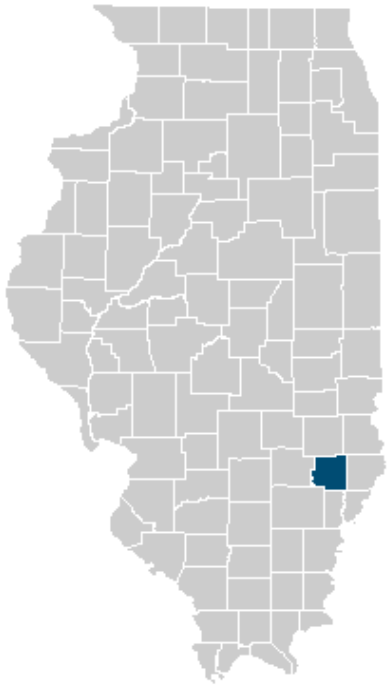


# FLOOD INSURANCE STUDY

## FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 1 OF 1



## **RICHLAND COUNTY, ILLINOIS**

AND INCORPORATED AREAS

COMMUNITY NAME	COMMUNITY NUMBER
CALHOUN, VILLAGE OF*	171316
CLAREMONT, VILLAGE OF	171317
NOBLE, VILLAGE OF*	171318
OLNEY, CITY OF	170581
PARKERSBURG, VILLAGE OF	171319
RICHLAND COUNTY UNINCORPORATED AREAS	170995

\*No Special Flood Hazard Areas Identified

**EFFECTIVE:**

**July 21, 2026**

FLOOD INSURANCE STUDY NUMBER  
17159CV000A  
Version Number 2.8.4.6



**FEMA**

# TABLE OF CONTENTS

## Volume 1

	<u>Page</u>
<b>SECTION 1.0 – INTRODUCTION</b>	<b>1</b>
1.1 The National Flood Insurance Program	1
1.2 Purpose of this Flood Insurance Study Report	2
1.3 Jurisdictions Included in the Flood Insurance Study Project	2
1.4 Considerations for using this Flood Insurance Study Report	5
<b>SECTION 2.0 – FLOODPLAIN MANAGEMENT APPLICATIONS</b>	<b>15</b>
2.1 Floodplain Boundaries	15
2.2 Floodways	51
2.3 Base Flood Elevations	52
2.4 Non-Encroachment Zones	53
2.5 Coastal Flood Hazard Areas	53
2.5.1 Water Elevations and the Effects of Waves	53
2.5.2 Floodplain Boundaries and BFEs for Coastal Areas	53
2.5.3 Coastal High Hazard Areas	53
2.5.4 Limit of Moderate Wave Action	53
<b>SECTION 3.0 – INSURANCE APPLICATIONS</b>	<b>53</b>
3.1 National Flood Insurance Program Insurance Zones	53
<b>SECTION 4.0 – AREA STUDIED</b>	<b>54</b>
4.1 Basin Description	54
4.2 Principal Flood Problems	54
4.3 Dams and Other Flood Hazard Reduction Measures	55
4.4 Levee Systems	55
<b>SECTION 5.0 – ENGINEERING METHODS</b>	<b>56</b>
5.1 Hydrologic Analyses	56
5.2 Hydraulic Analyses	57
5.3 Coastal Analyses	103
5.3.1 Total Stillwater Elevations	103
5.3.2 Waves	103
5.3.3 Coastal Erosion	103
5.3.4 Wave Hazard Analyses	103
5.4 Alluvial Fan Analyses	104
<b>SECTION 6.0 – MAPPING METHODS</b>	<b>104</b>
6.1 Vertical and Horizontal Control	104
6.2 Base Map	105
6.3 Floodplain and Floodway Delineation	106
6.4 Coastal Flood Hazard Mapping	110
6.5 FIRM Revisions	110

6.5.1	Letters of Map Amendment	110
6.5.2	Letters of Map Revision Based on Fill	110
6.5.3	Letters of Map Revision	111
6.5.4	Physical Map Revisions	111
6.5.5	Contracted Restudies	112
6.5.6	Community Map History	112
<b>SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION</b>		<b>113</b>
7.1	Contracted Studies	113
7.2	Community Meetings	126
<b>SECTION 8.0 – ADDITIONAL INFORMATION</b>		<b>127</b>
<b>SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES</b>		<b>130</b>

### Figures

	<u>Page</u>
Figure 1: FIRM Index	7
Figure 2: FIRM Notes to Users	8
Figure 3: Map Legend for FIRM	11
Figure 4: Floodway Schematic	52
Figure 5: Wave Runup Transect Schematic	53
Figure 6: Coastal Transect Schematic	53
Figure 7: Frequency Discharge-Drainage Area Curves	57
Figure 8: 1% Annual Chance Total Stillwater Elevations for Coastal Areas	103
Figure 9: Transect Location Map	103

### Tables

	<u>Page</u>
Table 1: Listing of NFIP Jurisdictions	3
Table 2: Flooding Sources Included in this FIS Report	16
Table 3: Flood Zone Designations by Community	54
Table 4: Basin Characteristics	54
Table 5: Principal Flood Problems	55
Table 6: Historic Flooding Elevations	55
Table 7: Dams and Other Flood Hazard Reduction Measures	55
Table 8: Levee Systems	55
Table 9: Summary of Discharges	56
Table 10: Summary of Non-Coastal Stillwater Elevations	57
Table 11: Stream Gage Information used to Determine Discharges	57
Table 12: Summary of Hydrologic and Hydraulic Analyses	58
Table 13: Roughness Coefficients	99
Table 14: Summary of Coastal Analyses	103

Table 15: Tide Gage Analysis Specifics	103
Table 16: Coastal Transect Parameters	103
Table 17: Summary of Alluvial Fan Analyses	104
Table 18: Results of Alluvial Fan Analyses	104
Table 19: Countywide Vertical Datum Conversion	104
Table 20: Stream-Based Vertical Datum Conversion	104
Table 21: Base Map Sources	105
Table 22: Summary of Topographic Elevation Data used in Mapping	107
Table 23: Floodway Data	110
Table 24: Flood Hazard and Non-Encroachment Data for Selected Streams	110
Table 25: Summary of Coastal Transect Mapping Considerations	110
Table 26: Incorporated Letters of Map Change	111
Table 27: Community Map History	113
Table 28: Summary of Contracted Studies Included in this FIS Report	114
Table 29: Community Meetings	127
Table 30: Map Repositories	129
Table 31: Additional Information	130
Table 32: Bibliography and References	131

**Published Separately**

Flood Insurance Rate Map (FIRM)

# FLOOD INSURANCE STUDY REPORT RICHLAND COUNTY, ILLINOIS

## SECTION 1.0 – INTRODUCTION

### 1.1 The National Flood Insurance Program

The National Flood Insurance Program (NFIP) is a voluntary Federal program that enables property owners in participating communities to purchase insurance protection against losses from flooding. This insurance is designed to provide an alternative to disaster assistance to meet the escalating costs of repairing damage to buildings and their contents caused by floods.

For decades, the national response to flood disasters was generally limited to constructing flood-control works such as dams, levees, sea-walls, and the like, and providing disaster relief to flood victims. This approach did not reduce losses nor did it discourage unwise development. In some instances, it may have actually encouraged additional development. To compound the problem, the public generally could not buy flood coverage from insurance companies, and building techniques to reduce flood damage were often overlooked.

In the face of mounting flood losses and escalating costs of disaster relief to the general taxpayers, the U.S. Congress created the NFIP. The intent was to reduce future flood damage through community floodplain management ordinances, and provide protection for property owners against potential losses through an insurance mechanism that requires a premium to be paid for the protection.

The U.S. Congress established the NFIP on August 1, 1968, with the passage of the National Flood Insurance Act of 1968. The NFIP was broadened and modified with the passage of the Flood Disaster Protection Act of 1973 and other legislative measures. It was further modified by the National Flood Insurance Reform Act of 1994 and the Flood Insurance Reform Act of 2004. The NFIP is administered by the Federal Emergency Management Agency (FEMA), which is a component of the Department of Homeland Security (DHS).

Participation in the NFIP is based on an agreement between local communities and the Federal Government. If a community adopts and enforces floodplain management regulations to reduce future flood risks to new construction and substantially improved structures in Special Flood Hazard Areas (SFHAs), the Federal Government will make flood insurance available within the community as a financial protection against flood losses. The community's floodplain management regulations must meet or exceed criteria established in accordance with Title 44 Code of Federal Regulations (CFR) Part 60, *Criteria for Land Management and Use*.

SFHAs are delineated on the community's Flood Insurance Rate Maps (FIRMs). Under the NFIP, buildings that were built before the flood hazard was identified on the community's FIRMs are generally referred to as "Pre-FIRM" buildings. When the NFIP was created, the U.S. Congress recognized that insurance for Pre-FIRM buildings would be prohibitively expensive if the premiums were not subsidized by the Federal Government. Congress also recognized that most of these floodprone buildings were built

by individuals who did not have sufficient knowledge of the flood hazard to make informed decisions. The NFIP requires that full actuarial rates reflecting the complete flood risk be charged on all buildings constructed or substantially improved on or after the effective date of the initial FIRM for the community or after December 31, 1974, whichever is later. These buildings are generally referred to as “Post-FIRM” buildings.

## **1.2 Purpose of this Flood Insurance Study Report**

This Flood Insurance Study (FIS) Report provides information on the existence and severity of flood hazards for the study area. The studies described in this report developed flood hazard data to assist communities in efforts to implement sound floodplain management.

In some states or communities, floodplain management criteria or regulations may exist that are more restrictive than the minimum Federal requirements. Contact your State NFIP Coordinator to ensure that any higher State standards are included in the community’s regulations.

## **1.3 Jurisdictions Included in the Flood Insurance Study Project**

This FIS Report covers the entire geographic area of Richland County, Illinois.

The jurisdictions that are included in this project area, along with the Community Identification Number (CID) for each community and the United States Geological Survey (USGS) 8-digit Hydrologic Unit Code (HUC-8) sub-basins affecting each, are shown in Table 1. The FIRM panel numbers that affect each community are listed. If the flood hazard data for the community is not included in this FIS Report, the location of that data is identified.

Jurisdictions that have no identified SFHAs as of the effective date of this study are indicated in the table. Changed conditions in these communities (such as urbanization or annexation) or the availability of new scientific or technical data about flood hazards could make it necessary to determine SFHAs in these jurisdictions in the future.

**Table 1: Listing of NFIP Jurisdictions**

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Calhoun, Village of <sup>1</sup>	171316	05120114	17159C0170E	
Claremont, Village of	171317	05120113	17159C0176E 17159C0177E 17159C0178E 17159C0179E	
Noble, Village of <sup>1</sup>	171318	05120114	17159C0150E	
Olney, City of	170581	05120114	17159C0065E 17159C0070E 17159C0150E 17159C0151E 17159C0152E 17159C0153E 17159C0154E 17159C0160E	
Parkersburg, Village of	171319	05120114	17159C0255E 17159C0256E 17159C0260E	

<sup>1</sup> No Special Flood Hazard Areas Identified

**Table 1: Listing of NFIP Jurisdictions (continued)**

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Richland County Unincorporated Areas	170995	05120112 05120113 05120114	17159C0025E 17159C0050E 17159C0055E 17159C0060E 17159C0065E 17159C0070E 17159C0080E 17159C0085E <sup>2</sup> 17159C0100E 17159C0110E 17159C0120E 17159C0150E 17159C0151E 17159C0152E 17159C0153E 17159C0154E 17159C0160E 17159C0165E 17159C0170E 17159C0176E 17159C0177E 17159C0178E 17159C0179E 17159C0200E 17159C0210E 17159C0230E 17159C0235E 17159C0255E 17159C0256E 17159C0260E 17159C0300E	

<sup>1</sup> No Special Flood Hazard Areas Identified

<sup>2</sup> Panel Not Printed

## 1.4 Considerations for using this Flood Insurance Study Report

The NFIP encourages State and local governments to implement sound floodplain management programs. To assist in this endeavor, each FIS Report provides floodplain data, which may include a combination of the following: 10-, 4-, 2-, 1-, and 0.2-percent annual chance flood elevations (the 1-percent-annual-chance flood elevation is also referred to as the Base Flood Elevation (BFE)); delineations of the 1-percent-annual-chance and 0.2-percent-annual-chance floodplains; and 1-percent-annual-chance floodway. This information is presented on the FIRM and/or in many components of the FIS Report, including Flood Profiles, Floodway Data tables, Summary of Non-Coastal Stillwater Elevations tables, and Coastal Transect Parameters tables (not all components may be provided for a specific FIS).

This section presents important considerations for using the information contained in this FIS Report and the FIRM, including changes in format and content. Figures 1, 2, and 3 present information that applies to using the FIRM with the FIS Report.

- Part or all of this FIS Report may be revised and republished at any time. In addition, part of this FIS Report may be revised by a Letter of Map Revision (LOMR), which does not involve republication or redistribution of the FIS Report. Refer to Section 6.5 of this FIS Report for information about the process to revise the FIS Report and/or FIRM.

It is, therefore, the responsibility of the user to consult with community officials by contacting the community repository to obtain the most current FIS Report components. Communities participating in the NFIP have established repositories of flood hazard data for floodplain management and flood insurance purposes. Community map repository addresses are provided in Table 30, "Map Repositories," within this FIS Report.

- New FIS Reports are frequently developed for multiple communities, such as entire counties. A countywide FIS Report incorporates previous FIS Reports for individual communities and the unincorporated area of the county (if not jurisdictional) into a single document and supersedes those documents for the purposes of the NFIP.

The initial Countywide FIS Report for Richland County became effective on July 21, 2026. Refer to Table 27 for information about subsequent revisions to the FIRMs.

- Selected FIRM panels for the community may contain information (such as floodways and cross sections) that was previously shown separately on the corresponding Flood Boundary and Floodway Map (FBFM) panels. In addition, former flood hazard zone designations have been changed as follows:

<u>Old Zone</u>	<u>New Zone</u>
A1 through A30	AE
V1 through V30	VE
B	X (shaded)
C	X (unshaded)

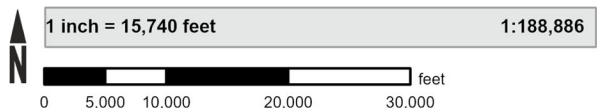
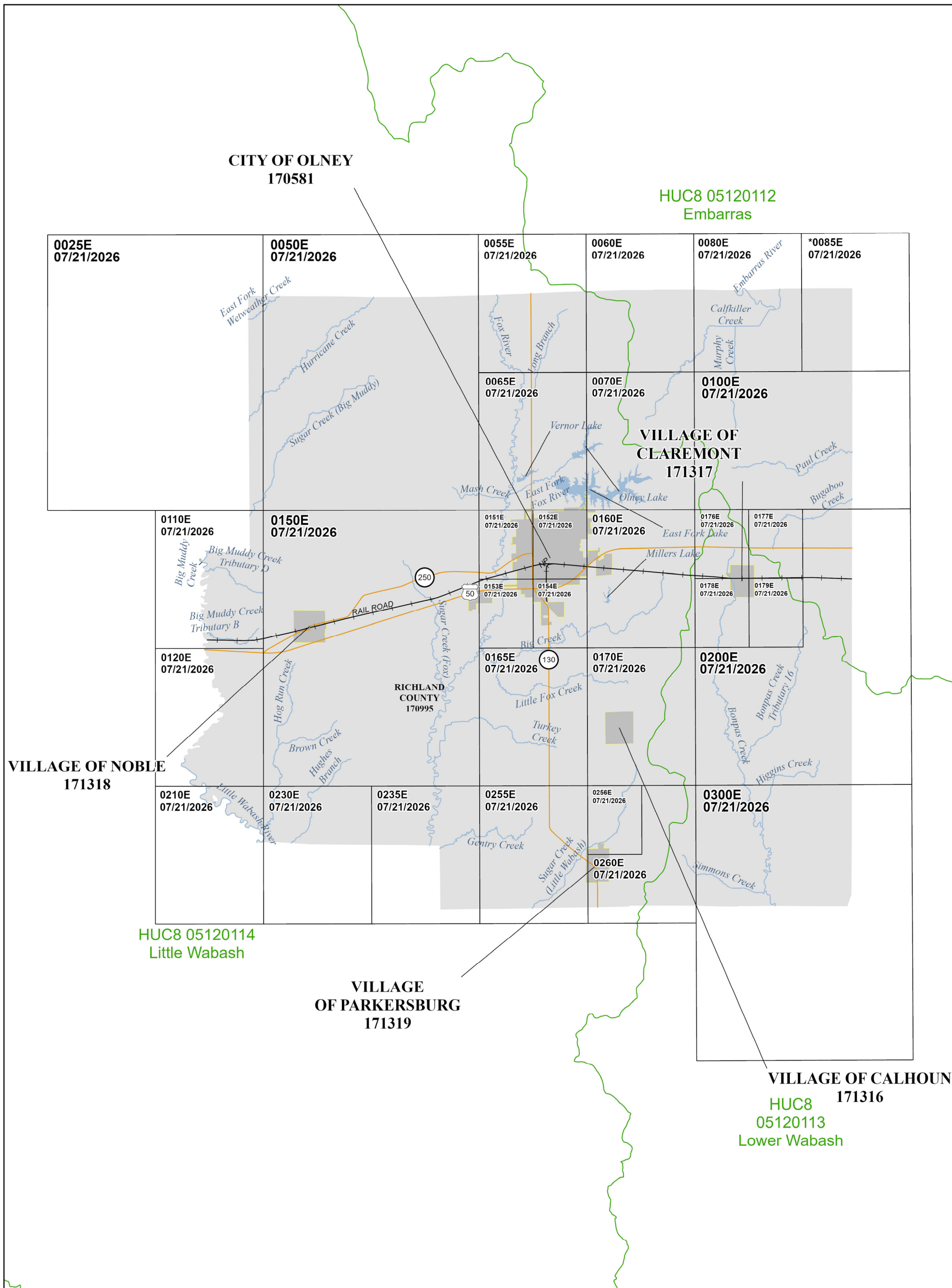
- The Community Rating System (CRS) is a voluntary incentive program that

recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. Visit the FEMA Web site at [www.fema.gov/flood-insurance/rules-legislation/community-rating-system](http://www.fema.gov/flood-insurance/rules-legislation/community-rating-system) or contact your appropriate FEMA Regional Office for more information about this program.

- FEMA has developed a *Guide to Flood Maps* (FEMA 258) and online tutorials to assist users in accessing the information contained on the FIRM. These include how to read panels and step-by-step instructions to obtain specific information. To obtain this guide and other assistance in using the FIRM, visit the FEMA Web site at [www.fema.gov/flood-maps/tutorials](http://www.fema.gov/flood-maps/tutorials).

The FIRM Index in Figure 1 shows the overall FIRM panel layout within Richland County, and also displays the panel number and effective date for each FIRM panel in the county. Other information shown on the FIRM Index includes community boundaries, flooding sources, watershed boundaries, and USGS HUC-8 codes.

Figure 1: FIRM Index



Map Projection:  
NAD 1983 StatePlane Illinois East FIPS 1201 Feet  
Vertical Datum: NAVD88

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTPS://MSC.FEMA.GOV](https://MSC.FEMA.GOV)

SEE FLOOD INSURANCE STUDY FOR ADDITIONAL INFORMATION

**NATIONAL FLOOD INSURANCE PROGRAM**

FLOOD INSURANCE RATE MAP INDEX

**RICHLAND COUNTY, ILLINOIS, AND INCORPORATED AREAS**

PANELS PRINTED:

0025, 0050, 0055, 0060, 0065, 0070, 0080, 0100, 0110, 0120, 0150, 0151, 0152, 0153, 0154, 0160, 0165, 0170, 0176, 0177, 0178, 0179, 0200, 0210, 0230, 0235, 0255, 0256, 0260, 0300



FEMA

MAP NUMBER  
17159CIND0A

EFFECTIVE DATE  
July 21, 2026

\* PANEL NOT PRINTED - NO SPECIAL FLOOD HAZARD AREAS

Each FIRM panel may contain specific notes to the user that provide additional information regarding the flood hazard data shown on that map. However, the FIRM panel does not contain enough space to show all the notes that may be relevant in helping to better understand the information on the panel. Figure 2 contains the full list of these notes.

**Figure 2: FIRM Notes to Users**

<p style="text-align: center;"><b>NOTES TO USERS</b></p> <p>For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM including historic versions of this FIRM, how to order products, or the National Flood Insurance Program in general, please call the FEMA Mapping and Insurance eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at <a href="http://msc.fema.gov">msc.fema.gov</a>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the FEMA Flood Map Service Center website or by calling the FEMA Mapping and Insurance eXchange.</p> <p>Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.</p> <p>For community and countywide map dates, refer to Table 27 in this FIS Report.</p> <p>To determine if flood insurance is available in the community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.</p>
<p>The map is for use in administering the NFIP. It may not identify all areas subject to flooding, particularly from local drainage sources of small size. Consult the community map repository to find updated or additional flood hazard information.</p> <p><b>BASE FLOOD ELEVATIONS:</b> For more detailed information in areas where Base Flood Elevations (BFEs) and/or floodways have been determined, consult the Flood Profiles and Floodway Data and/or Summary of Non-Coastal Stillwater Elevations tables within this FIS Report. Use the flood elevation data within the FIS Report in conjunction with the FIRM for construction and/or floodplain management.</p>

## Figure 2: FIRM Notes to Users

**FLOODWAY INFORMATION:** Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the FIS Report for this jurisdiction.

**FLOOD CONTROL STRUCTURE INFORMATION:** Certain areas not in Special Flood Hazard Areas may have reduced flood hazards due to flood control structures. Refer to Section 4.3 "Dams and Other Flood Hazard Reduction Measures" of this FIS Report for information on flood control structures for this jurisdiction.

**PROJECTION INFORMATION:** The projection used in the preparation of the map was State Plane Illinois East 1201. The horizontal datum was the North American Datum of 1983 NAD83 (2011), GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

**ELEVATION DATUM:** Flood elevations on the FIRM are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at [www.ngs.noaa.gov](http://www.ngs.noaa.gov).

