



State Revolving Fund Loan Programs

Drinking Water, Clean Water, Nonpoint Source

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

CITY OF RENSSELAER WASTEWATER TREATMENT PLANT IMPROVEMENTS SRF PROJECT WW 23 20 37 01

DATE: May 7, 2025

PUBLIC COMMENTS DUE BY: June 5, 2025

I. INTRODUCTION

The above entity has applied to the Clean Water State Revolving Fund (SRF) Loan Program for a loan to finance all or part of the Clean Water project described in the accompanying Environmental Assessment (EA). As part of facilities planning requirements, an environmental review has been completed which addresses the project's impacts on the natural and human environment. This review is summarized in the attached EA, which can also be viewed in color at <http://www.in.gov/ifa/srf/>.

II. PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT (FONSI)

The SRF Clean Water Program has evaluated all pertinent environmental information regarding the proposed project and determined that an Environmental Impact Statement is not necessary. Subject to responses received during the 30-day public comment period, and pursuant to Indiana Code 5-1.2-3, it is our preliminary finding that the construction and operation of the proposed facilities will result in no significant adverse environmental impact. In the absence of significant comments, the attached EA shall serve as the final environmental document.

III. COMMENTS

All interested parties may comment upon the EA/FONSI. Comments must be received at the address below by the target approval date above. Significant comments may prompt a reevaluation of the preliminary FONSI; if appropriate, a new FONSI will be issued for another 30-day public comment period. A final decision to proceed, or not to proceed, with the proposed project shall be effected by finalizing, or not finalizing, the FONSI as appropriate. Comments regarding this document should be sent within 30 days to:

**Jenni Curry
Environmental Section Manager
State Revolving Fund
100 N. Senate Ave. IGCN 1275
Indianapolis, IN 46204
463-261-6943
jecurry@ifa.in.gov**

ENVIRONMENTAL ASSESSMENT

I. PROJECT IDENTIFICATION

Project Name and Address: Wastewater Treatment Plant Improvements
City of Rensselaer
124 S. Van Rensselaer Street
Rensselaer, IN 47978

SRF Project Number: **WW 23 20 37 01**

Authorized Representative: Jeff Phillips, Mayor

II. PROJECT LOCATION

The proposed project is located in Jasper County, Marion Township, Rensselaer 24k USGS Quadrangle, Township 29N, Range 7W and Sections 25 and 36; Township 29N, Range 6W, and Sections 19, 20, 29, and 30. See **Figures 1, 5, 6** and 7.

III. PROJECT NEED AND PURPOSE

The City of Rensselaer's Wastewater Treatment Plant (WWTP) is reaching the end of its useful life and experiences problems meeting treatment requirements. The WWTP has been out of compliance at various times with its pollutant discharge limits. Additionally, the City's existing combined sewer interceptors are undersized to adequately convey flow to the WWTP and the Wet Weather Treatment Facility, resulting in numerous combined sewer overflows each year; the interceptors also have excessive I/I due to their age and poor condition. Phases IIB and III of the City's Long Term Control Plan (LTCP) require that work be done at the WWTP and in the collection system to address these problems. A recent sewer collapse on Melville Street has also necessitated an emergency repair.

The proposed project will address deficiencies at the WWTP and in the collection system. It is expected to improve water quality by improving pollutant removal at the WWTP and reducing the number of combined sewer overflows. The project will also enable compliance with the City's Long Term Control Plan.

IV. PROJECT DESCRIPTION

To correct issues at the WWTP, the proposed Phase IIb project includes:

- Replacement of the existing north aeration basin with a concentric ring oxidation ditch.
- Conversion of the south aeration basin to wet weather storage.
- Removal of the existing integral clarifiers and construction of new secondary clarifiers.
- Construction of an intermediate lift station.
- Installation of a backup generator and associated switch gear.
- Installation of related piping, fencing, electrical, instrumentation, and appurtenances.

To address the collection system issues, the proposed Phase III project includes:

- West Interceptor: Installation of approximately 1200 LF of 24-inch gravity sewer from the intersection of Sparling Avenue & Milroy Avenue east along Milroy Avenue for approximately 700 LF and then north for approximately 500 LF across the Iroquois River where it will connect

to the existing sewer system; double barrel siphon at the river crossing; manholes; and appurtenances. Removal of one section of existing sewer between homes on Milroy Avenue where it overlaps the new West Interceptor alignment; plugging and filling of the remaining north sewer segment and siphon river crossing.

- North Interceptor: Removal of the existing sewer and replacement of approximately 6300 LF of 12- to 42-inch gravity sewer, including replacement of manholes, overflow regulators, and appurtenances.
- South Central Interceptor: Removal of the existing sewer and replacement of approximately 1800 LF of 24- to 36-inch gravity sewer, including replacement of the siphon, manholes, overflow regulators, and appurtenances.
- Southeast Interceptor: Removal of the existing sewer and replacement of approximately 600 LF of 30-inch gravity sewer, including replacement of the siphon, manholes, overflow regulator, and appurtenances.
- Melville Interceptor: CIPP lining of approximately 5600 LF of 12- to 24-inch gravity sewer.
- Emergency replacement of approximately 400 LF of 24-inch sewer along Melville Street from Walnut Street to Vine Street, including approximately 140 LF of 36-inch casing for the railroad crossing, two new manholes, and appurtenances. Plugging and abandoning of the existing collapsed sewer.

V. ESTIMATED PROJECT COSTS, AFFORDABILITY, AND FUNDING

The total cost of this project is estimated to be approximately \$29,013,700. The City intends to finance the project with a loan from the Clean Water SRF Loan Program for a term and annual fixed interest rate to be determined at loan closing. Monthly user rates and charges may need to be analyzed to determine if adjustments are required for loan repayment.

VI. DESCRIPTION OF EVALUATED ALTERNATIVES

Phase IIb of the LTCP – WWTP Secondary Treatment Improvements: This phase of the LTCP includes the replacement of the existing activated sludge process. There were four alternatives evaluated for this phase. These included a closed loop reactor oxidation ditches with new secondary clarifiers, concentric ring oxidation ditch with new secondary clarifiers, vertical loop reactor and new secondary clarifiers, and a sequencing batch reactor. **The recommended alternative is the concentric ring oxidation ditch and new secondary clarifiers.** This alternative was chosen over the others due to cost and staff experience and comfortability with the operations of this alternative.

Phase III of the LTCP – Interceptor Improvements: This phase of the LTCP includes interceptor improvements along the North Interceptor, West Interceptor, South Central Interceptor, and the Southeast Interceptor. There were four alternatives evaluated for these interceptor improvements.

