



White County, Illinois

FEMA Risk MAP

Project Initiation Coordination Call

August 17, 2021





White County Floodplain Mapping Project Initiation Meeting

Agenda

- Rollcall
- Project Objectives and Goals
- National Flood Insurance Program/Mitigation
- Project Scope and Streams to be Studied
- Communication
- Schedule
- Community Participation



Rollcall

- VILLAGE OF BURNT PRAIRIE*
- CITY OF CARMI
- VILLAGE OF CROSSVILLE
- VILLAGE OF ENFIELD*
- CITY OF GRAYVILLE
(White & Edwards Cos)
- VILLAGE OF MAUNIE
- VILLAGE OF MILL SHOALS*
- VILLAGE OF NORRIS CITY*
- VILLAGE OF PHILLIPSTOWN*
- VILLAGE OF SPRINGERTON*
- WHITE COUNTY
Unincorporated Areas
- VILLAGE OF NEW HAVEN
(White & Gallatin Cos.)
- Greater Wabash Regional
Planning Commission
- IDNR-OWR
- FEMA
- IEMA
- Other Agencies?

* community does not participate in the NFIP

Introduction

- Illinois State Water Survey (ISWS) is a Cooperating Technical Partner with FEMA
- ISWS also partners with IDNR to help prioritize Illinois Floodplain Mapping Projects



The staff of the Coordinated Hazard Assessment and Mapping Program which includes 18 Certified Floodplain Managers (CFM), seven Professional Engineers (PE), and seven Geographic Information Systems Professionals (GISP)

www.illinoisfloodmaps.org



Introduction

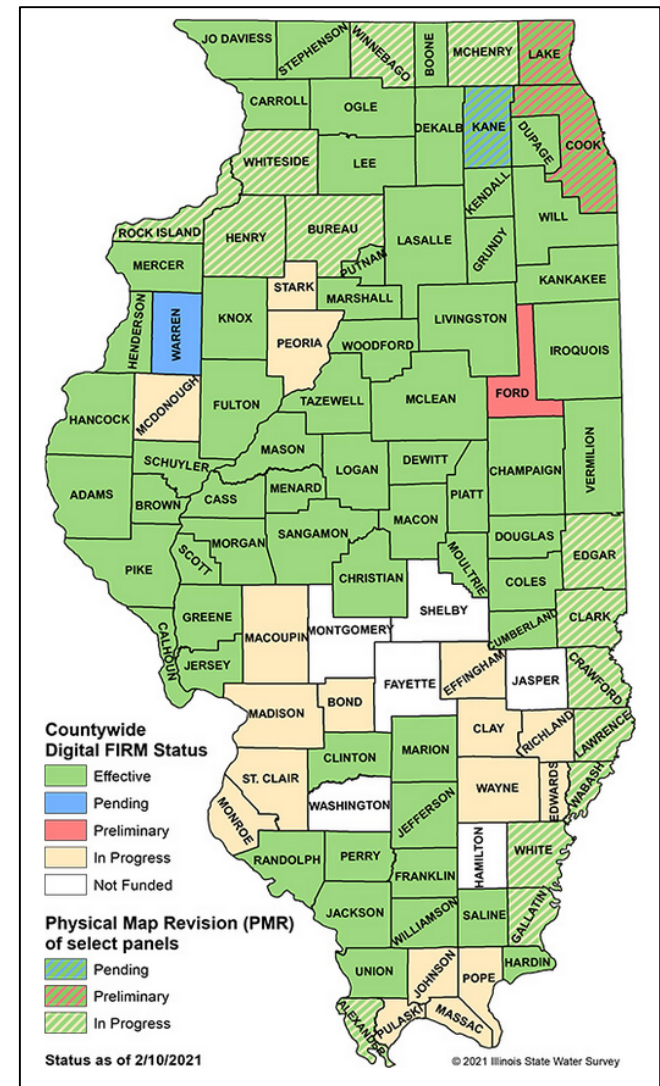
- ISWS & Illinois Department of Natural Resources (**IDNR**) are Cooperating Technical Partners (**CTP**) with the Federal Emergency Management Agency (**FEMA**). CHAMP staff perform floodplain studies, mapping, mitigation planning, and related activities for Illinois communities through this partnership.
- ISWS also partners with the Illinois Department of Natural Resources Office of Water Resources (**IDNR-OWR**) to help prioritize Illinois floodplain studies and mapping projects.
- Risk Mapping, Assessment, and Planning (**Risk MAP**) is the FEMA process used to implement the National Flood Insurance Program (**NFIP**) floodplain studies and mapping projects.



