hazard Mitigation Plan Update

Introductions

Introductions

- Welcome!
- Opening Remarks

Peoria County Project Leads

Reema Abi-Akar, Tri-County Regional Planning Commission

WSP Planning Consultant & Contact Info

Cindy Popplewell - cindy.popplewell@wsp.com

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Peoria County, IL Hazard Mitigation Plan Update

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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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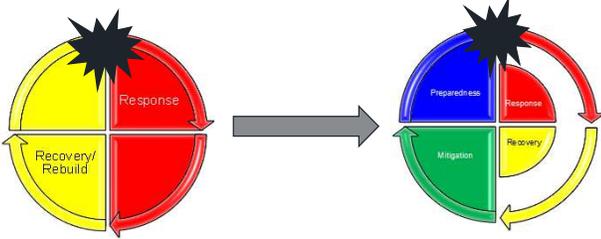


Peoria County, IL Hazard Mitigation Plan Update

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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
Phase I - Organize Resources	
§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
Phase II - Risk Assessment	
§201.6(c)(2)(i)	Step 4. Assess the Hazard
§201.6(c)(2)(ii) & (iii)	Step 5. Assess the Problem
Phase III - Mitigation Strategy	
§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
Phase IV - Plan Maintenance	
§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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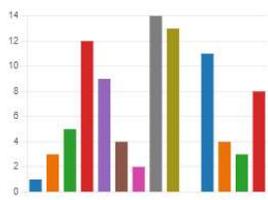



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4. What natural and man-made hazards do you feel pose a threat to Peoria County? Please check all that apply.

[More Details](#)

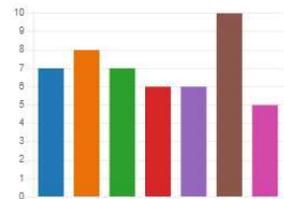
● Dam/Levee Failure	1
● Drought	3
● Earthquake	5
● Extreme Temperatures	12
● Flood	9
● Land Subsidence/Sinkholes	4
● Landslide	2
● Severe Thunderstorms/High Wind	14
● Tornadoes	13
● Wildfire	0
● Winter Storms	11
● Hazardous Materials Incidents	4
● Terrorism Events	3
● Active Shooter	8



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 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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Peoria County, IL Hazard Mitigation Plan Update

- **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

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 Chillicothe, Peoria Heights
Landslide	Low	Medium	Low	Guarded	Low Hanna City
Wildfire	Medium	Low	Low	Guarded	
Dam/Levee Failure	Low	Low	High	Elevated	Low 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 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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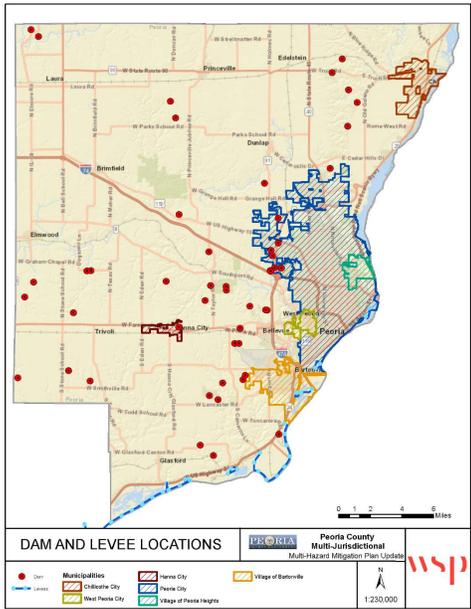
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Dam/Levee Failure

- **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



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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**

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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%

Peoria County, IL Hazard Mitigation Plan Update

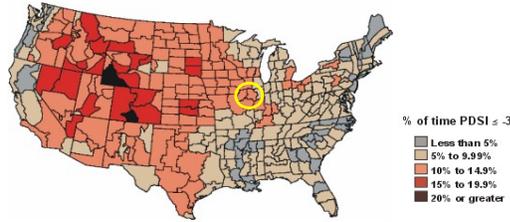
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Peoria County, IL Hazard Mitigation Plan Update

Palmer Drought Severity Index 1895–1995 Percent of time in severe and extreme drought



SOURCE: McKee et al. (1993); NOAA (1990); High Plains Regional Climate Center (1996)
Albers Equal Area Projection; Map prepared at the National Drought Mitigation Center

U.S. Drought Monitor Illinois

January 10, 2023
(Released Thursday, Jan. 12, 2023)
Valid 7 a.m. EST



Drought Conditions (Percent Area)	Drought Conditions (Percent Area)				
	D1	D2	D3	D4	D5
Current	21.62	48.98	3.08	0.00	0.00
Last Week	22.34	44.68	3.08	0.00	0.00
5-Days Ago	18.45	22.55	19.23	2.08	0.00
10-Days Ago	12.34	14.68	3.08	0.00	0.00
1-Mile Year	19.33	34.67	8.75	0.00	0.00
5-Mile Year	18.38	13.02	3.76	0.00	0.00

Intensity:
None D1 Extreme Drought
D1 Moderate Drought D2 Severe Drought
D2 Moderate Drought D3 Extreme Drought
D3 Moderate Drought D4 Exceptional Drought
D4 Extreme Drought D5 Exceptional Drought

The Drought Monitor issues its bi-weekly updates based on the most current available data. For more information on the Drought Monitor, go to <http://www.droughtmonitor.unl.edu>

Author:
Richard Taylor
DROUGHTMONITOR@USDA.GOV

USDA NCEM SPC NOAA droughtmonitor.unl.edu

- **Location:** High - More than 25% of the total population adversely affected should the hazard occur
- **Previous Occurrences:**
 - 1902, 1915, 1931, 1934, 1936, 1954, 1964, 1988, and 2005
 - 2012-2022 - Four USDA Disaster Declarations for Peoria County
- **Probability:** Medium - 13 to 60 occurrences in the last 60 years
- **Magnitude/Severity:** Low – Minor injuries (under 50) & property damage (under \$1,000,000), or less than 24-hour shutdown of essential facilities
- **Elevated/High**