Local vertical monuments may have been used to create the map. To obtain current monument information, please contact the appropriate local community listed in Table 30 of this FIS Report.

**BASE MAP INFORMATION:** Base map information shown on the FIRM was provided in digital format by the United States Geological Survey (USGS). The basemap shown is the USGS National Map: Orthoimagery. Last refreshed October 2020. For information about base maps, refer to Section 6.2 "Base Map" in this FIS Report.

Corporate limits shown on the map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after the map was published, map users should contact appropriate community officials to verify current corporate limit locations.

### **NOTES FOR FIRM INDEX**

**REVISIONS TO INDEX:** As new studies are performed and FIRM panels are updated within Richland County, Illinois, corresponding revisions to the FIRM Index will be incorporated within the FIS Report to reflect the effective dates of those panels. Please refer to Table 27 of this FIS Report to determine the most recent FIRM revision date for each community. The most recent FIRM panel effective date will correspond to the most recent index date.

**Figure 2: FIRM Notes to Users**

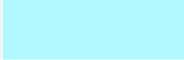

**SPECIAL NOTES FOR SPECIFIC FIRM PANELS**

This Notes to Users section was created specifically for Richland County, Illinois, effective July 21, 2026.

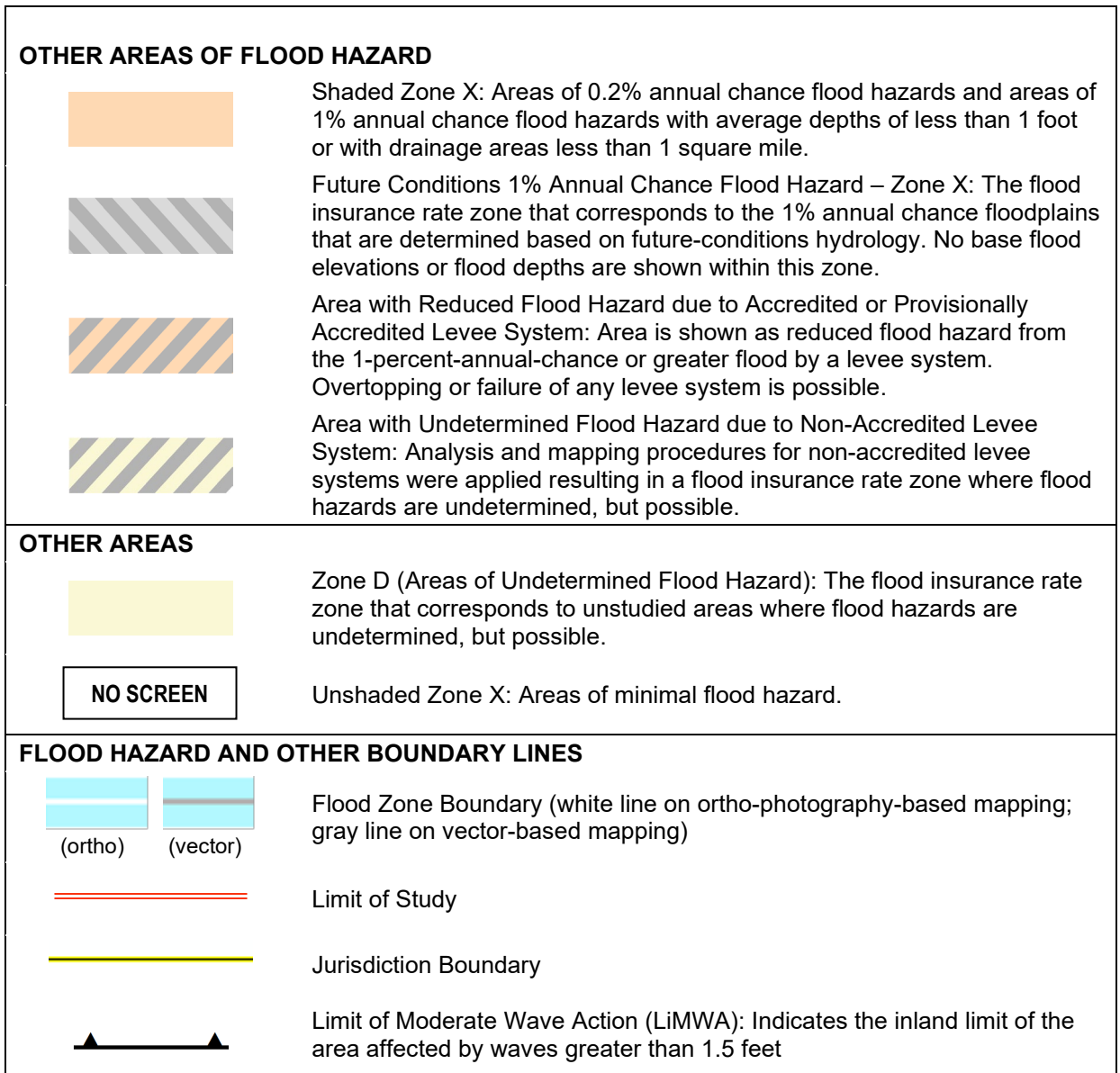
FLOOD RISK REPORT: A Flood Risk Report (FRR) may be available for many of the flooding sources and communities referenced in this FIS Report. The FRR is provided to increase public awareness of flood risk by helping communities identify the areas within their jurisdictions that have the greatest risks. Although non-regulatory, the information provided within the FRR can assist communities in assessing and evaluating mitigation opportunities to reduce these risks. It can also be used by communities developing or updating flood risk mitigation plans. These plans allow communities to identify and evaluate opportunities to reduce potential loss of life and property. However, the FRR is not intended to be the final authoritative source of all flood risk data for a project area; rather, it should be used with other data sources to paint a comprehensive picture of flood risk.

Each FIRM panel contains an abbreviated legend for the features shown on the maps. However, the FIRM panel does not contain enough space to show the legend for all map features. Figure 3 shows the full legend of all map features. Note that not all of these features may appear on the FIRM panels in Richland County.




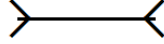



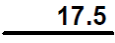




**Figure 3: Map Legend for FIRM**

<p><b>SPECIAL FLOOD HAZARD AREAS:</b> The 1% annual chance flood, also known as the base flood or 100-year flood, has a 1% chance of happening or being exceeded each year. Special Flood Hazard Areas are subject to flooding by the 1% annual chance flood. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood. 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. See note for specific types. If the floodway is too narrow to be shown, a note is shown.</p>	
	Special Flood Hazard Areas subject to inundation by the 1% annual chance flood (Zones A, AE, AH, AO, AR, A99, V and VE)
Zone A	The flood insurance rate zone that corresponds to the 1% annual chance floodplains. No base (1% annual chance) flood elevations (BFEs) or depths are shown within this zone.
Zone AE	The flood insurance rate zone that corresponds to the 1% annual chance floodplains. Base flood elevations derived from the hydraulic analyses are shown within this zone.
Zone AH	The flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot BFEs derived from the hydraulic analyses are shown at selected intervals within this zone.
Zone AO	The flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average whole-foot depths derived from the hydraulic analyses are shown within this zone.
Zone AR	The flood insurance rate zone that corresponds to areas that were formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
Zone A99	The flood insurance rate zone that corresponds to areas of the 1% annual chance floodplain that will be protected by a Federal flood protection system where construction has reached specified statutory milestones. No base flood elevations or flood depths are shown within this zone.
Zone V	The flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Base flood elevations are not shown within this zone.
Zone VE	Zone VE is the flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Base flood elevations derived from the coastal analyses are shown within this zone as static whole-foot elevations that apply throughout the zone.
	Regulatory Floodway determined in Zone AE.







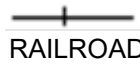



**Figure 3: Map Legend for FIRM**



**Figure 3: Map Legend for FIRM**

<b>GENERAL STRUCTURES</b>	
 Aqueduct Channel Culvert Storm Sewer	Channel, Culvert, Aqueduct, or Storm Sewer
 Dam Jetty Weir	Dam, Jetty, Weir
	Levee, Dike, or Floodwall
 Bridge	Bridge
<b>REFERENCE MARKERS</b>	
 22.0	River mile Markers
<b>CROSS SECTION &amp; TRANSECT INFORMATION</b>	
 20.2	Lettered Cross Section with Regulatory Water Surface Elevation (BFE)
 21.1	Numbered Cross Section with Regulatory Water Surface Elevation (BFE)
 17.5	Unlettered Cross Section with Regulatory Water Surface Elevation (BFE)
 8	Coastal Transect
 	Profile Baseline: Indicates the modeled flow path of a stream and is shown on FIRM panels for all valid studies with profiles or otherwise established base flood elevation. Coastal Transect Baseline: Used in the coastal flood hazard model to represent the 0.0-foot elevation contour and the starting point for the transect and the measuring point for the coastal mapping.
 513	Base Flood Elevation Line
<b>ZONE AE</b> (EL 16)	Static Base Flood Elevation value (shown under zone label)
<b>ZONE AO</b> (DEPTH 2)	Zone designation with Depth
<b>ZONE AO</b> (DEPTH 2) (VEL 15 FPS)	Zone designation with Depth and Velocity

**Figure 3: Map Legend for FIRM**

<b>BASE MAP FEATURES</b>	
 <i>Missouri Creek</i>	River, Stream or Other Hydrographic Feature
	Interstate Highway
	U.S. Highway
	State Highway
	County Highway
	Street, Road, Avenue Name, or Private Drive if shown on Flood Profile
	Railroad
	Horizontal Reference Grid Line
	Horizontal Reference Grid Ticks
	Secondary Grid Crosshairs
Land Grant	Name of Land Grant
7	Section Number
R. 43 W. T. 22 N.	Range, Township Number
<b>4276<sup>000</sup>mE</b>	Horizontal Reference Grid Coordinates (UTM)
<b>365000 FT</b>	Horizontal Reference Grid Coordinates (State Plane)
<b>80° 16' 52.5"</b>	Corner Coordinates (Latitude, Longitude)

## SECTION 2.0 – FLOODPLAIN MANAGEMENT APPLICATIONS

### 2.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1-percent-annual-chance (100-year) flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2-percent-annual-chance (500-year) flood is employed to indicate additional areas of flood hazard in the community.

Each flooding source included in the project scope has been studied and mapped using professional engineering and mapping methodologies that were agreed upon by FEMA and Richland County as appropriate to the risk level. Flood risk is evaluated based on factors such as known flood hazards and projected impact on the built environment. Engineering analyses were performed for each studied flooding source to calculate its 1-percent-annual-chance flood elevations; elevations corresponding to other floods (e.g. 10-, 4-, 2-, 0.2-percent annual chance, etc.) may have also been computed for certain flooding sources. Engineering models and methods are described in detail in Section 5.0 of this FIS Report. The modeled elevations at cross sections were used to delineate the floodplain boundaries on the FIRM; between cross sections, the boundaries were interpolated using elevation data from various sources. More information on specific mapping methods is provided in Section 6.0 of this FIS Report.

Depending on the accuracy of available topographic data (Table 22), study methodologies employed (Section 5.0), and flood risk, certain flooding sources may be mapped to show both the 1-percent and 0.2-percent-annual-chance floodplain boundaries, regulatory water surface elevations (BFEs), and/or a regulatory floodway. Similarly, other flooding sources may be mapped to show only the 1-percent-annual-chance floodplain boundary on the FIRM, without published water surface elevations. In cases where the 1-percent and 0.2-percent-annual-chance floodplain boundaries are close together, only the 1-percent-annual-chance floodplain boundary is shown on the FIRM. Figure 3, “Map Legend for FIRM”, describes the flood zones that are used on the FIRMs to account for the varying levels of flood risk that exist along flooding sources within the project area. Table 2 and Table 3 indicate the flood zone designations for each flooding source and each community within Richland County, respectively.

Table 2, “Flooding Sources Included in this FIS Report,” lists each flooding source, including its study limits, affected communities, mapped zone on the FIRM, and the completion date of its engineering analysis from which the flood elevations on the FIRM and in the FIS Report were derived. Descriptions and dates for the latest hydrologic and hydraulic analyses of the flooding sources are shown in Table 12. Floodplain boundaries for these flooding sources are shown on the FIRM (published separately) using the symbology described in Figure 3. On the map, the 1-percent-annual-chance floodplain corresponds to the SFHAs. The 0.2-percent-annual-chance floodplain shows areas that, although out of the regulatory floodplain, are still subject to flood hazards.

Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data. The procedures to remove these areas from the SFHA are described in Section 6.5 of this FIS Report.

**Table 2: Flooding Sources Included in this FIS Report**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Big Branch	Richland County Unincorporated Areas	Approximately 12,750 feet upstream of confluence with Bonpas Creek (At Richland County and Wabash County Boundary / Just downstream of Edwards Lane)	Approximately 30,957 feet upstream of confluence with Bonpas Creek (Approximately 4,145 feet upstream of Berryville Lane / County Road 200 N / County Highway 13)	05120113	3.4	N	A	2022
Big Creek	Richland County Unincorporated Areas	Confluence with Little Fox Creek	Approximately 50,933 feet upstream of confluence with Little Fox Creek (Approximately 1,600 feet upstream of Antioch Lane / County Road 1000 N)	05120114	9.6	N	A	2020
Big Creek Tributary A	Olney, City of; Richland County Unincorporated Areas	Confluence with Big Creek	Approximately 15,156 feet upstream of confluence with Big Creek (Approximately 300 feet upstream of Main Street)	05120114	2.9	N	A	2020
Big Creek Tributary B	Richland County Unincorporated Areas	Confluence with Big Creek	Approximately 3,693 feet upstream of confluence with Big Creek (Approximately 2,400 feet upstream of E Radio Tower Lane / County Road 900 N)	05120114	0.7	N	A	2020

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Big Creek Tributary C	Richland County Unincorporated Areas	Confluence with Big Creek	Approximately 4,263 feet upstream of confluence with Big Creek (Approximately 1,200 feet upstream of Lawnridge Road / County Road 1375 E)	05120114	0.8	N	A	2020
Big Creek Tributary D	Richland County Unincorporated Areas	Confluence with Big Creek	Approximately 5,706 feet upstream of confluence with Big Creek (Approximately 1,070 feet downstream of Meridian Road / County Road 1500 E)	05120114	1.1	N	A	2020
Big Creek Tributary E	Richland County Unincorporated Areas	Confluence with Big Creek	Approximately 6,303 feet upstream of confluence with Big Creek (Approximately 1,700 feet upstream of Dayton Lane / County Road 950 N (extended))	05120114	1.2	N	A	2020
Big Muddy Creek	Richland County Unincorporated Areas	Approximately 57,504 feet upstream of confluence with Little Wabash River	Approximately 63,100 feet upstream of confluence with Little Wabash River (At Richland County and Clay County Boundary / Colborn Camp Lane / County Road 1100 N (extended))	05120114	1.1	N	A	2020

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Big Muddy Creek Tributary A	Richland County Unincorporated Areas	Confluence with Big Muddy Creek	Approximately 8,390 feet upstream of confluence with Big Muddy Creek (Just downstream of Glenwood Road / County Road 200 E)	05120114	1.6	N	A	2020
Big Muddy Creek Tributary A1	Richland County Unincorporated Areas	Confluence with Big Muddy Creek Tributary A	Approximately 4,071 feet upstream of confluence with Big Muddy Creek Tributary A (Approximately 2,150 feet upstream of Bottoms Road / County Road 150 E)	05120114	0.8	N	A	2020
Big Muddy Creek Tributary B	Richland County Unincorporated Areas	Confluence with Big Muddy Creek	Approximately 13,354 feet upstream of confluence with Big Muddy Creek (Approximately 2,250 feet upstream of Glenwood Road / County Road 200 E)	05120114	2.5	N	A	2020
Big Muddy Creek Tributary C	Richland County Unincorporated Areas	Confluence with Big Muddy Creek	Approximately 4,676 feet upstream of confluence with Big Muddy Creek (Approximately 750 feet upstream of Hitch Road / County Road 125 E)	05120114	0.9	N	A	2020

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Big Muddy Creek Tributary D	Richland County Unincorporated Areas	Confluence with Big Muddy Creek	Approximately 15,285 feet upstream of confluence with Big Muddy Creek (Approximately 3,245 feet upstream of Glenwood Road / County Road 200 E)	05120114	2.9	N	A	2020
Big Muddy Creek Tributary D1	Richland County Unincorporated Areas	Confluence with Big Muddy Creek Tributary D	Approximately 3,324 feet upstream of confluence with Big Muddy Creek Tributary D (Approximately 1,000 feet downstream of Glenwood Road / County Road 200 E)	05120114	0.6	N	A	2020
Bonpas Creek	Claremont, Village of; Richland County Unincorporated Areas	Approximately 200,600 feet upstream of confluence with Wabash River (At Richland County and Wabash County Boundary)	Approximately 289,525 feet upstream of confluence with Wabash River (Approximately 250 feet downstream of U.S. Route 50 / Illinois Route 250)	05120113	16.8	N	A	2022
Bonpas Creek Tributary 11	Richland County Unincorporated Areas	Approximately 1,000 feet upstream of confluence with Bonpas Creek (At Richland County and Wabash County Boundary / Edwards Lane (extended))	Approximately 7,205 feet upstream of confluence with Bonpas Creek (Approximately 3,300 feet upstream of Wabash Road / County Road 1925 E)	05120113	1.2	N	A	2022

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Bonpas Creek Tributary 12	Richland County Unincorporated Areas	Confluence with Bonpas Creek	Approximately 11,669 feet upstream of confluence with Bonpas Creek (Approximately 1,730 feet upstream of Amity Road / County Road 1950 E)	05120113	2.2	N	A	2022
Bonpas Creek Tributary 14	Richland County Unincorporated Areas	Confluence with Bonpas Creek	Approximately 10,719 feet upstream of confluence with Bonpas Creek (Just downstream of Bethel Lane / County Road 300 N (extended))	05120113	2.0	N	A	2022
Bonpas Creek Tributary 15	Richland County Unincorporated Areas	Confluence with Bonpas Creek	Approximately 27,219 feet upstream of confluence with Bonpas Creek (At Richland County and Lawrence County Boundary / County Road 2100 E)	05120113	5.2	N	A	2022
Bonpas Creek Tributary 16	Richland County Unincorporated Areas	Confluence with Bonpas Creek	Approximately 32,236 feet upstream of confluence with Bonpas Creek (Approximately 4,800 feet upstream of Mount Pleasant Lane / County Road 800 N)	05120113	6.1	N	A	2022

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Bonpas Creek Tributary 16A	Richland County Unincorporated Areas	Confluence with Bonpas Creek Tributary 16	Approximately 5,865 feet upstream of confluence with Bonpas Creek Tributary 16 (Approximately 1,400 feet downstream of Nashville Road / County Road 1850 N / County Highway 6)	05120113	1.1	N	A	2022
Bonpas Creek Tributary 16B	Richland County Unincorporated Areas	Confluence with Bonpas Creek Tributary 16	Approximately 14,682 feet upstream of confluence with Bonpas Creek Tributary 16 (Approximately 1,100 feet upstream of Mount Pleasant Lane / County Road 800 N)	05120113	2.8	N	A	2022
Bonpas Creek Tributary 16C	Richland County Unincorporated Areas	Confluence with Bonpas Creek Tributary 16	Approximately 10,347 feet upstream of confluence with Bonpas Creek Tributary 16 (Approximately 2,050 feet upstream of Prairieton Road / County Road 2000 E)	05120113	2.0	N	A	2022

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Bonpas Creek Tributary 17	Richland County Unincorporated Areas	Confluence with Bonpas Creek	Approximately 12,736 feet upstream of confluence with Bonpas Creek (Approximately 50 feet upstream of Elbow Lane / County Road 500 N)	05120113	2.4	N	A	2022
Bonpas Creek Tributary 17A	Richland County Unincorporated Areas	Confluence with Bonpas Creek Tributary 17	Approximately 5,616 feet upstream of confluence with Bonpas Creek Tributary 17 (Approximately 1,725 feet upstream of Otterbein Lane / County Road 400 N / County Highway 7)	05120113	1.1	N	A	2022
Bonpas Creek Tributary 18	Richland County Unincorporated Areas	Confluence with Bonpas Creek	Approximately 4,466 feet upstream of confluence with Bonpas Creek (Approximately 1,500 feet downstream of Cleaver Lane / County Road 575 N)	05120113	0.8	N	A	2022
Bonpas Creek Tributary 19	Richland County Unincorporated Areas	Confluence with Bonpas Creek	Approximately 9,905 feet upstream of confluence with Bonpas Creek (Approximately 575 feet upstream of Countryside Lane)	05120113	1.9	N	A	2022

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Bonpas Creek Tributary 20	Richland County Unincorporated Areas	Confluence with Bonpas Creek	Approximately 6,201 feet upstream of confluence with Bonpas Creek (Just downstream of Radio Tower Lane / County Road 900 N)	05120113	1.2	N	A	2022
Bonpas Creek Tributary 21	Richland County Unincorporated Areas	Confluence with Bonpas Creek	Approximately 6,189 feet upstream of confluence with Bonpas Creek (Just downstream of Antioch Lane / County Road 1000 N)	05120113	1.2	N	A	2022
Bonpas Creek Tributary 22	Claremont, Village of; Richland County Unincorporated Areas	Confluence with Bonpas Creek	Approximately 7,191 feet upstream of confluence with Bonpas Creek (Approximately 1,750 feet upstream of Railroad)	05120113	1.4	N	A	2022
Bonpas Creek Tributary 22A	Claremont, Village of; Richland County Unincorporated Areas	Confluence with Bonpas Creek Tributary 22	Approximately 5,031 feet upstream of confluence with Bonpas Creek Tributary 22 (Approximately 1,900 feet upstream of Wood River Road / County Road 1800 E / County Highway 6)	05120113	1.0	N	A	2022