Project Objective and Goals

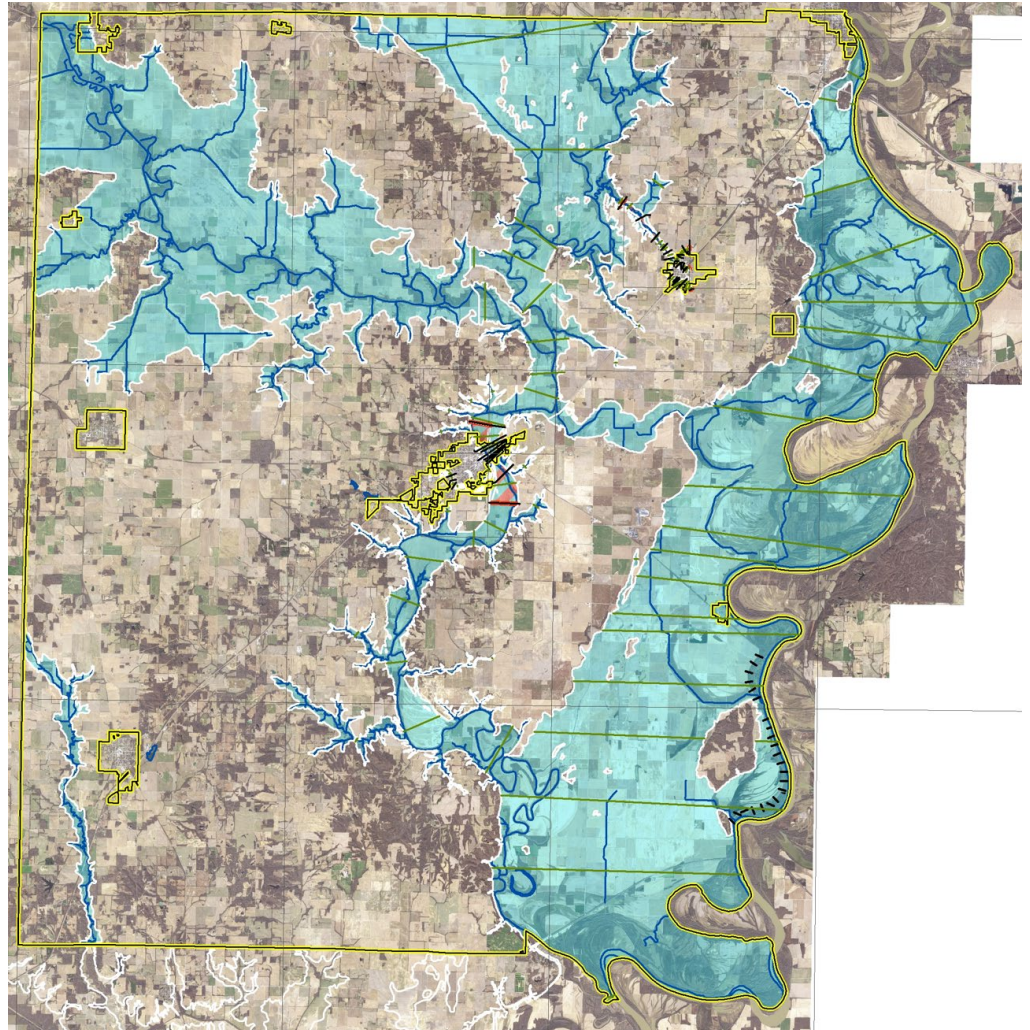
Project Objectives

- Digital Floodplain Maps for White County
 - Current DFRIMs are dated 02/16/2012
- Develop Floodplain Studies to Update White County Floodplain Maps Within the Little Wabash River Watershed



White County Flood Insurance Rate Map (FIRM)

- White County
FIRM,
02/16/2012





Community Impact

Ways New Floodplain Maps Can Affect a Community:

1. Can affect which residents are required to carry flood insurance
2. Depicts areas of community which are subject to floodplain management regulations
3. Can affect community planning and flood mitigation

Special Flood Hazard Area

The FEMA Special Flood Hazard Area (**SFHA**) zone type designation is related to the method and level of hydraulic analysis performed.

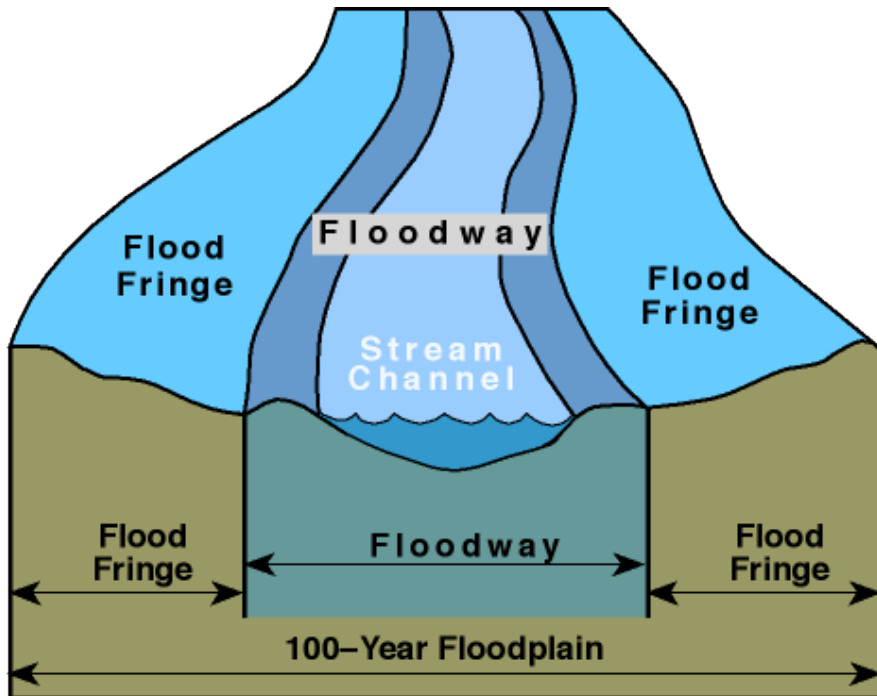
Riverine hydraulic analysis typically results in SFHA designation as **Zone A** or **Zone AE**, based on the analysis level deemed appropriate for the study area.

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.

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.