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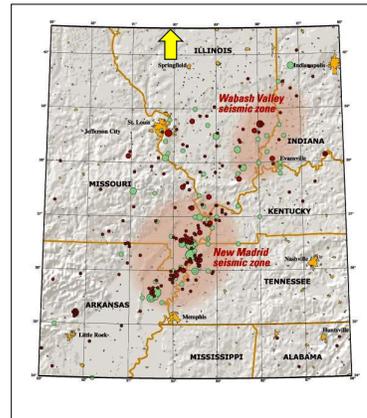
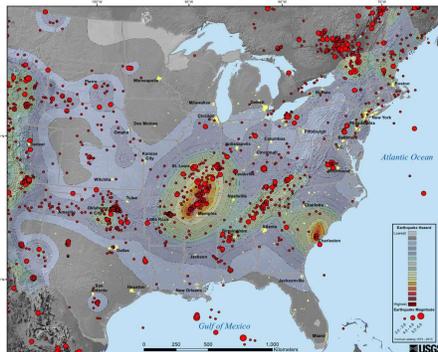
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Peoria County, IL Hazard Mitigation Plan Update

Earthquake

- New Madrid Seismic Zone and Wabash Valley Seismic Zone



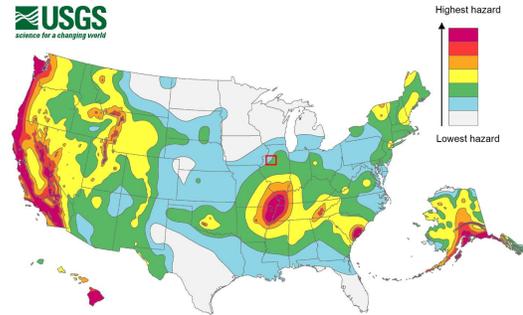
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Earthquake

- **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**



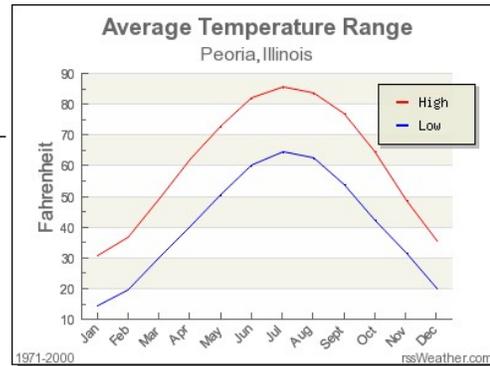
Extreme Temperatures

- **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

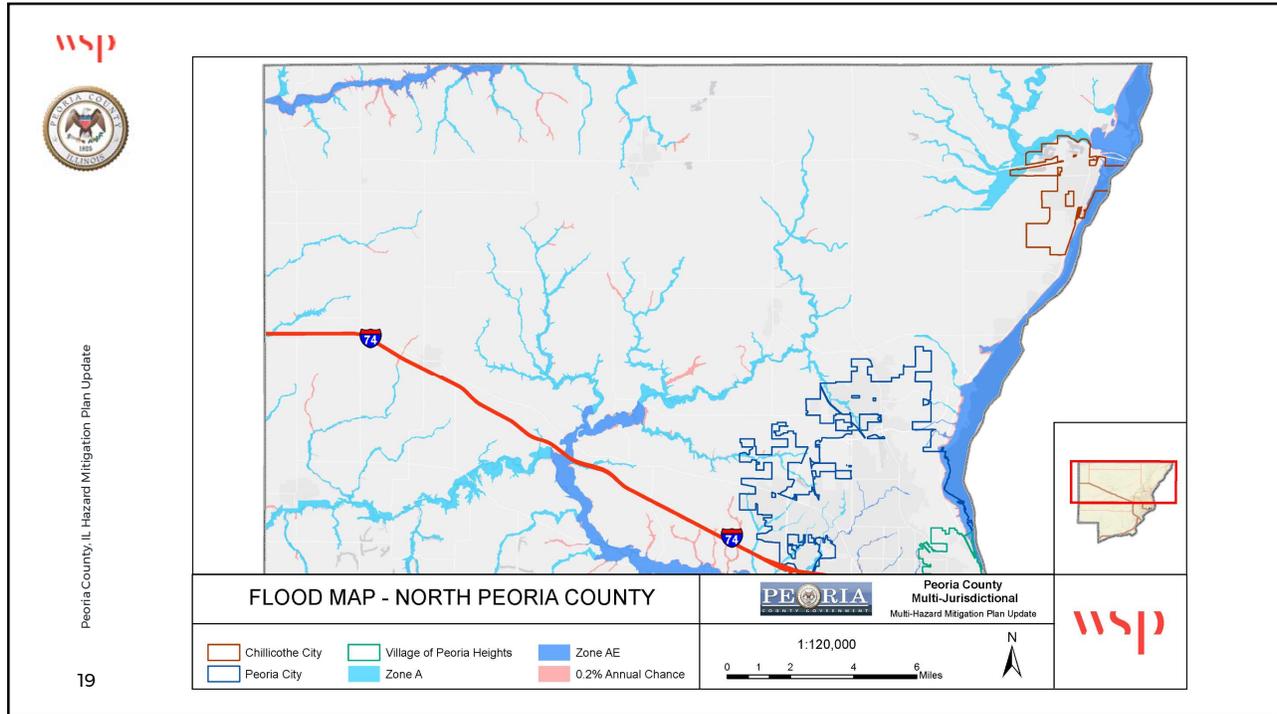
- **Location:** High - More than 25% of the total population adversely affected should the hazard occur
- **Previous Occurrences:** NCEI Database - 24 extreme events in 26 years (1996-2022)
- **Probability:** Medium - 12 to 60 occurrences in the last 60 years (20-100% chance of occurrence each year)
- **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**



