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Illinois State Water Survey

PRAIRIE RESEARCH INSTITUTE

Montgomery County, Illinois
Flood Risk Review Meeting
Tuesday, June 3, 2025

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FEMA

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

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MONTGOMERY COUNTY, IL FLOOD RISK REVIEW MEETING: JUNE 3, 2025

PRE-MEETING SURVEY

1. **How much do you know about your community's flood risk?**

   ◯ a lot
   ◯ some
   ◯ not much

2. **How much do you know about FEMA Risk Mapping, Assessment and Planning (Risk MAP)?**

   ◯ a lot
   ◯ some
   ◯ not much

3. **Are you able to communicate flood risk to your community?**

   ◯ yes
   ◯ no

4. **Would you know where to go to get flood mitigation help??**

   ◯ yes
   ◯ no

Agenda

- Rollcall
- Introduction
- Project Goals and Objectives
- Project Scope
- Project Milestones
- Hydrologic Study Methods
- Hydraulic Study Methods
- Draft Floodplain Results
- Webmap
- Communication and Next Steps
- Risk Communications and Mitigation Actions
- Community Participation
- Discussion

Rollcall

Village of Butler
Village of Coalton
City of Coffeen[+]
Village of Donnellson[+]
Village of Farmersville[+]
Village of Fillmore
Village of Harvel
City of Hillsboro[*+]
Village of Irvine
City of Litchfield[*+]
City of Nokomis[*+]

Village of Ohlman
Village of Panama[+]
Village of Raymond
Village of Schram City[+]
Village of Taylor Springs[+]
Village of Waggoner[+]
Village of Walshville
Village of Wenonah
City of Witt[*+]
Montgomery County [*+]

Other Agencies?

FEMA
IDNR
IEMA

*National Flood Insurance Program (NFIP) participants
[+] Participating Jurisdiction Represented in the 2016 NHMP

Introduction

Introduction

Who We Are

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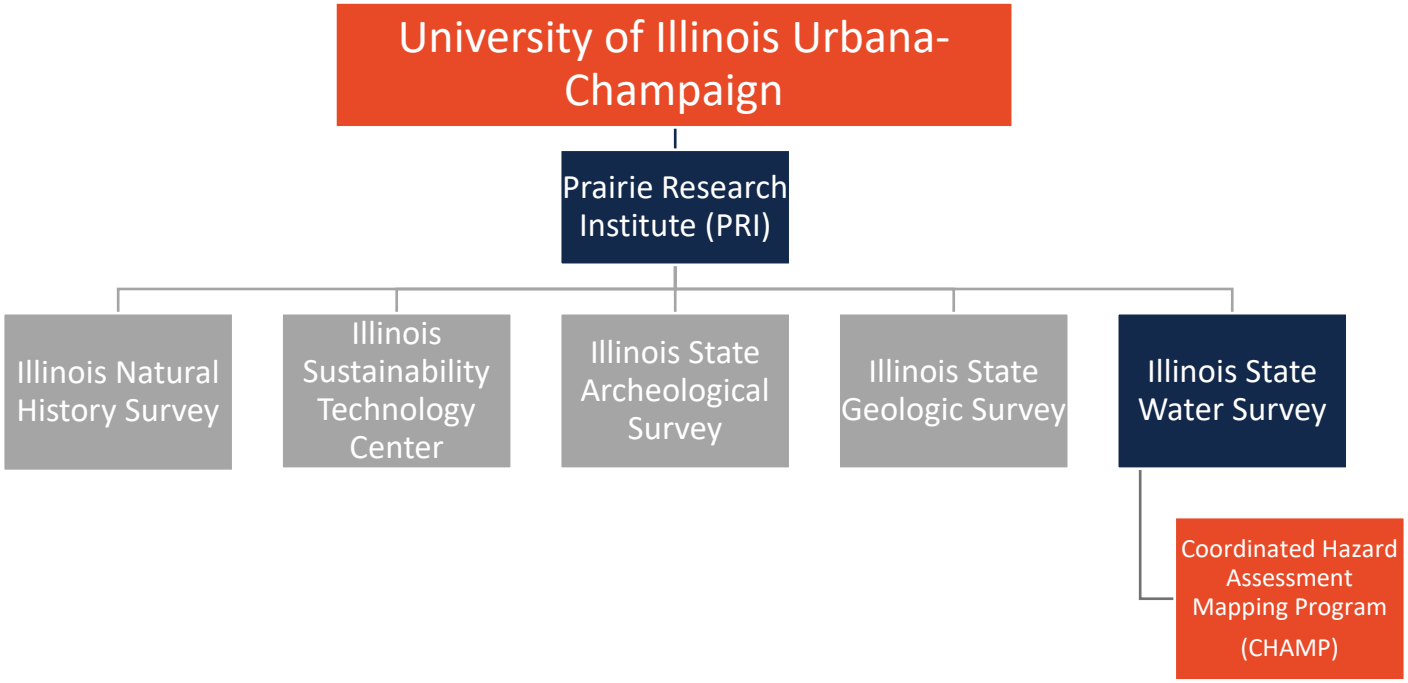

https://www.illinoisfloodmaps.org/

https://www.isws.illinois.edu/champ

Introduction

Our Partners

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FEMA

ISWS is a Cooperating Technical Partner (CTP) with the Federal Emergency Management Agency. (FEMA)

IDNR-OWR

ISWS partners with The Illinois Department of Natural Resources-Office of Water Resources (IDNR-OWR). Together we prioritize Illinois floodplain studies and mapping projects.

Your Community

ISWS provides ongoing engagement with state and local officials and watershed stakeholders to reduce flood risk.

Introduction

What We Do

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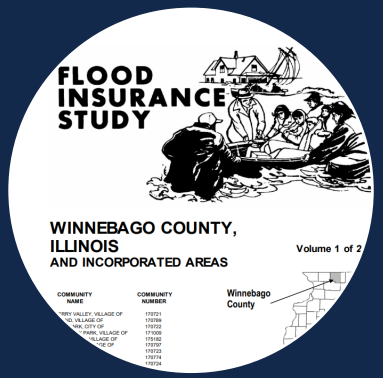

Produce Flood Studies

Generate Floodplain Mapping

Inform Communities of Flood Risk

Introduction

What We Do

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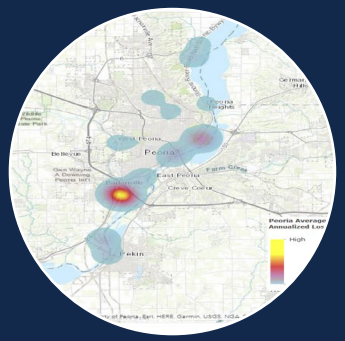
Provide Hazard Mitigation Plans



Provide Structure Specific Risk Assessments

Introduction

How We Are Funded

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NATIONAL FLOOD INSURANCE PROGRAM

FEMA administers the **National Flood insurance Program** (NFIP).

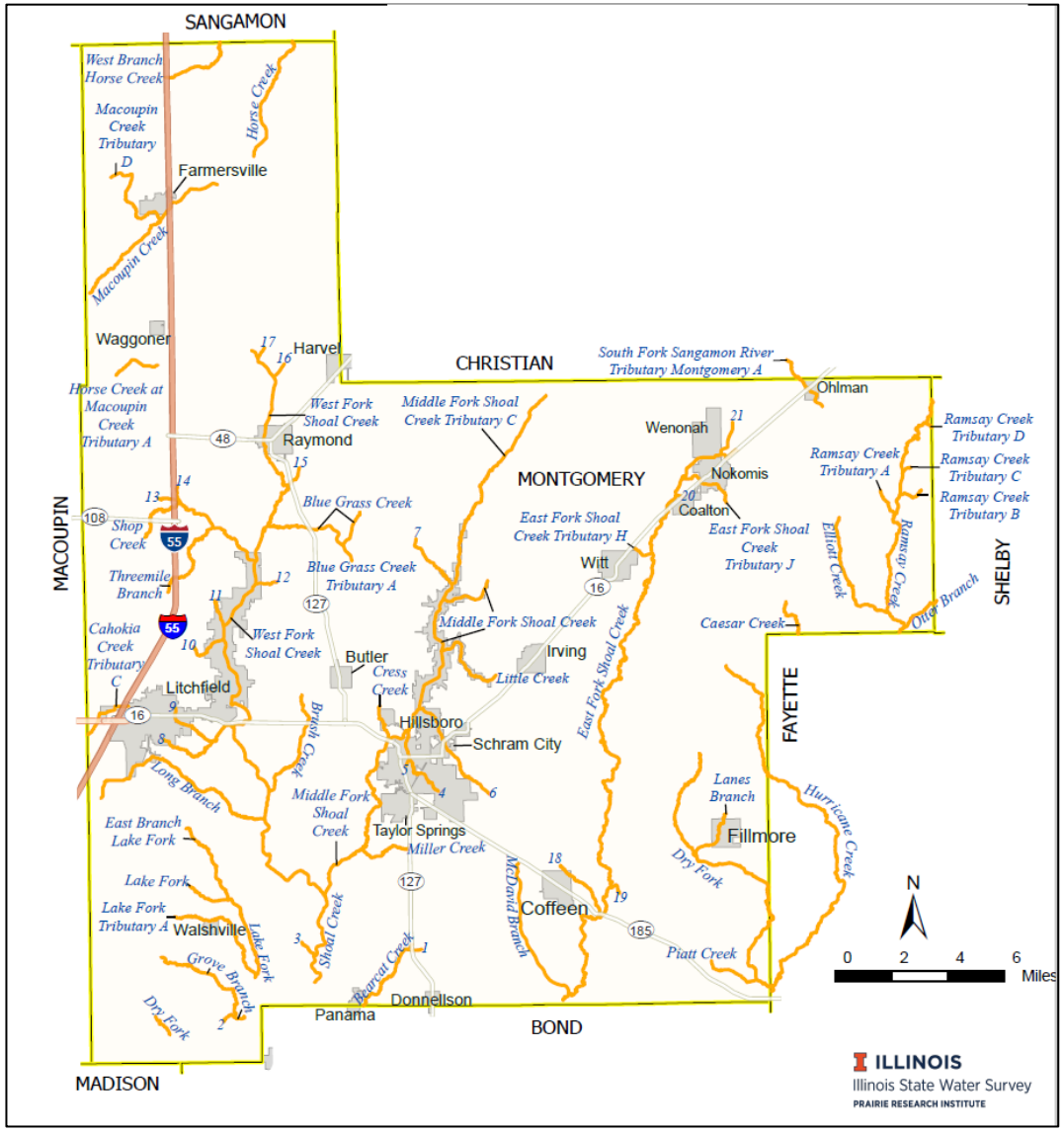
The **Risk Mapping, Assessment, and Planning** (Risk MAP) Program is the FEMA process used to implement NFIP floodplain studies and mapping projects.