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Bonpas Creek Tributary 22B	Claremont, Village of; Richland County Unincorporated Areas	Confluence with Bonpas Creek Tributary 22	Approximately 4,087 feet upstream of confluence with Bonpas Creek Tributary 22 (Approximately 3,150 feet upstream of Wood River Road / County Road 1800 E / County Highway 6)	05120113	0.8	N	A	2022
Bonpas Creek Tributary 23	Richland County Unincorporated Areas	Confluence with Bonpas Creek	Approximately 5,769 feet upstream of confluence with Bonpas Creek (Approximately 2,475 feet upstream of U.S. Route 50 / Illinois Route 250)	05120113	1.1	N	A	2022
Brown Creek	Richland County Unincorporated Areas	Confluence with Hog Run Creek	Approximately 12,854 feet upstream of confluence with Hog Run Creek (Approximately 800 feet downstream of Ebenezer Lane / County Road 600 N)	05120114	2.4	N	A	2020
Buck Run	Richland County Unincorporated Areas	Confluence with Bonpas Creek	Approximately 10,792 feet upstream of confluence with Bonpas Creek (Just downstream of Amity Road / County Road 1950 E)	05120113	2.0	N	A	2022

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Bugaboo Creek	Richland County Unincorporated Areas	At Richland County and Lawrence County Boundary / Lawrence Road / County Road 2100 E	Approximately 170 feet upstream of U.S. Route 50 / Illinois Route 250	05120112	3.9	N	A	2021
Calfkiller Creek	Richland County Unincorporated Areas	Approximately 3,250 feet downstream of County Highway 5 / Independence Lane / County Road 1760 N	Just upstream of Tank Farm Lane / County Road 1500 N	05120112	4.9	N	A	2021
Calfkiller Creek Tributary A	Richland County Unincorporated Areas	At confluence of Calfkiller Creek Tributary A1 (Approximately 775 feet downstream of Dundas Lane / County Road 1800 N)	Approximately 5,370 feet upstream of confluence of Calfkiller Creek Tributary A1 (Approximately 2,800 feet upstream of Independence Lane / County Road 1760 N / County Highway 5)	05120112	1.0	N	A	2021
Calfkiller Creek Tributary A1	Richland County Unincorporated Areas	Confluence with Calfkiller Creek Tributary A	Approximately 3,676 feet upstream of confluence with Calfkiller Creek Tributary A (Just downstream of Dundas Lane / County Road 1800 N / County Highway 5)	05120112	0.7	N	A	2021

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Calfkiller Creek Tributary B	Richland County Unincorporated Areas	Confluence with Calfkiller Creek	Approximately 12,149 feet upstream of confluence with Calfkiller Creek (Approximately 3,265 feet upstream of Mt. Gilead Lane / County Road 1600 N)	05120112	2.3	N	A	2021
Calfkiller Creek Tributary C	Richland County Unincorporated Areas	Confluence with Calfkiller Creek	Approximately 6,043 feet upstream of confluence with Calfkiller Creek (Approximately 875 feet downstream of Mt. Gilead Lane / County Road 1600 N)	05120112	1.1	N	A	2021
Calfkiller Creek Tributary C1	Richland County Unincorporated Areas	Confluence with Calfkiller Creek Tributary C	Approximately 2,153 feet upstream of confluence with Calfkiller Creek Tributary C (Approximately 790 feet downstream of Mt. Gilead Lane / County Road 1600 N)	05120112	0.4	N	A	2021
Calfkiller Creek Tributary D	Richland County Unincorporated Areas	Confluence with Calfkiller Creek	Approximately 12,752 feet upstream of confluence with Calfkiller Creek (Approximately 475 feet upstream of Tank Farm Lane / County Road 1500 N)	05120112	2.4	N	A	2021

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Calfkiller Creek Tributary E	Richland County Unincorporated Areas	Confluence with Calfkiller Creek	Approximately 6,973 feet upstream of confluence with Calfkiller Creek (Approximately 5,185 feet upstream of Mt. Gilead Lane / County Road 1600 N)	05120112	1.3	N	A	2021
Calfkiller Creek Tributary F	Richland County Unincorporated Areas	Confluence with Calfkiller Creek	Approximately 4,934 feet upstream of confluence with Calfkiller Creek (Just upstream of Tank Farm Lane / County Road 1500 N)	05120112	0.9	N	A	2021
Camp Branch	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 9,876 feet upstream of confluence with Fox River (Just upstream of Shipley Road / County Road 900 E)	05120114	1.9	N	A	2018
Coon Creek	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 8,245 feet upstream of confluence with Fox River (Approximately 1,300 feet upstream of Shipley Road / County Road 900 E)	05120114	1.6	N	A	2018
Dead River Tributary B	Richland County Unincorporated Areas	At Richland County and Jasper County Boundary / Jasper Lane / County Road 1900 N	Just upstream of Meridian Road / County Road 1500 E	05120112	1.6	N	A	2021

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
East Fork Fox River	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 15,020 feet upstream of confluence with Fox River (Approximately 810 feet upstream of Silver Road / County Road 1175 E)	05120114	2.8	N	A	2018
East Fork Fox River Tributary A	Richland County Unincorporated Areas	Confluence with East Fork Fox River	Approximately 4,573 feet upstream of confluence with East Fork Fox River (Approximately 800 feet upstream of Miller Grove Lane / County Road 1275 N)	05120114	0.9	N	A	2018
East Fork Wetweather Creek	Richland County Unincorporated Areas	Approximately 2,765 feet upstream of confluence with Wet Weather Creek (At Richland County and Clay County Boundary / Glenwood Road / County Road 200 E)	Approximately 12,400 feet upstream of confluence with Wet Weather Creek (Approximately 370 feet upstream of Richland County and Jasper County Boundary / Jasper Lane / County Road 1900 N (extended))	05120114	1.8	N	A	2020
Embarras River	Richland County Unincorporated Areas	At Jasper Lane / County Road 1900 N (extended) (At Richland County and Jasper County Boundary)	Approximately 500 feet downstream of County Highway 10 (Jasper County)	05120112	2.6	N	A	1976

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Fox River	Richland County Unincorporated Areas	Approximately 21,275 feet upstream of confluence with Little Wabash River (At County Road 2200 N (in Wayne County))	Approximately 98,251 feet upstream of confluence with Little Wabash River (Approximately 1,400 feet upstream of confluence of Little Fox Creek)	05120114	14.6	N	A	2020
Fox River	Olney, City of; Richland County Unincorporated Areas	Approximately 98,251 feet upstream of confluence with Little Wabash River (Approximately 1,400 feet upstream of confluence of Little Fox Creek)	Approximately 201,250 feet upstream of confluence with Little Wabash River (Approximately 155 feet upstream of Richland County and Jasper County Boundary)	05120114	19.5	N	A	2018
Fox River Tributary A	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 14,427 feet upstream of confluence with Fox River (Approximately 1,220 feet upstream of Otterbein Lane / County Road 400 N)	05120114	2.7	N	A	2020
Fox River Tributary B	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 4,749 feet upstream of confluence with Fox River (Approximately 450 feet downstream of Higgin Switch Road / County Road 700 E / County Highway 11)	05120114	0.9	N	A	2020

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Fox River Tributary C	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 12,368 feet upstream of confluence with Fox River (Approximately 2,650 feet upstream of Higgin Switch Road / County Road 700 E / County Highway 11)	05120114	2.3	N	A	2020
Fox River Tributary D	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 6,070 feet upstream of confluence with Fox River (Approximately 1,000 feet downstream of Sunnybrook Road / County Road 1075 E)	05120114	1.1	N	A	2018
Fox River Tributary E	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 5,203 feet upstream of confluence with Fox River (Approximately 850 feet upstream of Cottage Hill Road / County Road 1050 E)	05120114	1.0	N	A	2018
Fox River Tributary F	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 6,537 feet upstream of confluence with Fox River (Approximately 450 feet downstream of Gentry Road / County Road 1100 E)	05120114	1.2	N	A	2018

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Fox River Tributary F1	Richland County Unincorporated Areas	Confluence with Fox River Tributary F	Approximately 3,361 feet upstream of confluence with Fox River Tributary F (Approximately 100 feet upstream of Gentry Road / County Road 1100 E)	05120114	0.6	N	A	2018
Fox River Tributary G	Olney, City of; Richland County Unincorporated Areas	Confluence with Fox River	Approximately 5,841 feet upstream of confluence with Fox River (Approximately 230 feet upstream of Oak Street (extended))	05120114	1.1	N	A	2018
Fox River Tributary H	Olney, City of; Richland County Unincorporated Areas	Confluence with Fox River	Approximately 4,179 feet upstream of confluence with Fox River (Approximately 1,100 feet upstream of Linn Street)	05120114	0.8	N	A	2018
Fox River Tributary I	Olney, City of; Richland County Unincorporated Areas	Confluence with Fox River	Approximately 6,134 feet upstream of confluence with Fox River (Just downstream of West Street / Illinois Route 130)	05120114	1.2	N	A	2018
Fox River Tributary J	Olney, City of; Richland County Unincorporated Areas	Confluence with Fox River	Approximately 6,725 feet upstream of confluence with Fox River (Just downstream of West Street / Illinois Route 130)	05120114	1.3	N	A	2018

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Fox River Tributary J	Olney, City of	Approximately 6,725 feet upstream of confluence with Fox River (Just downstream of West Street / Illinois Route 130)	Approximately 7,388 feet upstream of confluence with Fox River (Approximately 548 feet upstream of West Street / Illinois Route 130)	05120114	0.1	N	A	2024
Fox River Tributary J	Olney, City of	Approximately 7,388 feet upstream of confluence with Fox River (Approximately 548 feet upstream of West Street / Illinois Route 130)	Approximately 8,293 feet upstream of confluence with Fox River (Just downstream of Ludlow Street)	05120114	0.2	N	A	2018
Fox River Tributary J1	Olney, City of	Confluence with Fox River Tributary J	Approximately 1,833 feet upstream of confluence with Fox River Tributary J (Approximately 160 feet upstream of Mack Avenue / County Highway 10)	05120114	0.3	N	A	2018
Fox River Tributary K	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 9,053 feet upstream of confluence with Fox River (Approximately 400 feet downstream of Shipley Road / County Road 900 E)	05120114	1.7	N	A	2018

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Fox River Tributary L	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 10,525 feet upstream of confluence with Fox River (Approximately 2,610 feet upstream of Railroad)	05120114	2.0	N	A	2018
Fox River Tributary M	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 10,580 feet upstream of confluence with Fox River (Just downstream of intersection of Shipley Road / County Road 900 E and Tank Farm Lane / County Road 1500 N)	05120114	2.0	N	A	2018
Fox River Tributary N	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 9,870 upstream of confluence with Fox River (At Richland County and Jasper County Boundary / Approximately 3,125 feet upstream of Liberty Lane / County Road 1850 N)	05120114	1.9	N	A	2018
Fox River Tributary O	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 5,205 feet upstream of confluence with Fox River (Approximately 600 feet upstream of Shipley Road / County Road 900 E)	05120114	1.0	N	A	2018

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Fox River Tributary O1	Richland County Unincorporated Areas	Confluence with Fox River Tributary O	Approximately 4,380 feet upstream of confluence with Fox River Tributary O (Approximately 1,100 feet upstream of intersection of Shipley Road / County Road 900 E and Hershey Lane / County Road 1875 N)	05120114	0.8	N	A	2018
Gentry Creek	Richland County Unincorporated Areas	Approximately 4,010 feet upstream of confluence with Fox River (At Richland County and Wayne County Boundary / Timber Trail Road (extended))	Approximately 33,852 feet upstream of confluence with Fox River (Approximately 350 feet downstream of Gentry Road / County Road 1100 E)	05120114	6.4	N	A	2020
Greenwood Branch	Richland County Unincorporated Areas	Confluence with Hurricane Creek	Approximately 8,794 feet upstream of confluence of Hurricane Creek (Approximately 300 feet upstream of Liberty Lane / Country Road 1850 N)	05120114	1.7	N	A	2020
Greenwood Branch Tributary A	Richland County Unincorporated Areas	Confluence with Greenwood Branch	Approximately 1,958 feet upstream of confluence with Greenwood Branch (Approximately 1,910 feet downstream of County Highway 5)	05120114	0.4	N	A	2020

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Greenwood Branch Tributary B	Richland County Unincorporated Areas	Confluence with Greenwood Branch	Approximately 1,589 feet upstream of confluence with Greenwood Branch (Approximately 1,330 feet downstream of County Highway 5)	05120114	0.3	N	A	2020
Higgins Creek	Richland County Unincorporated Areas	Confluence with Bonpas Creek	Approximately 20,208 feet upstream of confluence with Bonpas Creek (Just downstream of Gallagher Lane / County Road 450 N)	05120113	3.8	N	A	2022
Higgins Creek Tributary 1	Richland County Unincorporated Areas	Confluence with Higgins Creek	Approximately 4,500 feet upstream of confluence with Higgins Creek (Just downstream of Prairieton Road / County Road 2000 E)	05120113	0.9	N	A	2022
Hog Run Creek	Richland County Unincorporated Areas	Confluence with Little Wabash River	Approximately 41,107 feet upstream of confluence with Little Wabash River (Approximately 4,730 feet upstream of Countryside Lane / County Road 700 N)	05120114	7.8	N	A	2020

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Hog Run Creek Tributary A	Richland County Unincorporated Areas	Confluence with Hog Run Creek	Approximately 6,383 feet upstream of confluence with Hog Run Creek (Just downstream of Wynoose Road / County Road 400 E / County Highway 9)	05120114	1.2	N	A	2020
Hughes Branch	Richland County Unincorporated Areas	Approximately 5,106 feet upstream of confluence with Little Wabash River (At Richland County and Wayne County Boundary / County Road 2400 N)	Approximately 26,901 feet upstream of confluence with Little Wabash River (Approximately 1,600 feet upstream of Jesse Road / County Road 500 E)	05120114	5.1	N	A	2020
Hurricane Creek	Richland County Unincorporated Areas	Approximately 20,830 feet upstream of confluence with Big Muddy Creek (Approximately 4,015 feet downstream of Richland County and Clay County Boundary / At confluence of Hurricane Creek Tributary A1)	Approximately 65,467 feet upstream of confluence with Big Muddy Creek (At Richland County and Jasper County Boundary / Jasper Lane / County Road 1900 N)	05120114	8.5	N	A	2020

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Hurricane Creek Tributary A	Richland County Unincorporated Areas	Approximately 315 feet upstream of confluence with Hurricane Creek (At Richland County and Clay County Boundary)	Approximately 6,792 feet upstream of confluence with Hurricane Creek (Approximately 120 feet upstream of County Highway 9 / Wakefield Road / County Road 300 E)	05120114	1.3	N	A	2020
Hurricane Creek Tributary A1	Richland County Unincorporated Areas	Confluence with Hurricane Creek Tributary A	Approximately 1,995 feet upstream of confluence with Hurricane Creek Tributary A (Approximately 990 feet downstream of Tank Farm Lane / County Road 1500 N)	05120114	0.4	N	A	2020
Hurricane Creek Tributary B	Richland County Unincorporated Areas	Confluence with Hurricane Creek	Approximately 9,382 feet upstream of confluence with Hurricane Creek (Approximately 800 feet upstream of Amber Road / County Road 525 E)	05120114	1.8	N	A	2020
Hurricane Creek Tributary C	Richland County Unincorporated Areas	Confluence with Hurricane Creek	Approximately 5,639 feet upstream of confluence with Hurricane Creek (At Richland County and Jasper County Boundary / Just downstream of Jasper Lane / County Road 1900 N)	05120114	1.1	N	A	2020

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Jesse Creek	Richland County Unincorporated Areas	Confluence with Sugar Creek (Big Muddy Creek)	Approximately 9,123 feet upstream of confluence with Sugar Creek (Big Muddy Creek) (Approximately 800 feet upstream of Jesse Road / County Road 500 E)	05120114	1.7	N	A	2020
Jesse Creek Tributary A	Richland County Unincorporated Areas	Confluence with Jesse Creek	Approximately 2,265 feet upstream of confluence with Jesse Creek (Approximately 1,530 feet downstream of Deer Farm Lane / County Road 1400 N)	05120114	0.4	N	A	2020
Jesse Creek Tributary B	Richland County Unincorporated Areas	Confluence with Jesse Creek	Approximately 4,301 feet upstream of confluence with Jesse Creek (Approximately 25 feet downstream of intersection of Deer Farm Lane / County Road 1400 N and Jesse Road / County Road 500 E)	05120114	0.8	N	A	2020
Jesse Creek Tributary C	Richland County Unincorporated Areas	Confluence with Jesse Creek	Approximately 2,545 feet upstream of confluence with Jesse Creek (Approximately 950 feet upstream of Jesse Road / County Road 500 E)	05120114	0.5	N	A	2020

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Jones Ditch	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 8,067 feet upstream of confluence with Fox River (Approximately 800 feet downstream of Clear Creek Road / County Road 950 E)	05120114	1.5	N	A	2020
Little Fox Creek	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 42,638 feet upstream of confluence with Fox River (Approximately 1,950 feet upstream of Lawnridge Road / County Road 1375 E)	05120114	8.1	N	A	2020
Little Fox Creek Tributary A	Richland County Unincorporated Areas	Confluence with Little Fox Creek	Approximately 6,562 feet upstream of confluence with Little Fox Creek (Approximately 1,220 feet upstream of Sunnybrook Road / County Road 1075 E)	05120114	1.2	N	A	2020
Little Fox Creek Tributary B	Richland County Unincorporated Areas	Confluence with Little Fox Creek	Approximately 3,207 feet upstream of confluence with Little Fox Creek (Approximately 1,550 feet upstream of Illinois Route 130)	05120114	0.6	N	A	2020

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Little Fox Creek Tributary C	Richland County Unincorporated Areas	Confluence with Little Fox Creek	Approximately 3,956 feet upstream of confluence with Little Fox Creek (Approximately 250 ft downstream of Central Lane / County Road 775 N)	05120114	0.7	N	A	2020
Little Fox Creek Tributary D	Richland County Unincorporated Areas	Confluence with Little Fox Creek	Approximately 4,818 feet upstream of confluence with Little Fox Creek	05120114	0.9	N	A	2020
Little Wabash River	Richland County Unincorporated Areas	Approximately 598,338 feet upstream of confluence with Wabash River (Approximately 17,010 feet downstream of Richland County and Wayne County Boundary)	Approximately 701,537 feet upstream of confluence with Wabash River (Approximately 4,350 feet upstream of Railroad in Clay County)	05120114	19.7	N	A	2019
Long Branch	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 21,252 feet upstream of confluence with Fox River (Approximately 900 feet upstream of East Rd / County Road 1200 E)	05120114	4.0	N	A	2018

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Long Branch Tributary A	Richland County Unincorporated Areas	Confluence with Long Branch	Approximately 7,812 feet upstream of confluence with Long Branch (Approximately 1,100 feet upstream of East Rd / County Road 1200 E)	05120114	1.5	N	A	2018
Mash Creek	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 11,469 feet upstream of confluence with Fox River (Approximately 4,000 feet upstream of Shipley Road / County Road 900 E)	05120114	2.2	N	A	2018
Mash Creek Tributary A	Richland County Unincorporated Areas	Confluence with Mash Creek	Approximately 7,886 feet upstream of confluence with Mash Creek (Approximately 200 feet downstream of Shipley Road / County Road 900 E)	05120114	1.5	N	A	2018
Murphy Creek	Richland County Unincorporated Areas	Confluence with Calfkiller Creek	Approximately 19,468 feet upstream of confluence with Calfkiller Creek (Approximately 2,135 feet upstream of Tank Farm Lane / County Road 1500 N (extended))	05120112	3.7	N	A	2021

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Paul Creek	Richland County Unincorporated Areas	At Richland County and Lawrence County Boundary / Lawrence Road / County Road 2100 E	Approximately 4,630 feet upstream of Wood River Road / County Road 1800 E	05120112	5.4	N	A	2021
Paul Creek Tributary A	Richland County Unincorporated Areas	Confluence with Paul Creek	Approximately 13,308 feet upstream of confluence with Paul Creek (Approximately 5,137 feet upstream of Prairieton Road / County Road 2000 E / County Highway 1)	05120112	2.5	N	A	2021
Paul Creek Tributary B	Richland County Unincorporated Areas	Confluence with Paul Creek	Approximately 11,931 feet upstream of confluence with Paul Creek (Approximately 5,200 feet upstream of Nashville Road / County Road 1850 E)	05120112	2.3	N	A	2021
Simmons Creek	Richland County Unincorporated Areas	Confluence with Bonpas Creek	Approximately 17,648 feet upstream of confluence with Bonpas Creek (Approximately 2,625 feet upstream of Shell Road / County Road 1600E)	05120113	3.3	N	A	2022

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Simmons Creek Tributary 1	Richland County Unincorporated Areas	Confluence with Simmons Creek	Approximately 3,937 feet upstream of confluence with Simmons Creek (Approximately 1,825 feet upstream of Fork Lane / County Road 125 N)	05120113	0.7	N	A	2022
Sugar Creek (Big Muddy)	Richland County Unincorporated Areas	Confluence with Big Muddy Creek	Approximately 54,793 feet upstream of confluence with Big Muddy Creek (Approximately 545 feet upstream of Ridge Road / County Road 600 E)	05120114	10.4	N	A	2020
Sugar Creek (Big Muddy) Tributary A	Richland County Unincorporated Areas	Confluence with Sugar Creek (Big Muddy Creek)	Approximately 9,498 feet upstream of confluence with Sugar Creek (Big Muddy Creek) (Approximately 1,850 feet upstream of Seven Hills Lane / County Road 1200 N)	05120114	1.8	N	A	2020
Sugar Creek (Big Muddy) Tributary A1	Richland County Unincorporated Areas	Confluence with Sugar Creek Tributary A (Big Muddy Creek)	Approximately 2,518 feet upstream of confluence with Sugar Creek Tributary A (Big Muddy Creek) (Approximately 675 feet upstream of Hazelwood Lane / County Road 1175 N)	05120114	0.5	N	A	2020