The “No Action” alternative is not desirable as the proposed improvements are required per the CSO LTCP as enforced by the Environmental Protection Agency and the Indiana Department of Environmental Management. Therefore, the “no action” alternative was dismissed from further consideration.

The remaining three alternatives include the construction of larger interceptors and siphons, construction of a parallel sewer, and the separation of sewers through the construction of storm sewers. **The recommended alternative is the construction of larger interceptors and siphons** as it is the most practical and cost-effective alternative while meeting the needs of the CSO LTCP. The other two alternatives were dismissed due to cost, more impacts, and the need to acquire easements.

This phase would also include a sewer lining project on Melville Street from Merritt Street to the Iroquois River on an existing interceptor.

VII. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

A. Direct Impacts of Construction and Operation

Disturbed/Undisturbed Land: Work related to the installation of the WWTP improvements, and the interceptors will occur in land reviewed by the Indiana Department of Natural Resources' State Historic Preservation Office. The recommended work is cleared to proceed in previously disturbed and surveyed land.

Structural Resources: Construction and operation of the project will not alter, demolish or remove historic properties. If any visual or audible impacts to historic properties occur, they will be temporary and will not alter the characteristics that qualify such properties for inclusion in or eligibility for the National Register of Historic Places. The SRF's finding pursuant to Section 106 of the National Historic Preservation Act is: "*no historic properties affected.*"

Surface Waters (Figures 2 and 8): The project will not adversely affect outstanding state resource waters listed in 327 IAC 2-1.3-3(d), exceptional use streams listed in 327 IAC 2-1-11(b), Natural, Scenic and Recreational Rivers and Streams listed in 312 IAC 7-(2), or Salmonid Streams listed in (327 IAC 2-1.5-5(a)(3) or streams on the Outstanding River List for Indiana. The project will be near and will cross the Iroquois River. The Iroquois River is included on the NRCS Nonrule Policy Document (Indiana's List of Outstanding Rivers). The river is listed for: 13. Canoe Trails, State designated canoe and boating routes in adjacent Newton County.

Wetlands (Figures 3, 9-1, and 9-2): The project will not impact wetlands. Mitigation measures to lessen and compensate for wetland impacts cited in comment letters about the project from the Indiana Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented.

Floodplain (Figures 4, 7-1a, 7-1b, 7-1c): The project will not include dredge or fill in the floodway without a permit from IDNR Division of Water. No change in grade will occur within the floodplain.

Groundwater: The project will not impact a drinking water supply or sole source aquifer.

Plants and Animals: The proposed project items will be implemented to minimize impact to non-endangered species and their habitat. Mitigation measures cited in comment letters from the Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented.

Prime Farmland: The project will not convert prime farmland.

Air Quality: Construction activities may generate some noise, fumes and dust, but should not significantly affect air quality.

Open Space and Recreational Opportunities: The project will neither create nor destroy open space or recreational opportunities.

Lake Michigan Coastal Program: The project will not affect the Lake Michigan Coastal Zone.

National Natural Landmarks: Construction and operation of the proposed project will not affect National Natural Landmarks.

B. Indirect Impacts

The City of Rensselaer's PER states: *The City of Rensselaer, through local zoning laws, the authority of its council or planning commission, or other means, will ensure that future development and utility projects connecting to SRF-funded facilities will not adversely affect wetlands, wooded areas, steep slopes, archaeological/historical/structural resources, or other sensitive environmental resources. The City of Rensselaer will require new development and utility projects to be constructed within the guidelines of the US Fish and Wildlife Service, Indiana Department of Natural Resources, Indiana Department of Environmental Management, and other environmental review authorities.*

C. Comments from Environmental Review Authorities

In correspondence dated April 23, 2025, the Indiana Department of Natural Resources Division of Historic Preservation and Archaeology stated:

Pursuant to Indiana Code 5-1.2-10, Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108), and 36 C.F.R. Part 800, the Indiana State Historic Preservation Officer ("Indiana SHPO") is conducting an analysis of the materials dated and received by the Indiana SHPO on March 27, 2025, for the above indicated project in Rensselaer, Jasper County, Indiana.

In regard to buildings and structures, we have identified the following properties within the probable area of potential effects, and we believe that they may meet the criteria of eligibility for inclusion in the National Register of Historic Places:

*McCoy House, 808 Milroy Avenue, Site #073-533-42006
York House, 923 Milroy Avenue, Site #073-533-42025
Dwiggins House, 821 Milroy Avenue, Site #073-533-42026
Thomas McCoy House, 805 Milroy Avenue, Site #073-533-42027*

*Additionally, we have identified the following property within the probable area of potential effects, and we believe that it meets the criteria of eligibility for inclusion in the National Register of Historic Places due to its historical and architectural significance:
Milroy Park Historic District. The district is eligible for the National Register under Criterion C for its architecture and public art.*

Furthermore, we have identified the following property listed in the National Register of Historic Places within the probable area of potential effects:

*Rensselaer Courthouse Square Historic District, NR-2212
Based on our analysis, it has been determined that no historic properties will be altered, demolished, or removed by the proposed project.*

Weston Cemetery must be avoided by all staging or ground disturbing activities.

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and 29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. 800.

In correspondence dated February 11, 2025, the United States Fish and Wildlife Service stated:

The USFWS identified the endangered Indiana bat (*Myotis sodalis*) on the Official Species List for Project codes: 2025-0055076 and 2025-0055122. No critical habit was noted in the project area; therefore, we believe there to be no effect on the Indiana bat. USFWS did not provide any conservation measures.

In correspondence dated April 25, 2025, the Department of Natural Resources Environmental Unit stated:

The Department of Natural Resources replied stating that the Natural Heritage Program's database was checked and that no plant or animal species listed as state or federally threatened, endangered, or rare have been reported in the project vicinity.

The Division of Fish and Wildlife recommendations to avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible in the proposed project area include:

A) Directional Boring/Open Trenching

Directional boring is the preferred method for crossing streams with utility lines. Install erosion control measures such as silt fence or other appropriate measures around directional drilling pits to prevent drilling mud from leaving the immediate area of the pit or entering the stream.

The Division of Fish and Wildlife understands directional boring is not always an option. When using the open trench method, the utility line must be installed as quickly as possible to avoid silt and sediment loading of the stream. The utility line must be covered with graded stone and riprap to prevent erosion of the streambed in the vicinity of the crossing. For streambed stabilization, riprap or other stabilization materials must not be placed in the active stream channel above the existing streambed elevation. This is to prevent obstructions to the movement of aquatic organisms upstream and downstream. Regardless of the installation method used, the utility line must be installed below the existing streambed elevation at least 3 feet, measured perpendicularly to the utility line, between the lowest point of the streambed and the top of the pipeline or its encasement, whichever is higher.