FEMA
The Cooperating Technical Partners (CTP) Program

FEMA provides grants to CTP's to complete Risk MAP work.

Project Goals and Objectives

Project Goals and Objectives



Effective FIRM & FIS Dates

Montgomery County (including incorporated communities)
FIRM: 01/09/1981 FIS: None

Village of Harvel: FIRM: 06/16/2011 FIS: 06/16/2011

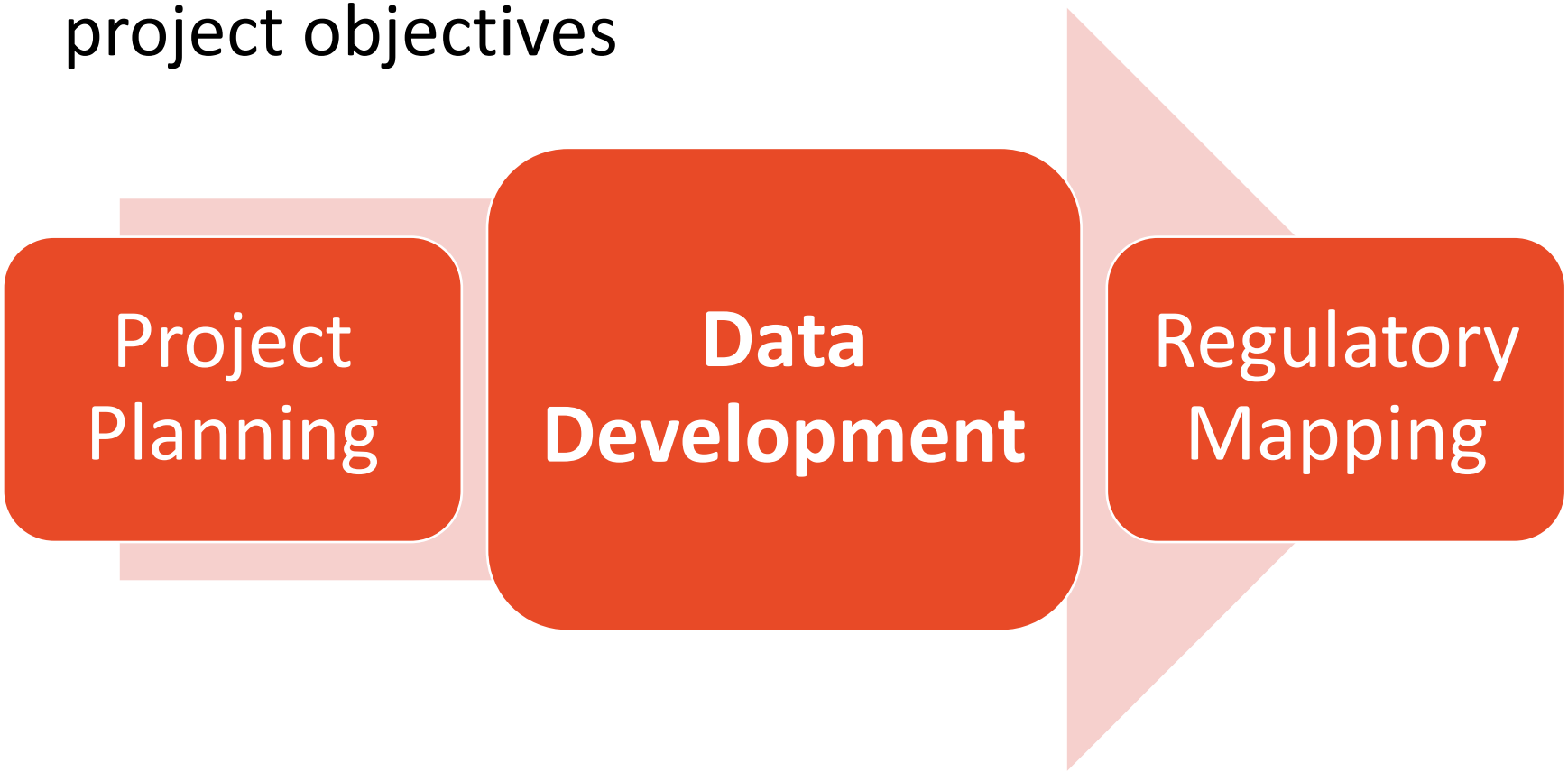
City of Hillsboro: FIRM: 08/19/1986 FIS: None