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Sugar Creek (Big Muddy) Tributary B	Richland County Unincorporated Areas	Confluence with Sugar Creek (Big Muddy Creek)	Approximately 13,566 feet upstream of confluence with Sugar Creek (Big Muddy Creek) (Approximately 5,700 feet upstream of Passport Road / County Road 400 E / County Highway 9)	05120114	2.6	N	A	2020
Sugar Creek (Big Muddy) Tributary B1	Richland County Unincorporated Areas	Confluence with Sugar Creek Tributary B (Big Muddy Creek)	Approximately 11,121 feet upstream of confluence with Sugar Creek Tributary B (Big Muddy Creek) (Approximately 3,550 feet upstream of Passport Road / County Road 400 E / County Highway 9)	05120114	2.1	N	A	2020
Sugar Creek (Big Muddy) Tributary C	Richland County Unincorporated Areas	Confluence with Sugar Creek (Big Muddy Creek)	Approximately 8,170 feet upstream of confluence with Sugar Creek (Big Muddy Creek) (Approximately 1,000 feet upstream of Ridge Road / County Road 600 E)	05120114	1.5	N	A	2020

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Sugar Creek (Fox)	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 34,967 feet upstream of confluence with Fox River (Approximately 1,100 feet upstream of Higgin Switch Road / County Road 700 E)	05120114	6.6	N	A	2020
Sugar Creek (Fox) Tributary A	Richland County Unincorporated Areas	Confluence with Sugar Creek (Fox River)	Approximately 13,614 feet upstream of confluence with Sugar Creek (Fox River) (Approximately 350 feet upstream of Ridge Road / County Road 600 E)	05120114	2.6	N	A	2020
Sugar Creek (Fox) Tributary A1	Richland County Unincorporated Areas	Confluence with Sugar Creek Tributary A (Fox River)	Approximately 6,176 feet upstream of confluence with Sugar Creek Tributary A (Fox River) (Approximately 2,150 feet upstream of Higgin Switch Road / County Road 700 E / County Highway 11)	05120114	1.2	N	A	2020
Sugar Creek (Fox) Tributary B	Richland County Unincorporated Areas	Confluence with Sugar Creek (Fox River)	Approximately 17,071 feet upstream of confluence with Sugar Creek (Fox River) (Approximately 6,800 feet upstream of Illinois Route 250)	05120114	3.2	N	A	2020

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Sugar Creek (Fox) Tributary B1	Richland County Unincorporated Areas	Confluence with Sugar Creek Tributary B (Fox River)	Approximately 2,903 feet upstream of confluence with Sugar Creek Tributary B (Fox River) (Approximately 1,400 feet upstream of Illinois Route 250)	05120114	0.5	N	A	2020
Sugar Creek (Fox) Tributary C	Richland County Unincorporated Areas	Confluence with Sugar Creek (Fox River)	Approximately 4,135 feet upstream of confluence with Sugar Creek (Fox River) (Approximately 750 feet downstream of Higgins Switch Road / County Road 700 E / County Highway 11)	05120114	0.8	N	A	2020
Sugar Creek (Fox) Tributary D	Richland County Unincorporated Areas	Confluence with Sugar Creek (Fox River)	Approximately 2,901 feet upstream of confluence with Sugar Creek (Fox River) (Approximately 380 feet upstream of Higgin Switch Road / County Road 700 E / County Highway 11)	05120114	0.5	N	A	2020
Sugar Creek (Little Wabash)	Parkersburg, Village of; Richland County Unincorporated Areas	Approximately 36,793 feet upstream of confluence with Little Wabash River (At Richland County and Edwards County Boundary)	Approximately 74,867 feet upstream of confluence with Little Wabash River (Approximately 2,350 feet upstream of Otterbein Lane / County Road 400 N)	05120114	7.2	N	A	2020

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Sugar Creek (Little Wabash) Tributary C	Richland County Unincorporated Areas	Approximately 3,069 feet upstream of confluence with Sugar Creek (Little Wabash)	Approximately 4,924 feet upstream of confluence with Sugar Creek (Little Wabash) (Approximately 1,900 feet upstream of County Road 2200 N)	05120114	0.4	N	A	2020
Sugar Creek (Little Wabash) Tributary D	Richland County Unincorporated Areas	Confluence with Sugar Creek (Little Wabash)	Approximately 3,747 feet upstream of confluence with Sugar Creek (Little Wabash) (Approximately 1,650 feet upstream of Wayne Lane / County Road 50 N)	05120114	0.7	N	A	2020
Sugar Creek (Little Wabash) Tributary E	Richland County Unincorporated Areas	Confluence with Sugar Creek (Little Wabash)	Approximately 2,810 feet upstream of confluence with Sugar Creek (Little Wabash) (Approximately 3,630 feet downstream of Illinois Route 130)	05120114	0.5	N	A	2020
Sugar Creek (Little Wabash) Tributary F	Richland County Unincorporated Areas	Confluence with Sugar Creek (Little Wabash)	Approximately 8,459 feet upstream of confluence with Sugar Creek (Little Wabash) (Approximately 1,300 feet upstream of Illinois Route 130)	05120114	1.6	N	A	2020

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Sugar Creek (Little Wabash) Tributary G	Richland County Unincorporated Areas	Confluence with Sugar Creek (Little Wabash)	Approximately 8,140 feet upstream of confluence with Sugar Creek (Little Wabash) (Approximately 1,950 feet upstream of Bethel Lane / County Road 300 N)	05120114	1.5	N	A	2020
Sugar Creek (Little Wabash) Tributary H	Parkersburg, Village of; Richland County Unincorporated Areas	Confluence with Sugar Creek (Little Wabash)	Approximately 3,349 feet upstream of confluence with Sugar Creek (Little Wabash) (Approximately 1,572 feet downstream of North Street / County Highway 13)	05120114	0.6	N	A	2020
Sugar Creek (Little Wabash) Tributary I	Richland County Unincorporated Areas	Confluence with Sugar Creek (Little Wabash)	Approximately 4,505 feet upstream of confluence with Sugar Creek (Little Wabash) (Approximately 4,560 feet downstream of County Road 1500 E / County Highway 13)	05120114	0.9	N	A	2020
Sugar Creek (Little Wabash) Tributary J	Richland County Unincorporated Areas	Confluence with Sugar Creek (Little Wabash)	Approximately 10,707 feet upstream of confluence with Sugar Creek (Little Wabash) (Approximately 3,500 feet upstream of Meridian Road / County Road 1500 E / County Highway 16)	05120114	2.0	N	A	2020

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Sugar Creek (Little Wabash) Tributary J1	Richland County Unincorporated Areas	Confluence with Sugar Creek (Little Wabash) Tributary J	Approximately 3,095 feet upstream of confluence with Sugar Creek (Little Wabash River) Tributary J (Approximately 1,730 feet downstream of Bethel Lane / County Road 300 N)	05120114	0.6	N	A	2020
Sugar Creek (Little Wabash) Tributary K	Richland County Unincorporated Areas	Confluence with Sugar Creek (Little Wabash)	Approximately 5,500 feet upstream of confluence with Sugar Creek (Little Wabash) (Approximately 2,400 feet upstream of Bethel Lane / County Road 300 N)	05120114	1.0	N	A	2020
Susan Branch	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 10,825 feet upstream of confluence with Fox River (Approximately 4,100 feet upstream of Higgin Switch Road / County Road 700 E)	05120114	2.1	N	A	2020
Turkey Creek	Richland County Unincorporated Areas	Confluence with Fox River	Approximately 31,828 feet upstream of confluence with Fox River (Approximately 1,650 feet upstream of Illinois Route 130)	05120114	6.0	N	A	2020

**Table 2: Flooding Sources Included in this FIS Report (continued)**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Turkey Creek Tributary A	Richland County Unincorporated Areas	Confluence with Turkey Creek	Approximately 4,099 feet upstream of confluence with Turkey Creek (Approximately 500 feet upstream of Elbow Lane / County Road 500 N / County Highway 8)	05120114	0.8	N	A	2020
Turkey Creek Tributary B	Richland County Unincorporated Areas	Confluence with Turkey Creek	Approximately 15,962 feet upstream of confluence with Turkey Creek (Approximately 250 feet downstream of Van Road / County Road 1250 E)	05120114	3.0	N	A	2020
Turkey Creek Tributary B1	Richland County Unincorporated Areas	Confluence with Turkey Creek Tributary B	Approximately 5,011 feet upstream of confluence with Turkey Creek Tributary B (Approximately 850 feet upstream of Ebenezer Lane / County Road 600 N)	05120114	0.9	N	A	2020

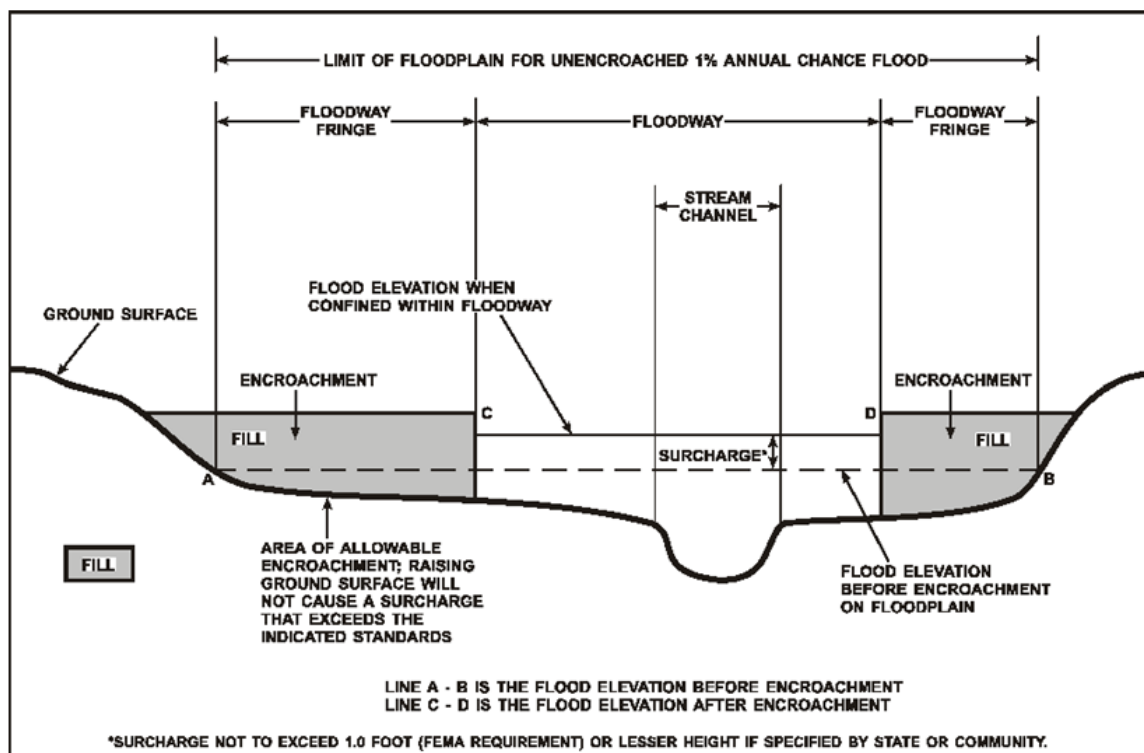
## 2.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces flood-carrying capacity, increases flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard.

For purposes of the NFIP, a floodway is used as a tool to assist local communities in balancing floodplain development against increasing flood hazard. With this approach, the area of the 1-percent-annual-chance floodplain on a river is divided into a floodway and a floodway fringe based on hydraulic modeling. The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment in order to carry the 1-percent-annual-chance flood. The floodway fringe is the area between the floodway and the 1-percent-annual-chance floodplain boundaries where encroachment is permitted. The floodway must be wide enough so that the floodway fringe could be completely obstructed without increasing the water surface elevation of the 1-percent-annual-chance flood more than 1 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 4.

To participate in the NFIP, Federal regulations require communities to limit increases caused by encroachment to 1.0 foot, provided that hazardous velocities are not produced. Regulations for Illinois require communities in Richland County to limit increases caused by encroachment to 0.1 foot, no more than a 10 percent reduction in floodplain volume, and no more than a 10 percent increase in average velocity. The floodways in this project are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway projects.

Figure 4: Floodway Schematic



### 2.3 Base Flood Elevations

The hydraulic characteristics of flooding sources were analyzed to provide estimates of the elevations of floods of the selected recurrence intervals. The BFE is the elevation of the 1-percent-annual-chance flood. These BFEs are most commonly rounded to the whole foot, as shown on the FIRM, but in certain circumstances or locations they may be rounded to 0.1 foot. Cross section lines shown on the FIRM may also be labeled with the BFE rounded to 0.1 foot. Whole-foot BFEs derived from engineering analyses that apply to coastal areas, areas of ponding, or other static areas with little elevation change may also be shown at selected intervals on the FIRM.

Cross sections with BFEs shown on the FIRM correspond to the cross sections shown in the Floodway Data table and Flood Profiles in this FIS Report. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS Report in conjunction with the data shown on the FIRM. For example, the user may use the FIRM to determine the stream station of a location of interest and then use the profile to determine the 1-percent annual chance elevation at that location. Because only selected cross sections may be shown on the FIRM for riverine areas, the profile should be used to obtain the flood elevation between mapped cross sections. Additionally, for riverine areas, whole-foot elevations shown on the FIRM may not exactly reflect the elevations derived from the hydraulic analyses; therefore, elevations obtained from the profile may more accurately reflect the results of the hydraulic analysis.

## **2.4 Non-Encroachment Zones**

This section is not applicable to this Flood Risk Project.

## **2.5 Coastal Flood Hazard Areas**

This section is not applicable to this Flood Risk Project.

### **2.5.1 Water Elevations and the Effects of Waves**

This section is not applicable to this Flood Risk Project.

#### **Figure 5: Wave Runup Transect Schematic**

[Not applicable to this Flood Risk Project]

### **2.5.2 Floodplain Boundaries and BFEs for Coastal Areas**

This section is not applicable to this Flood Risk Project.

### **2.5.3 Coastal High Hazard Areas**

This section is not applicable to this Flood Risk Project.

#### **Figure 6: Coastal Transect Schematic**

[Not applicable to this Flood Risk Project]

### **2.5.4 Limit of Moderate Wave Action**

This section is not applicable to this Flood Risk Project.

## **SECTION 3.0 – INSURANCE APPLICATIONS**

### **3.1 National Flood Insurance Program Insurance Zones**

For flood insurance applications, the FIRM designates flood insurance rate zones as described in Table 3, “Map Legend for FIRM.” Flood insurance zone designations are assigned to flooding sources based on the results of the hydraulic or coastal analyses. Insurance agents use the zones shown on the FIRM and depths and base flood elevations in this FIS Report in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

The 1-percent-annual-chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (e.g. Zones A, AE, V, VE, etc.), and the 0.2-percent-annual-chance floodplain boundary corresponds to the boundary of areas of additional flood hazards.

Table 3 lists the flood zones in Richland County.

**Table 3: Flood Zone Designations by Community**

Community	Flood Zone(s)
Calhoun, Village of	X
Claremont, Village of	A, X
Noble, Village of	X
Olney, City of	A, X
Parkersburg, Village of	A, X
Richland County Unincorporated Areas	A, X

## SECTION 4.0 – AREA STUDIED

### 4.1 Basin Description

Table 4 contains a description of the characteristics of the HUC-8 sub-basins within which each community falls. The table includes the main flooding sources within each basin, a brief description of the basin, and its drainage area.

**Table 4: Basin Characteristics**

HUC-8 Sub-Basin Name	HUC-8 Sub-Basin Number	Primary Flooding Source	Description of Affected Area	Drainage Area (square miles)
Embarras	05120112	Embarras River	Located in the northeastern portion of the county, covers approximately 15% of Richland County with 53 square miles	2,436
Little Wabash	05120114	Little Wabash River	Largest watershed within Richland County, covers approximately 69% of the county with 250 square miles	2,142
Lower Wabash	05120113	Wabash River	Located in the southeastern portion of the county, covers approximately 16% of Richland County with 59 square miles	1,311

### 4.2 Principal Flood Problems

Table 5 contains a description of the principal flood problems that have been noted for Richland County by flooding source.

**Table 5: Principal Flood Problems**

Flooding Source	Description of Flood Problems
Fox River	The Fox River bisects Richland County, passing along the western edge of Olney, the county seat. On January 13, 2005, many roads along the Fox River and streets in Olney flooded, causing nearly \$50,000 in property damage.

Table 6 contains information about historic flood elevations in the communities within Richland County.

**Table 6: Historic Flooding Elevations**

Flooding Source	Location	Historic Peak (Feet NAVD88)	Event Date	Approximate Recurrence Interval (years)	Source of Data
Little Wabash River	Just upstream of Wilcox Bridge Lane / County Highway 8	418.59	1/5/1950	106	USGS Gage 03379500
Little Wabash River	Approximately 1/2 mile downstream of Sailor Springs Road / County Highway 3	451.17	12/22/1967	16	USGS Gage 03378900
Little Wabash River	Just downstream of U.S. Route 40	525.04	5/12/2002	56	USGS Gage 03378635

#### 4.3 Dams and Other Flood Hazard Reduction Measures

Table 7 contains information about non-levee flood hazard reduction measures within Richland County such as dams or jetties. Levee systems are addressed in Section 4.4 of this FIS Report.

**Table 7: Dams and Other Flood Hazard Reduction Measures**

[Not applicable to this Flood Risk Project]

#### 4.4 Levee Systems

This section is not applicable to this Flood Risk Project.

**Table 8: Levee Systems**

[Not applicable to this Flood Risk Project]

## SECTION 5.0 – ENGINEERING METHODS

For the flooding sources in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude that are expected to be equaled or exceeded at least once on the average during any 10-, 25-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management. These events, commonly termed the 10-, 25-, 50-, 100-, and 500-year floods, have a 10-, 4-, 2-, 1-, and 0.2-percent-annual-chance, respectively, of being equaled or exceeded during any year.

Although the recurrence interval represents the long-term, average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 100-year flood (1-percent chance of annual exceedance) during the term of a 30-year mortgage is approximately 26 percent (about 3 in 10); for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

In addition to these flood events, the “1-percent-plus”, or “1%+”, annual chance flood elevation has been modeled. While not used for regulatory or insurance purposes, this flood event has been calculated to help illustrate the variability range that exists between the regulatory 1-percent-annual-chance flood elevation and a 1-percent-annual-chance elevation that has taken into account an additional amount of uncertainty in the flood discharges (thus, the 1% “plus”). For flooding sources whose discharges were estimated using regression equations, the 1%+ flood elevations are derived by taking the 1-percent-annual-chance flood discharges and increasing the modeled discharges by a percentage equal to the average predictive error for the regression equation. For flooding sources with gage- or rainfall-runoff-based discharge estimates, the upper 84-percent confidence limit of the discharges is used to compute the 1%+ flood elevations.

### 5.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak elevation-frequency relationships for floods of the selected recurrence intervals for each flooding source studied. Hydrologic analyses are typically performed at the watershed level. Depending on factors such as watershed size and shape, land use and urbanization, and natural or man-made storage, various models or methodologies may be applied. A summary of the hydrologic methods applied to develop the discharges used in the hydraulic analyses for each stream is provided in Table 12. Greater detail (including assumptions, analysis, and results) is available in the archived project documentation.

Stream gage information is provided in Table 11.

#### **Table 9: Summary of Discharges**

[Not applicable to this Flood Risk Project]

**Figure 7: Frequency Discharge-Drainage Area Curves**

[Not applicable to this Flood Risk Project]

**Table 10: Summary of Non-Coastal Stillwater Elevations**

[Not applicable to this Flood Risk Project]

**Table 11: Stream Gage Information used to Determine Discharges**

Flooding Source	Gage Identifier	Agency that Maintains Gage	Site Name	Drainage Area (Square Miles)	Period of Record	
					From	To
Little Wabash River	03379500	USGS	LITTLE WABASH RIVER BELOW CLAY CITY, IL	1,131	8/22/1914	9/30/2017
Little Wabash River	03378900	USGS	LITTLE WABASH RIVER AT LOUISVILLE, IL	745	8/9/1965	10/1/1992
Little Wabash River	03378635	USGS	LITTLE WABASH RIVER NEAR EFFINGHAM, IL	240	10/1/1966	5/4/2017

**5.2 Hydraulic Analyses**

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals. Base flood elevations on the FIRM represent the elevations shown on the Flood Profiles and in the Floodway Data tables in the FIS Report. Rounded whole-foot elevations may be shown on the FIRM in coastal areas, areas of ponding, and other areas with static base flood elevations. These whole-foot elevations may not exactly reflect the elevations derived from the hydraulic analyses. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS Report in conjunction with the data shown on the FIRM.

A summary of the methods used in hydraulic analyses performed for this project is provided in Table 12. Roughness coefficients are provided in Table 13. Roughness coefficients are values representing the frictional resistance water experiences when passing overland or through a channel. They are used in the calculations to determine water surface elevations. Greater detail (including assumptions, analysis, and results) is available in the archived project documentation.