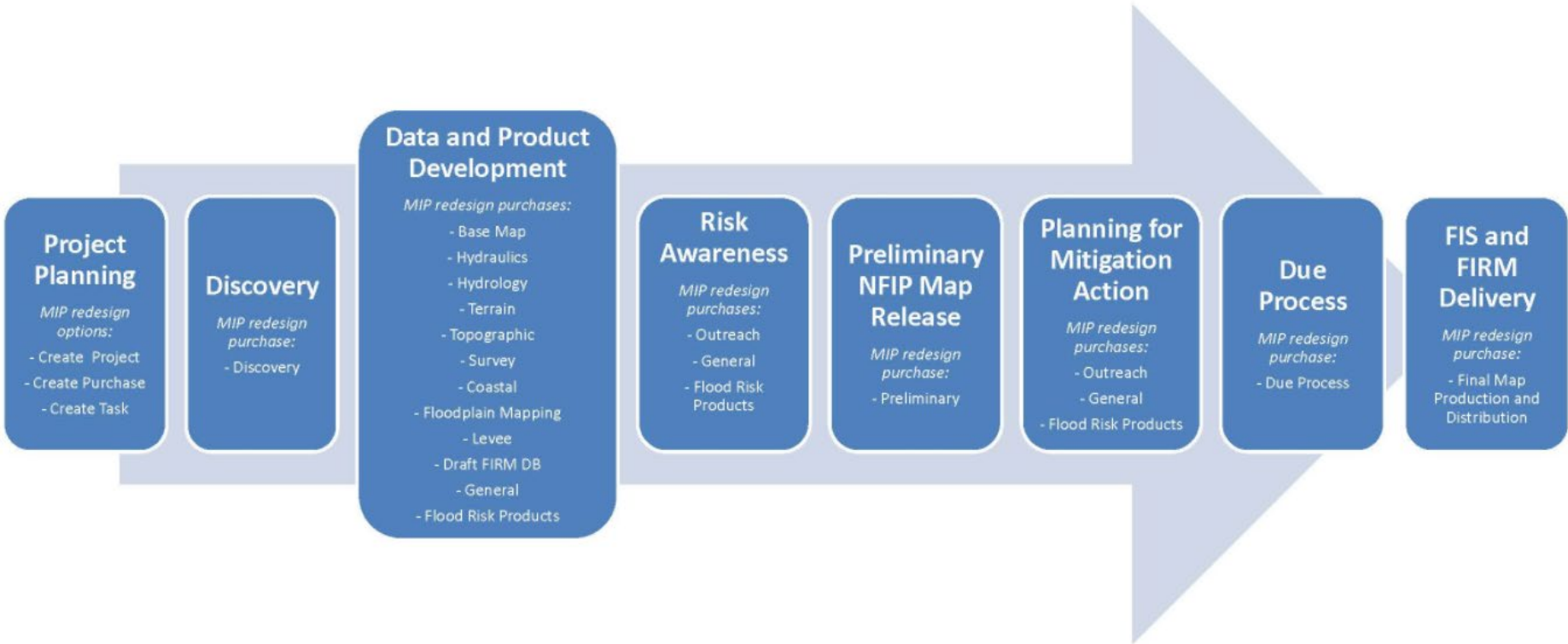
Floodway Zone AE

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 the flood heights.





FEMA National Objectives





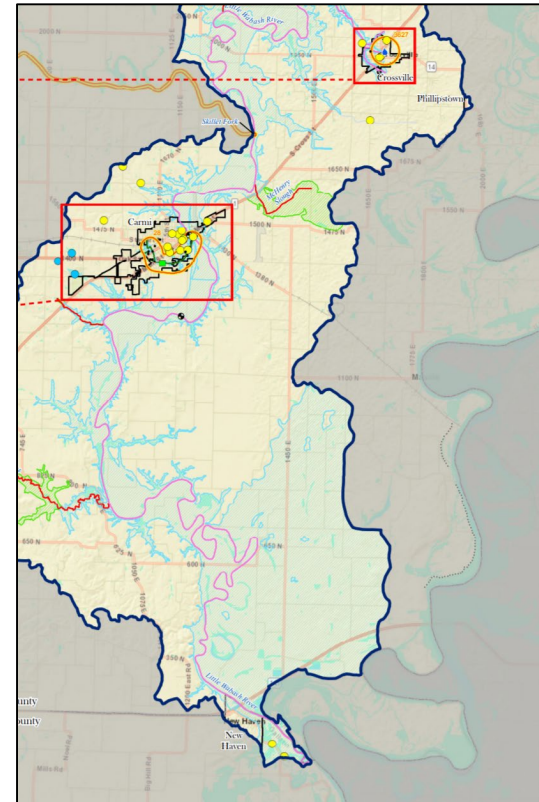
White County Project Objectives

- Develop new floodplain studies for White County (within Little Wabash watershed).
- Incorporate the study results into a Hydrologic and Hydraulic report.

For the next phase, to incorporate resulting floodplain delineations into a countywide digital Flood Insurance Rate Map (FIRM).

White County Discovery Study Outcomes

- Little Wabash Watershed Discovery study report, April, 2017



White County Discovery Study Outcomes

Table 12. Recommend Data Development

County	Existing				Data Development					
	Zone A	Zone AE	Mapped total	Unmapped	Little Wabash Main Stem Zone A (enhanced)	Little Wabash Main Stem Zone AE	Valid Zone AE	Estimated Detailed study miles (environs of communities)**	Model based Zone A	Community for Zone AE study
Clay	243.92	3.5	247.42	6.08	54.88	3.5	0	15	180.12	Iola, Sattor Springs, Louisville, Flora, Clay City*
Coles	4.82	0	4.82	0	3.42	0	0	0	1.4	
Cumberland	3.85	0	3.85	1.66	0	0	0	3.85	1.66	Neoga*
Edwards	50.23	0	50.23	0.23	15.29	0	0	0	35.17	
Effingham	194.77	0	194.77	2.26	35.78	0	0	30	131.25	Effingham, Teutopolis, Beecher City, Altamont, Watson*
Fayette	2.78	0	2.78	2.28	0	0	0	0	5.06	
Gallatin	0	3.4	3.4	0	0	0	0	0	0	
Jasper	61.19	0	61.19	1.89	0	0	0	3	60.08	Wheeler*
Richland	177.67	0	177.67	0	7.47	0	0	10	160.2	Olney*
Shelby	22.65	0	22.65	6.97	14.54	0	0	0	15.08	
Wayne	137.98	0	137.98	10.35	45.09	0	0	30	73.24	Fairfield*
White	32.44	63.69	96.13	2.54	0	56.18	7.51	25.49	9.49	Carmi, Crossville*
Watershed total	932.3	70.59	1002.89	34.26	176.47	59.68	7.51	117.34	672.75	1033.75
corr.		67.19***		1033.75						

White County Multi-Hazard Mitigation Plan

Figure 4-18. Building Inventory Located within the 100-year Floodplain in White County