City of Litchfield; FIRM: 08/19/1985 FIS: None

City of Nokomis: FIRM: 8/19/1987 FIS: None

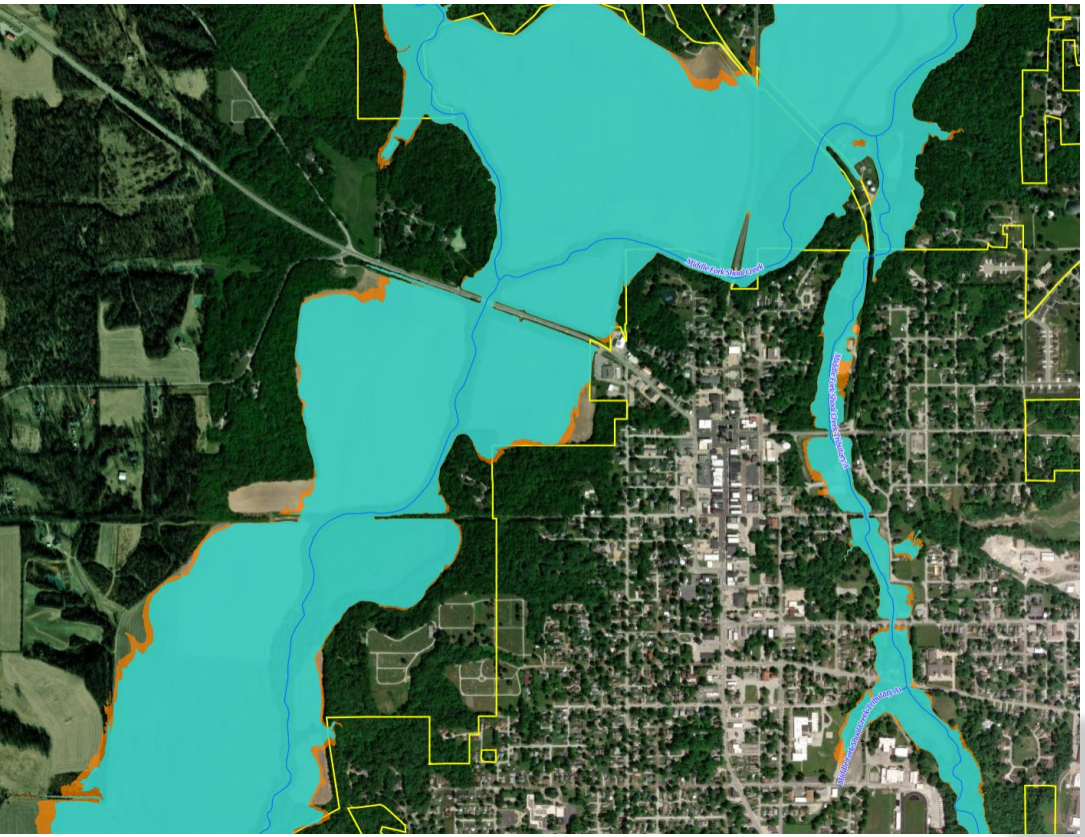
Project Objectives

Several project phases comprise the overall project objectives

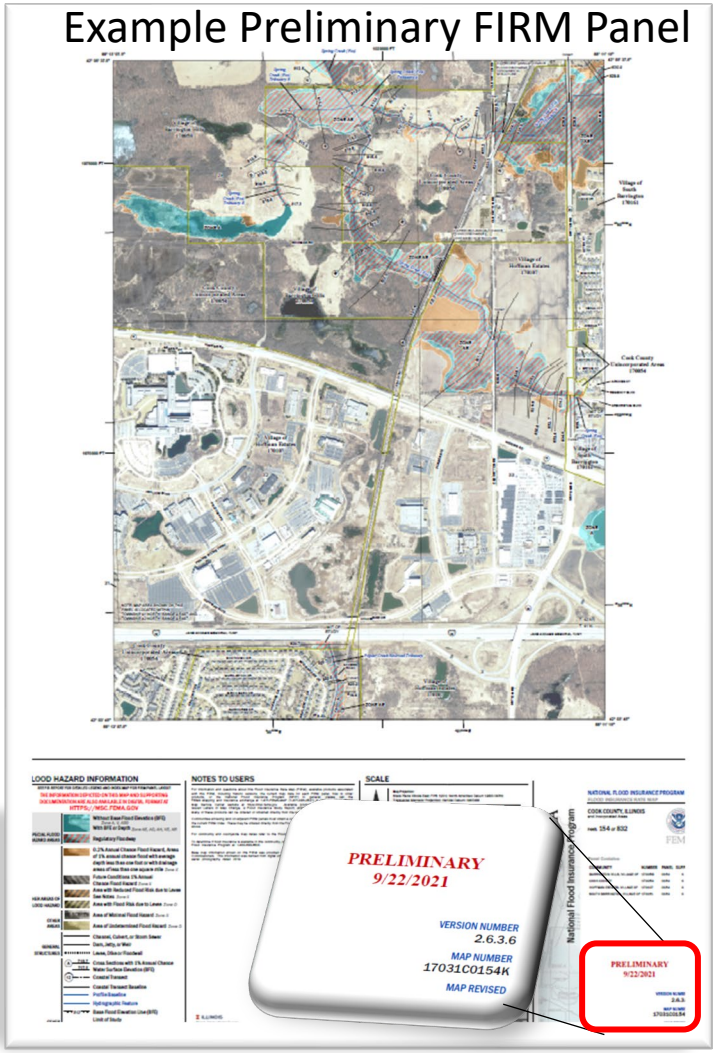


Draft Mapping vs. Preliminary Mapping

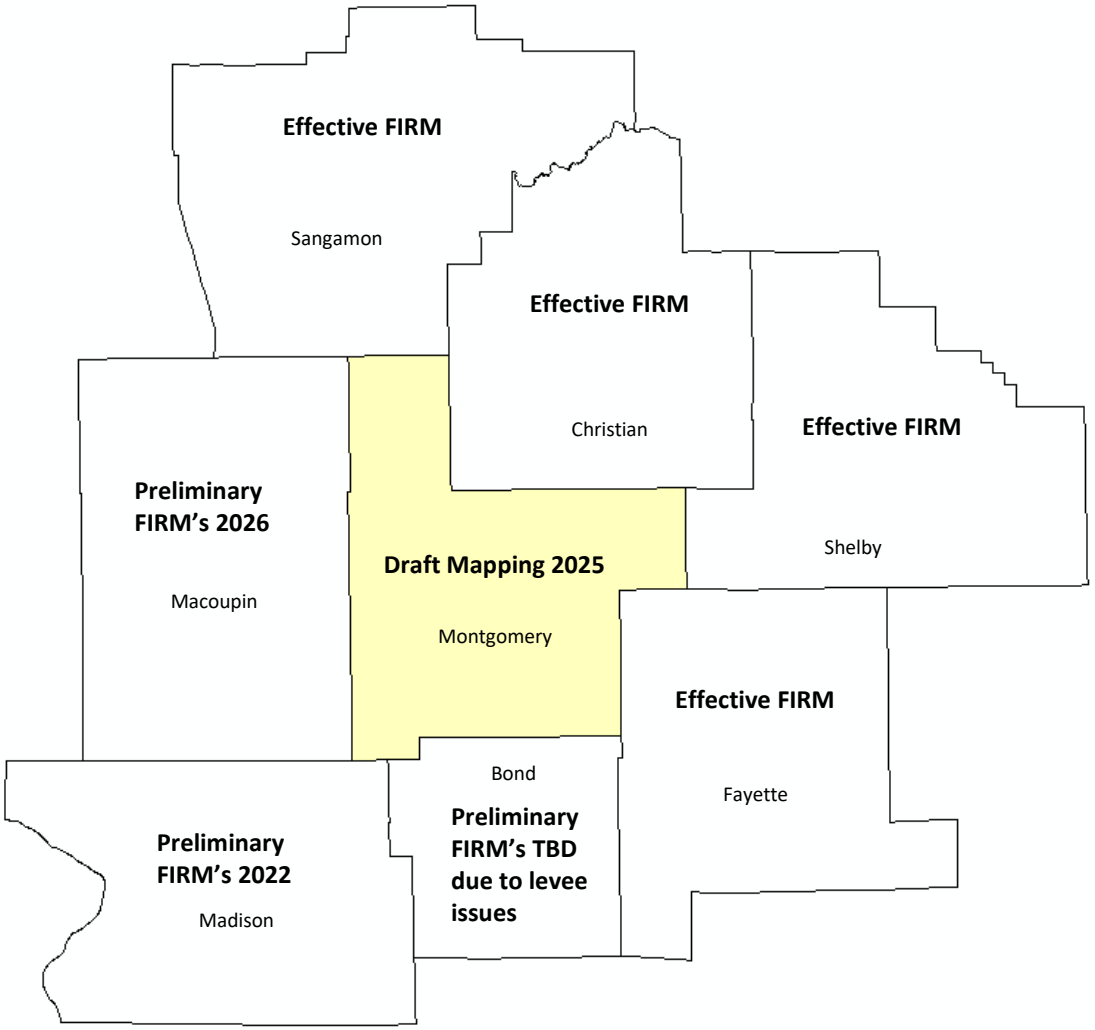
Draft Mapping



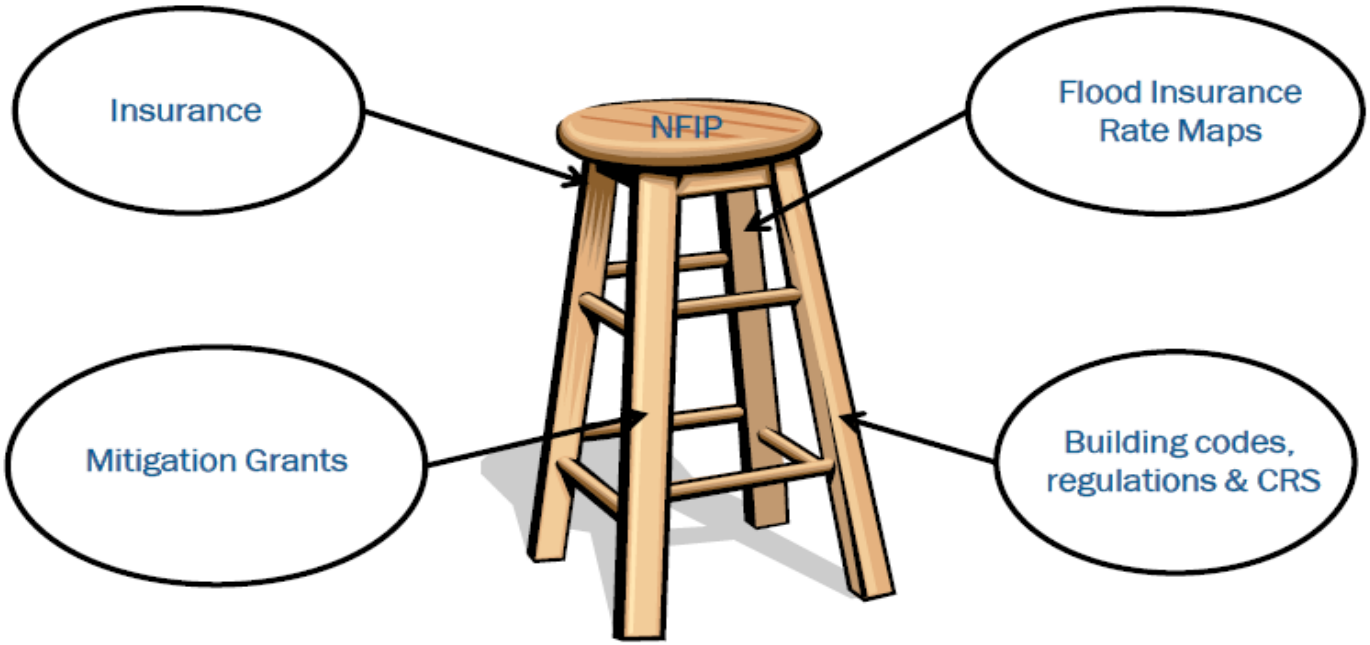
Example Preliminary FIRM Panel



Related Projects and Schedule for Preliminary FIRMs



National Flood Insurance Program



- Insure homes and businesses against flood-related losses
- Identify and map flood hazards
- Mitigate to reduce flood impacts
- Adopt and enforce floodplain management regulations

Project Scope

What is a Special Flood Hazard Area?

The FEMA Special Flood Hazard Area (SFHA) represents areas mapped as having a 1% annual chance of being inundated by the base flood in any given year.

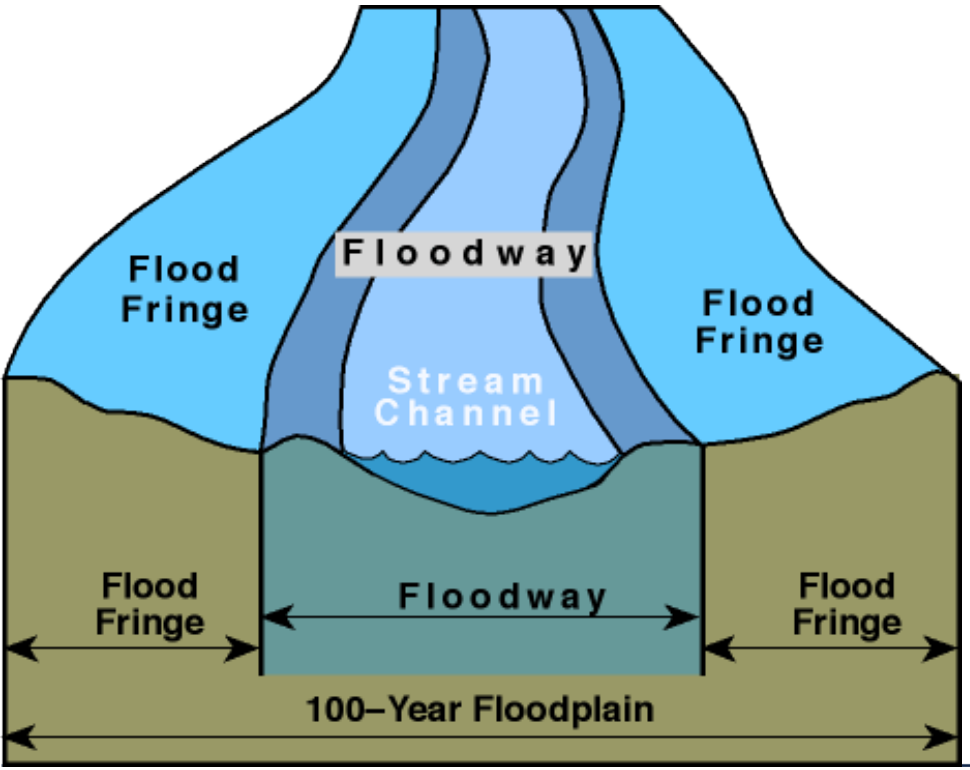
Riverine hydraulic analysis typically results in SFHA designation as **Zone A** or **Zone AE,** based on the analysis level deemed appropriate for the study area.

The Base Flood Elevation (BFE) is the elevation of surface water resulting from a flood that has a 1% chance of equaling or exceeding that level in any given year.