**Table 12: Summary of Hydrologic and Hydraulic Analyses**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Big Branch	Approximately 12,750 feet upstream of confluence with Bonpas Creek (At Richland County and Wabash County Boundary / Just downstream of Edwards Lane)	Approximately 30,957 feet upstream of confluence with Bonpas Creek (Approximately 4,145 feet upstream of Berryville Lane / County Road 200 N / County Highway 13)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Big Creek	Confluence with Little Fox Creek	Approximately 50,933 feet upstream of confluence with Little Fox Creek (Approximately 1,600 feet upstream of Antioch Lane / County Road 1000 N)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Big Creek Tributary A	Confluence with Big Creek	Approximately 15,156 feet upstream of confluence with Big Creek (Approximately 300 feet upstream of Main Street)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Big Creek Tributary B	Confluence with Big Creek	Approximately 3,693 feet upstream of confluence with Big Creek (Approximately 2,400 feet upstream of E Radio Tower Lane / County Road 900 N)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Big Creek Tributary C	Confluence with Big Creek	Approximately 4,263 feet upstream of confluence with Big Creek (Approximately 1,200 feet upstream of Lawnridge Road / County Road 1375 E)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Big Creek Tributary D	Confluence with Big Creek	Approximately 5,706 feet upstream of confluence with Big Creek (Approximately 1,070 feet downstream of Meridian Road / County Road 1500 E)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Big Creek Tributary E	Confluence with Big Creek	Approximately 6,303 feet upstream of confluence with Big Creek (Approximately 1,700 feet upstream of Dayton Lane / County Road 950 N (extended))	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Big Muddy Creek	Approximately 57,504 feet upstream of confluence with Little Wabash River	Approximately 63,100 feet upstream of confluence with Little Wabash River (At Richland County and Clay County Boundary / Colborn Camp Lane / County Road 1100 N (extended))	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Big Muddy Creek Tributary A	Confluence with Big Muddy Creek	Approximately 8,390 feet upstream of confluence with Big Muddy Creek (Just downstream of Glenwood Road / County Road 200 E)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Big Muddy Creek Tributary A1	Confluence with Big Muddy Creek Tributary A	Approximately 4,071 feet upstream of confluence with Big Muddy Creek Tributary A (Approximately 2,150 feet upstream of Bottoms Road / County Road 150 E)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Big Muddy Creek Tributary B	Confluence with Big Muddy Creek	Approximately 13,354 feet upstream of confluence with Big Muddy Creek (Approximately 2,250 feet upstream of Glenwood Road / County Road 200 E)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Big Muddy Creek Tributary C	Confluence with Big Muddy Creek	Approximately 4,676 feet upstream of confluence with Big Muddy Creek (Approximately 750 feet upstream of Hitch Road / County Road 125 E)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Big Muddy Creek Tributary D	Confluence with Big Muddy Creek	Approximately 15,285 feet upstream of confluence with Big Muddy Creek (Approximately 3,245 feet upstream of Glenwood Road / County Road 200 E)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Big Muddy Creek Tributary D1	Confluence with Big Muddy Creek Tributary D	Approximately 3,324 feet upstream of confluence with Big Muddy Creek Tributary D (Approximately 1,000 feet downstream of Glenwood Road / County Road 200 E)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Bonpas Creek	Approximately 200,600 feet upstream of confluence with Wabash River (At Richland County and Wabash County Boundary)	Approximately 289,525 feet upstream of confluence with Wabash River (Approximately 250 feet downstream of U.S. Route 50 / Illinois Route 250)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Bonpas Creek Tributary 11	Approximately 1,000 feet upstream of confluence with Bonpas Creek (At Richland County and Wabash County Boundary / Edwards Lane (extended))	Approximately 7,205 feet upstream of confluence with Bonpas Creek (Approximately 3,300 feet upstream of Wabash Road / County Road 1925 E)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Bonpas Creek Tributary 12	Confluence with Bonpas Creek	Approximately 11,669 feet upstream of confluence with Bonpas Creek (Approximately 1,730 feet upstream of Amity Road / County Road 1950 E)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Bonpas Creek Tributary 14	Confluence with Bonpas Creek	Approximately 10,719 feet upstream of confluence with Bonpas Creek (Just downstream of Bethel Lane / County Road 300 N (extended))	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Bonpas Creek Tributary 15	Confluence with Bonpas Creek	Approximately 27,219 feet upstream of confluence with Bonpas Creek (At Richland County and Lawrence County Boundary / County Road 2100 E)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Bonpas Creek Tributary 16	Confluence with Bonpas Creek	Approximately 32,236 feet upstream of confluence with Bonpas Creek (Approximately 4,800 feet upstream of Mount Pleasant Lane / County Road 800 N)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Bonpas Creek Tributary 16A	Confluence with Bonpas Creek Tributary 16	Approximately 5,865 feet upstream of confluence with Bonpas Creek Tributary 16 (Approximately 1,400 feet downstream of Nashville Road / County Road 1850 N / County Highway 6)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Bonpas Creek Tributary 16B	Confluence with Bonpas Creek Tributary 16	Approximately 14,682 feet upstream of confluence with Bonpas Creek Tributary 16 (Approximately 1,100 feet upstream of Mount Pleasant Lane / County Road 800 N)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Bonpas Creek Tributary 16C	Confluence with Bonpas Creek Tributary 16	Approximately 10,347 feet upstream of confluence with Bonpas Creek Tributary 16 (Approximately 2,050 feet upstream of Prairieton Road / County Road 2000 E)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Bonpas Creek Tributary 17	Confluence with Bonpas Creek	Approximately 12,736 feet upstream of confluence with Bonpas Creek (Approximately 50 feet upstream of Elbow Lane / County Road 500 N)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Bonpas Creek Tributary 17A	Confluence with Bonpas Creek Tributary 17	Approximately 5,616 feet upstream of confluence with Bonpas Creek Tributary 17 (Approximately 1,725 feet upstream of Otterbein Lane / County Road 400 N / County Highway 7)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Bonpas Creek Tributary 18	Confluence with Bonpas Creek	Approximately 4,466 feet upstream of confluence with Bonpas Creek (Approximately 1,500 feet downstream of Cleaver Lane / County Road 575 N)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Bonpas Creek Tributary 19	Confluence with Bonpas Creek	Approximately 9,905 feet upstream of confluence with Bonpas Creek (Approximately 575 feet upstream of Countryside Lane)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Bonpas Creek Tributary 20	Confluence with Bonpas Creek	Approximately 6,201 feet upstream of confluence with Bonpas Creek (Just downstream of Radio Tower Lane / County Road 900 N)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Bonpas Creek Tributary 21	Confluence with Bonpas Creek	Approximately 6,189 feet upstream of confluence with Bonpas Creek (Just downstream of Antioch Lane / County Road 1000 N)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Bonpas Creek Tributary 22	Confluence with Bonpas Creek	Approximately 7,191 feet upstream of confluence with Bonpas Creek (Approximately 1,750 feet upstream of Railroad)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Bonpas Creek Tributary 22A	Confluence with Bonpas Creek Tributary 22	Approximately 5,031 feet upstream of confluence with Bonpas Creek Tributary 22 (Approximately 1,900 feet upstream of Wood River Road / County Road 1800 E / County Highway 6)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Bonpas Creek Tributary 22B	Confluence with Bonpas Creek Tributary 22	Approximately 4,087 feet upstream of confluence with Bonpas Creek Tributary 22 (Approximately 3,150 feet upstream of Wood River Road / County Road 1800 E / County Highway 6)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Bonpas Creek Tributary 23	Confluence with Bonpas Creek	Approximately 5,769 feet upstream of confluence with Bonpas Creek (Approximately 2,475 feet upstream of U.S. Route 50 / Illinois Route 250)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Brown Creek	Confluence with Hog Run Creek	Approximately 12,854 feet upstream of confluence with Hog Run Creek (Approximately 800 feet downstream of Ebenezer Lane / County Road 600 N)	Regression Equations	HEC-RAS 3.1.1 and up	5/20/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Buck Run	Confluence with Bonpas Creek	Approximately 10,792 feet upstream of confluence with Bonpas Creek (Just downstream of Amity Road / County Road 1950 E)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Bugaboo Creek	At Richland County and Lawrence County Boundary / Lawrence Road / County Road 2100 E	Approximately 170 feet upstream of U.S. Route 50 / Illinois Route 250	Regression Equations	HEC-RAS 5.0 and up	3/31/2021	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Calfkiller Creek	Approximately 3,250 feet downstream of County Highway 5 / Independence Lane / County Road 1760 N	Just upstream of Tank Farm Lane / County Road 1500 N	Regression Equations	HEC-RAS 5.0 and up	3/31/2021	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural; backwater effects of Embarras River applied to 10- and 1-percent-annual-chance events only

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Calfkiller Creek Tributary A	At confluence of Calfkiller Creek Tributary A1 (Approximately 775 feet downstream of Dundas Lane / County Road 1800 N)	Approximately 5,370 feet upstream of confluence of Calfkiller Creek Tributary A1 (Approximately 2,800 feet upstream of Independence Lane / County Road 1760 N / County Highway 5)	Regression Equations	HEC-RAS 5.0 and up	3/31/2021	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural; backwater effects of Embarras River applied to 10- and 1-percent-annual-chance events only
Calfkiller Creek Tributary A1	Confluence with Calfkiller Creek Tributary A	Approximately 3,676 feet upstream of confluence with Calfkiller Creek Tributary A (Just downstream of Dundas Lane / County Road 1800 N / County Highway 5)	Regression Equations	HEC-RAS 5.0 and up	3/31/2021	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural; backwater effects of Embarras River applied to 10- and 1-percent-annual-chance events only
Calfkiller Creek Tributary B	Confluence with Calfkiller Creek	Approximately 12,149 feet upstream of confluence with Calfkiller Creek (Approximately 3,265 feet upstream of Mt. Gilead Lane / County Road 1600 N)	Regression Equations	HEC-RAS 5.0 and up	3/31/2021	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural; backwater effects of Embarras River applied to 10- and 1-percent-annual-chance events only

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Calfkiller Creek Tributary C	Confluence with Calfkiller Creek	Approximately 6,043 feet upstream of confluence with Calfkiller Creek (Approximately 875 feet downstream of Mt. Gilead Lane / County Road 1600 N)	Regression Equations	HEC-RAS 5.0 and up	3/31/2021	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural; backwater effects of Embarras River applied to 10- and 1-percent-annual-chance events only
Calfkiller Creek Tributary C1	Confluence with Calfkiller Creek Tributary C	Approximately 2,153 feet upstream of confluence with Calfkiller Creek Tributary C (Approximately 790 feet downstream of Mt. Gilead Lane / County Road 1600 N)	Regression Equations	HEC-RAS 5.0 and up	3/31/2021	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Calfkiller Creek Tributary D	Confluence with Calfkiller Creek	Approximately 12,752 feet upstream of confluence with Calfkiller Creek (Approximately 475 feet upstream of Tank Farm Lane / County Road 1500 N)	Regression Equations	HEC-RAS 5.0 and up	3/31/2021	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Calkiller Creek Tributary E	Confluence with Calkiller Creek	Approximately 6,973 feet upstream of confluence with Calkiller Creek (Approximately 5,185 feet upstream of Mt. Gilead Lane / County Road 1600 N)	Regression Equations	HEC-RAS 5.0 and up	3/31/2021	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Calkiller Creek Tributary F	Confluence with Calkiller Creek	Approximately 4,934 feet upstream of confluence with Calkiller Creek (Just upstream of Tank Farm Lane / County Road 1500 N)	Regression Equations	HEC-RAS 5.0 and up	3/31/2021	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Camp Branch	Confluence with Fox River	Approximately 9,876 feet upstream of confluence with Fox River (Just upstream of Shipley Road / County Road 900 E)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Coon Creek	Confluence with Fox River	Approximately 8,245 feet upstream of confluence with Fox River (Approximately 1,300 feet upstream of Shipley Road / County Road 900 E)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Dead River Tributary B	At Richland County and Jasper County Boundary / Jasper Lane / County Road 1900 N	Just upstream of Meridian Road / County Road 1500 E	Regression Equations	HEC-RAS 5.0 and up	3/31/2021	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural; backwater effects of Embarras River applied to 10- and 1-percent-annual-chance events only
East Fork Fox River	Confluence with Fox River	Approximately 15,020 feet upstream of confluence with Fox River (Approximately 810 feet upstream of Silver Road / County Road 1175 E)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
East Fork Fox River Tributary A	Confluence with East Fork Fox River	Approximately 4,573 feet upstream of confluence with East Fork Fox River (Approximately 800 feet upstream of Miller Grove Lane / County Road 1275 N)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
East Fork Wetweather Creek	Approximately 2,765 feet upstream of confluence with Wet Weather Creek (At Richland County and Clay County Boundary / Glenwood Road / County Road 200 E)	Approximately 12,400 feet upstream of confluence with Wet Weather Creek (Approximately 370 feet upstream of Richland County and Jasper County Boundary / Jasper Lane / County Road 1900 N (extended))	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Embarras River	At Jasper Lane / County Road 1900 N (extended) (At Richland County and Jasper County Boundary)	Approximately 500 feet downstream of County Highway 10 (Jasper County)	OTHER	Other	1976	A	Delineated for 7/21/2026 FIS using 2011 Digital Terrain Model and 10- and 1-percent-annual-chance WSELs from 7/17/1984 Jasper County Unincorporated Areas FIS and 1/17/1985 Jasper County Unincorporated Areas FIRM
Fox River	Approximately 21,275 feet upstream of confluence with Little Wabash River (At County Road 2200 N (in Wayne County)	Approximately 98,251 feet upstream of confluence with Little Wabash River (Approximately 1,400 feet upstream of confluence of Little Fox Creek)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Fox River	Approximately 98,251 feet upstream of confluence with Little Wabash River (Approximately 1,400 feet upstream of confluence of Little Fox Creek)	Approximately 201,250 feet upstream of confluence with Little Wabash River (Approximately 155 feet upstream of Richland County and Jasper County Boundary)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Fox River Tributary A	Confluence with Fox River	Approximately 14,427 feet upstream of confluence with Fox River (Approximately 1,220 feet upstream of Otterbein Lane / County Road 400 N)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Fox River Tributary B	Confluence with Fox River	Approximately 4,749 feet upstream of confluence with Fox River (Approximately 450 feet downstream of Higgin Switch Road / County Road 700 E / County Highway 11)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Fox River Tributary C	Confluence with Fox River	Approximately 12,368 feet upstream of confluence with Fox River (Approximately 2,650 feet upstream of Higgin Switch Road / County Road 700 E / County Highway 11)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Fox River Tributary D	Confluence with Fox River	Approximately 6,070 feet upstream of confluence with Fox River (Approximately 1,000 feet downstream of Sunnybrook Road / County Road 1075 E)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Fox River Tributary E	Confluence with Fox River	Approximately 5,203 feet upstream of confluence with Fox River (Approximately 850 feet upstream of Cottage Hill Road / County Road 1050 E)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Fox River Tributary F	Confluence with Fox River	Approximately 6,537 feet upstream of confluence with Fox River (Approximately 450 feet downstream of Gentry Road / County Road 1100 E)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Fox River Tributary F1	Confluence with Fox River Tributary F	Approximately 3,361 feet upstream of confluence with Fox River Tributary F (Approximately 100 feet upstream of Gentry Road / County Road 1100 E)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Fox River Tributary G	Confluence with Fox River	Approximately 5,841 feet upstream of confluence with Fox River (Approximately 230 feet upstream of Oak Street (extended))	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Fox River Tributary H	Confluence with Fox River	Approximately 4,179 feet upstream of confluence with Fox River (Approximately 1,100 feet upstream of Linn Street)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Fox River Tributary I	Confluence with Fox River	Approximately 6,134 feet upstream of confluence with Fox River (Just downstream of West Street / Illinois Route 130)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Fox River Tributary J	Confluence with Fox River	Approximately 6,725 feet upstream of confluence with Fox River (Just downstream of West Street / Illinois Route 130)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Fox River Tributary J	Approximately 6,725 feet upstream of confluence with Fox River (Just downstream of West Street / Illinois Route 130)	Approximately 7,388 feet upstream of confluence with Fox River (Approximately 548 feet upstream of West Street / Illinois Route 130)	Regression Equations	HEC-RAS 3.1.1 and up	7/23/2024	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural; Revised by LOMR 25-05-0277P
Fox River Tributary J	Approximately 7,388 feet upstream of confluence with Fox River (Approximately 548 feet upstream of West Street / Illinois Route 130)	Approximately 8,293 feet upstream of confluence with Fox River (Just downstream of Ludlow Street)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Fox River Tributary J1	Confluence with Fox River Tributary J	Approximately 1,833 feet upstream of confluence with Fox River Tributary J (Approximately 160 feet upstream of Mack Avenue / County Highway 10)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Fox River Tributary K	Confluence with Fox River	Approximately 9,053 feet upstream of confluence with Fox River (Approximately 400 feet downstream of Shipley Road / County Road 900 E)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Fox River Tributary L	Confluence with Fox River	Approximately 10,525 feet upstream of confluence with Fox River (Approximately 2,610 feet upstream of Railroad)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Fox River Tributary M	Confluence with Fox River	Approximately 10,580 feet upstream of confluence with Fox River (Just downstream of intersection of Shipley Road / County Road 900 E and Tank Farm Lane / County Road 1500 N)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Fox River Tributary N	Confluence with Fox River	Approximately 9,870 feet upstream of confluence with Fox River (At Richland County and Jasper County Boundary / Approximately 3,125 feet upstream of Liberty Lane / County Road 1850 N)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Fox River Tributary O	Confluence with Fox River	Approximately 5,205 feet upstream of confluence with Fox River (Approximately 600 feet upstream of Shipley Road / County Road 900 E)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Fox River Tributary O1	Confluence with Fox River Tributary O	Approximately 4,380 feet upstream of confluence with Fox River Tributary O (Approximately 1,100 feet upstream of intersection of Shipley Road / County Road 900 E and Hershey Lane / County Road 1875 N)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Gentry Creek	Approximately 4,010 feet upstream of confluence with Fox River (At Richland County and Wayne County Boundary / Timber Trail Road (extended))	Approximately 33,852 feet upstream of confluence with Fox River (Approximately 350 feet downstream of Gentry Road / County Road 1100 E)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Greenwood Branch	Confluence with Hurricane Creek	Approximately 8,794 feet upstream of confluence of Hurricane Creek (Approximately 300 feet upstream of Liberty Lane / Country Road 1850 N)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural. Stream was labeled as Greenwood Gulf Branch on a previous flood hazard map.
Greenwood Branch Tributary A	Confluence with Greenwood Branch	Approximately 1,958 feet upstream of confluence with Greenwood Branch (Approximately 1,910 feet downstream of County Highway 5)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Greenwood Branch Tributary B	Confluence with Greenwood Branch	Approximately 1,589 feet upstream of confluence with Greenwood Branch (Approximately 1,330 feet downstream of County Highway 5)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Higgins Creek	Confluence with Bonpas Creek	Approximately 20,208 feet upstream of confluence with Bonpas Creek (Just downstream of Gallagher Lane / County Road 450 N)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Higgins Creek Tributary 1	Confluence with Higgins Creek	Approximately 4,500 feet upstream of confluence with Higgins Creek (Just downstream of Prairieton Road / County Road 2000 E)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Hog Run Creek	Confluence with Little Wabash River	Approximately 41,107 feet upstream of confluence with Little Wabash River (Approximately 4,730 feet upstream of Countryside Lane / County Road 700 N)	Regression Equations	HEC-RAS 3.1.1 and up	5/20/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Hog Run Creek Tributary A	Confluence with Hog Run Creek	Approximately 6,383 feet upstream of confluence with Hog Run Creek (Just downstream of Wynoose Road / County Road 400 E / County Highway 9)	Regression Equations	HEC-RAS 3.1.1 and up	5/20/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Hughes Branch	Approximately 5,106 feet upstream of confluence with Little Wabash River (At Richland County and Wayne County Boundary / County Road 2400 N)	Approximately 26,901 feet upstream of confluence with Little Wabash River (Approximately 1,600 feet upstream of Jesse Road / County Road 500 E)	Regression Equations	HEC-RAS 3.1.1 and up	5/20/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Hurricane Creek	Approximately 20,830 feet upstream of confluence with Big Muddy Creek (Approximately 4,015 feet downstream of Richland County and Clay County Boundary / At confluence of Hurricane Creek Tributary A1)	Approximately 65,467 feet upstream of confluence with Big Muddy Creek (At Richland County and Jasper County Boundary / Jasper Lane / County Road 1900 N)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Hurricane Creek Tributary A	Approximately 315 feet upstream of confluence with Hurricane Creek (At Richland County and Clay County Boundary)	Approximately 6,792 feet upstream of confluence with Hurricane Creek (Approximately 120 feet upstream of County Highway 9 / Wakefield Road / County Road 300 E)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Hurricane Creek Tributary A1	Confluence with Hurricane Creek Tributary A	Approximately 1,995 feet upstream of confluence with Hurricane Creek Tributary A (Approximately 990 feet downstream of Tank Farm Lane / County Road 1500 N)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Hurricane Creek Tributary B	Confluence with Hurricane Creek	Approximately 9,382 feet upstream of confluence with Hurricane Creek (Approximately 800 feet upstream of Amber Road / County Road 525 E)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Hurricane Creek Tributary C	Confluence with Hurricane Creek	Approximately 5,639 feet upstream of confluence with Hurricane Creek (At Richland County and Jasper County Boundary / Just downstream of Jasper Lane / County Road 1900 N)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Jesse Creek	Confluence with Sugar Creek (Big Muddy Creek)	Approximately 9,123 feet upstream of confluence with Sugar Creek (Big Muddy Creek) (Approximately 800 feet upstream of Jesse Road / County Road 500 E)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Jesse Creek Tributary A	Confluence with Jesse Creek	Approximately 2,265 feet upstream of confluence with Jesse Creek (Approximately 1,530 feet downstream of Deer Farm Lane / County Road 1400 N)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Jesse Creek Tributary B	Confluence with Jesse Creek	Approximately 4,301 feet upstream of confluence with Jesse Creek (Approximately 25 feet downstream of intersection of Deer Farm Lane / County Road 1400 N and Jesse Road / County Road 500 E)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Jesse Creek Tributary C	Confluence with Jesse Creek	Approximately 2,545 feet upstream of confluence with Jesse Creek (Approximately 950 feet upstream of Jesse Road / County Road 500 E)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Jones Ditch	Confluence with Fox River	Approximately 8,067 feet upstream of confluence with Fox River (Approximately 800 feet downstream of Clear Creek Road / County Road 950 E)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Little Fox Creek	Confluence with Fox River	Approximately 42,638 feet upstream of confluence with Fox River (Approximately 1,950 feet upstream of Lawnridge Road / County Road 1375 E)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Little Fox Creek Tributary A	Confluence with Little Fox Creek	Approximately 6,562 feet upstream of confluence with Little Fox Creek (Approximately 1,220 feet upstream of Sunnybrook Road / County Road 1075 E)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Little Fox Creek Tributary B	Confluence with Little Fox Creek	Approximately 3,207 feet upstream of confluence with Little Fox Creek (Approximately 1,550 feet upstream of Illinois Route 130)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Little Fox Creek Tributary C	Confluence with Little Fox Creek	Approximately 3,956 feet upstream of confluence with Little Fox Creek (Approximately 250 ft downstream of Central Lane / County Road 775 N)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Little Fox Creek Tributary D	Confluence with Little Fox Creek	Approximately 4,818 feet upstream of confluence with Little Fox Creek	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Little Wabash River	Approximately 598,338 feet upstream of confluence with Wabash River (Approximately 17,010 feet downstream of Richland County and Wayne County Boundary)	Approximately 701,537 feet upstream of confluence with Wabash River (Approximately 4,350 feet upstream of Railroad in Clay County)	PEAKFQ 2.4 (April 1998) and up	HEC-RAS 3.1.1 and up	9/18/2019	A	HEC-RAS v. 4.1, 1D Steady Flow; PEAKFQ v. 7.1, USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Long Branch	Confluence with Fox River	Approximately 21,252 feet upstream of confluence with Fox River (Approximately 900 feet upstream of East Rd / County Road 1200 E)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Long Branch Tributary A	Confluence with Long Branch	Approximately 7,812 feet upstream of confluence with Long Branch (Approximately 1,100 feet upstream of East Rd / County Road 1200 E)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Mash Creek	Confluence with Fox River	Approximately 11,469 feet upstream of confluence with Fox River (Approximately 4,000 feet upstream of Shipley Road / County Road 900 E)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Mash Creek Tributary A	Confluence with Mash Creek	Approximately 7,886 feet upstream of confluence with Mash Creek (Approximately 200 feet downstream of Shipley Road / County Road 900 E)	Regression Equations	HEC-RAS 3.1.1 and up	12/15/2018	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Murphy Creek	Confluence with Calkiller Creek	Approximately 19,468 feet upstream of confluence with Calkiller Creek (Approximately 2,135 feet upstream of Tank Farm Lane / County Road 1500 N (extended))	Regression Equations	HEC-RAS 5.0 and up	3/31/2021	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural; backwater effects of Embarras River applied to 10- and 1-percent-annual-chance events only
Paul Creek	At Richland County and Lawrence County Boundary / Lawrence Road / County Road 2100 E	Approximately 4,630 feet upstream of Wood River Road / County Road 1800 E	Regression Equations	HEC-RAS 5.0 and up	3/31/2021	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Paul Creek Tributary A	Confluence with Paul Creek	Approximately 13,308 feet upstream of confluence with Paul Creek (Approximately 5,137 feet upstream of Prairieton Road / County Road 2000 E / County Highway 1)	Regression Equations	HEC-RAS 5.0 and up	3/31/2021	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Paul Creek Tributary B	Confluence with Paul Creek	Approximately 11,931 feet upstream of confluence with Paul Creek (Approximately 5,200 feet upstream of Nashville Road / County Road 1850 E)	Regression Equations	HEC-RAS 5.0 and up	3/31/2021	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Simmons Creek	Confluence with Bonpas Creek	Approximately 17,648 feet upstream of confluence with Bonpas Creek (Approximately 2,625 feet upstream of Shell Road / County Road 1600E)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Simmons Creek Tributary 1	Confluence with Simmons Creek	Approximately 3,937 feet upstream of confluence with Simmons Creek (Approximately 1,825 feet upstream of Fork Lane / County Road 125 N)	Regression Equations	HEC-RAS 5.0 and up	4/21/2022	A	HEC-RAS v. 5.0.7, 1D Steady Flow; USGS StreamStats 2004, Rural
Sugar Creek (Big Muddy)	Confluence with Big Muddy Creek	Approximately 54,793 feet upstream of confluence with Big Muddy Creek (Approximately 545 feet upstream of Ridge Road / County Road 600 E)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Sugar Creek (Big Muddy) Tributary A	Confluence with Sugar Creek (Big Muddy Creek)	Approximately 9,498 feet upstream of confluence with Sugar Creek (Big Muddy Creek) (Approximately 1,850 feet upstream of Seven Hills Lane / County Road 1200 N)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Sugar Creek (Big Muddy) Tributary A1	Confluence with Sugar Creek Tributary A (Big Muddy Creek)	Approximately 2,518 feet upstream of confluence with Sugar Creek Tributary A (Big Muddy Creek) (Approximately 675 feet upstream of Hazelwood Lane / County Road 1175 N)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Sugar Creek (Big Muddy) Tributary B	Confluence with Sugar Creek (Big Muddy Creek)	Approximately 13,566 feet upstream of confluence with Sugar Creek (Big Muddy Creek) (Approximately 5,700 feet upstream of Passport Road / County Road 400 E / County Highway 9)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Sugar Creek (Big Muddy) Tributary B1	Confluence with Sugar Creek Tributary B (Big Muddy Creek)	Approximately 11,121 feet upstream of confluence with Sugar Creek Tributary B (Big Muddy Creek) (Approximately 3,550 feet upstream of Passport Road / County Road 400 E / County Highway 9)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Sugar Creek (Big Muddy) Tributary C	Confluence with Sugar Creek (Big Muddy Creek)	Approximately 8,170 feet upstream of confluence with Sugar Creek (Big Muddy Creek) (Approximately 1,000 feet upstream of Ridge Road / County Road 600 E)	Regression Equations	HEC-RAS 3.1.1 and up	5/4/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Sugar Creek (Fox)	Confluence with Fox River	Approximately 34,967 feet upstream of confluence with Fox River (Approximately 1,100 feet upstream of Higgin Switch Road / County Road 700 E)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Sugar Creek (Fox) Tributary A	Confluence with Sugar Creek (Fox River)	Approximately 13,614 feet upstream of confluence with Sugar Creek (Fox River) (Approximately 350 feet upstream of Ridge Road / County Road 600 E)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Sugar Creek (Fox) Tributary A1	Confluence with Sugar Creek Tributary A (Fox River)	Approximately 6,176 feet upstream of confluence with Sugar Creek Tributary A (Fox River) (Approximately 2,150 feet upstream of Higgin Switch Road / County Road 700 E / County Highway 11)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Sugar Creek (Fox) Tributary B	Confluence with Sugar Creek (Fox River)	Approximately 17,071 feet upstream of confluence with Sugar Creek (Fox River) (Approximately 6,800 feet upstream of Illinois Route 250)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Sugar Creek (Fox) Tributary B1	Confluence with Sugar Creek Tributary B (Fox River)	Approximately 2,903 feet upstream of confluence with Sugar Creek Tributary B (Fox River) (Approximately 1,400 feet upstream of Illinois Route 250)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Sugar Creek (Fox) Tributary C	Confluence with Sugar Creek (Fox River)	Approximately 4,135 feet upstream of confluence with Sugar Creek (Fox River) (Approximately 750 feet downstream of Higgins Switch Road / County Road 700 E / County Highway 11)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Sugar Creek (Fox) Tributary D	Confluence with Sugar Creek (Fox River)	Approximately 2,901 feet upstream of confluence with Sugar Creek (Fox River) (Approximately 380 feet upstream of Higgin Switch Road / County Road 700 E / County Highway 11)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Sugar Creek (Little Wabash)	Approximately 36,793 feet upstream of confluence with Little Wabash River (At Richland County and Edwards County Boundary)	Approximately 74,867 feet upstream of confluence with Little Wabash River (Approximately 2,350 feet upstream of Otterbein Lane / County Road 400 N)	Regression Equations	HEC-RAS 3.1.1 and up	4/29/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Sugar Creek (Little Wabash) Tributary C	Approximately 3,069 feet upstream of confluence with Sugar Creek (Little Wabash)	Approximately 4,924 feet upstream of confluence with Sugar Creek (Little Wabash) (Approximately 1,900 feet upstream of County Road 2200 N)	Regression Equations	HEC-RAS 3.1.1 and up	4/29/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Sugar Creek (Little Wabash) Tributary D	Confluence with Sugar Creek (Little Wabash)	Approximately 3,747 feet upstream of confluence with Sugar Creek (Little Wabash) (Approximately 1,650 feet upstream of Wayne Lane / County Road 50 N)	Regression Equations	HEC-RAS 3.1.1 and up	4/29/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Sugar Creek (Little Wabash) Tributary E	Confluence with Sugar Creek (Little Wabash)	Approximately 2,810 feet upstream of confluence with Sugar Creek (Little Wabash) (Approximately 3,630 feet downstream of Illinois Route 130)	Regression Equations	HEC-RAS 3.1.1 and up	4/29/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Sugar Creek (Little Wabash) Tributary F	Confluence with Sugar Creek (Little Wabash)	Approximately 8,459 feet upstream of confluence with Sugar Creek (Little Wabash) (Approximately 1,300 feet upstream of Illinois Route 130)	Regression Equations	HEC-RAS 3.1.1 and up	4/29/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Sugar Creek (Little Wabash) Tributary G	Confluence with Sugar Creek (Little Wabash)	Approximately 8,140 feet upstream of confluence with Sugar Creek (Little Wabash) (Approximately 1,950 feet upstream of Bethel Lane / County Road 300 N)	Regression Equations	HEC-RAS 3.1.1 and up	4/29/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Sugar Creek (Little Wabash) Tributary H	Confluence with Sugar Creek (Little Wabash)	Approximately 3,349 feet upstream of confluence with Sugar Creek (Little Wabash) (Approximately 1,572 feet downstream of North Street / County Highway 13)	Regression Equations	HEC-RAS 3.1.1 and up	4/29/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Sugar Creek (Little Wabash) Tributary I	Confluence with Sugar Creek (Little Wabash)	Approximately 4,505 feet upstream of confluence with Sugar Creek (Little Wabash) (Approximately 4,560 feet downstream of County Road 1500 E / County Highway 13)	Regression Equations	HEC-RAS 3.1.1 and up	4/29/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Sugar Creek (Little Wabash) Tributary J	Confluence with Sugar Creek (Little Wabash)	Approximately 10,707 feet upstream of confluence with Sugar Creek (Little Wabash) (Approximately 3,500 feet upstream of Meridian Road / County Road 1500 E / County Highway 16)	Regression Equations	HEC-RAS 3.1.1 and up	4/29/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Sugar Creek (Little Wabash) Tributary J1	Confluence with Sugar Creek (Little Wabash) Tributary J	Approximately 3,095 feet upstream of confluence with Sugar Creek (Little Wabash River) Tributary J (Approximately 1,730 feet downstream of Bethel Lane / County Road 300 N)	Regression Equations	HEC-RAS 3.1.1 and up	4/29/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Sugar Creek (Little Wabash) Tributary K	Confluence with Sugar Creek (Little Wabash)	Approximately 5,500 feet upstream of confluence with Sugar Creek (Little Wabash) (Approximately 2,400 feet upstream of Bethel Lane / County Road 300 N)	Regression Equations	HEC-RAS 3.1.1 and up	4/29/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Susan Branch	Confluence with Fox River	Approximately 10,825 feet upstream of confluence with Fox River (Approximately 4,100 feet upstream of Higgin Switch Road / County Road 700 E)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Turkey Creek	Confluence with Fox River	Approximately 31,828 feet upstream of confluence with Fox River (Approximately 1,650 feet upstream of Illinois Route 130)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Turkey Creek Tributary A	Confluence with Turkey Creek	Approximately 4,099 feet upstream of confluence with Turkey Creek (Approximately 500 feet upstream of Elbow Lane / County Road 500 N / County Highway 8)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural
Turkey Creek Tributary B	Confluence with Turkey Creek	Approximately 15,962 feet upstream of confluence with Turkey Creek (Approximately 250 feet downstream of Van Road / County Road 1250 E)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 12: Summary of Hydrologic and Hydraulic Analyses (continued)**