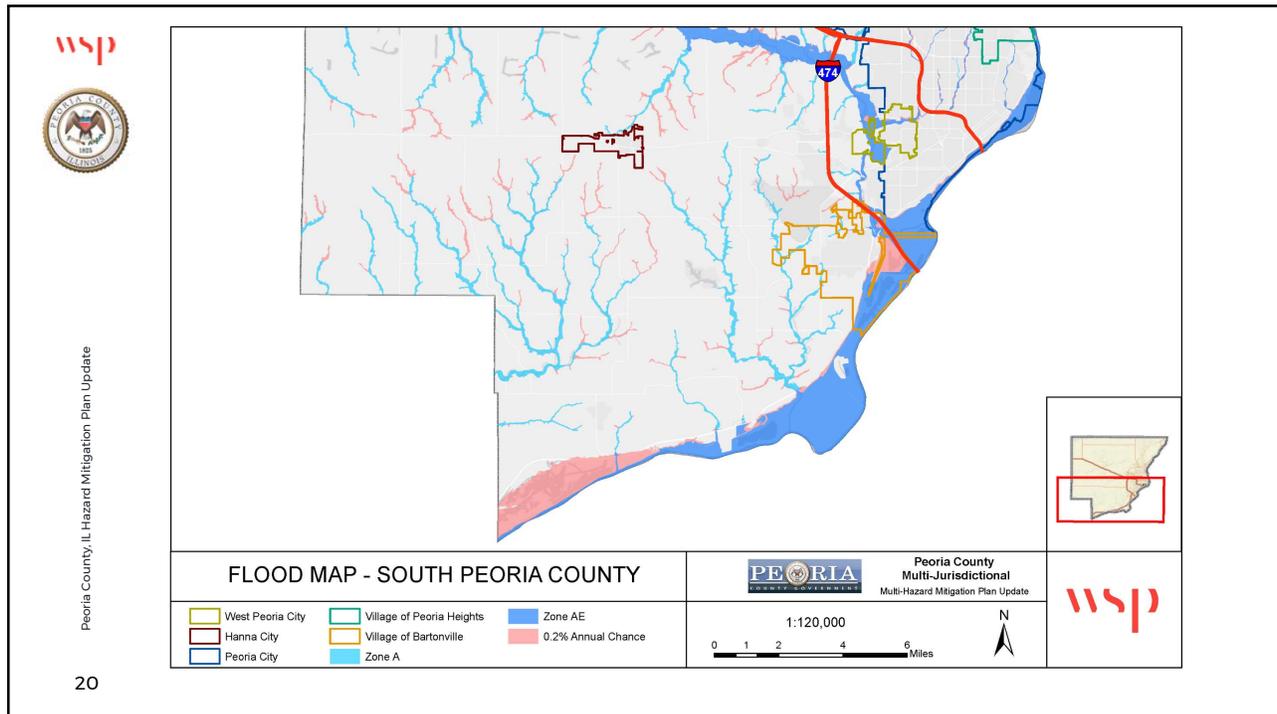
Flood

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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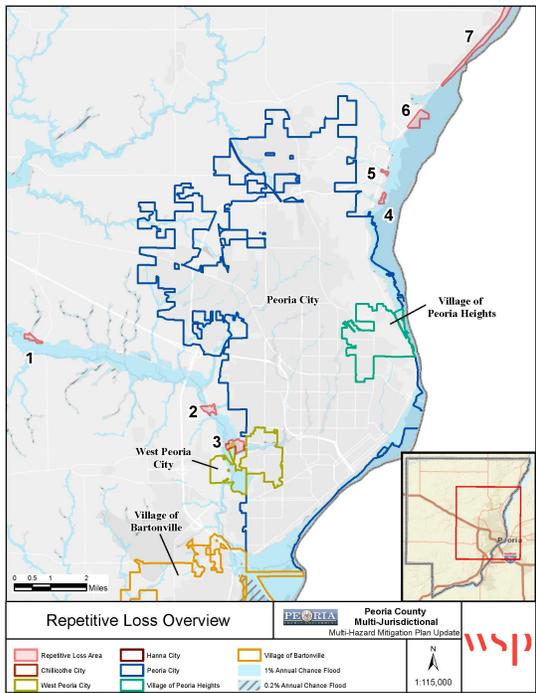
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Peoria County, IL Hazard Mitigation Plan Update

Repetitive Loss Areas

- Edwards
- Pottstown
- Farmington Road/Kickapoo and Dry Run Confluence
- South Mossville
- Mossville
- North Mossville
- Rome



Repetitive Loss Overview

Peoria County Multi-Jurisdictional Multi-Hazard Mitigation Plan Update

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Peoria County, IL Hazard Mitigation Plan Update

Flood

- **Location:** Medium – Between 10% to 25% of the total population adversely affected should the hazard occur.
- **Previous Occurrences:** - 31 flash flooding and 10 riverine flood events since 1996
- **Probability:** High - More than 60 occurrences in the last 60 years (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; Low - Hanna City; Guarded - Chillicothe, and Peoria Heights**