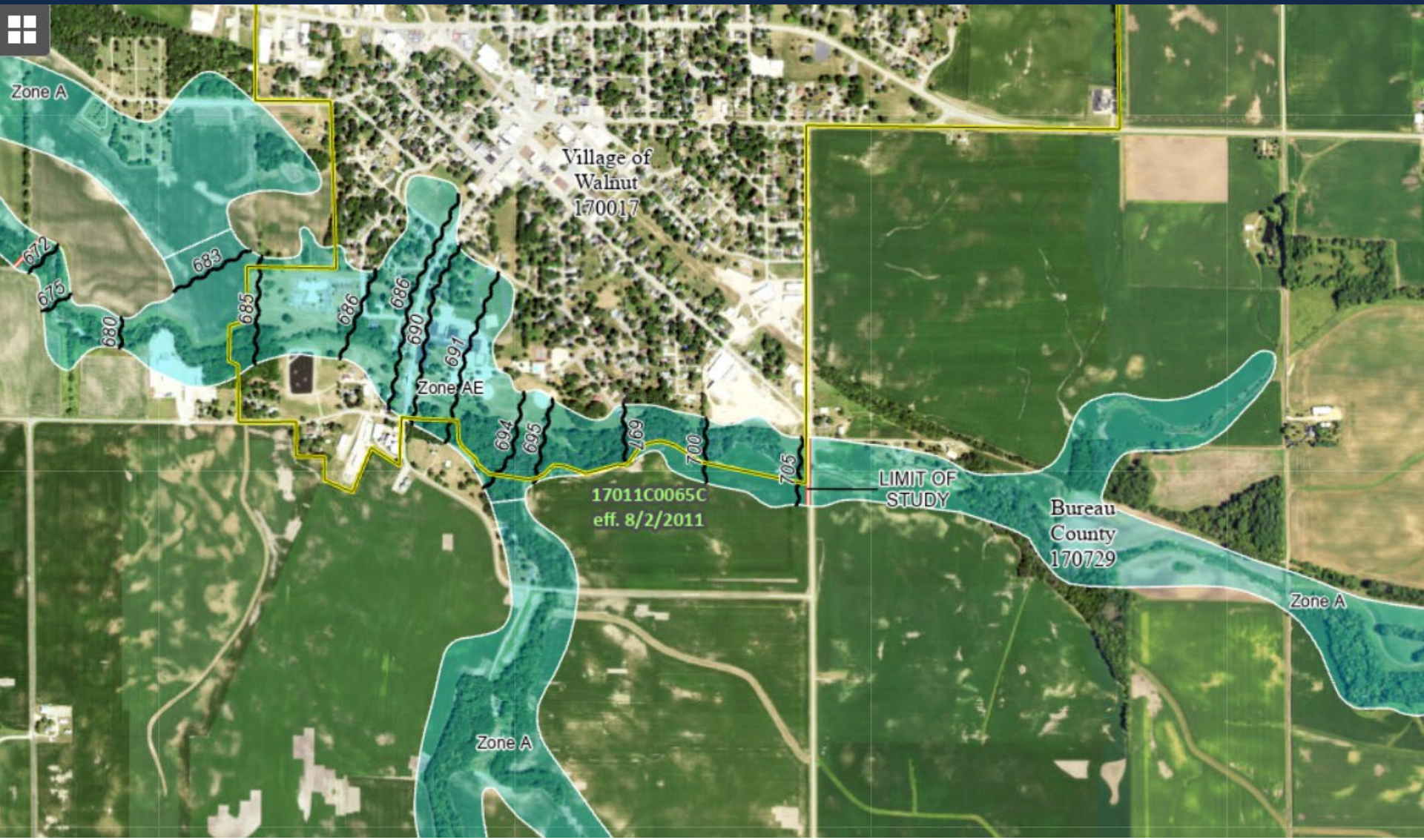
Zone A	Areas subject to inundation by the 1-percent-annual-chance flood event. **NO** Base Flood Elevations are shown.
Zone AE	Areas subject to inundation by the 1-percent-annual-chance flood event. Base Flood Elevations **ARE** shown.

Floodway

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

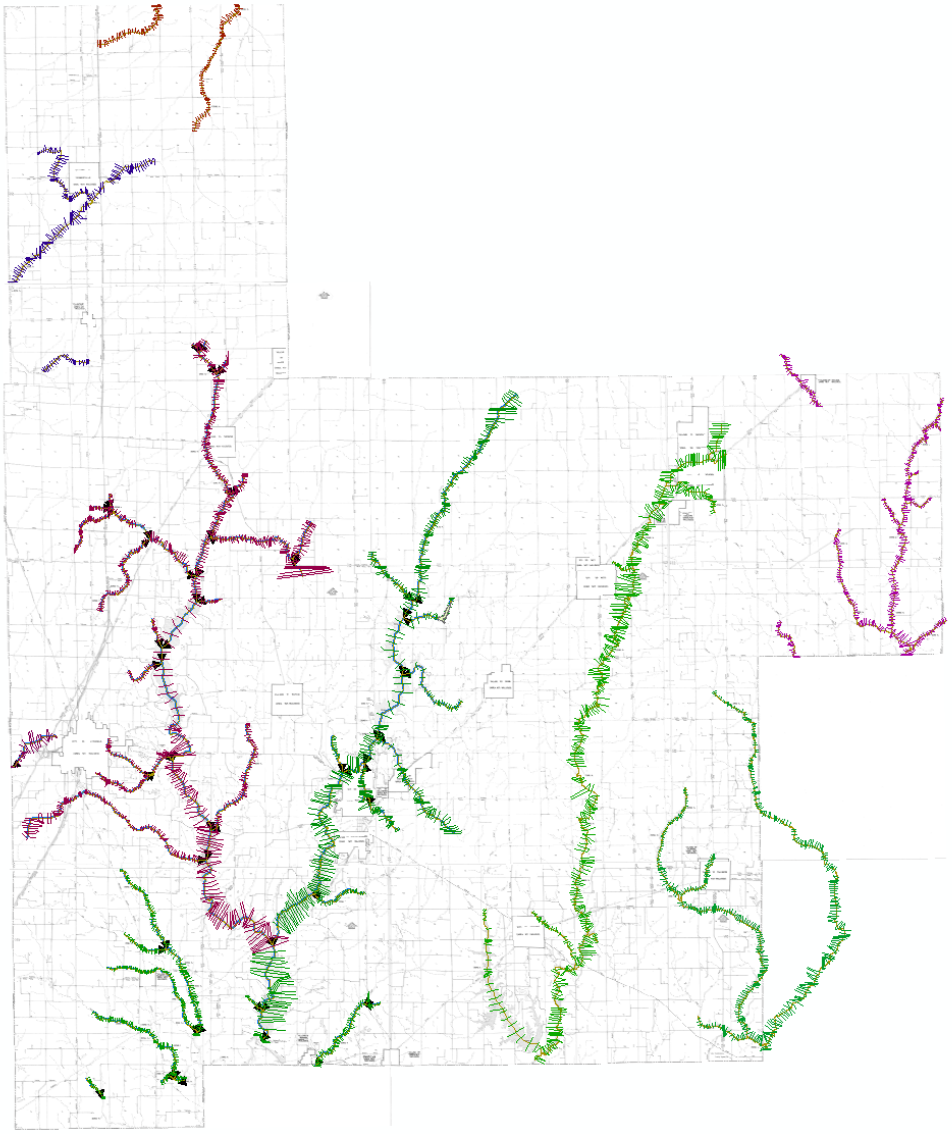


What is a Special Flood Hazard Area?



Project Scope

Montgomery County:
To develop new hydrologic and hydraulic models for **Zone A** streams within Montgomery County.

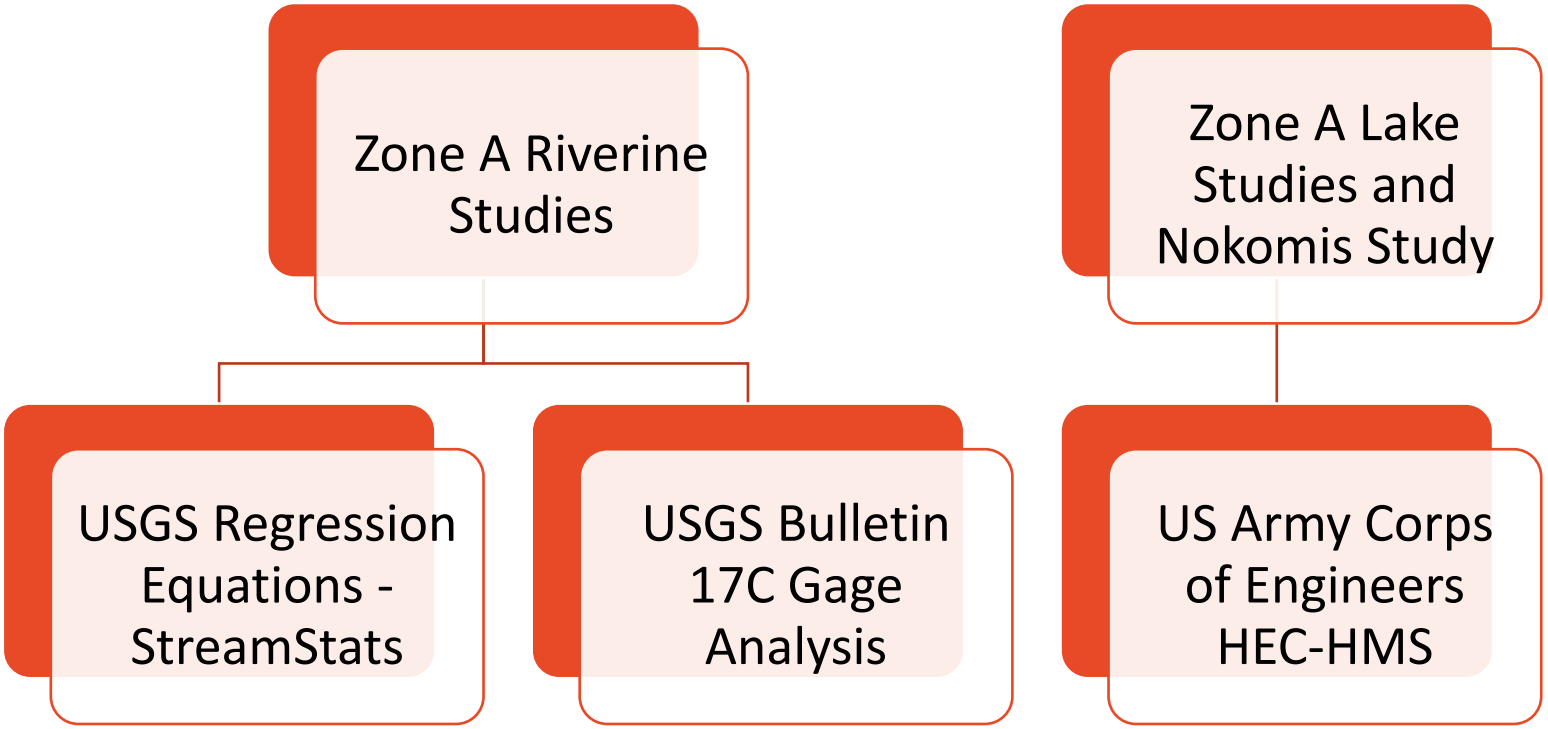


Project Milestones

- Project Initiation Community Coordination call March 28, 2023
- FEMA SID620- Proposed Engineering Models letters April 14, 2023
- **Flood Risk Review Meeting (today) with community 30-day comment period**
- State Review and Approval (not required, courtesy copy provided)
- Development of Digital Flood Insurance Rate Maps (DFIRMs)
- Release of Preliminary DFIRMs and Public Open House
- DFIRMs become Effective