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Turkey Creek Tributary B1	Confluence with Turkey Creek Tributary B	Approximately 5,011 feet upstream of confluence with Turkey Creek Tributary B (Approximately 850 feet upstream of Ebenezer Lane / County Road 600 N)	Regression Equations	HEC-RAS 3.1.1 and up	4/27/2020	A	HEC-RAS v. 4.1, 1D Steady Flow; USGS StreamStats 2004, Rural

**Table 13: Roughness Coefficients**

Flooding Source	Channel “n”	Overbank “n”
Big Branch	0.035	0.035-0.075
Big Creek	0.035-0.075	0.035-0.075
Big Creek Tributary A	0.035-0.075	0.035-0.075
Big Creek Tributary B	0.035-0.075	0.035-0.075
Big Creek Tributary C	0.035-0.075	0.035-0.075
Big Creek Tributary D	0.035-0.075	0.035-0.075
Big Creek Tributary E	0.035-0.075	0.035-0.075
Big Muddy Creek	0.035-0.075	0.035-0.075
Big Muddy Creek Tributary A	0.035-0.075	0.035-0.075
Big Muddy Creek Tributary A1	0.035-0.075	0.035-0.075
Big Muddy Creek Tributary B	0.035-0.075	0.035-0.075
Big Muddy Creek Tributary C	0.035-0.075	0.035-0.075
Big Muddy Creek Tributary D	0.035-0.075	0.035-0.075
Big Muddy Creek Tributary D1	0.035-0.075	0.035-0.075
Bonpas Creek	0.035	0.035-0.075
Bonpas Creek Tributary 11	0.035-0.055	0.035-0.100
Bonpas Creek Tributary 12	0.035-0.100	0.035-0.100
Bonpas Creek Tributary 14	0.035	0.035-0.075
Bonpas Creek Tributary 15	0.035-0.045	0.035-0.075
Bonpas Creek Tributary 16	0.035	0.035-0.075
Bonpas Creek Tributary 16A	0.035	0.035-0.075
Bonpas Creek Tributary 16B	0.035	0.035-0.075
Bonpas Creek Tributary 16C	0.035	0.035-0.075
Bonpas Creek Tributary 17	0.035	0.035-0.075
Bonpas Creek Tributary 17A	0.035	0.035-0.075
Bonpas Creek Tributary 18	0.035	0.035-0.075
Bonpas Creek Tributary 19	0.035-0.100	0.035-0.100
Bonpas Creek Tributary 20	0.035	0.035-0.075
Bonpas Creek Tributary 21	0.035	0.035-0.075
Bonpas Creek Tributary 22	0.035	0.035-0.075
Bonpas Creek Tributary 22A	0.035	0.035-0.075
Bonpas Creek Tributary 22B	0.035	0.035-0.075

**Table 13: Roughness Coefficients (continued)**

Flooding Source	Channel “n”	Overbank “n”
Bonpas Creek Tributary 23	0.035	0.035-0.075
Brown Creek	0.035-0.075	0.035-0.075
Buck Run	0.035-0.075	0.035-0.100
Bugaboo Creek	0.035-0.075	0.035-0.075
Calfkiller Creek	0.035	0.035-0.075
Calfkiller Creek Tributary A	0.035	0.035-0.075
Calfkiller Creek Tributary A1	0.035	0.035-0.075
Calfkiller Creek Tributary B	0.035-0.075	0.035-0.075
Calfkiller Creek Tributary C	0.035	0.035-0.075
Calfkiller Creek Tributary C1	0.035	0.035-0.075
Calfkiller Creek Tributary D	0.035	0.035-0.075
Calfkiller Creek Tributary E	0.035	0.035-0.075
Calfkiller Creek Tributary F	0.035	0.035-0.075
Camp Branch	0.035-0.075	0.035-0.075
Coon Creek	0.035-0.075	0.035-0.075
Dead River Tributary B	0.035	0.035-0.075
East Fork Fox River	0.035-0.075	0.035-0.075
East Fork Fox River Tributary A	0.035-0.075	0.035-0.075
East Fork Wetweather Creek	0.035-0.075	0.035-0.075
Embarras River	0.045	0.060-0.103
Fox River	0.035-0.075	0.035-0.075
Fox River Tributary A	0.035-0.075	0.035-0.075
Fox River Tributary B	0.035-0.075	0.035-0.075
Fox River Tributary C	0.035-0.075	0.035-0.075
Fox River Tributary D	0.035-0.075	0.035-0.075
Fox River Tributary E	0.035-0.075	0.035-0.075
Fox River Tributary F	0.035-0.075	0.035-0.075
Fox River Tributary F1	0.035-0.075	0.035-0.075
Fox River Tributary G	0.035-0.075	0.035-0.075
Fox River Tributary H	0.035-0.075	0.035-0.075
Fox River Tributary I	0.035-0.075	0.035-0.075
Fox River Tributary J	0.013-0.075	0.012-0.075
Fox River Tributary J1	0.035-0.075	0.035-0.075

**Table 13: Roughness Coefficients (continued)**

Flooding Source	Channel “n”	Overbank “n”
Fox River Tributary K	0.035-0.075	0.035-0.075
Fox River Tributary L	0.035-0.075	0.035-0.075
Fox River Tributary M	0.035-0.075	0.035-0.075
Fox River Tributary N	0.035-0.075	0.035-0.075
Fox River Tributary O	0.035-0.075	0.035-0.075
Fox River Tributary O1	0.035-0.075	0.035-0.075
Gentry Creek	0.035-0.075	0.035-0.075
Greenwood Branch	0.035-0.075	0.035-0.075
Greenwood Branch Tributary A	0.035-0.075	0.035-0.075
Greenwood Branch Tributary B	0.035-0.075	0.035-0.075
Higgins Creek	0.035-0.075	0.035-0.075
Higgins Creek Tributary 1	0.035	0.035-0.075
Hog Run Creek	0.035-0.075	0.035-0.075
Hog Run Creek Tributary A	0.035-0.075	0.035-0.075
Hughes Branch	0.035-0.075	0.035-0.075
Hurricane Creek	0.035-0.075	0.035-0.075
Hurricane Creek Tributary A	0.035-0.075	0.035-0.075
Hurricane Creek Tributary A1	0.035-0.075	0.035-0.075
Hurricane Creek Tributary B	0.035-0.075	0.035-0.075
Hurricane Creek Tributary C	0.035-0.075	0.035-0.075
Jesse Creek	0.035-0.075	0.035-0.075
Jesse Creek Tributary A	0.035-0.075	0.035-0.075
Jesse Creek Tributary B	0.035-0.075	0.035-0.075
Jesse Creek Tributary C	0.035-0.075	0.035-0.075
Jones Ditch	0.035-0.075	0.035-0.075
Little Fox Creek	0.035-0.075	0.035-0.075
Little Fox Creek Tributary A	0.035-0.075	0.035-0.075
Little Fox Creek Tributary B	0.035-0.075	0.035-0.075
Little Fox Creek Tributary C	0.035-0.075	0.035-0.075
Little Fox Creek Tributary D	0.035-0.075	0.035-0.075
Little Wabash River	0.035-0.075	0.046-0.098
Little Wabash River	0.040-0.120	0.040-0.120
Long Branch	0.035-0.075	0.035-0.075

**Table 13: Roughness Coefficients (continued)**

Flooding Source	Channel “n”	Overbank “n”
Long Branch Tributary A	0.035-0.075	0.035-0.075
Mash Creek	0.035-0.075	0.035-0.075
Mash Creek Tributary A	0.035-0.075	0.035-0.075
Murphy Creek	0.035-0.075	0.035-0.075
Paul Creek	0.035-0.075	0.035-0.075
Paul Creek Tributary A	0.035-0.075	0.035-0.075
Paul Creek Tributary B	0.035-0.075	0.035-0.075
Simmons Creek	0.035-0.055	0.035-0.100
Simmons Creek Tributary 1	0.035	0.035-0.075
Sugar Creek (Big Muddy)	0.035-0.075	0.035-0.075
Sugar Creek (Big Muddy) Tributary A	0.035-0.075	0.035-0.075
Sugar Creek (Big Muddy) Tributary A1	0.035-0.075	0.035-0.075
Sugar Creek (Big Muddy) Tributary B	0.035-0.075	0.035-0.075
Sugar Creek (Big Muddy) Tributary B1	0.035-0.075	0.035-0.075
Sugar Creek (Big Muddy) Tributary C	0.035-0.075	0.035-0.075
Sugar Creek (Fox)	0.035-0.075	0.035-0.075
Sugar Creek (Fox) Tributary A	0.035-0.075	0.035-0.075
Sugar Creek (Fox) Tributary A1	0.035-0.075	0.035-0.075
Sugar Creek (Fox) Tributary B	0.035-0.075	0.035-0.075
Sugar Creek (Fox) Tributary B1	0.035-0.075	0.035-0.075
Sugar Creek (Fox) Tributary C	0.035-0.075	0.035-0.075
Sugar Creek (Fox) Tributary D	0.035-0.075	0.035-0.075
Sugar Creek (Little Wabash)	0.035-0.075	0.035-0.075
Sugar Creek (Little Wabash) Tributary C	0.035-0.075	0.035-0.075
Sugar Creek (Little Wabash) Tributary D	0.035-0.075	0.035-0.075
Sugar Creek (Little Wabash) Tributary E	0.035-0.075	0.035-0.075
Sugar Creek (Little Wabash) Tributary F	0.035-0.075	0.035-0.075
Sugar Creek (Little Wabash) Tributary G	0.035-0.075	0.035-0.075
Sugar Creek (Little Wabash) Tributary H	0.035-0.075	0.035-0.075
Sugar Creek (Little Wabash) Tributary I	0.035-0.075	0.035-0.075
Sugar Creek (Little Wabash) Tributary J	0.035-0.075	0.035-0.075
Sugar Creek (Little Wabash) Tributary J1	0.035-0.075	0.035-0.075
Sugar Creek (Little Wabash) Tributary K	0.035-0.075	0.035-0.075

**Table 13: Roughness Coefficients (continued)**

Flooding Source	Channel “n”	Overbank “n”
Susan Branch	0.035-0.075	0.035-0.075
Turkey Creek	0.035-0.075	0.035-0.075
Turkey Creek Tributary A	0.035-0.075	0.035-0.075
Turkey Creek Tributary B	0.035-0.075	0.035-0.075
Turkey Creek Tributary B1	0.035-0.075	0.035-0.075

### 5.3 Coastal Analyses

This section is not applicable to this Flood Risk Project.