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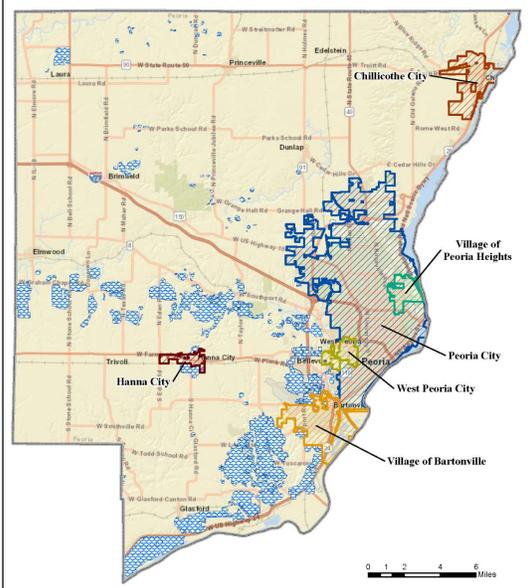
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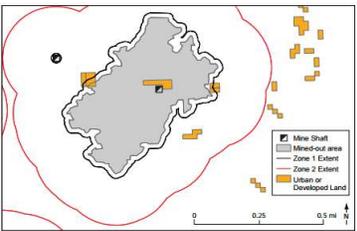

Peoria County, IL Hazard Mitigation Plan Update

Land Subsidence

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



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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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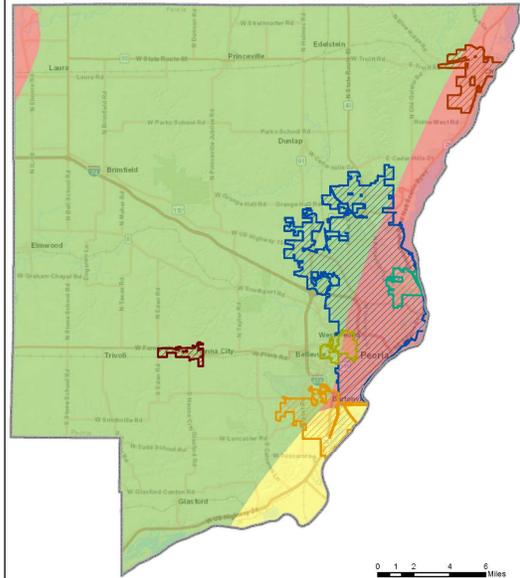
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Peoria County, IL Hazard Mitigation Plan Update

Landslides

- The downhill movement of masses of soil and rock by gravity
- Planning area is predominately area of low incidence
- Areas of high incidence along Illinois River
- Areas of high susceptibility also along Illinois River and northwest corner of County



LANDSLIDES	
Municipalities Chicago City East Peoria City West Peoria City Hanna City	Landslide Vulnerability Rating Susceptibility High Incidence Low Incidence High

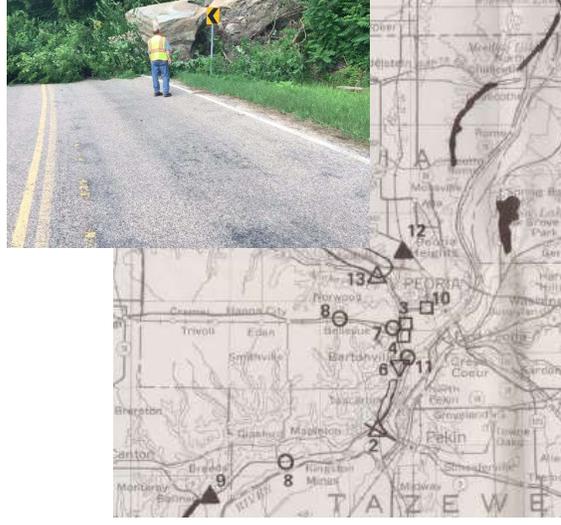
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Peoria County, IL Hazard Mitigation Plan Update

Landslides

- **Location:** Low - Less than 10% of the total population adversely affected should the hazard occur
- **Previous Occurrences:** 14 events since 1928;
 - ✓ June 2018, Kickapoo Creek Road Massive Rockslide
- **Probability:** Medium - 12 to 60 occurrences in the last 60 years (20-100% 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
- **Elevated, Low for Hanna City**

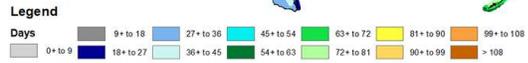
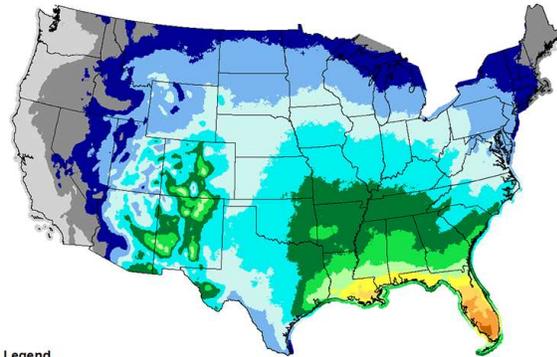





Severe Storms

- 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.

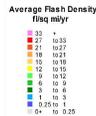
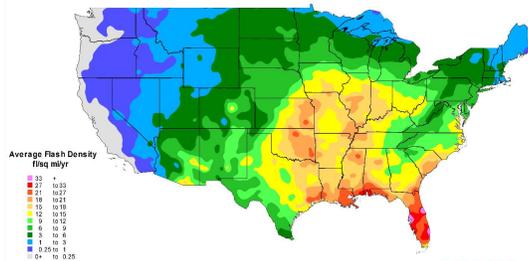
Annual Mean Thunderstorm Days (1993-2018)



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



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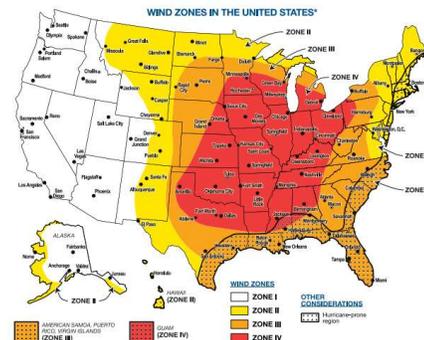


Figure 2-7: Wind Zones in the United States*

* If you are uncertain of your location because of the level of detail and size of the map, or you live on or very near one of the delineation lines, use the highest adjacent wind zone.