Hydrology Study Methods

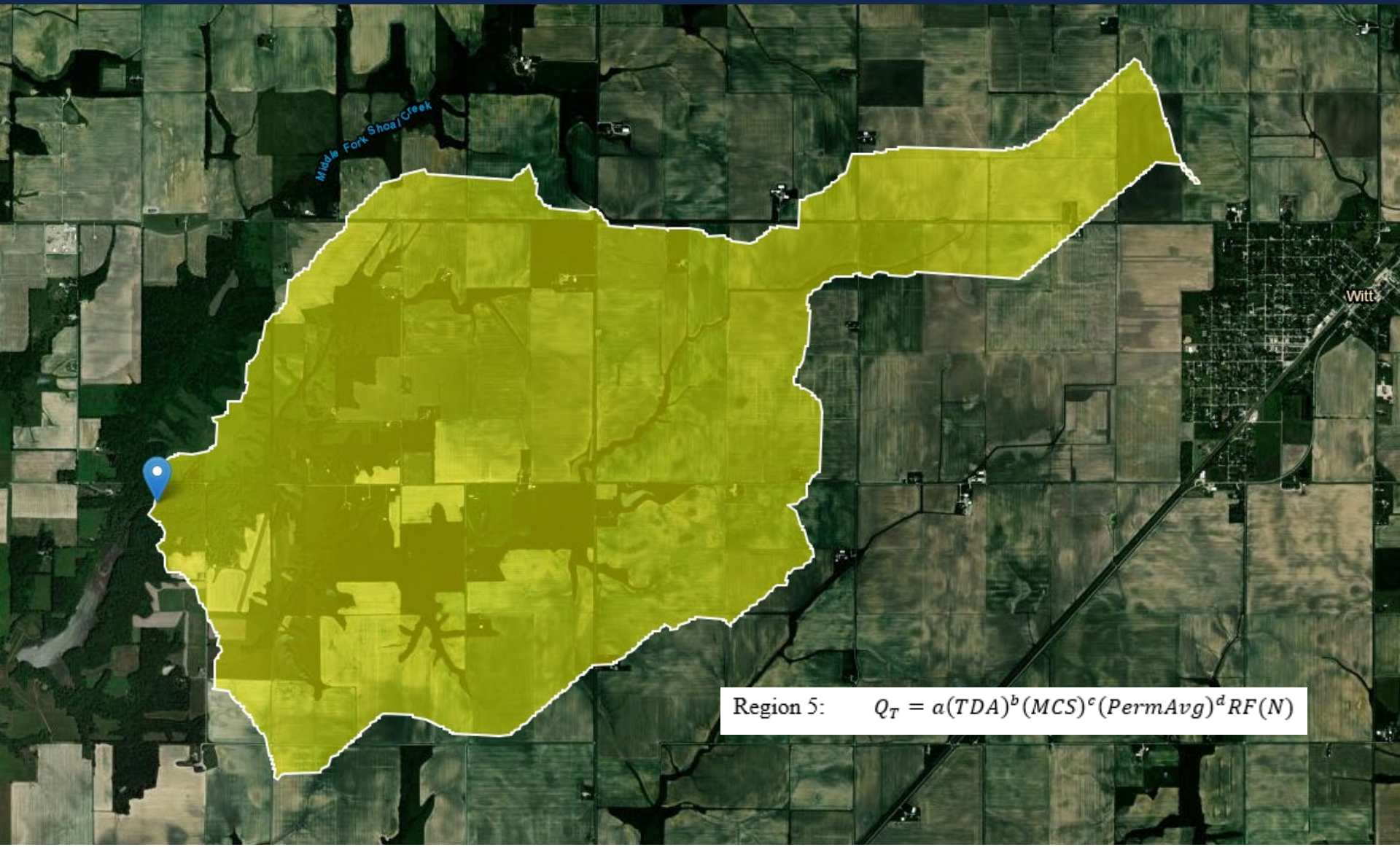
Hydrology Study Methods



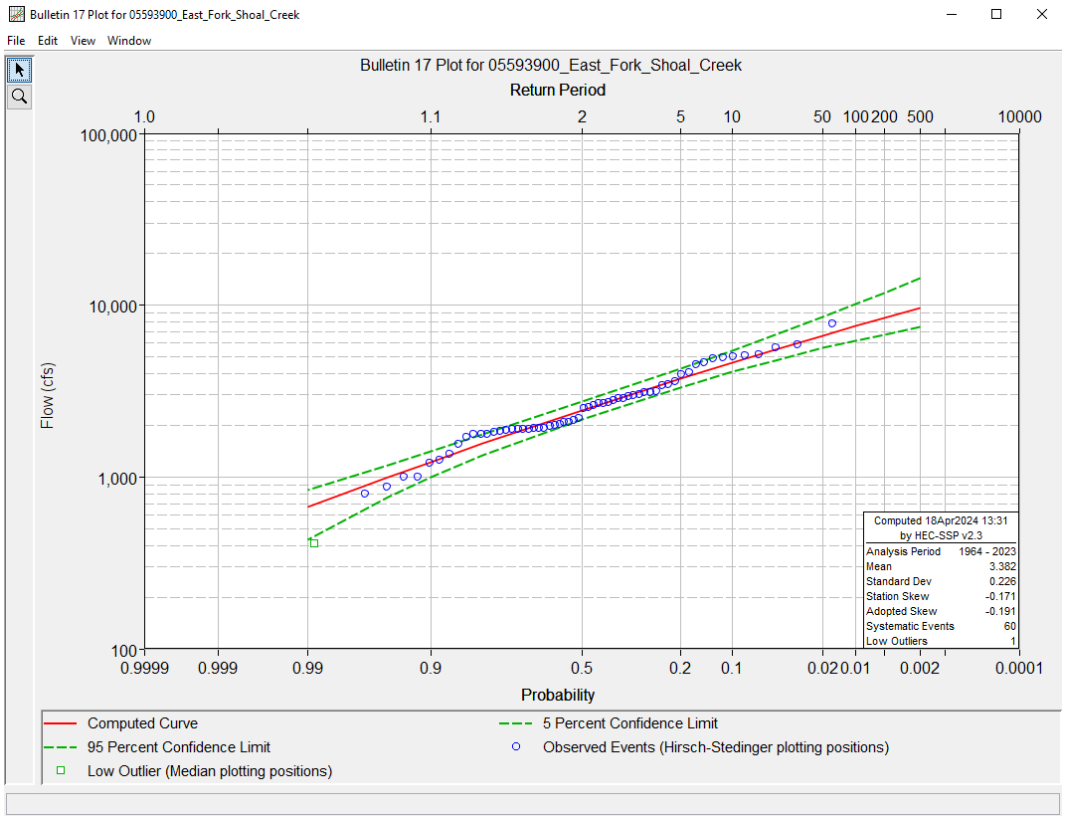
Flood Events Studied

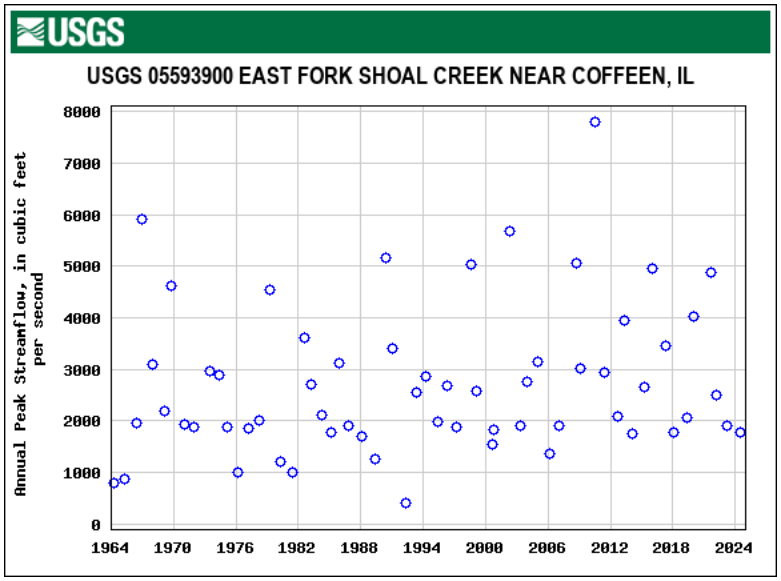
10-yr, 25-yr, 50-yr, **100-yr Base Flood,** 100-yr+, and 500-yr Floods