B) Tree Removal

The Division of Fish and Wildlife recommends avoiding tree removal along roadways to the greatest extent possible and replacing trees that must be removed to maintain the economic, aesthetic, and ecological benefits provided by trees. The following links give a good overview of the benefits of a street tree program and how to select the right species to avoid the negative impacts of non-native invasive species such as the common and popular Bradford pear: <https://www.in.gov/dnr/forestry/forestry-publications-and-presentations/> (scroll down to the Community & Urban Forestry section).

Additionally, we recommend a mitigation plan be developed (and submitted with the permit application, if required) for any unavoidable habitat impacts that will occur. The DNR's Habitat Mitigation Guidelines (and plant lists) can be found online at: <https://www.in.gov/nrc/files/IB-17.pdf>.

Impacts to non-wetland forest of one (1) acre or more in a rural or urban area should be mitigated at a minimum 2:1 ratio based on area of impact. Impacts to non-wetland forest under one (1) acre but at least 0.10 acre in a rural or urban area should be mitigated at a minimum 1:1 ratio based on area of impact. Impacts under 0.10 acre in a rural area typically

do not require mitigation or additional plantings beyond seeding and stabilizing disturbed areas, though there are exceptions for high quality habitat sites. Impacts under 0.10 acre in an urban area should be mitigated by replacing each mature tree removed (trees that are 10" diameter-at-breast height (dbh)) with two trees of 3-gallon stock or larger. Seeding and stabilizing disturbed areas is required regardless of the impact amount and location. The mitigation site should be located in the floodway, downstream of the one (1) square mile drainage area of that stream (or another stream within the 8-digit HUC, preferably as close to the impact site as possible) and adjacent to existing forested riparian habitat. The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:

- 1. Revegetate all bare and disturbed areas that are not currently mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Northern Indiana as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in currently mowed areas only. A native herbaceous seed mixture must include at least 5 species of grasses and sedges and 5 species of wildflowers.*
- 2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.*
- 3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.*
- 4. Do not cut any trees suitable for Indiana Bat or Northern Long-eared Bat roosting (3 inches or greater diameter-at-breast height, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.*
- 5. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds.*
- 6. Use minimum average 6-inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.*
- 7. Do not use broken concrete as riprap.*
- 8. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.*
- 9. All excavated material must be properly spread or completely removed from the project site such that erosion and off-site sedimentation of the material is prevented.*
- 10. Minimize the movement of resuspended bottom sediment from the immediate project area.*
- 11. Do not deposit or allow construction/demolition materials or debris to fall or otherwise enter the waterway. Any incidental fallen material or debris in the waterway must be removed within 24 hours using best management practices, particularly lifting material out of the waterway and not dragging it across the streambed whenever possible.*
- 12. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the waterbody or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.*
- 13. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.*

In correspondence dated February 21, 2025, the Natural Resources Conservation Service stated:

The Wastewater Treatment Plant Preliminary Engineering Report for City of Rensselaer in Jasper County, Indiana as referred to in your letter received February 12, 2025, will not cause a conversion of prime farmland.

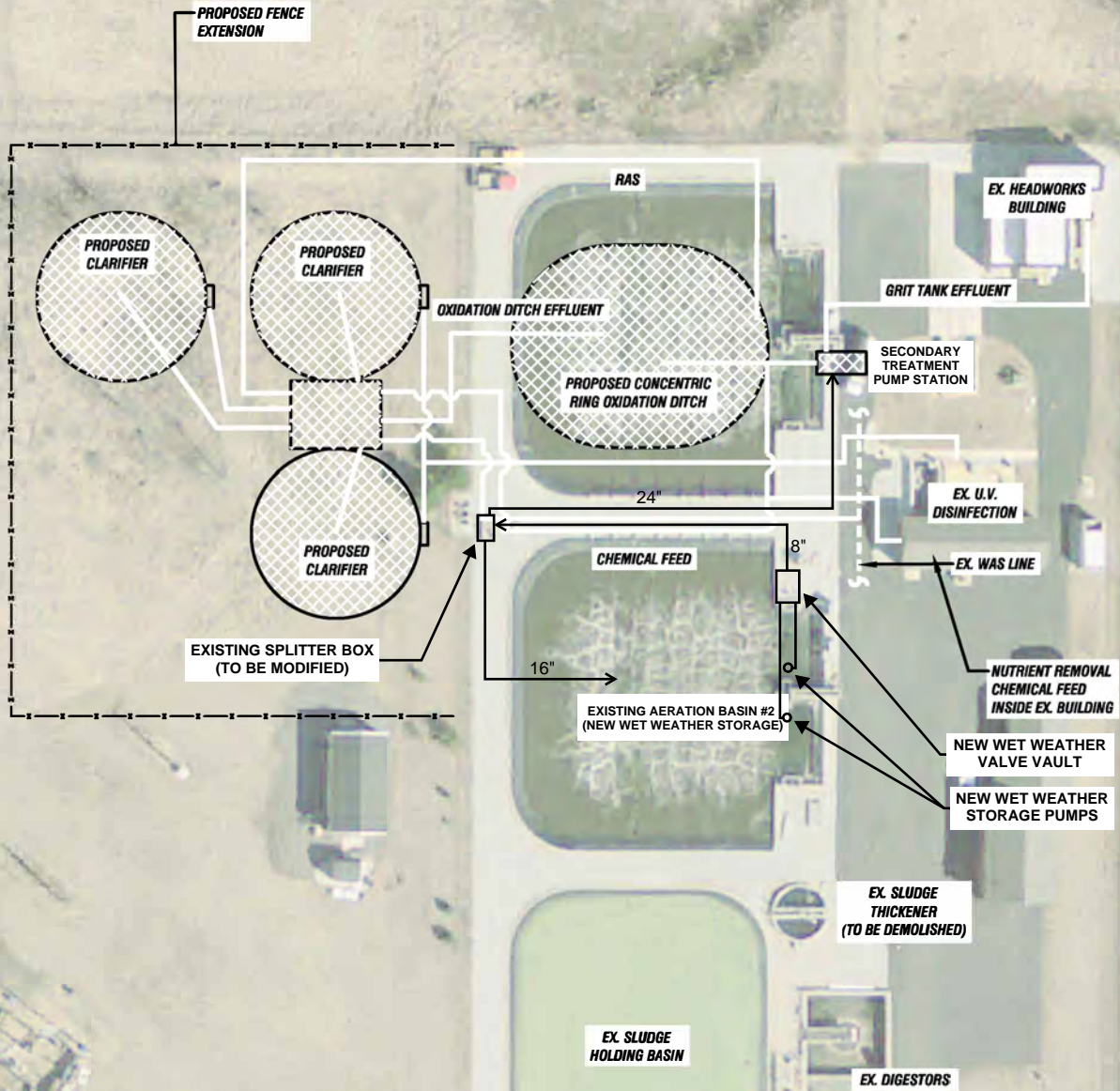
VIII. MITIGATION MEASURES

City of Rensselaer's PER states:

The majority of the environmental impacts occur during the construction of the proposed improvements. These issues are classified as temporary since no significant, permanent impacts on environmental, historical, or other regulated resources are involved. These temporary construction impacts include the potential for noise, dust, and construction site erosion. Provisions will be included in the construction specifications to limit such problems and to provide erosion control in accordance with current state standards. The work is expected to be completed during normal working hours, restricting any work-related nuisances to those hours. All construction equipment will be required to have mufflers to reduce noise pollution. Additionally, reasonable and proper construction techniques and clean up practices will be required by the contractor to reduce dust emissions. Proper surface wetting practices will be required. Additionally, all interceptor improvements excluding the West Interceptor utilize existing sewer routes. This will result in minimal tree clearing and will thereby be less disruptive to the environment. The Armorflex concrete mats that will be installed over the top of the West Interceptor siphon crossing will stimulate the natural riverbed and promote ecosystem continuity.

IX. PUBLIC PARTICIPATION

A properly noticed public hearing was held on March 25, 2024, at 6:00 pm at the City Council Chamber at the Rensselaer City Hall at 124 S. Van Rensselaer Street, Rensselaer, IN 47978. to discuss the PER. No written comments were received during the 5-day comment period following the hearing.



SCALE: 1"=80'



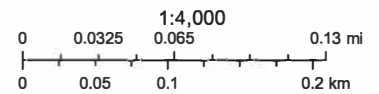
COMMONWEALTH
ENGINEERS, INC.

CITY OF RENSSELAER, INDIANA JASPER COUNTY
PRELIMINARY ENGINEERING REPORT
SECONDARY TREATMENT SYSTEM IMPROVEMENTS ALT. 2 FIGURE 1



February 7, 2022

- Streams (NHD)
- Rivers (NHD)
- Lakes (NHD)



Indiana Geographic Information Council (IGIC), 2005 IndianaMap
Orthophotography Project, UITS, Indiana Spatial Data Portal



HEADQUARTERS
7256 Company Dr.
Indianapolis, IN 46237
(317) 886-1177

INDIANAPOLIS NORTH
8325 Digital Way, Ste. 101
Indianapolis, IN 46278
(463) 900-1177

FORT WAYNE
9634 Coldwater Rd. Ste. 203
Fort Wayne, IN 46825
(260) 494-3223



COMMONWEALTH[™]
ENGINEERS, INC.
A wealth of resources to master a common goal.

CROWN POINT
19 N. Court St.
Crown Point, IN 46307
(219) 900-9177

EVANSVILLE
420 NW 5th Ste. 201
Evansville, IN 47708
(812) 474-1177

BOWLING GREEN
922 State St. Ste. 400
Bowling Green, KY 42101
(270) 297-1177

CITY OF RENSSELAER
JASPER COUNTY, INDIANA

WATERWAYS MAP

FIGURE

2



U.S. Fish and Wildlife Service
National Wetlands Inventory

Wetlands

Figure 3



February 7, 2022

Wetlands

- | | | |
|--------------------------------|-----------------------------------|----------|
| Estuarine and Marine Deepwater | Freshwater Emergent Wetland | Lake |
| Estuarine and Marine Wetland | Freshwater Forested/Shrub Wetland | Other |
| | Freshwater Pond | Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

HEADQUARTERS
7256 Company Dr.
Indianapolis, IN 46237
(317) 886-1177

INDIANAPOLIS NORTH
8325 Digital Way, Ste. 101
Indianapolis, IN 46278
(463) 900-1177

FORT WAYNE
5604 Coldwater Rd. Ste. 203
Fort Wayne, IN 46825
(260) 494-3223



**COMMONWEALTH
ENGINEERS, INC.**
A wealth of resources to master a common goal.

CROWN POINT
19 N. Court St.
Crown Point, IN 46307
(219) 900-9177
EVANSVILLE
420 NW 5th Ste. 201
Evansville, IN 47708
(812) 474-1177
BOWLING GREEN
922 State St. Ste. 400
Bowling Green, KY 42101
(270) 297-1177

**CITY OF RENSSELAER
JASPER COUNTY, INDIANA**

WETLANDS MAP

FIGURE

3



- Point of Interest
- Base Flood Elevation Point
- Flood Elevation Points**
 - STUDIED STREAM
 - JURISDICTIONAL UNSTUDIED STREAM

Rivers and Streams at least 1 square mile

Drainage Area (sq. miles)

- 1 - 10
- 100 - 500
- DNR Approximate Floodway
- FEMA Zone A

Point of Interest Coordinates (WGS84)

Long: **-87.177634237**

Lat: **40.9242272169**

The information provided below is based on the point of interest shown in the map above.

County: **Jasper**

Approximate Ground Elevation: **651.6 feet (NAVD88)**

Stream Name:
Iroquois River

Base Flood Elevation: **650.4 feet (NAVD88)**

Drainage Area: **Not available**

Best Available Flood Hazard Zone: **Not Mapped**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **Kenny Haun, Building Commissioner**

Community Jurisdiction: **City Of Rensselaer, City proper**

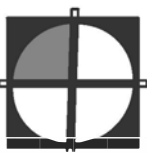
Phone: **(219) 866-2311**

Email: **khaun@cityofrensselaerin.com**

HEADQUARTERS
7256 Company Dr.
Indianapolis, IN 46237
(317) 886-1177

INDIANAPOLIS NORTH
5325 Digital Way, Ste. 101
Indianapolis, IN 46278
(463) 900-1177