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Severe Storms



- **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**

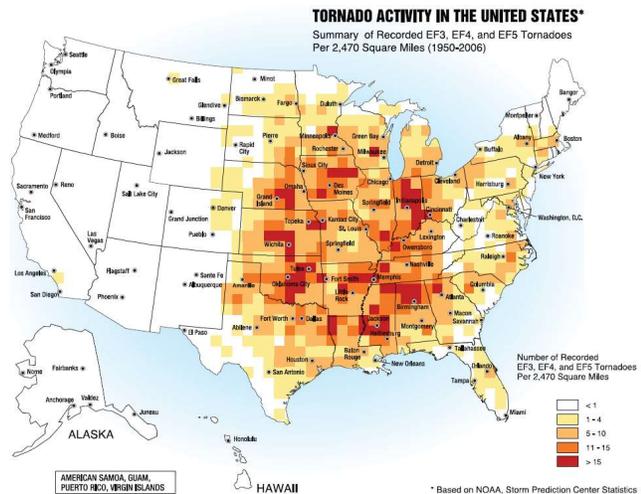
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Tornado



- 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



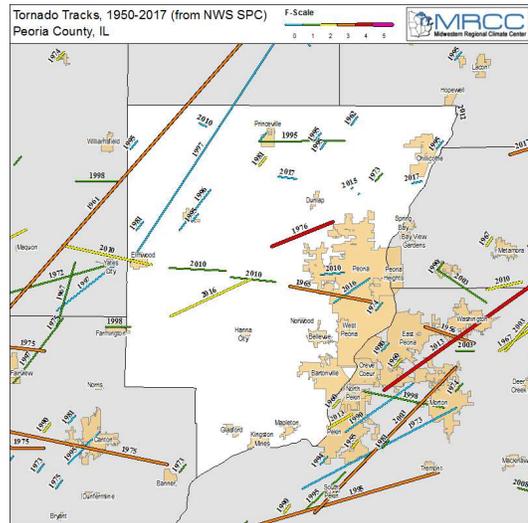
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Tornado

- **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**



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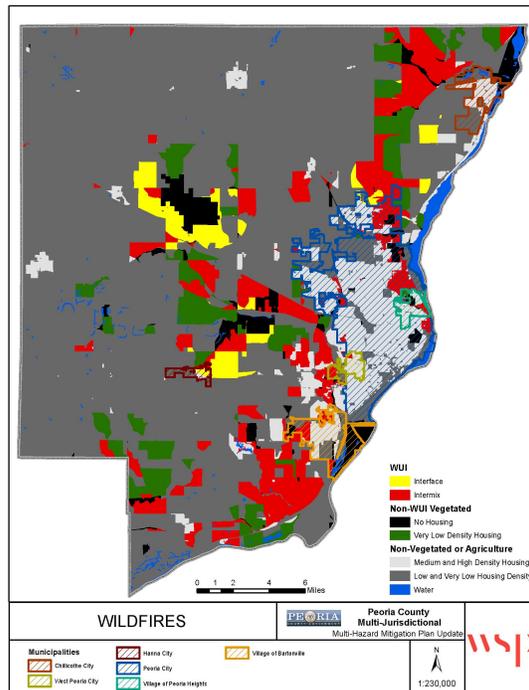
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Wildfire

- 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



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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?**

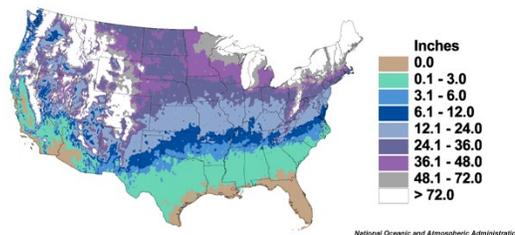
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Severe Winter Storms

- 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



Peoria County, IL Hazard Mitigation Plan Update



Severe Winter 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):** 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