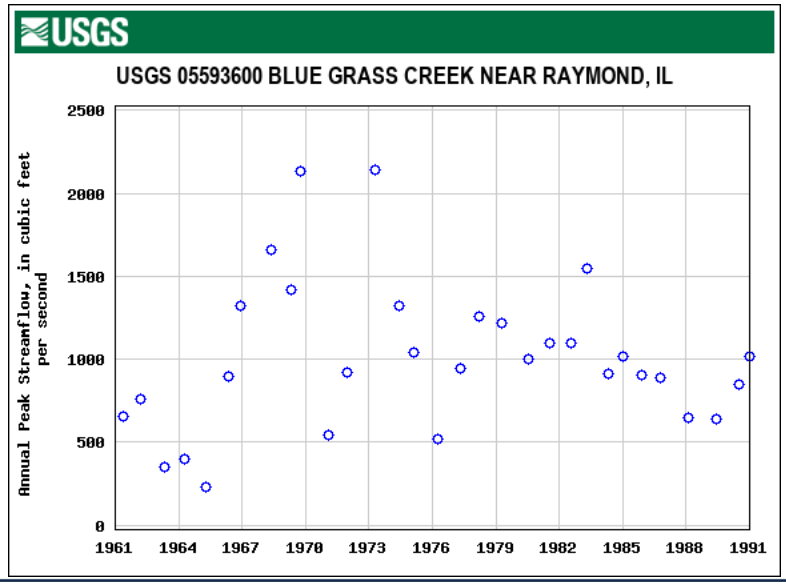
Hydrology Study Methods



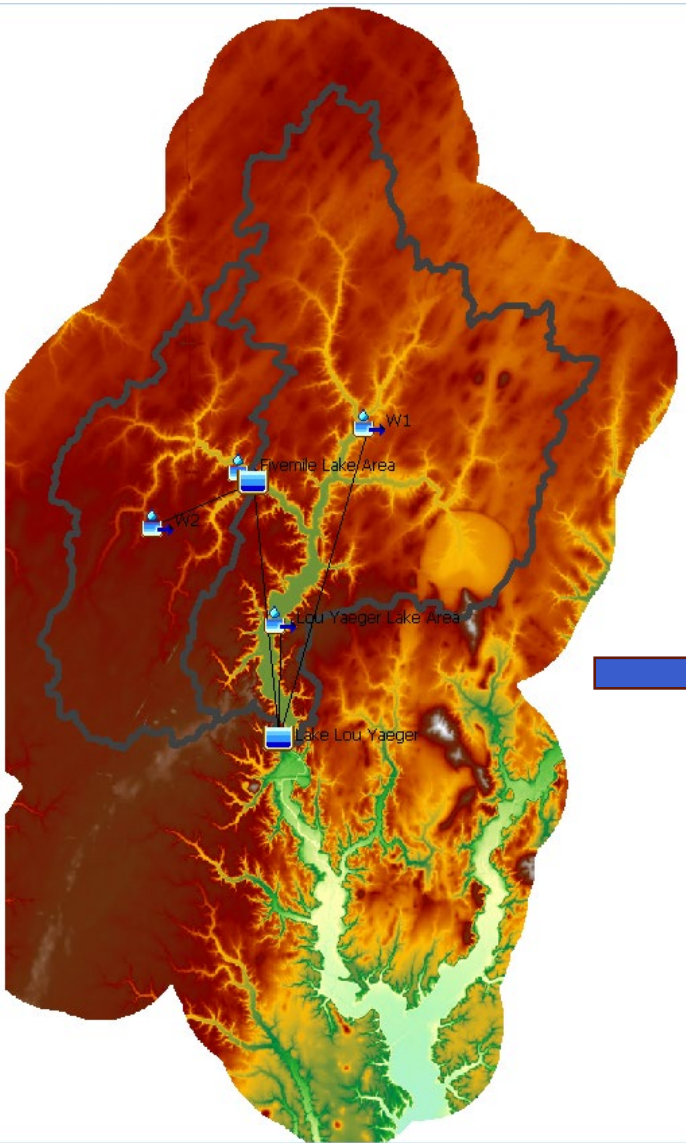
Hydrology Study Methods

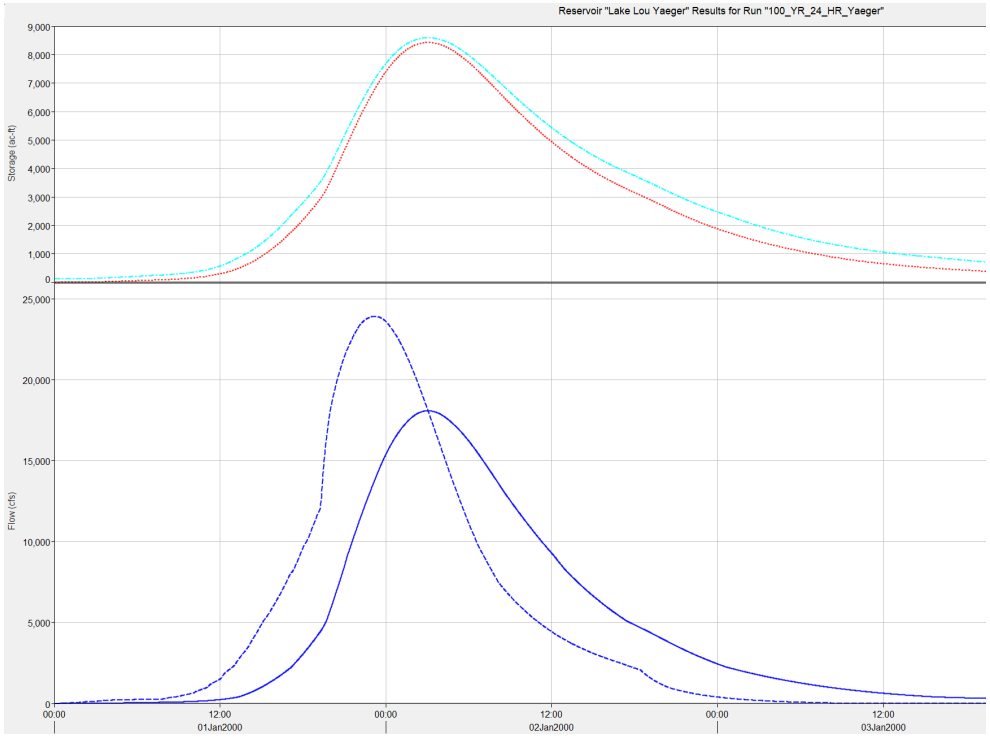






Hydrology Study Methods

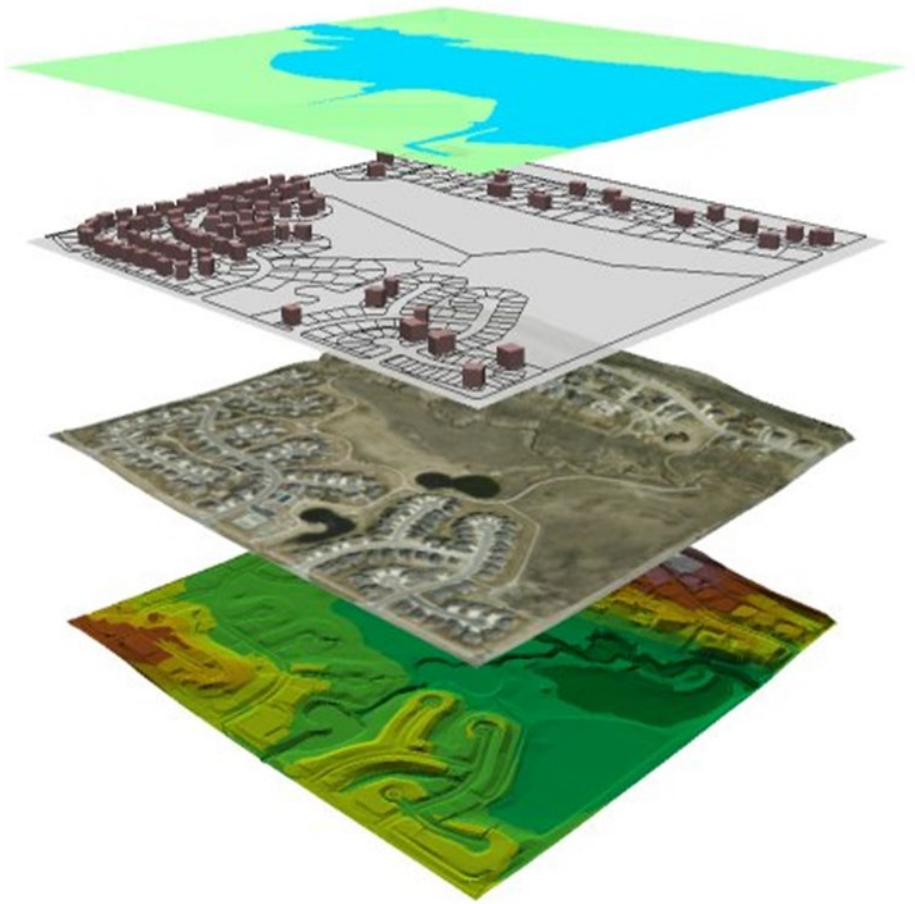




Hydraulic Study Methods

Hydraulic Data

- LiDAR Topography – 2017
- USGS - National Land Cover Database
- Basemap Ortho Photos

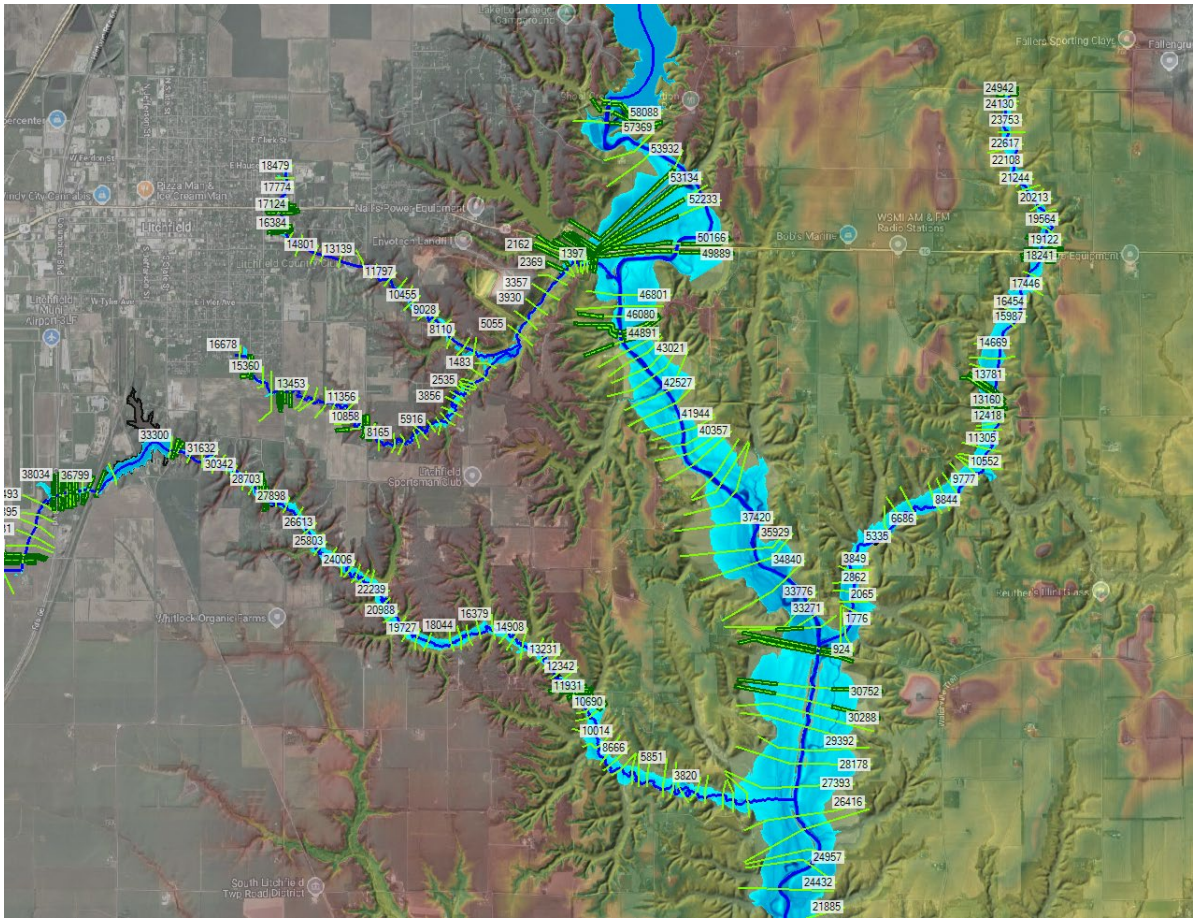


HEC-RAS 1D Modeling

Army Corps of Engineers Hydrologic Engineering Center River Analysis System (**HEC-RAS**) used for hydraulic modeling to determine water elevations