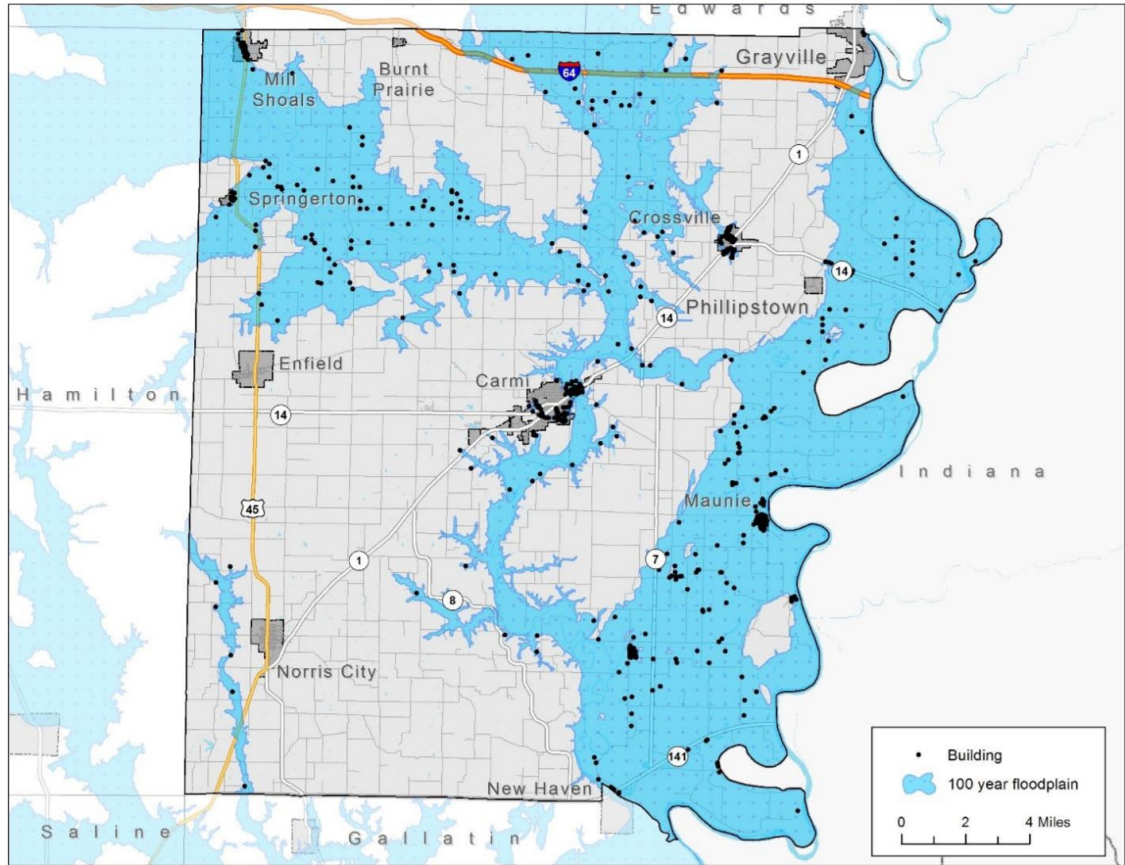


Table 4-34. Estimated Flood Losses within the 100-year Floodplain

Occupancy Class	Number of Structures	Estimated Building Related Losses
Residential	496	\$5,681,792
Commercial	47	\$1,868,848
Industrial	4	\$121,978
Agricultural	112	\$1,242,857
Total:	659	\$8,915,475,000

N.B. Error in MHMP Table: Total should read \$8,915,475

**White County, Illinois
Multi-Hazard Mitigation Plan**
A 2017 Update of the 2009 Countywide MHMP

National Flood Insurance Program (NFIP)

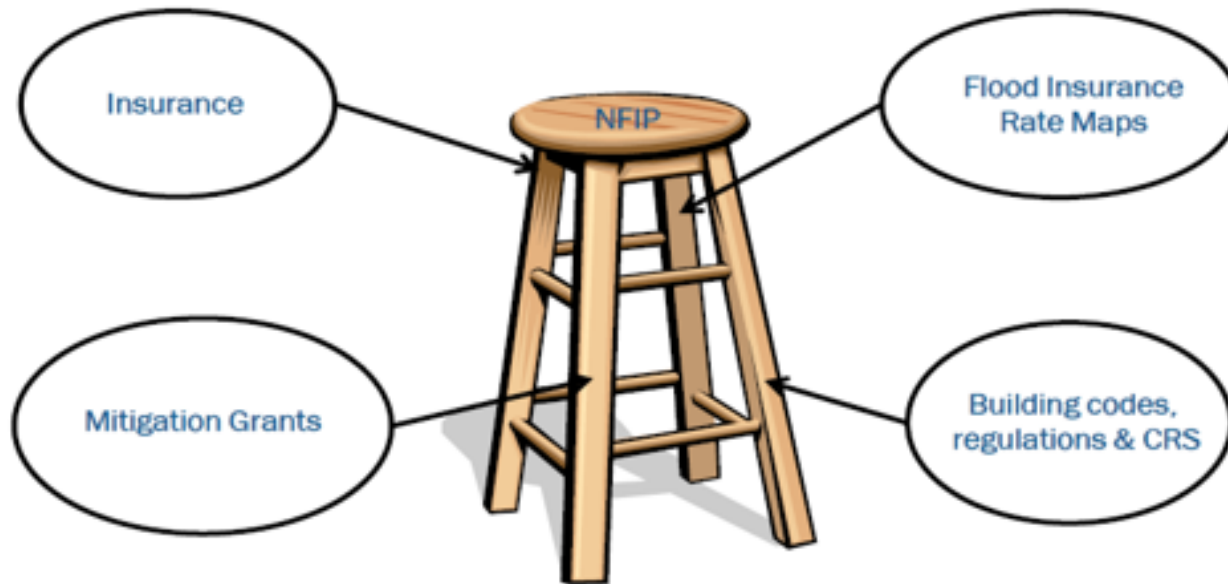


The National Flood Insurance Program (NFIP)

- A voluntary program based on a mutual agreement between the Federal government and a community.
- In exchange for **adopting** and **enforcing** a floodplain management ordinance, Federally-backed flood insurance is made available to property owners throughout the community.

IDNR Acting NFIP State Coordinator: Marilyn Sucoe, P.E., CFM Marilyn.Sucoe@Illinois.gov

National Flood Insurance Program Three +1 Related Program Areas



NFIP Community Information System data

<https://www.fema.gov/cis> downloaded 06/30/2021

CID	Community Name	FIRM Status	No. Policies	Total Premiums	Total Coverage	No. Rep Losses/payment	Total Claims since 1978	Total Paid since 1978
WHITE COUNTY								
171366	VILLAGE OF BURNT PRAIRIE (NP)	ALL ZONE C & X PUBLISHED FIRM	0	0	0	0	0	0
170681	CITY OF CARMI	REVISED	22	\$17,226	\$4,279,900	9/106,339	48	\$349,071
170682	VILLAGE OF CROSSVILLE	REVISED	9	\$5,655	\$561,100	0	2	\$19,317
171367	VILLAGE OF ENFIELD (NP)	ALL ZONE C & X PUBLISHED FIRM	0	0	0	0	0	0
170683	CITY OF GRAYVILLE (White & Edwards Cos)	REVISED	0	0	0	0	0	0
170684	VILLAGE OF MAUNIE	ORIGINAL	2	\$1,265	\$103,800	0	2	\$27,450
170685	VILLAGE OF MILL SHOALS (NP)	ALL ZONE A, C AND X- NO ELEVATION	0	0	0	0	0	0
171368	VILLAGE OF NORRIS CITY (NP)	ALL ZONE C & X PUBLISHED FIRM	0	0	0	0	0	0
171369	VILLAGE OF PHILLIPSTOWN (NP)	ALL ZONE C & X PUBLISHED FIRM	0	0	0	0	0	0
170686	VILLAGE OF SPRINGERTON (NP)	ALL ZONE A, C AND X- NO ELEVATION	0	0	0	0	0	0
170906	WHITE COUNTY Unincorporated Areas	REVISED	29	\$28,397	\$3,906,100	3/237,302	24	\$776,207
GALLATIN COUNTY								
170246	VILLAGE OF NEW HAVEN	ALL ZONE C & X PUBLISHED FIRM	12	\$10,039	\$995,700	0	11	\$995,700