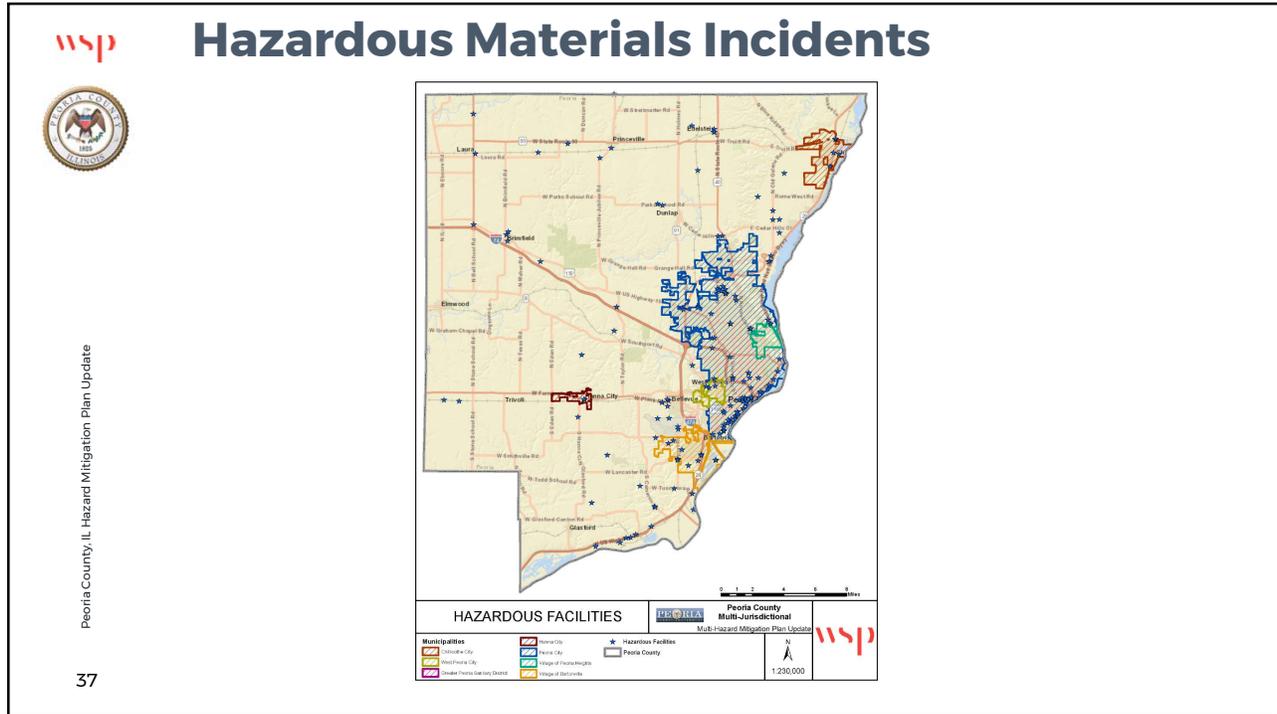
- Fixed Facility
- Transportation Routes



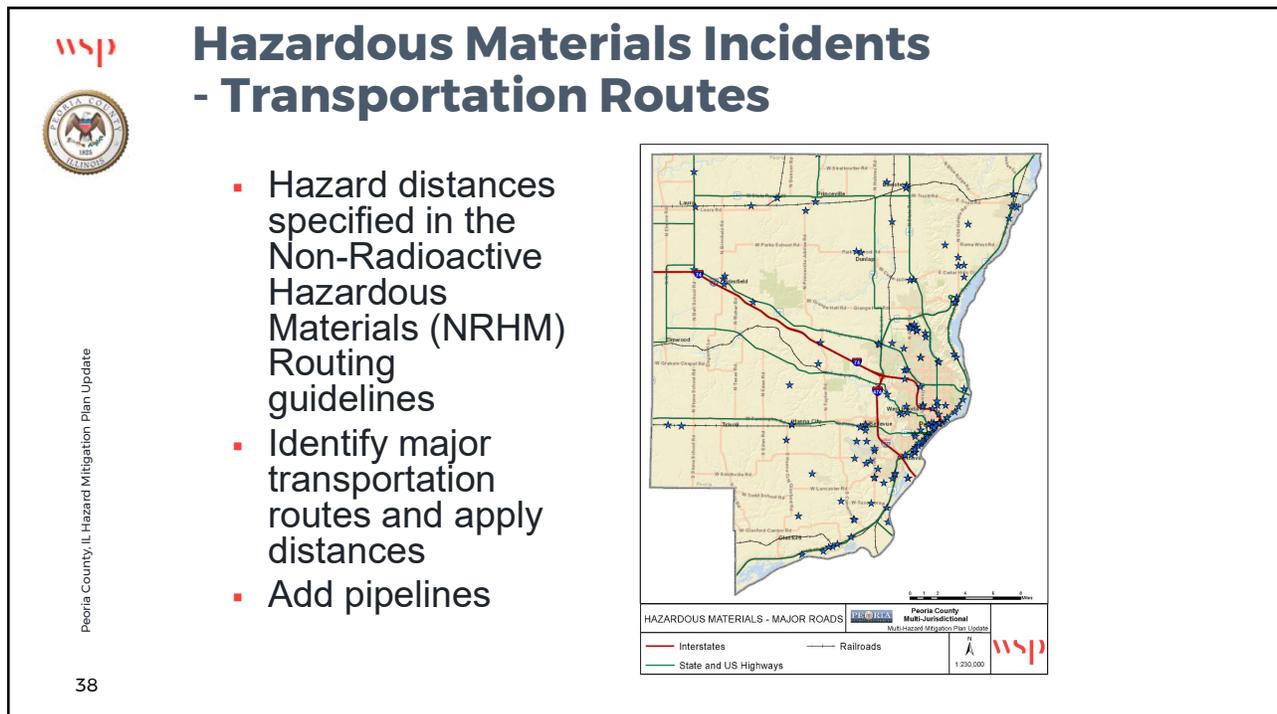
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- Hazard distances specified in the Non-Radioactive Hazardous Materials (NRHM) Routing guidelines
- Identify major transportation routes and apply distances

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



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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**