1D Analysis for majority of streams in Montgomery

2D Analysis for “Trib J” of the East Fork Shoal Creek

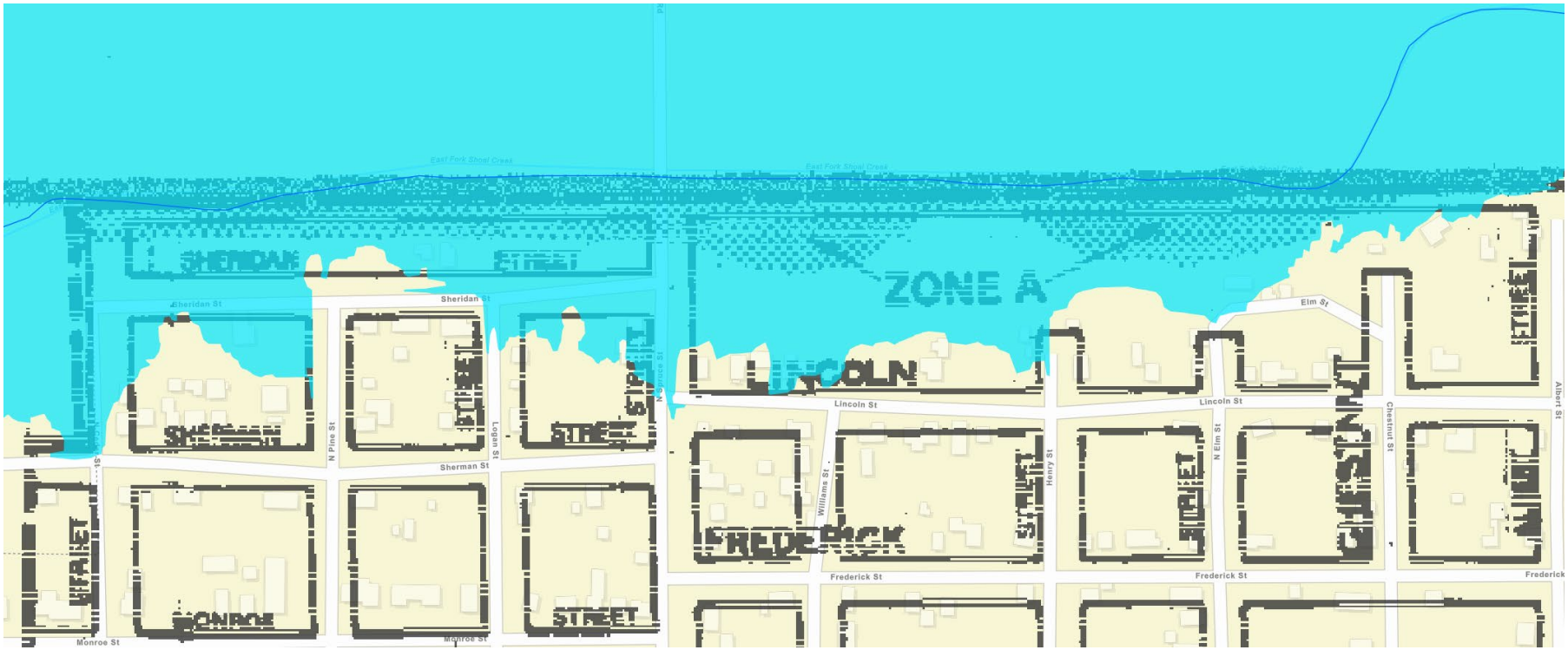


Draft Floodplain Results

Area of Interest

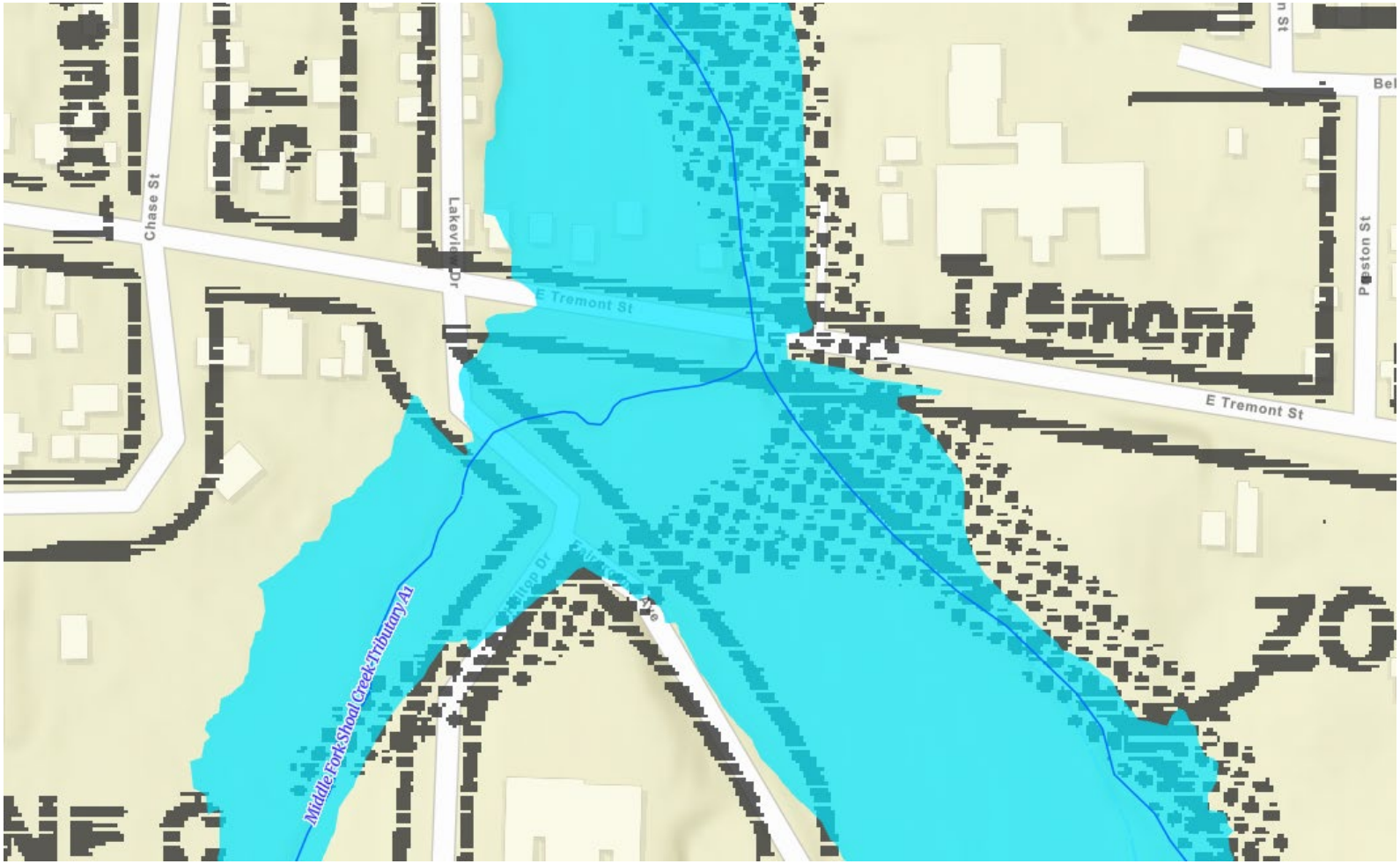
Area of Interest

Nokomis – Additional Proposed Floodplain



Area of Interest

Hillsboro – Additional Proposed Floodplain



Area of Interest

Webmap

Webmap Comment Feature

https://www.illinoisfloodmaps.org/commentmap/montgomery.htm
username: watershed
password: illinoisfloods!123

Communication and Next Steps

Communication Plan

- Project Initiation Community Coordination meeting – virtual March 28, 2023
- Proposed Engineering Methods Notification (FEMA SID 620) letters- April 14, 2023
- Flood Risk Review Meeting (today)
- 30-Day Comment Period starts today and ends July 3, 2025
- Data Submission Notification (FEMA SID621) Letter

Data Submission Notification Letter FEMA SID 621

Mailed to community CEO's

Informs the communities that the data collection and analysis (Data Development) phase of the project is concluding, and the FIRM database is being validated by FEMA

Gives Communities 30 days to comment on the data in the FIRM database30-Day Comment Period starts today

Schedule

~~Project Initiation Community Coordination meeting – 03/28/2023~~

Flood Risk Review Meeting (today); Comment period ending July 3, 2025

Submit Flood Studies to IDNR

Complete draft FIRM database to conclude data development phase of project

Digital Flood Insurance Rate Map Project to follow pending conclusion of data development

Risk Communication and Mitigation Actions

Hazard Mitigation- FEMA Flood related Disaster Declarations

2000 to present

https://www.fema.gov/openfema-data-page/disaster-declarations-summaries-v2

Date of Declaration	Disaster Number	Study Counties included: Type of Assistance	Disaster Description
05/21/2002	DR-1416-IL	Individual Assistance	Severe Storms, Tornadoes, and Flooding
09/07/2005	EM-3230-IL	Public Assistance-B	Hurricane Katrina Evacuation
02/09/2007	DR-1681-IL	Public Assistance	Severe Winter
10/03/2008	DR-1800-IL	Public Assistance	Severe Storms and Flooding
03/13/2020	EM-3435-IL	Public Assistance-B	Biological COVID 19
03/26/2020	DR-4489	Individual and Public - B Assistance	Biological COVID 19 PANDEMIC
12/13/2021	EM-3577-IL	Public Assistance-B	Severe Storms, Straight-line Winds, and Tornadoes

Hazard Mitigation Plan

MONTGOMERY COUNTY HAZARD MITIGATION PLAN OVERVIEW

March 2024

Goal

Update the 2019 Montgomery County Hazard Mitigation Plan to include both natural and man-made hazards that pose a threat to the County.

Who's involved?