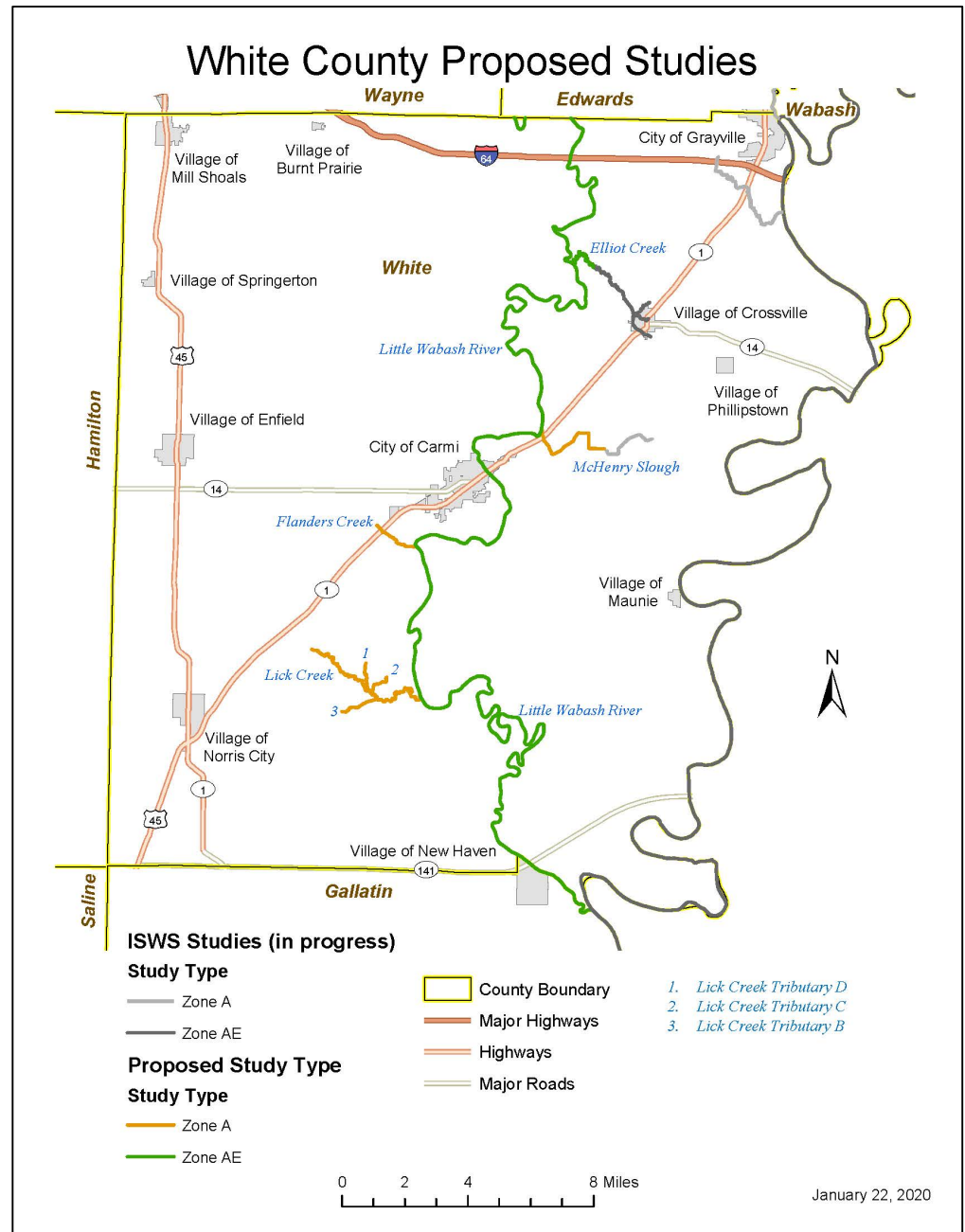
Project Scope



Project Scope

- Develop New Floodplain Studies
 - 73 miles of stream to be studied
 - 58 miles of stream to be studied using detailed methods
- Develop Draft Floodplain Mapping
- Community Outreach and Engagement
- Complete Digital Flood Insurance Rate Maps (Later Phase)