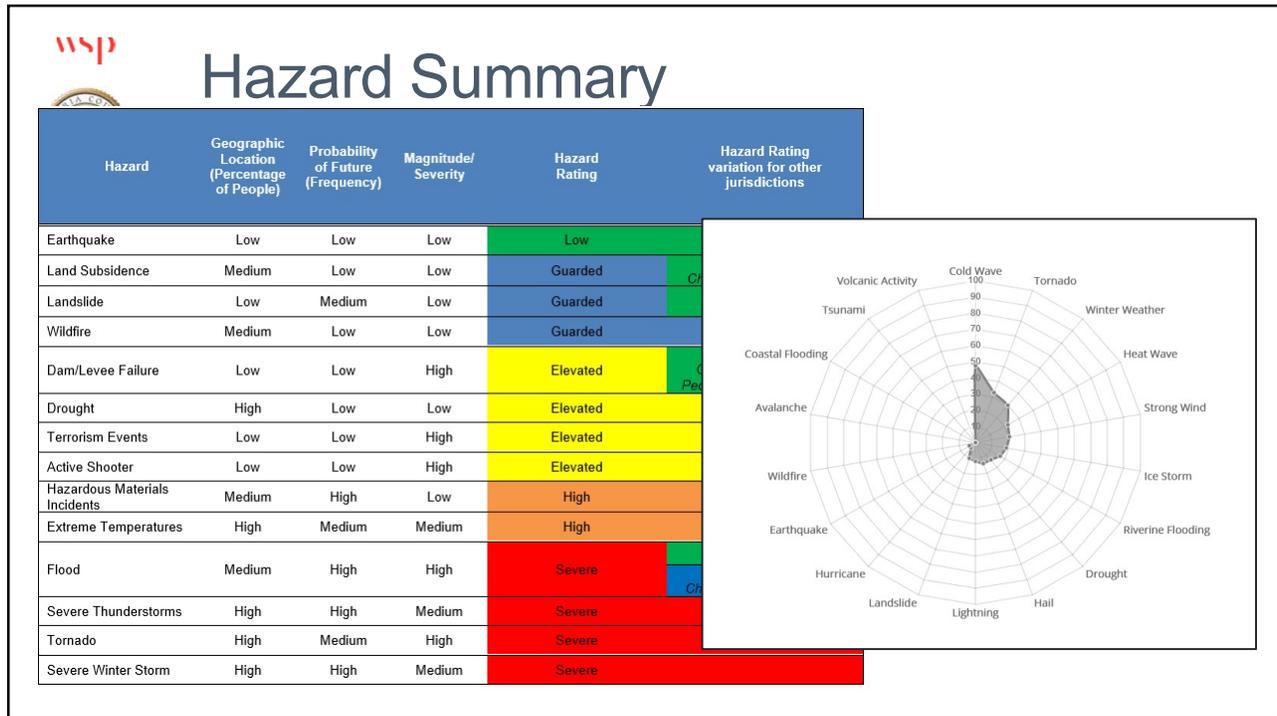
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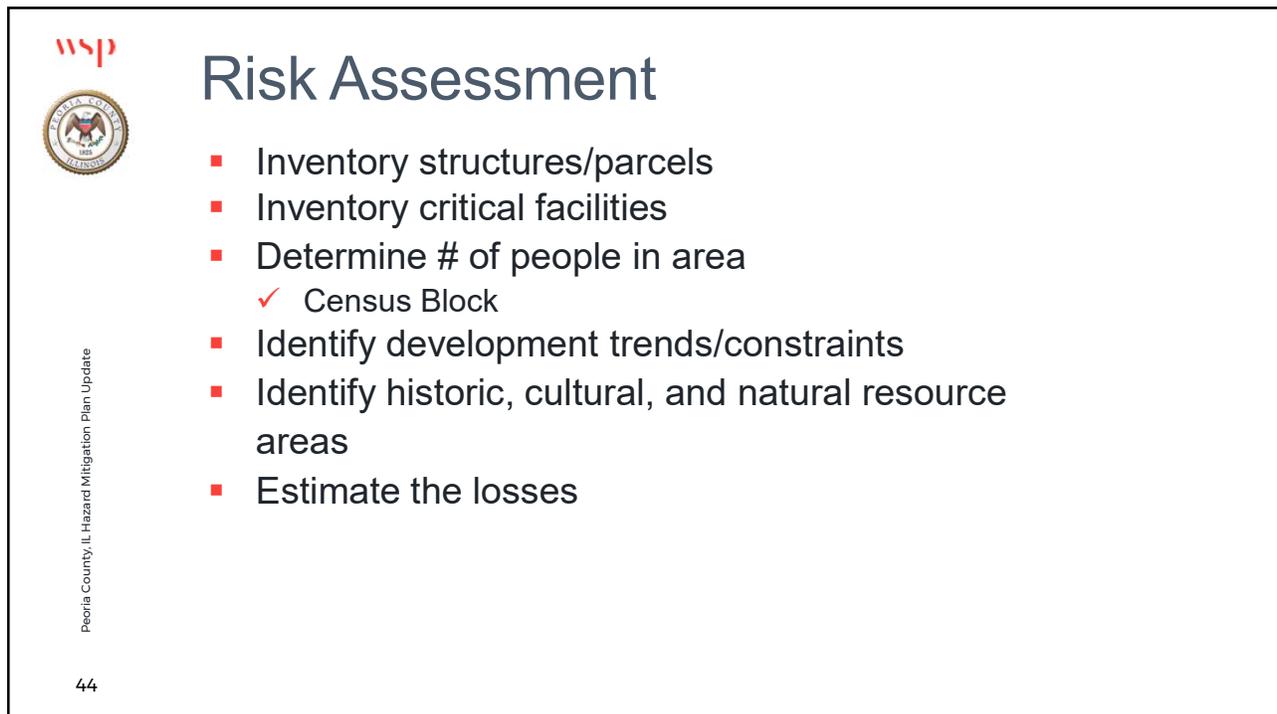
Hazard Summary

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 Chillicothe, Peoria Heights
Landslide	Low	Medium	Low	Guarded	Low Hanna City
Wildfire	Medium	Low	Low	Guarded	
Dam/Levee Failure	Low	Low	High	Elevated	Low 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 Guarded - Chillicothe, Peoria Heights
Severe Thunderstorms	High	High	Medium	Severe	
Tornado	High	Medium	High	Severe	
Severe Winter Storm	High	High	Medium	Severe	