FORT WAYNE
9624 Coldwater Rd. Ste. 203
Fort Wayne, IN 46825
(260) 494-3223



**COMMONWEALTH™
ENGINEERS, INC.**
A wealth of resources to master a common goal.

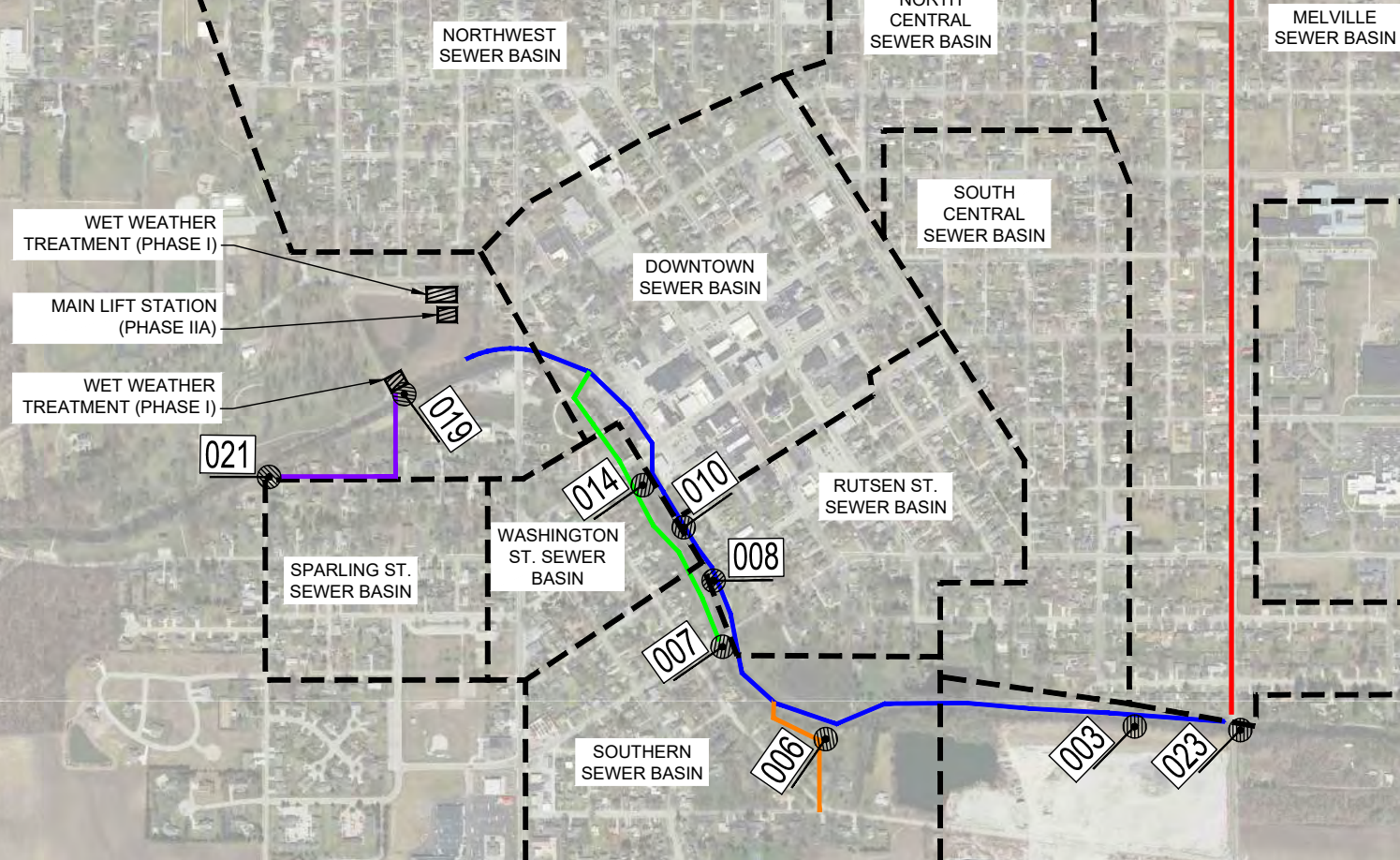
CROWN POINT
19 N. Court St.
Crown Point, IN 46307
(219) 900-9177
EVANSVILLE
420 NW 5th Ste. 201
Evansville, IN 47708
(812) 474-1177
BOWLING GREEN
922 S. State St. Ste. 400
Bowling Green, KY 42101
(270) 297-1177

**CITY OF RENSSELAER
JASPER COUNTY, INDIANA**

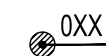
FLOODPLAIN MAP

FIGURE

4



LEGEND:



COMBINED SEWER OVERFLOW



NORTH INTERCEPTOR (PHASE III)



SOUTHEAST INTERCEPTOR (PHASE III)



SOUTH CENTRAL INTERCEPTOR (PHASE III)



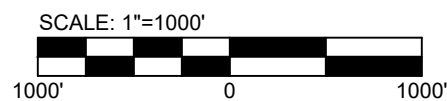
WEST INTERCEPTOR (PHASE III)