Floodplain Studies Overview



Wayne County

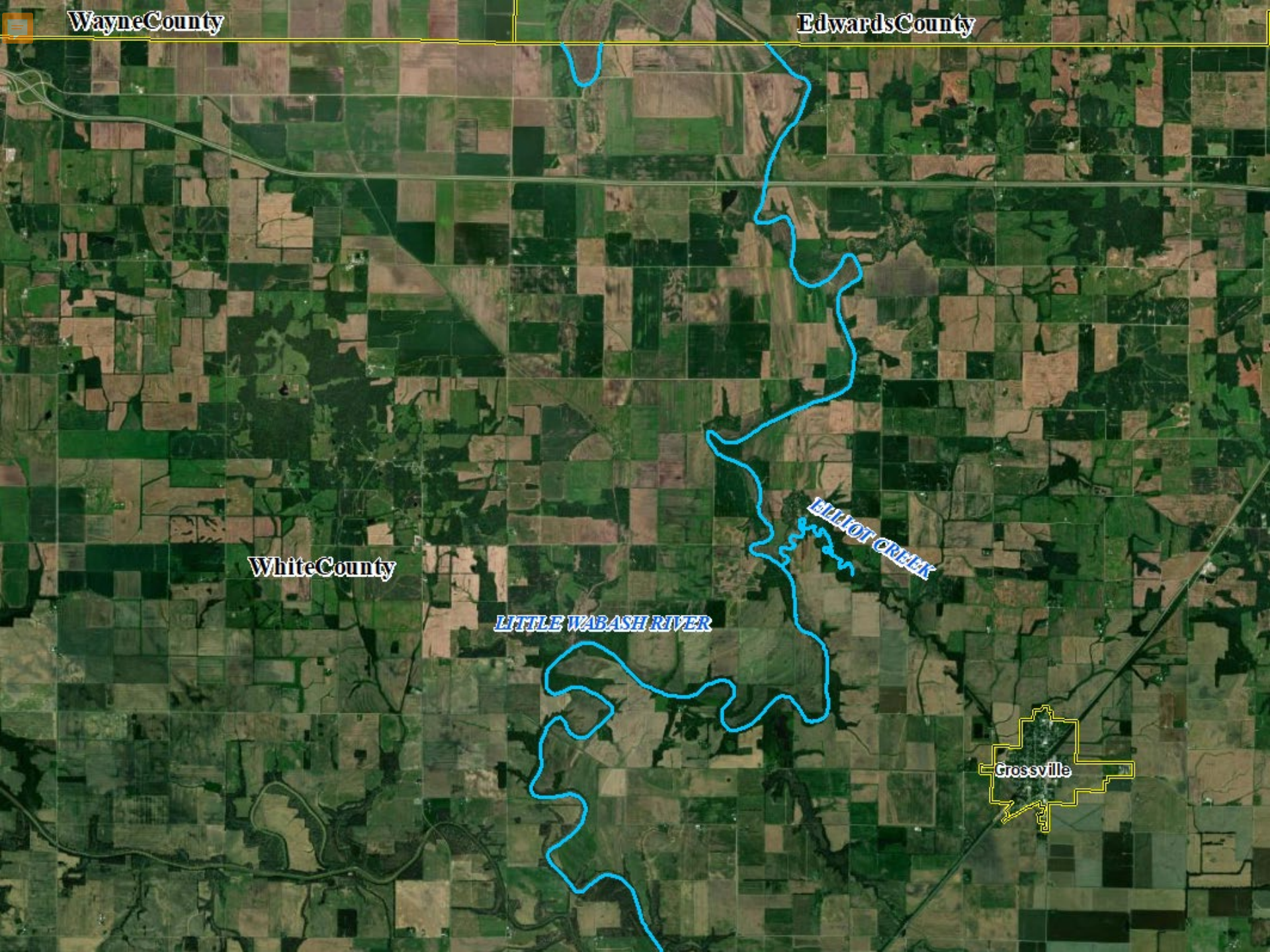
Edwards County

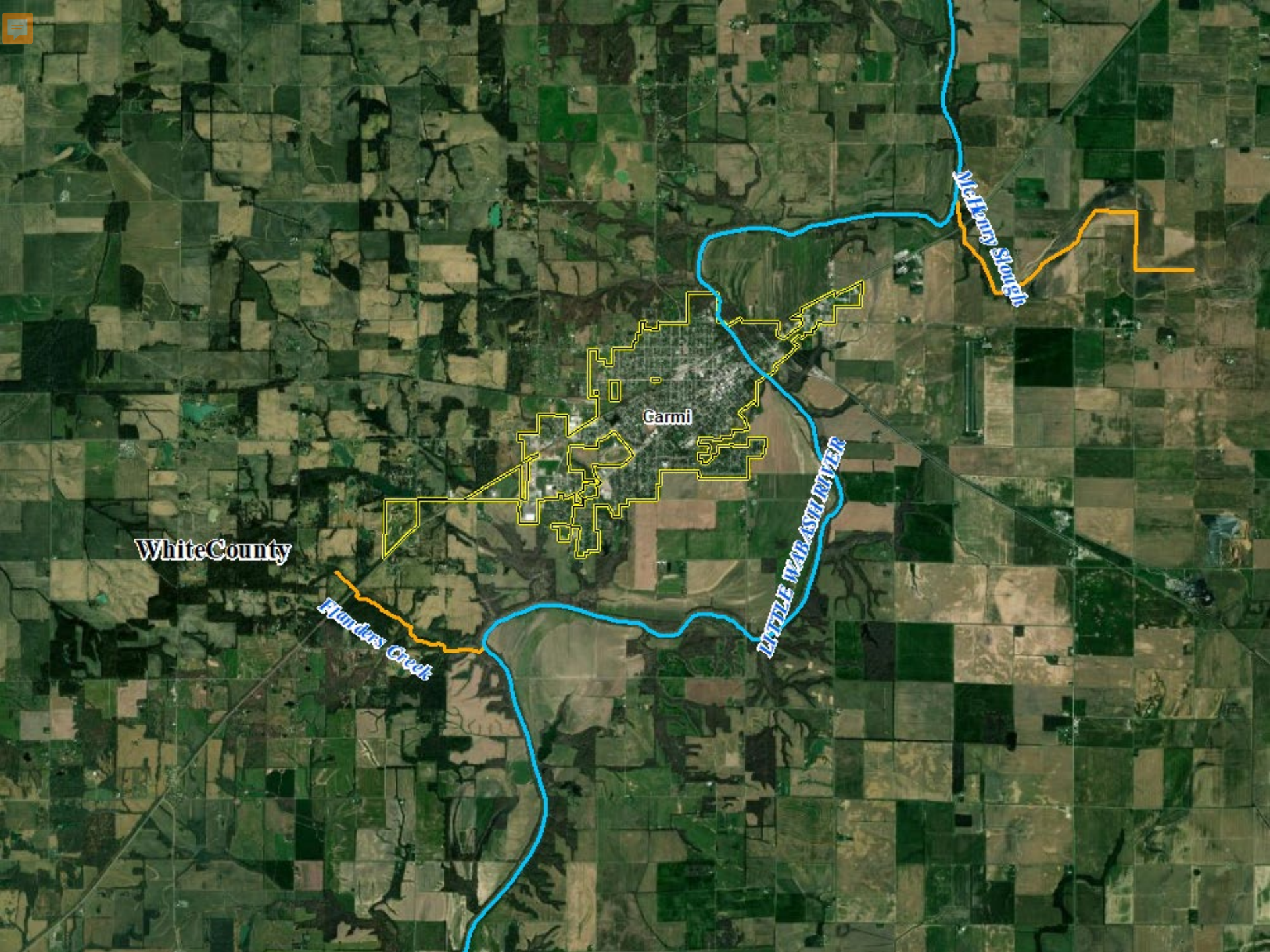
White County

LITTLE WABASH RIVER

BILLIOT CREEK

Grossville





White County

Garni