Peoria County, IL Hazard Mitigation Plan Update



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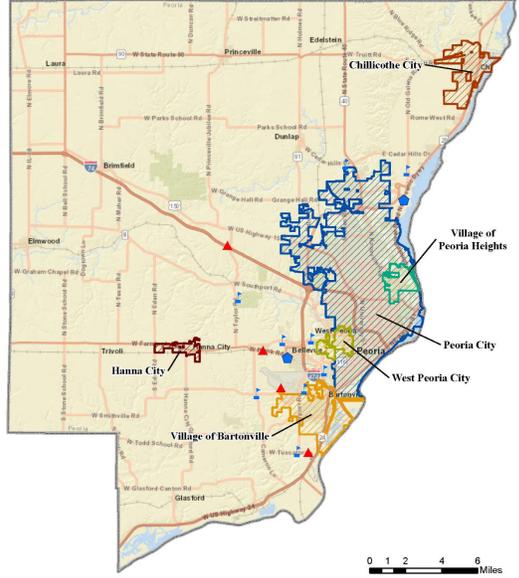
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Peoria County, IL Hazard Mitigation Plan Update

Critical Facilities

- EOC
- Fire Stations
- Police Stations
- Schools
- Nursing Homes
- Hospitals



CRITICAL FACILITIES

Fire	School	West Peoria City	Village of Peoria Heights
Police	Hanna City	Village of Bartonville	Peoria County
	Chillicothe City	Peoria City	

Peoria County
Multi-Jurisdictional
Multi-Hazard Mitigation Plan Update

1:250,000






Peoria County, IL Hazard Mitigation Plan Update

Risk Assessment Methodology

	Vulnerability and Loss Estimation Method
Dam/Levee Failure	<ul style="list-style-type: none"> • Need inundation mapping for full loss estimation • Utilize FIRM for areas behind levee
Earthquake	<ul style="list-style-type: none"> • HAZUS-MH Loss Estimation • Newer version of HAZUS since 2010 plan, identified critical facilities
Flood	<ul style="list-style-type: none"> • HAZUS-MH Loss Estimation • Newer version of HAZUS since 2010 plan, FIRM Mapping, identified critical facilities
Land Subsidence	<ul style="list-style-type: none"> • GIS-based risk modeling • Identified Mine locations
Landslide	<ul style="list-style-type: none"> • GIS-based risk modeling • Areas of high susceptibility and high incidence
Wildfire	<ul style="list-style-type: none"> • GIS-based risk modeling • Wildfire Urban Interface and Intermix areas
Hazardous Materials Incidents	<ul style="list-style-type: none"> • GIS-based risk modeling • Tier-II facilities; Interstates and Railways – boundary area • Population and buildings within identified area • Hypothetical Scenario Based Estimates
Terrorism Events	<ul style="list-style-type: none"> • 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.

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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

Peoria County, IL Hazard Mitigation Plan Update

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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.

Peoria County, IL Hazard Mitigation Plan Update

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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

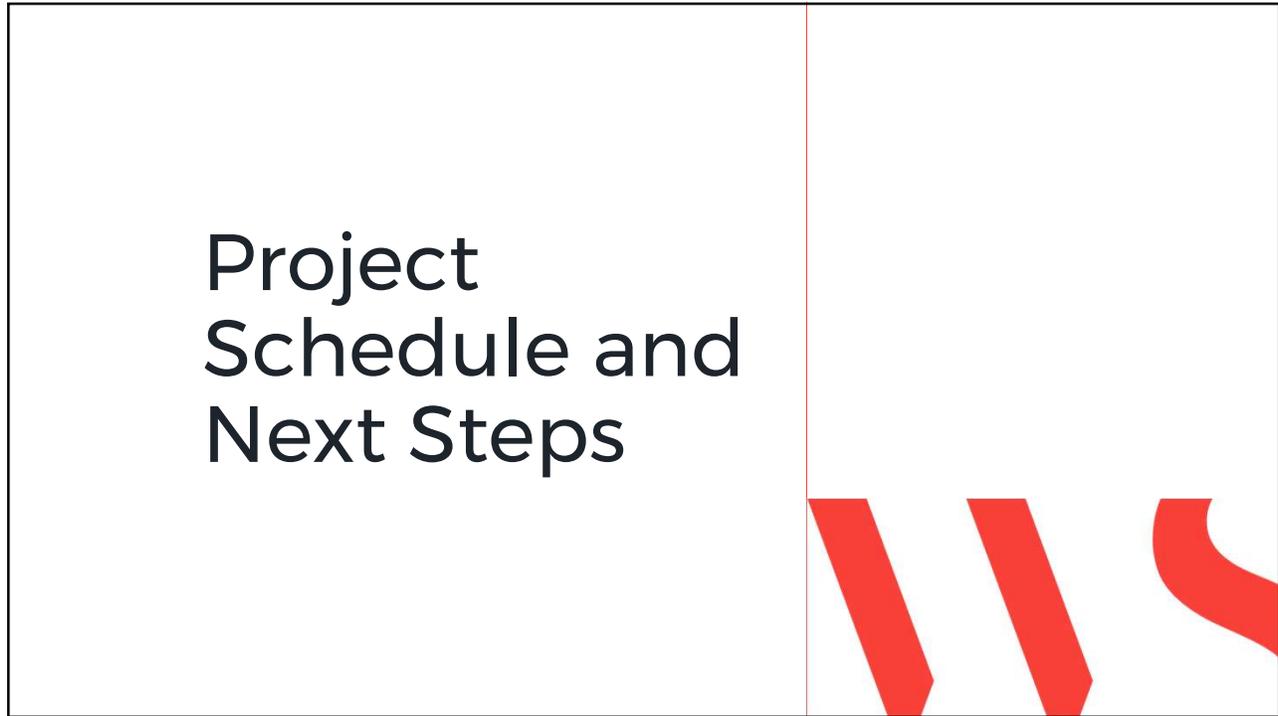
Goal 2: Enhance public education programs to raise awareness of and preparedness for hazard events.

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.



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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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