#### **Table 14: Summary of Coastal Analyses**

[Not applicable to this Flood Risk Project]

#### 5.3.1 Total Stillwater Elevations

This section is not applicable to this Flood Risk Project.

#### **Figure 8: 1% Annual Chance Total Stillwater Elevations for Coastal Areas**

[Not applicable to this Flood Risk Project]

#### **Table 15: Tide Gage Analysis Specifics**

[Not applicable to this Flood Risk Project]

#### 5.3.2 Waves

This section is not applicable to this Flood Risk Project.

#### 5.3.3 Coastal Erosion

This section is not applicable to this Flood Risk Project.

#### 5.3.4 Wave Hazard Analyses

This section is not applicable to this Flood Risk Project.

#### **Table 16: Coastal Transect Parameters**

[Not applicable to this Flood Risk Project]

#### **Figure 9: Transect Location Map**

[Not applicable to this Flood Risk Project]

## 5.4 Alluvial Fan Analyses

This section is not applicable to this Flood Risk Project.

### Table 17: Summary of Alluvial Fan Analyses

[Not applicable to this Flood Risk Project]

### Table 18: Results of Alluvial Fan Analyses

[Not applicable to this Flood Risk Project]

## SECTION 6.0 – MAPPING METHODS

### 6.1 Vertical and Horizontal Control

All FIS Reports and FIRMs are referenced to a specific vertical datum. The vertical datum provides a starting point against which flood, ground, and structure elevations can be referenced and compared. Until recently, the standard vertical datum used for newly created or revised FIS Reports and FIRMs was the National Geodetic Vertical Datum of 1929 (NGVD29). With the completion of the North American Vertical Datum of 1988 (NAVD88), many FIS Reports and FIRMs are now prepared using NAVD88 as the referenced vertical datum.

Flood elevations shown in this FIS Report and on the FIRMs are referenced to NAVD88. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between NGVD29 and NAVD88 or other datum conversion, visit the National Geodetic Survey website at [www.ngs.noaa.gov](http://www.ngs.noaa.gov).

Temporary vertical monuments are often established during the preparation of a flood hazard analysis for the purpose of establishing local vertical control. Although these monuments are not shown on the FIRM, they may be found in the archived project documentation associated with the FIS Report and the FIRMs for this community. Interested individuals may contact FEMA to access these data.

To obtain current elevation, description, and/or location information for benchmarks in the area, please visit the NGS website at [www.ngs.noaa.gov](http://www.ngs.noaa.gov).

The datum conversion locations and values that were calculated for Richland County are provided in Table 19.

### Table 19: Countywide Vertical Datum Conversion

[Not applicable to this Flood Risk Project]

### Table 20: Stream-Based Vertical Datum Conversion

[Not applicable to this Flood Risk Project]

## 6.2 Base Map

The FIRMs and FIS Report for this project have been produced in a digital format. The flood hazard information was converted to a Geographic Information System (GIS) format that meets FEMA’s FIRM Database specifications and geographic information standards. This information is provided in a digital format so that it can be incorporated into a local GIS and be accessed more easily by the community. The FIRM Database includes most of the tabular information contained in the FIS Report in such a way that the data can be associated with pertinent spatial features. For example, the information contained in the Floodway Data table and Flood Profiles can be linked to the cross sections that are shown on the FIRMs. Additional information about the FIRM Database and its contents can be found in FEMA’s *Guidelines and Standards for Flood Risk Analysis and Mapping*, [www.fema.gov/flood-maps/guidance-partners/guidelines-standards](http://www.fema.gov/flood-maps/guidance-partners/guidelines-standards).

Base map information shown on the FIRM was derived from the sources described in Table 21.

**Table 21: Base Map Sources**

Data Type	Data Provider	Data Date	Data Scale	Data Description
2021 TIGER/Line Shapefiles	U.S. Census Bureau	September 2022	*	Spatial feature and attribute information for political boundaries and railroads
Illinois Highway System	Illinois Department of Transportation	2021	*	Spatial feature and attribute information for transportation features
Illinois Public Land Survey System	Illinois State Geological Survey	April 2003	1:62,500	Spatial feature and attribute information for Public Land Survey System sections; features were refined using the USGS 7.5-Minute Series Topographic Maps
National Hydrography Dataset	U.S. Geological Survey	March 5, 2023	1:24,000	Spatial feature and attribute information for lakes and HUC-8 watershed boundaries
Stream Gages	U.S. Geological Survey	November 11, 2022	*	Spatial feature and attribute information for stream gages
USGS 7.5-Minute Series Topographic Maps	U.S. Geological Survey	1989	1:24,000	FIRM paneling scheme
USGS National Map: Orthoimagery	U.S. Geological Survey	October 2020	*	Orthoimagery for FIRM panels effective 7/21/2026

\*Data Not Available

### **6.3 Floodplain and Floodway Delineation**

The FIRM shows tints, screens, and symbols to indicate floodplains and floodways as well as the locations of selected cross sections used in the hydraulic analyses and floodway computations.

For riverine flooding sources, the mapped floodplain boundaries shown on the FIRM have been delineated using the flood elevations determined at each cross section; between cross sections, the boundaries were interpolated using the topographic elevation data described in Table 22.

In cases where the 1-percent and 0.2-percent-annual-chance floodplain boundaries are close together, only the 1-percent-annual-chance floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

The floodway widths presented in this FIS Report and on the FIRM were computed for certain stream segments on the basis of equal conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. Table 2 indicates the flooding sources for which floodways have been determined. The results of the floodway computations for those flooding sources have been tabulated for selected cross sections and are shown in Table 23, "Floodway Data."

**Table 22: Summary of Topographic Elevation Data used in Mapping**

Community	Flooding Source	Source for Topographic Elevation Data			
		Description	Vertical Accuracy	Horizontal Accuracy	Citation
Olney, City of	Fox River Tributary J	Topographic survey for LOMR case # 25-05-0277P by Charleston Engineering, work map dated 10/31/2024	0.02 feet	1-foot contour interval	Charleston 2024
Richland County	Big Branch, Big Creek, Big Creek Tributary A, Big Creek Tributary B, Big Creek Tributary C, Big Creek Tributary D, Big Creek Tributary E, Big Muddy Creek, Big Muddy Creek Tributary A, Big Muddy Creek Tributary A1, Big Muddy Creek Tributary B, Big Muddy Creek Tributary C, Big Muddy Creek Tributary D, Big Muddy Creek Tributary D1, Bonpas Creek, Bonpas Creek Tributary 11, Bonpas Creek Tributary 12, Bonpas Creek Tributary 14, Bonpas Creek Tributary 15, Bonpas Creek Tributary 16, Bonpas Creek Tributary 16A, Bonpas Creek Tributary 16B, Bonpas Creek Tributary 16C, Bonpas Creek Tributary 17, Bonpas Creek Tributary 17A, Bonpas Creek Tributary 18, Bonpas Creek Tributary 19, Bonpas Creek Tributary 20, Bonpas Creek Tributary 21, Bonpas Creek Tributary 22, Bonpas Creek Tributary 22A, Bonpas Creek Tributary 22B, Bonpas Creek Tributary 23, Brown Creek, Buck Run, Bugaboo Creek, Calkiller Creek, Calkiller Creek Tributary A, Calkiller Creek Tributary A1, Calkiller Creek Tributary B, Calkiller Creek Tributary C,	2011 Digital Terrain Model	0.574 feet at the 95th percentile	0.3 meters	ISGS 2012

**Table 22: Summary of Topographic Elevation Data used in Mapping (continued)**

Community	Flooding Source	Source for Topographic Elevation Data			
		Description	Vertical Accuracy	Horizontal Accuracy	Citation
Richland County	Calkiller Creek Tributary C1, Calkiller Creek Tributary D, Calkiller Creek Tributary E, Calkiller Creek Tributary F, Camp Branch, Coon Creek, Dead River Tributary B, East Fork Fox River, East Fork Fox River Tributary A, East Fork Wetweather Creek, Embarras River, Fox River, Fox River Tributary A, Fox River Tributary B, Fox River Tributary C, Fox River Tributary D, Fox River Tributary E, Fox River Tributary F, Fox River Tributary F1, Fox River Tributary G, Fox River Tributary H, Fox River Tributary I, Fox River Tributary J, Fox River Tributary J1, Fox River Tributary K, Fox River Tributary L, Fox River Tributary M, Fox River Tributary N, Fox River Tributary O, Fox River Tributary O1, Gentry Creek, Greenwood Branch, Greenwood Branch Tributary A, Greenwood Branch Tributary B, Higgins Creek, Higgins Creek Tributary 1, Hog Run Creek, Hog Run Creek Tributary A, Hughes Branch, Hurricane Creek, Hurricane Creek Tributary A, Hurricane Creek Tributary A1, Hurricane Creek Tributary B, Hurricane Creek Tributary C, Jesse Creek, Jesse Creek Tributary A, Jesse Creek Tributary B, Jesse Creek Tributary C, Jones Ditch, Little Fox Creek, Little Fox Creek Tributary A, Little Fox Creek Tributary B,	2011 Digital Terrain Model	0.574 feet at the 95th percentile	0.3 meters	ISGS 2012

**Table 22: Summary of Topographic Elevation Data used in Mapping (continued)**

Community	Flooding Source	Source for Topographic Elevation Data			
		Description	Vertical Accuracy	Horizontal Accuracy	Citation
Richland County	Little Fox Creek Tributary C, Little Fox Creek Tributary D, Little Wabash River, Long Branch, Long Branch Tributary A, Mash Creek, Mash Creek Tributary A, Murphy Creek, Paul Creek, Paul Creek Tributary A, Paul Creek Tributary B, Simmons Creek, Simmons Creek Tributary 1, Sugar Creek (Big Muddy), Sugar Creek (Big Muddy) Tributary A, Sugar Creek (Big Muddy) Tributary A1, Sugar Creek (Big Muddy) Tributary B, Sugar Creek (Big Muddy) Tributary B1, Sugar Creek (Big Muddy) Tributary C, Sugar Creek (Fox), Sugar Creek (Fox) Tributary A, Sugar Creek (Fox) Tributary A1, Sugar Creek (Fox) Tributary B, Sugar Creek (Fox) Tributary B1, Sugar Creek (Fox) Tributary C, Sugar Creek (Fox) Tributary D, Sugar Creek (Little Wabash), Sugar Creek (Little Wabash) Tributary C, Sugar Creek (Little Wabash) Tributary D, Sugar Creek (Little Wabash) Tributary E, Sugar Creek (Little Wabash) Tributary F, Sugar Creek (Little Wabash) Tributary G, Sugar Creek (Little Wabash) Tributary H, Sugar Creek (Little Wabash) Tributary I, Sugar Creek (Little Wabash) Tributary J, Sugar Creek (Little Wabash) Tributary J1, Sugar Creek (Little Wabash) Tributary K, Susan Branch, Turkey Creek, Turkey Creek Tributary A, Turkey Creek Tributary B, Turkey Creek Tributary B1	2011 Digital Terrain Model	0.574 feet at the 95th percentile	0.3 meters	ISGS 2012

BFEs shown at cross sections on the FIRM represent the 1-percent-annual-chance water surface elevations shown on the Flood Profiles and in the Floodway Data tables in the FIS Report.

### **Table 23: Floodway Data**

[Not applicable to this Flood Risk Project]

### **Table 24: Flood Hazard and Non-Encroachment Data for Selected Streams**

[Not applicable to this Flood Risk Project]

## **6.4 Coastal Flood Hazard Mapping**

This section is not applicable to this Flood Risk Project.

### **Table 25: Summary of Coastal Transect Mapping Considerations**

[Not applicable to this Flood Risk Project]

## **6.5 FIRM Revisions**

This FIS Report and the FIRM are based on the most up-to-date information available to FEMA at the time of its publication; however, flood hazard conditions change over time. Communities or private parties may request flood map revisions at any time. Certain types of requests require submission of supporting data. FEMA may also initiate a revision. Revisions may take several forms, including Letters of Map Amendment (LOMAs), Letters of Map Revision Based on Fill (LOMR-Fs), Letters of Map Revision (LOMRs) (referred to collectively as Letters of Map Change (LOMCs)), Physical Map Revisions (PMRs), and FEMA-contracted restudies. These types of revisions are further described below. Some of these types of revisions do not result in the republishing of the FIS Report. To assure that any user is aware of all revisions, it is advisable to contact the community repository of flood-hazard data (shown in Table 30, “Map Repositories”).

### **6.5.1 Letters of Map Amendment**

A LOMA is an official revision by letter to an effective NFIP map. A LOMA results from an administrative process that involves the review of scientific or technical data submitted by the owner or lessee of property who believes the property has incorrectly been included in a designated SFHA. A LOMA amends the currently effective FEMA map and establishes that a specific property is not located in a SFHA.

To obtain an application for a LOMA, visit [www.fema.gov/flood-maps/change-your-flood-zone](http://www.fema.gov/flood-maps/change-your-flood-zone) and download the form “MT-1 Application Forms and Instructions for Conditional and Final Letters of Map Amendment and Letters of Map Revision Based on Fill”. Visit the “Flood Map-Related Fees” section to determine the cost, if any, of applying for a LOMA.

FEMA offers a tutorial on how to apply for a LOMA. The LOMA Tutorial Series can be accessed at [www.fema.gov/flood-maps/tutorials](http://www.fema.gov/flood-maps/tutorials).

For more information about how to apply for a LOMA, call the FEMA Mapping and Insurance eXchange; toll free, at 1-877-FEMA MAP (1-877-336-2627).

### **6.5.2 Letters of Map Revision Based on Fill**

A LOMR-F is an official revision by letter to an effective NFIP map. A LOMR-F states FEMA’s determination concerning whether a structure or parcel has been elevated on fill

above the base flood elevation and is, therefore, excluded from the SFHA.

Information about obtaining an application for a LOMR-F can be obtained in the same manner as that for a LOMA, by visiting [www.fema.gov/flood-maps/change-your-flood-zone](http://www.fema.gov/flood-maps/change-your-flood-zone) for the “MT-1 Application Forms and Instructions for Conditional and Final Letters of Map Amendment and Letters of Map Revision Based on Fill” or by calling the FEMA Mapping and Insurance eXchange, toll free, at 1-877-FEMA MAP (1-877-336-2627). Fees for applying for a LOMR-F, if any, are listed in the “Flood Map-Related Fees” section.

A tutorial for LOMR-F is available at [www.fema.gov/flood-maps/tutorials](http://www.fema.gov/flood-maps/tutorials).

### 6.5.3 Letters of Map Revision

A LOMR is an official revision to the currently effective FEMA map. It is used to change flood zones, floodplain and floodway delineations, flood elevations and planimetric features. All requests for LOMRs should be made to FEMA through the chief executive officer of the community, since it is the community that must adopt any changes and revisions to the map. If the request for a LOMR is not submitted through the chief executive officer of the community, evidence must be submitted that the community has been notified of the request.

To obtain an application for a LOMR, visit [www.fema.gov/flood-maps/change-your-flood-zone](http://www.fema.gov/flood-maps/change-your-flood-zone) and download the form “MT-2 Application Forms and Instructions for Conditional Letters of Map Revision and Letters of Map Revision”. Visit the “Flood Map-Related Fees” section to determine the cost of applying for a LOMR. For more information about how to apply for a LOMR, call the FEMA Mapping and Insurance eXchange; toll free, at 1-877-FEMA MAP (1-877-336-2627) to speak to a Map Specialist.

Previously issued mappable LOMCs (including LOMRs) that have been incorporated into the Richland County FIRM are listed in Table 26.

**Table 26: Incorporated Letters of Map Change**

Case Number	Effective Date	Flooding Source	FIRM Panel(s)
25-05-0277P	5/30/2025	Fox River Tributary J	17159C0151E, 17159C0152E

### 6.5.4 Physical Map Revisions

A Physical Map Revisions (PMR) is an official republication of a community’s NFIP map to effect changes to base flood elevations, floodplain boundary delineations, regulatory floodways and planimetric features. These changes typically occur as a result of structural works or improvements, annexations resulting in additional flood hazard areas or correction to base flood elevations or SFHAs.

The community’s chief executive officer must submit scientific and technical data to FEMA to support the request for a PMR. The data will be analyzed and the map will be revised if warranted. The community is provided with copies of the revised information and is afforded a review period. When the base flood elevations are changed, a 90-day appeal period is provided. A 6-month adoption period for formal approval of the revised map(s) is also provided.

For more information about the PMR process, please visit [www.fema.gov](http://www.fema.gov) and visit the Floods & Maps “Change Your Flood Zone Designation” section.

### 6.5.5 Contracted Restudies

The NFIP provides for a periodic review and restudy of flood hazards within a given community. FEMA accomplishes this through a national watershed-based mapping needs assessment strategy, known as the Coordinated Needs Management Strategy (CNMS). The CNMS is used by FEMA to assign priorities and allocate funding for new flood hazard analyses used to update the FIS Report and FIRM. The goal of CNMS is to define the validity of the engineering study data within a mapped inventory. The CNMS is used to track the assessment process, document engineering gaps and their resolution, and aid in prioritization for using flood risk as a key factor for areas identified for flood map updates. Visit [www.fema.gov](http://www.fema.gov) to learn more about the CNMS or contact the FEMA Regional Office listed in Section 8 of this FIS Report.

### 6.5.6 Community Map History

The current FIRM presents flooding information for the entire geographic area of Richland County. Previously, separate FIRMs, Flood Hazard Boundary Maps (FHBM) and/or Flood Boundary and Floodway Maps (FBFM) may have been prepared for the incorporated communities and the unincorporated areas in the county that had identified SFHAs. Current and historical data relating to the maps prepared for the project area are presented in Table 27, “Community Map History.” A description of each of the column headings and the source of the date is also listed below.

- *Community Name* includes communities falling within the geographic area shown on the FIRM, including those that fall on the boundary line, nonparticipating communities, and communities with maps that have been rescinded. Communities with No Special Flood Hazards are indicated by a footnote. If all maps (FHBM, FBFM, and FIRM) were rescinded for a community, it is not listed in this table unless SFHAs have been identified in this community.
- *Initial Identification Date (First NFIP Map Published)* is the date of the first NFIP map that identified flood hazards in the community. If the FHBM has been converted to a FIRM, the initial FHBM date is shown. If the community has never been mapped, the upcoming effective date or “pending” (for Preliminary FIS Reports) is shown. If the community is listed in Table 27 but not identified on the map, the community is treated as if it were unmapped.
- *Initial FHBM Effective Date* is the effective date of the first FHBM. This date may be the same date as the Initial NFIP Map Date.
- *FHBM Revision Date(s)* is the date(s) that the FHBM was revised, if applicable.
- *Initial FIRM Effective Date* is the date of the first effective FIRM for the community.
- *FIRM Revision Date(s)* is the date(s) the FIRM was revised, if applicable. This is the revised date that is shown on the FIRM panel, if applicable. As countywide studies are completed or revised, each community listed should have its FIRM dates updated accordingly to reflect the date of the countywide study. Once the FIRMs exist in countywide format, as PMRs of FIRM panels within the county are

completed, the FIRM Revision Dates in the table for each community affected by the PMR are updated with the date of the PMR, even if the PMR did not revise all the panels within that community.

The initial effective date for the Richland County FIRMs in countywide format was 7/21/2026.

**Table 27: Community Map History**

Community Name	Initial Identification Date	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
Calhoun, Village of <sup>1, 2</sup>	7/21/2026	N/A	N/A	7/21/2026	N/A
Claremont, Village of <sup>2</sup>	7/21/2026	N/A	N/A	7/21/2026	N/A
Noble, Village of <sup>1, 2</sup>	7/21/2026	N/A	N/A	7/21/2026	N/A
Olney, City of	2/22/1974	2/22/1974	9/24/1976 6/25/1976 3/26/1976	9/4/1985	7/21/2026
Parkersburg, Villages of <sup>2</sup>	7/21/2026	N/A	N/A	7/21/2026	N/A
Richland County Unincorporated Areas	6/8/1979	6/8/1979	11/1/1984	7/21/2026	N/A

<sup>1</sup> No Special Flood Hazard Areas Identified

<sup>2</sup> This community did not have a FIRM prior to the first countywide FIRM for Richland County

## SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION

### 7.1 Contracted Studies

Table 28 provides a summary of the contracted studies, by flooding source, that are included in this FIS Report.