Hundlers Creek

LITTLE WASHITA RIVER

Maloney Slough



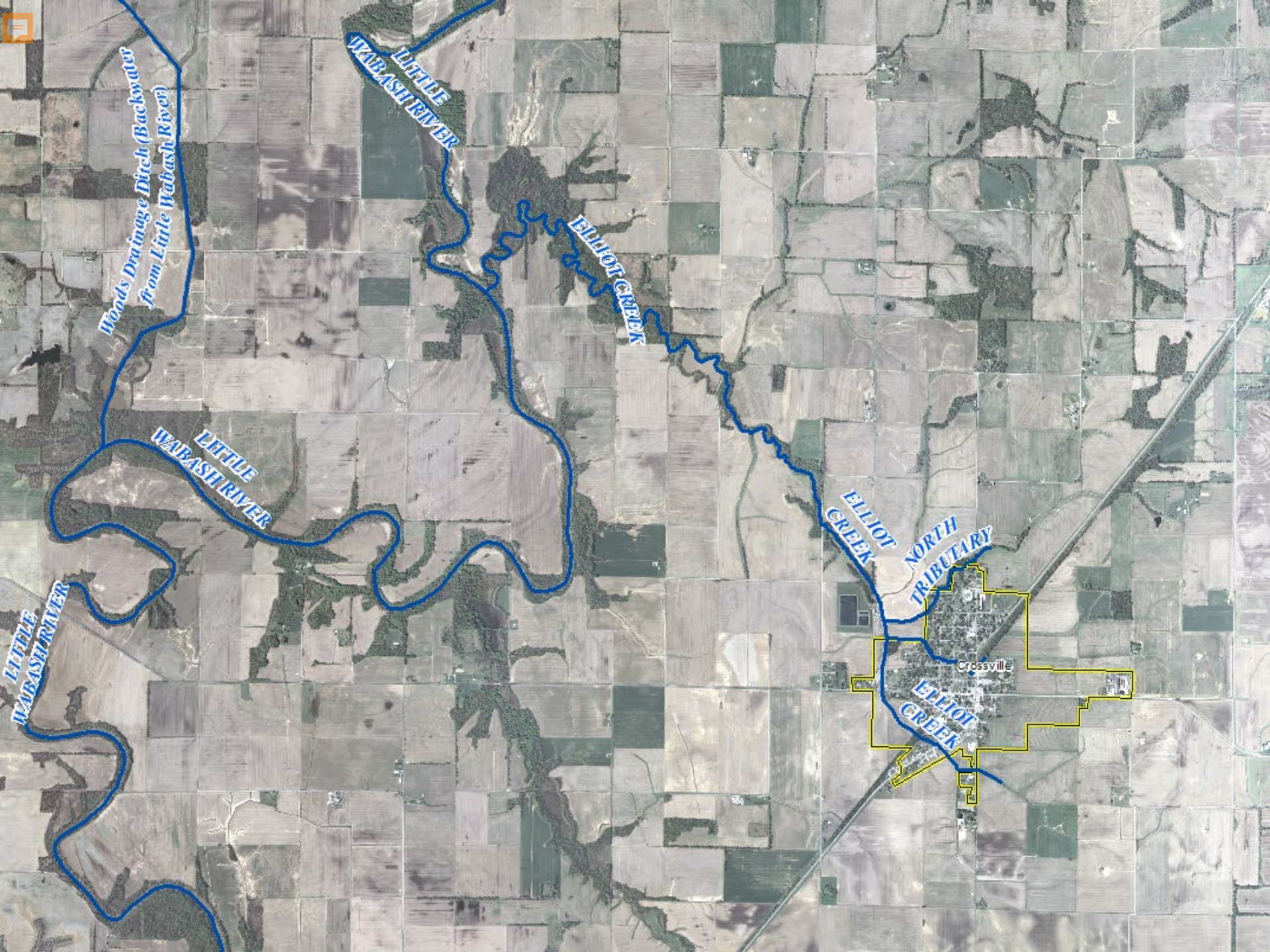
Lick Creek

LITTLE TUBASHI

White County

Gallatin County

New Haven



Woods Drainage Ditch (Backwater from Little Wabash River)