The Montgomery County EMA will work closely with Burton Planning Services and members of the Core Planning Committee to develop a mitigation plan that adequately addresses the threats posed to Montgomery County residents by natural and man-made hazards. The following people will be involved:

- Nedra Elseser, Montgomery County Emergency Operations Officer
- Burton Planning Services (BPS)
- Kimberly Burton, P.E., AICP CTP, LEED AP ND
- Chuck Foster, Project Manager
- Brett Morris, LEED Green Associate, Resiliency Planner, Assistant Project Manager
- Meagan Russell, Hazard Mitigation Analyst
- Ángel Arroyo, Senior Environmental Planner
- Elvin Pinckney, Senior Environmental Specialist
- Core Planning Committee Members

Hazard Mitigation Planning: Federal Requirements

The Disaster Mitigation Act, 2000 (DMA2K) states that all jurisdictions must have an adopted plan to receive funds from FEMA in the event of a disaster. DMA2K provides a legal basis for FEMA's state, local, and tribal mitigation planning requirements. Additionally, the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 created the system where Presidential disaster declarations trigger federal assistance via FEMA.

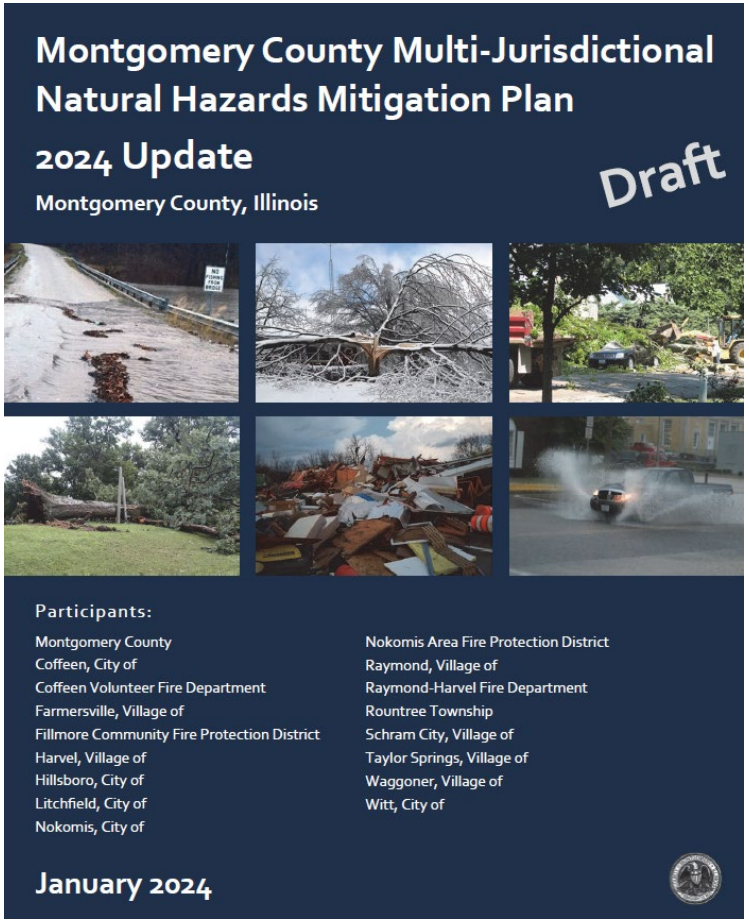
To receive federal funding, hazard mitigation plans must:

- Be updated and adopted by local jurisdictions every 5 years.
- Include:
  - Public participation and documented process
  - Existing conditions and demographics
  - Major disaster declarations since the previous plan
  - Risk assessments and vulnerability analyses for hazards
  - Mitigation actions and their status
  - Identified plan maintenance and updates.
- Municipalities, police and fire departments, schools, businesses, and the general public may receive funding for any mitigation strategy found in the approved and adopted plan update.

Hazard Mitigation Planning: Overview

Potential hazard types include natural disasters (floods, storms, droughts, landslides, invasive species, etc.) and man-made disasters (hazardous material spills, terrorism, etc.). Benefits of updating the hazard mitigation plan include:

- Minimizing property damage, economic loss, injuries, and loss of human life



FEMA CIS Data

05/28/2025

Community Name	No Of Policies	Total Coverage	No Of Rep Losses	Total Premium	Total Claims Since 1978	Total Paid Since 1978
MONTGOMERY COUNTY	1	$45,000	1	$281	3	$94,153
HILLSBORO, CITY OF	0	0	0	0	1	0
LITCHFIELD, CITY OF	0	0	0	0	1	0
WITT, CITY OF	0	0	2	0	2	$15,173

Mitigation Goals

- **Goal 1:** Educate people about the natural hazards they face and the ways they can protect themselves, there homes, and their businesses from those hazards.
- **Goal 2:** Protect the 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, stormwater retention and elimination systems, etc.) to be resilient to the impact of natural hazards.
- **Goal 4.** Incorporate natural hazard mitigation into community plans and regulations

Risk Communication and Mitigation Actions

Floodsmart.gov

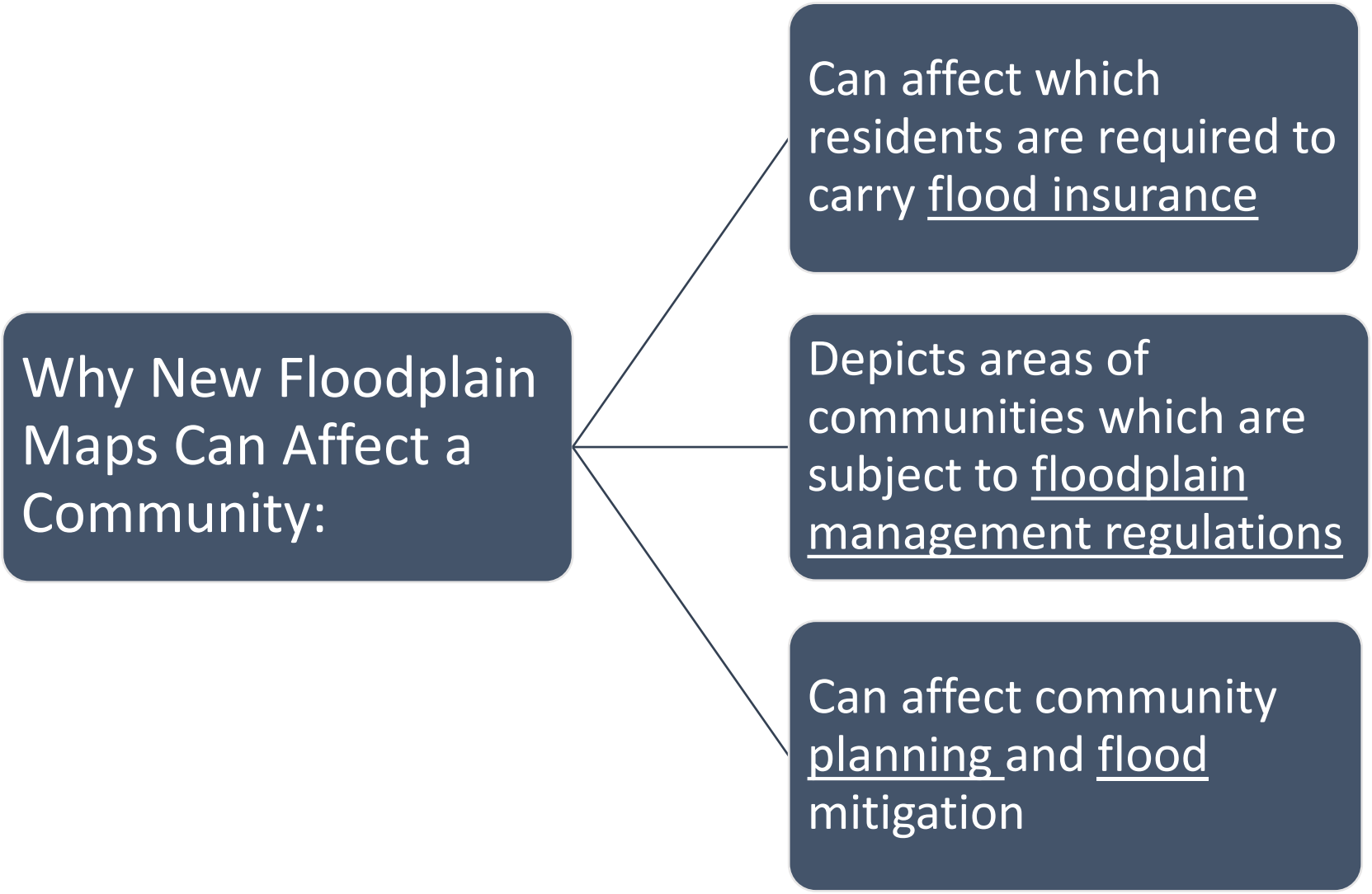
- Community Resources
  - Flood Maps
  - Cost of Flooding
  - What is Covered?
  - How to Reduce Your Costs
  - Tools

FEMA.gov

- National Insurance Program (NFIP)
- Hazard Mitigation Planning
  - Mitigation Best Practices
  - Mitigation Planning and Grants
  - Regulations and Guidance

Community Participation

Community Impact



Community Participation

- Now is the time to review the draft floodplain mapping for your community
- Who is affected?
- Is the mapping reasonable and/or consistent with your community's experience with flooding?
- Make comments if something does not look right or make sense.
- Provide data or information if it could support a change in the draft mapping
- Ask questions.

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Illinois State Water Survey

MONTGOMERY COUNTY FLOOD RISK REVIEW MEETING: JUNE 3, 2025

POST-MEETING SURVEY

1. **After this meeting how much more do you know about your community's flood risk?**

   ◯ a lot

   ◯ some

   ◯ not much

2. **After this meeting how much do you know about FEMA Risk Mapping, Assessment and Planning (Risk MAP)?**

   ◯ a lot

   ◯ some

   ◯ not much

3. **Has this meeting helped you know how to better communicate flood risk to your community?**

   ◯ yes

   ◯ no

4. **Has this meeting helped you know where to go to get flood mitigation help?**

   ◯ yes

   ◯ no

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Questions?

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Project Manager: James Powell, P.E., CFM
powell@Illinois.edu – (217) 300-8956
Senior Engineer: Chris Hanstad, P.E., CFM
hanstad@Illinois.edu – (217) 244-3322
Outreach: Mary Richardson, CFM
mjr@Illinois.edu – (217) 300-3479
Hazard Mitigation Planner: Camden Arnold
carnold3@Illinois.edu – (217) 333-9497

www.illinoisfloodmaps.org

Additional Contacts

FEMA R5 Project Engineer: John Wethington, P.E.
john.wethington@fema.dhs.gov – (312) 408-5485

FEMA R5 Flood Insurance Liaison: James Sink
james.sink@fema.dhs.gov

Illinois NFIP Coordinator: Erin C. Conley, CFM
erin.c.conley@Illinois.gov – (217) 782-4428

IEMA's Hazard Mitigation Section Manager: : Zachary Krug
zackary.krug@illinois.gov – (217) 524-6513