SEWER BASIN LIMITS



MELVILLE INTERCEPTOR

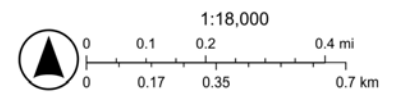
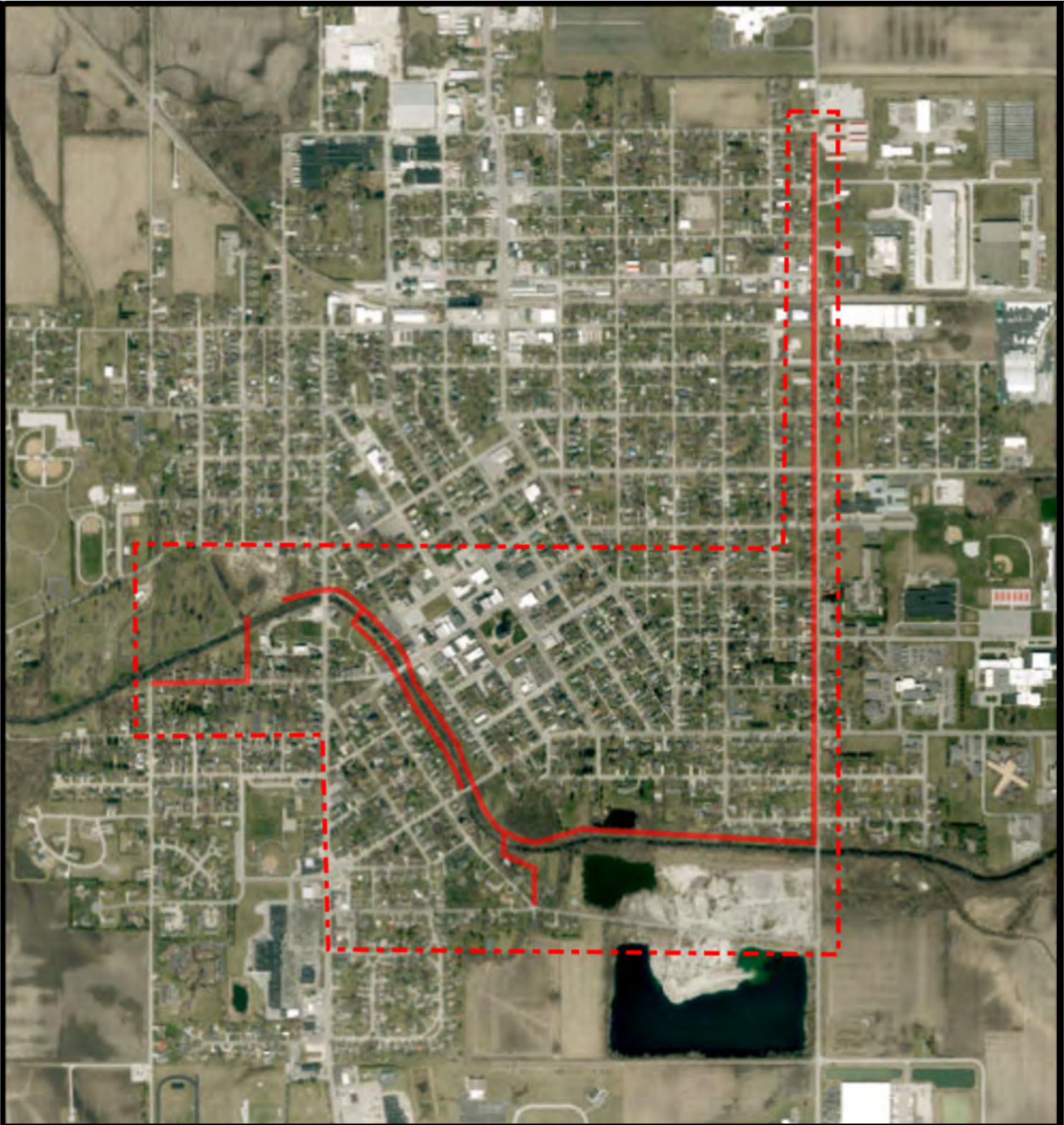


**COMMONWEALTHTM
ENGINEERS, INC.**
A wealth of resources to master a common goal.

CITY OF RENSSELAER
JASPER COUNTY, INDIANA

PER AMENDMENT #1

CSO LTCP PHASE III
FIGURE 5



IGIO, Maxar

HEADQUARTERS

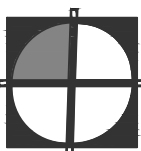
7256 Company Dr.
Indianapolis, IN 46237
(317) 886-1177

INDIANAPOLIS NORTH

8325 Digital Way, Ste. 101
Indianapolis, IN 46278
(463) 909-1177

FORT WAYNE

5624 Coldwater Rd., Ste. 203
Fort Wayne, IN 46825
(260) 494-3223



**COMMONWEALTH
ENGINEERS, INC.**

A wealth of resources to master a common goal.

CROWN POINT

19 N. Court St.
Crown Point, IN 46307
(219) 905-9177

EVANSVILLE

420 NW 5th Ste. 201
Evansville, IN 47708
(812) 474-1177

BOWLING GREEN

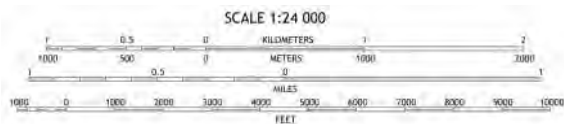
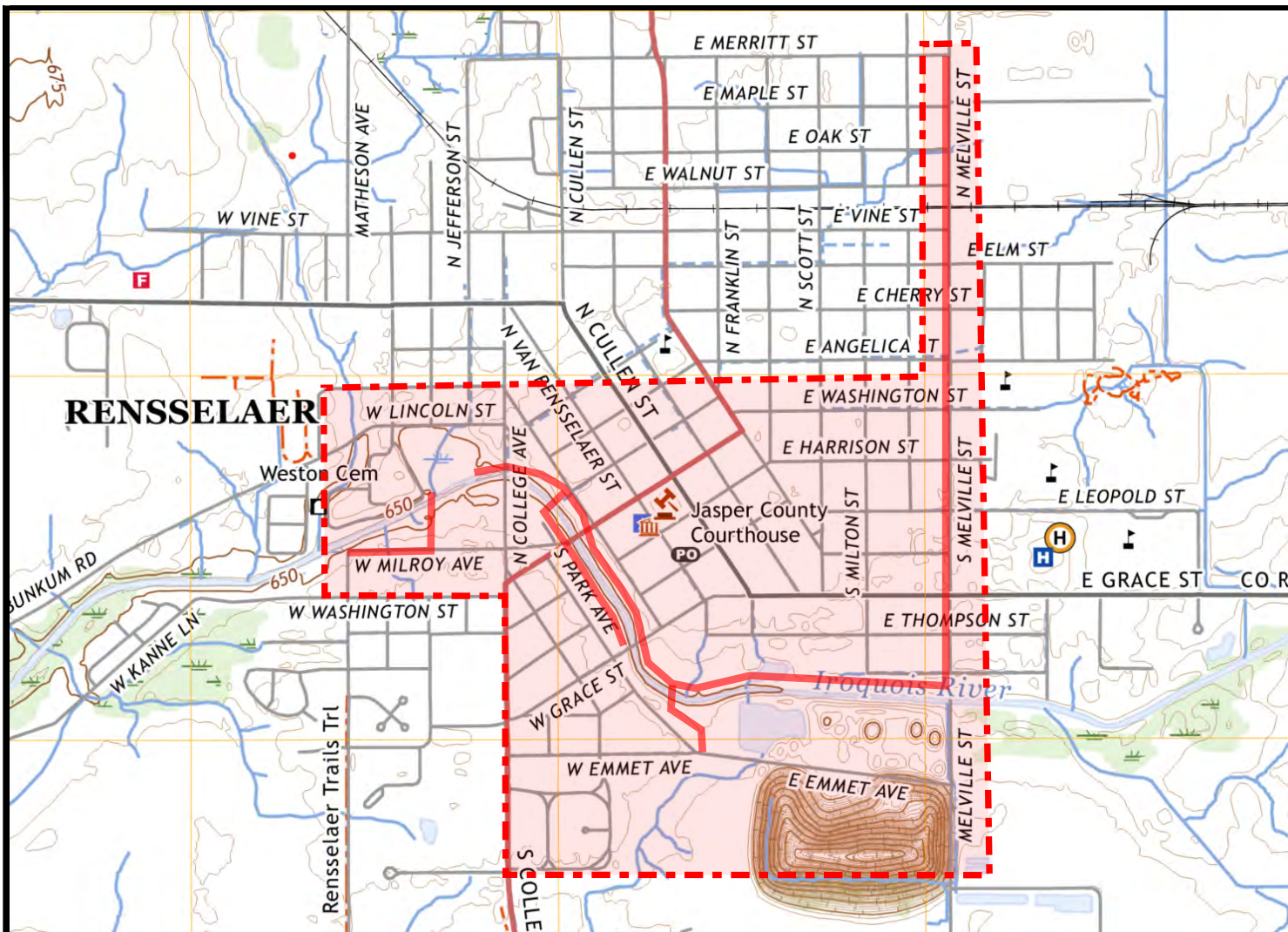
922 State St., Ste. 400
Bowling Green, KY 42101
(270) 297-1177