LITTLE WABASH RIVER

ELLIOTT CREEK

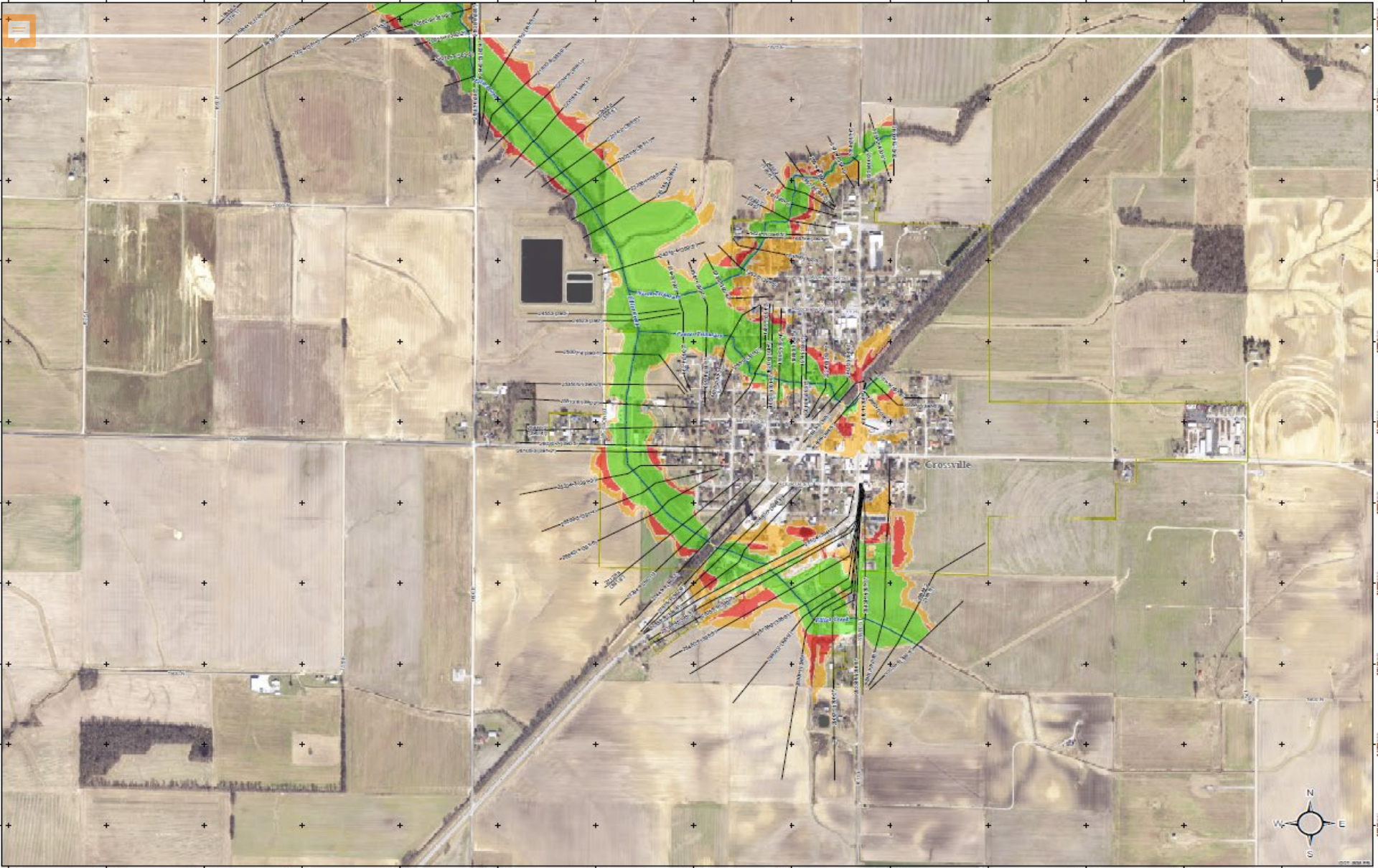
LITTLE WABASH RIVER

ELLIOTT CREEK NORTH TRIBUTARY

Crossville

ELLIOTT CREEK

LITTLE WABASH RIVER



ILLINOIS
 Illinois State Water Survey
 PRAIRIE RESEARCH INSTITUTE

Legend

- Model Cross Section (Label=River Station, & 1% WSEL) *
- General Structure*
- Profile Baseline *
- Corporate Boundary **
- A (1% Annual Chance Floodplain) *
- Floodway (1% Annual Chance Floodplain) *
- AG (1% Annual Chance Floodplain) *
- Shaded X (0.2% Annual Chance Floodplain) *

Source:
 Digital Elevation Data - 2014/2017 (DOT Images)
 Aerial Imagery - 1999/2007 (Aerial Imagery/2017 Digital Data)
 Profile Baselines - Extracted from HEC-RAS model using HEC-DEM/DEM 10 for ArcGIS Desktop 10.
 Market Boundaries (derived by State Water Survey (SWS)) using 2017 White County DEM
 * Market Conditions Provided by SWS
 ** Effective FEMA Date Source - National Flood Hazard Layer (NFHL)
 *** Working Contact: State Water Survey (SWS) only. Created using web GIS ArcGIS Online.
 All Measurements in NAD83 Vertical datum.
 This Map was designed to be printed at 30" x 30"

Coordinate System: NAD 83/US StatePlane Illinois East-FTS (GCS Feet)
 Datum: Geoid
 Units: Feet
 Contour Interval: 100
 Contour Method: 00.0000
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 Contour Interval: 100
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The technical content of this map is the responsibility of the author. The user assumes all liability for the design, selection and use of the map.

**City of Crossville, White County, Illinois
 Hydraulic Workmap
 Zone AE Stream Studies**

Draft

Page 2 of 2
 Date: 12/4/2019

Scale: 1:4,800
 1 in = 400 ft

0 400 800 1,600 2,400 3,200 Feet

Draft

Communication



Communication Plan

- Project Initiation Coordination Call (today)
- Proposed Engineering Methods Notification Letter (SID 620)
 - 30-Day Comment Period
- Flood Risk Review Meeting
 - 30-Day Comment Period
- Draft Data Submission Notification Letter (SID 621)
 - 30-Day Comment Period

Please reach out to Mary Richardson at mjr@Illinois.edu



Proposed Engineering Methods Letter FEMA Standard ID 620

- Mailed to community CEOs, Floodplain Administrator, Community Engineer
- Details the streams to be studied in community and proposed engineering methods used to study each stream
- Informs community about 30-day period to provide comments on the proposed engineering methods for the study stream



Engineering Methods 101

- Hydrology – Determine 1% Annual Chance (100-Year) stream flows
 - Common Methods
 - USGS Regression Equations
 - Stream Gage Analysis
- Hydraulics – Determines 1% Annual Chance (100-Year) flood elevations
 - HEC-RAS Hydraulic Models



Flood Risk Review Meeting

- A technical meeting to review *draft* workmaps with community officials, engineers, and floodplain managers. Public meetings will be held later in the project.
- The meeting initiates a 30-day comment period for communities to provide feedback on the *draft* floodplain mapping.



Data Submission Notification

FEMA Standard ID 621

- Mailed to community CEOs, Floodplain Administrator, Community Engineer
- Makes community aware the data collection and analysis phase of the project is concluding, and Flood Insurance Rate Map (FIRM) database is being validated by FEMA
- Gives communities 30 days to comment on the data in the FIRM database



Schedule



Schedule

- Engineering Notification Letters to communities likely **Fall 2021**
- ISWS to finish floodplain studies by **Summer 2022**
- Flood Risk Review Meeting likely **Fall 2022**
- Submit Flood Studies to IDNR for State review
- Complete draft FIRM database to conclude data development phase of project by **Spring 2023**
- Digital Flood Insurance Rate Map Project to follow pending conclusion of data development

Community Participation



Community Participation

- Do you have data or information that we can use for the floodplain studies?
 - Flood prone areas
 - Flood photos
 - Historic high-water marks
- Stay engaged in the process...
 - Attend meetings
 - Ask questions



Quick summary and then Questions



ILLINOIS

Illinois State Water Survey

PRAIRIE RESEARCH INSTITUTE

Glenn Heistand, P.E., CFM heistand@illinois.edu

Addison Jobe, EIT, CFM asjobe@illinois.edu

Mary Richardson, CFM mjr@illinois.edu

www.illinoisfloodmaps.org