**Table 28: Summary of Contracted Studies Included in this FIS Report**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Big Branch	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas
Big Creek	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Big Creek Tributary A	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Olney, City of; Richland County Unincorporated Areas
Big Creek Tributary B	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Big Creek Tributary C	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Big Creek Tributary D	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Big Creek Tributary E	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Big Muddy Creek	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Big Muddy Creek Tributary A	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Big Muddy Creek Tributary A1	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Big Muddy Creek Tributary B	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas

**Table 28: Summary of Contracted Studies Included in this FIS Report (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Big Muddy Creek Tributary C	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Big Muddy Creek Tributary D	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Big Muddy Creek Tributary D1	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Bonpas Creek	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Claremont, Village of; Richland County Unincorporated Areas
Bonpas Creek Tributary 11	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas
Bonpas Creek Tributary 12	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas
Bonpas Creek Tributary 14	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas
Bonpas Creek Tributary 15	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas
Bonpas Creek Tributary 16	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas
Bonpas Creek Tributary 16A	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas
Bonpas Creek Tributary 16B	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas
Bonpas Creek Tributary 16C	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas

**Table 28: Summary of Contracted Studies Included in this FIS Report (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Bonpas Creek Tributary 17	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas
Bonpas Creek Tributary 17A	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas
Bonpas Creek Tributary 18	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas
Bonpas Creek Tributary 19	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas
Bonpas Creek Tributary 20	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas
Bonpas Creek Tributary 21	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas
Bonpas Creek Tributary 22	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Claremont, Village of; Richland County Unincorporated Areas
Bonpas Creek Tributary 22A	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Claremont, Village of; Richland County Unincorporated Areas
Bonpas Creek Tributary 22B	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Claremont, Village of; Richland County Unincorporated Areas
Bonpas Creek Tributary 23	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas
Brown Creek	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Buck Run	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas

**Table 28: Summary of Contracted Studies Included in this FIS Report (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Bugaboo Creek	7/21/2026	Illinois State Water Survey	EMC-2019-CA-0009, ISWS19-02	March 2021	Richland County Unincorporated Areas
Calfkiller Creek	7/21/2026	Illinois State Water Survey	EMC-2019-CA-0009, ISWS19-02	March 2021	Richland County Unincorporated Areas
Calfkiller Creek Tributary A	7/21/2026	Illinois State Water Survey	EMC-2019-CA-0009, ISWS19-02	March 2021	Richland County Unincorporated Areas
Calfkiller Creek Tributary A1	7/21/2026	Illinois State Water Survey	EMC-2019-CA-0009, ISWS19-02	March 2021	Richland County Unincorporated Areas
Calfkiller Creek Tributary B	7/21/2026	Illinois State Water Survey	EMC-2019-CA-0009, ISWS19-02	March 2021	Richland County Unincorporated Areas
Calfkiller Creek Tributary C	7/21/2026	Illinois State Water Survey	EMC-2019-CA-0009, ISWS19-02	March 2021	Richland County Unincorporated Areas
Calfkiller Creek Tributary C1	7/21/2026	Illinois State Water Survey	EMC-2019-CA-0009, ISWS19-02	March 2021	Richland County Unincorporated Areas
Calfkiller Creek Tributary D	7/21/2026	Illinois State Water Survey	EMC-2019-CA-0009, ISWS19-02	March 2021	Richland County Unincorporated Areas
Calfkiller Creek Tributary E	7/21/2026	Illinois State Water Survey	EMC-2019-CA-0009, ISWS19-02	March 2021	Richland County Unincorporated Areas
Calfkiller Creek Tributary F	7/21/2026	Illinois State Water Survey	EMC-2019-CA-0009, ISWS19-02	March 2021	Richland County Unincorporated Areas
Camp Branch	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Richland County Unincorporated Areas
Coon Creek	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Richland County Unincorporated Areas
Dead River Tributary B	7/21/2026	Illinois State Water Survey	EMC-2019-CA-0009, ISWS19-02	March 2021	Richland County Unincorporated Areas

**Table 28: Summary of Contracted Studies Included in this FIS Report (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
East Fork Fox River	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Richland County Unincorporated Areas
East Fork Fox River Tributary A	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Richland County Unincorporated Areas
East Fork Wetweather Creek	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Embarras River	7/21/2026	Illinois Department of Transportation, Division of Water Resources	unknown	1976	Richland County Unincorporated Areas
Fox River	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Fox River	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Olney, City of; Richland County Unincorporated Areas
Fox River Tributary A	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Fox River Tributary B	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Fox River Tributary C	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Fox River Tributary D	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Richland County Unincorporated Areas

**Table 28: Summary of Contracted Studies Included in this FIS Report (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Fox River Tributary E	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Richland County Unincorporated Areas
Fox River Tributary F	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Richland County Unincorporated Areas
Fox River Tributary F1	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Richland County Unincorporated Areas
Fox River Tributary G	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Olney, City of; Richland County Unincorporated Areas
Fox River Tributary H	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Olney, City of; Richland County Unincorporated Areas
Fox River Tributary I	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Olney, City of; Richland County Unincorporated Areas
Fox River Tributary J	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Olney, City of; Richland County Unincorporated Areas
Fox River Tributary J	7/21/2026	Illinois State Water Survey	ISWS-24-LOMR	July 2024	Olney, City of
Fox River Tributary J	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Olney, City of
Fox River Tributary J1	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Olney, City of
Fox River Tributary K	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Richland County Unincorporated Areas

**Table 28: Summary of Contracted Studies Included in this FIS Report (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Fox River Tributary L	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Richland County Unincorporated Areas
Fox River Tributary M	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Richland County Unincorporated Areas
Fox River Tributary N	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Richland County Unincorporated Areas
Fox River Tributary O	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Richland County Unincorporated Areas
Fox River Tributary O1	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Richland County Unincorporated Areas
Gentry Creek	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Greenwood Branch	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Greenwood Branch Tributary A	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Greenwood Branch Tributary B	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Higgins Creek	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas
Higgins Creek Tributary 1	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas

**Table 28: Summary of Contracted Studies Included in this FIS Report (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Hog Run Creek	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Hog Run Creek Tributary A	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Hughes Branch	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Hurricane Creek	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Hurricane Creek Tributary A	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Hurricane Creek Tributary A1	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Hurricane Creek Tributary B	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Hurricane Creek Tributary C	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Jesse Creek	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Jesse Creek Tributary A	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Jesse Creek Tributary B	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas

**Table 28: Summary of Contracted Studies Included in this FIS Report (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Jesse Creek Tributary C	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Jones Ditch	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Little Fox Creek	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Little Fox Creek Tributary A	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Little Fox Creek Tributary B	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Little Fox Creek Tributary C	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Little Fox Creek Tributary D	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Little Wabash River	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	September 2019	Richland County Unincorporated Areas
Long Branch	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Richland County Unincorporated Areas
Long Branch Tributary A	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Richland County Unincorporated Areas
Mash Creek	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Richland County Unincorporated Areas

**Table 28: Summary of Contracted Studies Included in this FIS Report (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Mash Creek Tributary A	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	December 2018	Richland County Unincorporated Areas
Murphy Creek	7/21/2026	Illinois State Water Survey	EMC-2019-CA-0009, ISWS19-02	March 2021	Richland County Unincorporated Areas
Paul Creek	7/21/2026	Illinois State Water Survey	EMC-2019-CA-0009, ISWS19-02	March 2021	Richland County Unincorporated Areas
Paul Creek Tributary A	7/21/2026	Illinois State Water Survey	EMC-2019-CA-0009, ISWS19-02	March 2021	Richland County Unincorporated Areas
Paul Creek Tributary B	7/21/2026	Illinois State Water Survey	EMC-2019-CA-0009, ISWS19-02	March 2021	Richland County Unincorporated Areas
Simmons Creek	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas
Simmons Creek Tributary 1	7/21/2026	Illinois State Water Survey	EMC-2018-CA-00010, ISWS18-03	April 2022	Richland County Unincorporated Areas
Sugar Creek (Big Muddy)	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Sugar Creek (Big Muddy) Tributary A	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Sugar Creek (Big Muddy) Tributary A1	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Sugar Creek (Big Muddy) Tributary B	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Sugar Creek (Big Muddy) Tributary B1	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas

**Table 28: Summary of Contracted Studies Included in this FIS Report (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Sugar Creek (Big Muddy) Tributary C	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	May 2020	Richland County Unincorporated Areas
Sugar Creek (Fox)	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Sugar Creek (Fox) Tributary A	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Sugar Creek (Fox) Tributary A1	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Sugar Creek (Fox) Tributary B	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Sugar Creek (Fox) Tributary B1	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Sugar Creek (Fox) Tributary C	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Sugar Creek (Fox) Tributary D	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Sugar Creek (Little Wabash)	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Parkersburg, Village of; Richland County Unincorporated Areas
Sugar Creek (Little Wabash) Tributary C	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas

**Table 28: Summary of Contracted Studies Included in this FIS Report (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Sugar Creek (Little Wabash) Tributary D	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Sugar Creek (Little Wabash) Tributary E	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Sugar Creek (Little Wabash) Tributary F	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Sugar Creek (Little Wabash) Tributary G	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Sugar Creek (Little Wabash) Tributary H	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Parkersburg, Village of; Richland County Unincorporated Areas
Sugar Creek (Little Wabash) Tributary I	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Sugar Creek (Little Wabash) Tributary J	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Sugar Creek (Little Wabash) Tributary J1	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Sugar Creek (Little Wabash) Tributary K	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Susan Branch	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas

**Table 28: Summary of Contracted Studies Included in this FIS Report (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Turkey Creek	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Turkey Creek Tributary A	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Turkey Creek Tributary B	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas
Turkey Creek Tributary B1	7/21/2026	Illinois State Water Survey	EMC-2017-CA-00004-SO1, ISWS17-03	April 2020	Richland County Unincorporated Areas

## 7.2 Community Meetings

The dates of the community meetings held for this Flood Risk Project and previous Flood Risk Projects are shown in Table 29. These meetings may have previously been referred to by a variety of names (Community Coordination Officer (CCO), Scoping, Discovery, etc.), but all meetings represent opportunities for FEMA, community officials, study contractors, and other invited guests to discuss the planning for and results of the project.

**Table 29: Community Meetings**

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Calhoun, Village of	7/21/2026	7/20/2011	Project Discovery	ISWS, and SIUC
		5/13/2015	Project Discovery	FEMA, Greater Wabash Regional Planning Commission, IEMA, and ISWS
		8/18/2016	Project Discovery	FEMA, IDNR-OWR, and ISWS
		2/20/2020	Flood Risk Review	ISWS
		12/7/2020	Other	FEMA, IDNR-OWR, IEMA, and ISWS
		8/31/2022	Flood Risk Review	FEMA, Greater Wabash Regional Planning Commission, IDNR-OWR, and ISWS
		12/11/2023	Final CCO	IDNR-OWR, and ISWS
		3/20/2024	Other	IDNR-OWR, and ISWS
Claremont, Village of	7/21/2026	7/20/2011	Project Discovery	ISWS, and SIUC
		5/13/2015	Project Discovery	FEMA, Greater Wabash Regional Planning Commission, IEMA, and ISWS
		8/18/2016	Project Discovery	FEMA, IDNR-OWR, and ISWS
		12/7/2020	Other	FEMA, IDNR-OWR, IEMA, and ISWS
		8/31/2022	Flood Risk Review	FEMA, Greater Wabash Regional Planning Commission, IDNR-OWR, and ISWS
		12/11/2023	Final CCO	IDNR-OWR, and ISWS
		3/20/2024	Other	IDNR-OWR, and ISWS
		Noble, Village of	7/21/2026	7/20/2011
5/13/2015	Project Discovery			FEMA, Greater Wabash Regional Planning Commission, IEMA, and ISWS
8/18/2016	Project Discovery			FEMA, IDNR-OWR, and ISWS
2/20/2020	Flood Risk Review			ISWS
12/7/2020	Other			FEMA, IDNR-OWR, IEMA, and ISWS
8/31/2022	Flood Risk Review			FEMA, Greater Wabash Regional Planning Commission, IDNR-OWR, and ISWS
12/11/2023	Final CCO			IDNR-OWR, and ISWS
3/20/2024	Other			IDNR-OWR, ISWS, and the community

**Table 29: Community Meetings (continued)**

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Olney, City of	7/21/2026	7/20/2011	Project Discovery	ISWS, SIUC, and the community
		5/13/2015	Project Discovery	FEMA, Greater Wabash Regional Planning Commission, IEMA, and ISWS
		8/18/2016	Project Discovery	FEMA, IDNR-OWR, and ISWS
		2/20/2020	Flood Risk Review	ISWS
		12/7/2020	Other	FEMA, IDNR-OWR, IEMA, and ISWS
		8/31/2022	Flood Risk Review	FEMA, Greater Wabash Regional Planning Commission, IDNR-OWR, and ISWS
		12/11/2023	Final CCO	IDNR-OWR, ISWS, and the community
		3/20/2024	Other	IDNR-OWR, ISWS, and the community
Parkersburg, Village of	7/21/2026	7/20/2011	Project Discovery	ISWS, and SIUC
		5/13/2015	Project Discovery	FEMA, Greater Wabash Regional Planning Commission, IEMA, and ISWS
		8/18/2016	Project Discovery	FEMA, IDNR-OWR, and ISWS
		2/20/2020	Flood Risk Review	ISWS
		12/7/2020	Other	FEMA, IDNR-OWR, IEMA, and ISWS
		8/31/2022	Flood Risk Review	FEMA, Greater Wabash Regional Planning Commission, IDNR-OWR, and ISWS
		12/11/2023	Final CCO	IDNR-OWR, and ISWS
		3/20/2024	Other	IDNR-OWR, and ISWS
Richland County Unincorporated Areas	7/21/2026	7/20/2011	Project Discovery	ISWS, SIUC, and the community
		5/13/2015	Project Discovery	FEMA, Greater Wabash Regional Planning Commission, IEMA, ISWS, and the community
		8/18/2016	Project Discovery	FEMA, IDNR-OWR, ISWS, and the community
		2/20/2020	Flood Risk Review	ISWS, and the community
		12/7/2020	Other	FEMA, IDNR-OWR, IEMA, ISWS, and the community
		8/31/2022	Flood Risk Review	FEMA, Greater Wabash Regional Planning Commission, IDNR-OWR, ISWS, and the community
		12/11/2023	Final CCO	IDNR-OWR, and ISWS
		3/20/2024	Other	IDNR-OWR, ISWS, and the community

## SECTION 8.0 – ADDITIONAL INFORMATION

Information concerning the pertinent data used in the preparation of this FIS Report can be obtained by submitting an order with any required payment to the FEMA Engineering Library. For more information on this process, see [www.fema.gov](http://www.fema.gov).

Table 30 is a list of the locations where FIRMs for Richland County can be viewed. Please note that the maps at these locations are for reference only and are not for distribution. Also, please note that only the maps for the community listed in the table are available at that particular repository. A user may need to visit another repository to view maps from an adjacent community.

**Table 30: Map Repositories**

Community	Address	City	State	Zip Code
Calhoun, Village of <sup>1</sup>	Village Hall, 202 South Jasper Street	Calhoun	IL	62419
Claremont, Village of	Claremont Fire Station, 110 East North Street	Claremont	IL	62421
Noble, Village of <sup>1</sup>	Village Hall, 113 East North Avenue	Noble	IL	62868
Olney, City of	City Hall, 300 South Whittle Avenue	Olney	IL	62450
Parkersburg, Village of	Village Hall, 103 East Parker Street	Parkersburg	IL	62452
Richland County Unincorporated Areas	Richland County Courthouse, 103 West Main Street	Olney	IL	62450

<sup>1</sup> No Special Flood Hazard Areas Identified

The National Flood Hazard Layer (NFHL) dataset is a compilation of effective FIRM Databases and LOMCs. Together they create a GIS data layer for a State or Territory. The NFHL is updated as studies become effective and extracts are made available to the public monthly. NFHL data can be viewed or ordered from the website shown in Table 31.

Table 31 contains useful contact information regarding the FIS Report, the FIRM, and other relevant flood hazard and GIS data. In addition, information about the State NFIP Coordinator and GIS Coordinator is shown in this table. At the request of FEMA, each Governor has designated an agency of State or territorial government to coordinate that State's or territory's NFIP activities. These agencies often assist communities in developing and adopting necessary floodplain management measures. State GIS Coordinators are knowledgeable about the availability and location of State and local GIS data in their state.

**Table 31: Additional Information**

FEMA and the NFIP	
FEMA and FEMA Engineering Library website	<a href="http://www.fema.gov/flood-maps/products-tools/know-your-risk/engineers-surveyors-architects">www.fema.gov/flood-maps/products-tools/know-your-risk/engineers-surveyors-architects</a>
NFIP website	<a href="http://www.fema.gov/flood-insurance">www.fema.gov/flood-insurance</a>
NFHL Dataset	<a href="http://msc.fema.gov">msc.fema.gov</a>
FEMA Region V	536 South Clark Street, 6 <sup>th</sup> Floor Chicago, IL 60605 (312) 408-5500
Other Federal Agencies	
USGS website	<a href="http://www.usgs.gov">www.usgs.gov</a>
Hydraulic Engineering Center website	<a href="http://www.hec.usace.army.mil">www.hec.usace.army.mil</a>
State Agencies and Organizations	
State NFIP Coordinator	Erin C. Conley Illinois Department of Natural Resources One Natural Resources Way Springfield, IL 62702-1271 (217) 782-4428 <a href="mailto:erin.c.conley@illinois.gov">erin.c.conley@illinois.gov</a>
State GIS Coordinator	Mark Yacucci Illinois State Geological Survey 615 East Peabody Drive Champaign, IL 61820 (217) 265-0747 <a href="mailto:yacucci@illinois.edu">yacucci@illinois.edu</a>

**SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES**

Table 32 includes sources used in the preparation of and cited in this FIS Report as well as additional studies that have been conducted in the study area.

**Table 32: Bibliography and References**

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/ Editor	Place of Publication	Publication Date / Date of Issuance	Link
Charleston 2024	Charleston Engineering, Inc.	<i>Topographic Work Map</i>		Olney, IL	October 31, 2024	
FEMA 1984a	Federal Emergency Management Agency	<i>Flood Insurance Study, Jasper County Unincorporated Areas, Illinois</i>		Washington, DC	July 17, 1984	<a href="https://msc.fema.gov">https://msc.fema.gov</a>
FEMA 1984b	Federal Emergency Management Agency	<i>Flood Hazard Boundary Map, Richland County Unincorporated Areas, Illinois</i>		Washington, DC	November 1, 1984	<a href="https://msc.fema.gov">https://msc.fema.gov</a>
FEMA 1985a	Federal Emergency Management Agency	<i>Flood Insurance Rate Map, Jasper County Unincorporated Areas, Illinois</i>		Washington, DC	January 17, 1985	<a href="https://msc.fema.gov">https://msc.fema.gov</a>
FEMA 1985b	Federal Emergency Management Agency	<i>Flood Insurance Rate Map, City of Olney, Illinois, Richland County</i>		Washington, DC	September 4, 1985	<a href="https://msc.fema.gov">https://msc.fema.gov</a>
FEMA 2025	Federal Emergency Management Agency	<i>Letter of Map Revision case # 25-05-0277P, Ginger Ale's 612 N. West St, Olney IL 62450</i>		Washington, DC	January 16, 2025	<a href="https://msc.fema.gov">https://msc.fema.gov</a>
IDOT 2021	Illinois Department of Transportation	<i>Illinois Highway System</i>		Springfield, IL	2021	<a href="https://idot.illinois.gov">https://idot.illinois.gov</a>
ISGS 2003	Illinois State Geological Survey	<i>Illinois Public Land Survey System</i>		Champaign, IL	April 2003	<a href="https://clearinghouse.isgs.illinois.edu">https://clearinghouse.isgs.illinois.edu</a>

**Table 32: Bibliography and References (continued)**

Citation in this FIS	Publisher/ Issuer	<i>Publication Title, "Article," Volume, Number, etc.</i>	Author/ Editor	Place of Publication	Publication Date / Date of Issuance	Link
ISGS 2012	Illinois State Geological Survey	<i>2011 Digital Terrain Model (DTM) for Richland County, Illinois</i>		Champaign, IL	June 25, 2012	<a href="https://clearinghouse.isgs.illinois.edu">https://clearinghouse.isgs.illinois.edu</a>
ISWS 2021a	Illinois State Water Survey	<i>Hydrologic and Hydraulic Modeling and Floodplain Mapping for Little Wabash River, Elm Creek Tributary A and Tributaries, and Seminary Creek, Clay County, Illinois</i>		Champaign, IL	February 2021	
ISWS 2021b	Illinois State Water Survey	<i>Hydrologic and Hydraulic Modeling and Floodplain Mapping for Salt Creek and Tributaries, Little Wabash River Tributary N and Tributaries, Little Wabash River Tributary O, and Big Creek Tributary A, Effingham County, Illinois</i>		Champaign, IL	May 2021	
ISWS 2021c	Illinois State Water Survey	<i>Hydrologic and Hydraulic Modeling and Floodplain Mapping for Little Wabash River, Coles, Cumberland, Shelby, Effingham, Clay, Richland, Wayne, and Edwards Counties, Illinois</i>		Champaign, IL	November 2021	

**Table 32: Bibliography and References (continued)**

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/ Editor	Place of Publication	Publication Date / Date of Issuance	Link
ISWS 2021d	Illinois State Water Survey	<i>Hydrologic and Hydraulic Modeling and Floodplain Mapping for Little Wabash River and Tributaries, Effingham and Clay County, Illinois</i>		Champaign, IL	November 2021	
ISWS 2023a	Illinois State Water Survey	<i>Hydrologic and Hydraulic Modeling and Floodplain Mapping for Embarras Watershed, Richland County, Illinois</i>		Champaign, IL	July 2023	
ISWS 2023b	Illinois State Water Survey	<i>Hydrologic and Hydraulic Modeling and Floodplain Mapping for Tributaries to the Wabash River in the Middle &amp; Lower Wabash HUC 8 Watersheds, Southeastern Illinois</i>		Champaign, IL	August 2023	
NCEI 2023	National Centers for Environmental Information	<i>Storm Events Database</i>			May 31, 2023	<a href="https://www.ncdc.noaa.gov/stormevents">https://www.ncdc.noaa.gov/stormevents</a>
USCB 2022	U.S. Census Bureau	<i>2021 TIGER/Line Shapefiles</i>		Washington, DC	September 2022	<a href="https://www.census.gov">https://www.census.gov</a>
USGS 1989	U.S. Geological Survey	<i>USGS 7.5-Minute Series Topographic Maps</i>		Sioux Falls, SD	1989	<a href="https://nationalmap.gov">https://nationalmap.gov</a>
USGS 2020	U.S. Geological Survey	<i>USGS National Map: Orthoimagery</i>			October 2020	<a href="https://nationalmap.gov">https://nationalmap.gov</a>

**Table 32: Bibliography and References (continued)**

Citation in this FIS	Publisher/ Issuer	<i>Publication Title, "Article," Volume, Number, etc.</i>	Author/ Editor	Place of Publication	Publication Date / Date of Issuance	Link
USGS 2022	U.S. Geological Survey	<i>Stream Gages</i>		Reston, VA	November 11, 2022	<a href="https://waterdata.usgs.gov">https://waterdata.usgs.gov</a>
USGS 2023	U.S. Geological Survey	<i>National Hydrography Dataset</i>		Reston, VA	March 5, 2023	<a href="https://www.usgs.gov">https://www.usgs.gov</a>