**CITY OF RENSSELAER
JASPER COUNTY, INDIANA**

PROJECT LOCATION AERIAL

FIGURE

6



HEADQUARTERS

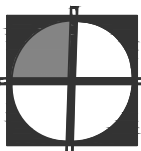
7256 Company Dr.
Indianapolis, IN 46237
(317) 888-1177

INDIANAPOLIS NORTH

8325 Digital Way, Ste. 101
Indianapolis, IN 46278
(493) 900-1177

FORT WAYNE

9624 Coldwater Rd., Ste. 203
Fort Wayne, IN 46825
(260) 494-3223



**COMMONWEALTH
ENGINEERS, INC.**

A wealth of resources to master a common goal.

CROWN POINT

19 N. Court St.
Crown Point, IN 46307
(219) 905-9177

EVANSVILLE

420 NW 5th St., Ste. 201
Evansville, IN 47708
(812) 474-1177

BOWLING GREEN

922 State St., Ste. 400
Bowling Green, KY 42101
(270) 297-1177

**CITY OF RENSSELAER
JASPER COUNTY, INDIANA**

USGS PROJECT LOCATION

FIGURE

7

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

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 Flood Insurance Study Report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Indiana State Plane West Zone (FIPS zone 1302). The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM 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 this FIRM.

Flood elevations on this map 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 <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

Base map information shown on this FIRM was derived from the 2013 Indiana Orthophotography (IndianaMap Framework Data www.indianamap.org). This information was photogrammetrically compiled at a scale of 1:2400 from aerial photography dated spring 2013.

The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

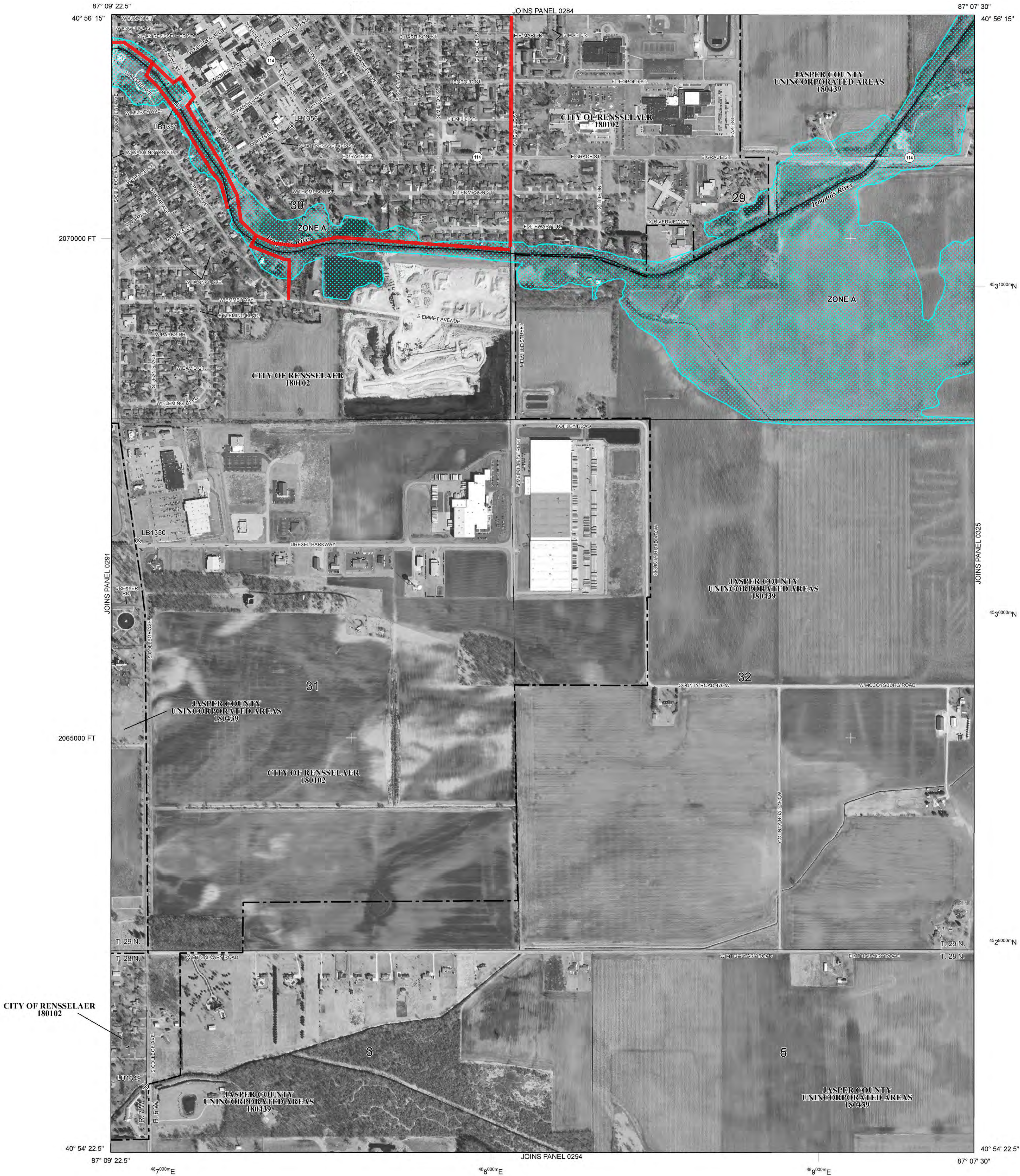
Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels, community map repository addresses, and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the **Map Service Center (MSC)** website at <http://msc.fema.gov>. 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 MSC website.

If you have **questions about this map**, how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange (FMIX)** at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov/business/nfip>.

FIGURE 7-1A
FLOODPLAIN MAP

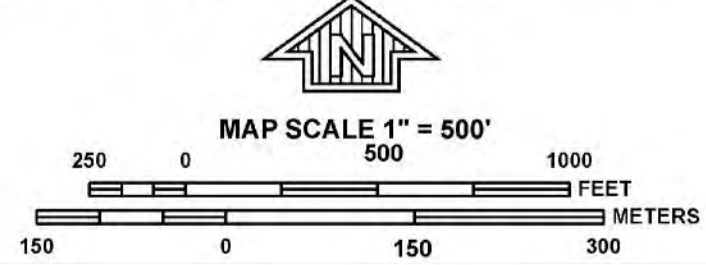


LEGEND

- SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**
- The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, AV, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.
- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently identified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE AV** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
- FLOODWAY AREAS IN ZONE AE**
- The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
- OTHER FLOOD AREAS**
- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- OTHER AREAS**
- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.
- COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**
- OTHERWISE PROTECTED AREAS (OPAs)**
- CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
- 1% Annual Chance Floodplain Boundary
- 0.2% Annual Chance Floodplain Boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
- Base Flood Elevation line and value; elevation in feet*
- Base Flood Elevation value where uniform within zone; elevation in feet*
- *Referenced to the North American Vertical Datum of 1988
- Cross section line**
- Transect line**
- Culvert**
- Bridge**
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
- 3100000 FT
- 5000-foot ticks: Indiana State Plane West Zone (FIPS Zone 1302), Transverse Mercator projection
- 1000-meter Universal Transverse Mercator grid values, zone 16
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- DX5510
- M1.5
- River Mile
- MAP REPOSITORIES
- Refer to Map Repositories list on Map Index
- EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
- December 21, 2018
- EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0292C

FIRM

FLOOD INSURANCE RATE MAP

JASPER COUNTY, INDIANA AND INCORPORATED AREAS

PANEL 292 OF 525
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
JASPER COUNTY	180439	0292	C
RENSSELAER, CITY OF	180102	0292	C

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
18073C0292C

EFFECTIVE DATE
DECEMBER 21, 2018

Federal Emergency Management Agency

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

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 Flood Insurance Study Report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Indiana State Plane West Zone (FIPS zone 1302). The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM 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 this FIRM.

Flood elevations on this map 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 <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, NNGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

Base map information shown on this FIRM was derived from the 2013 Indiana Orthophotography (IndianaMap Framework Data www.indianamap.org). This information was photogrammetrically compiled at a scale of 1:2400 from aerial photography dated spring 2013.

The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

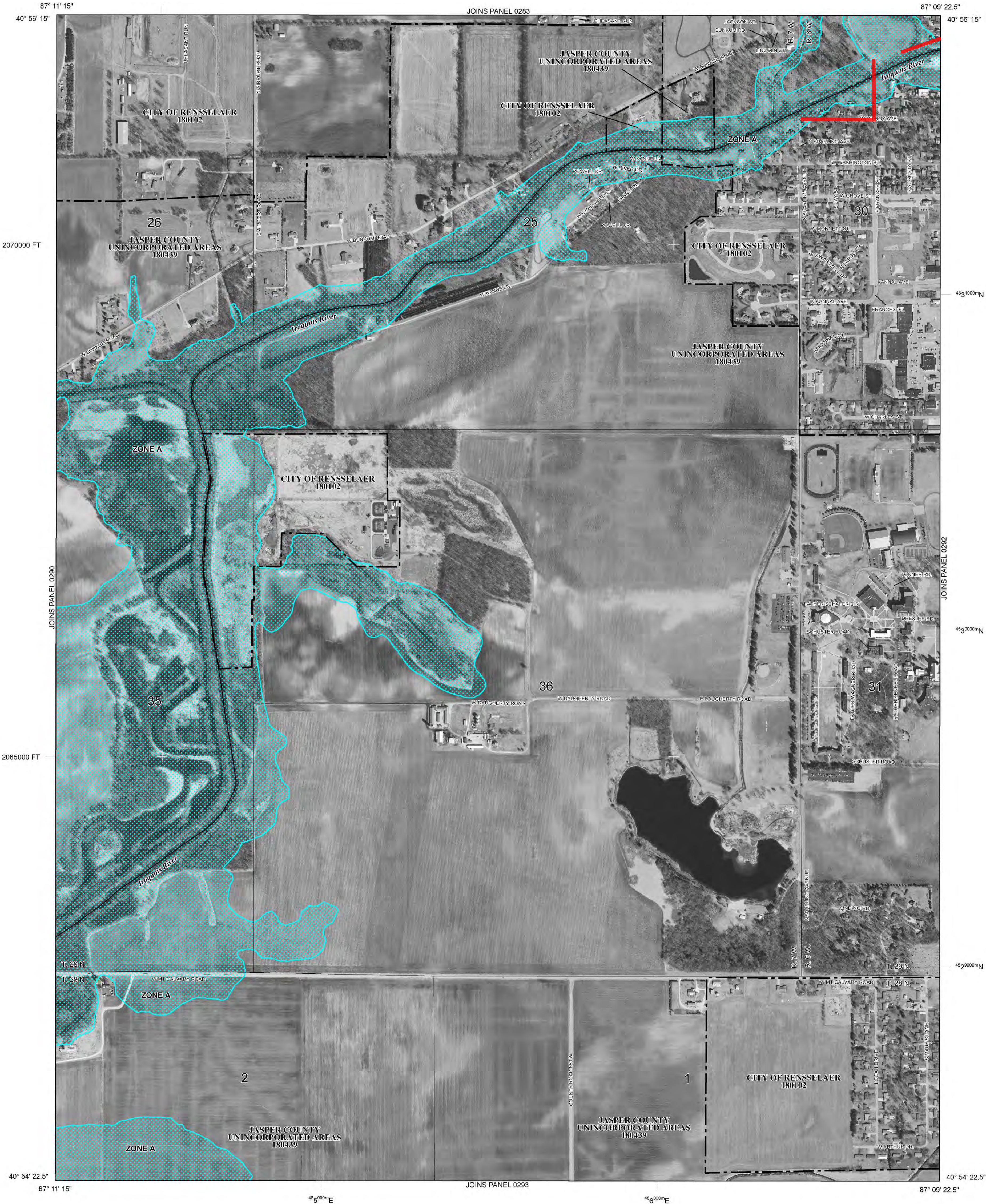
Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels, community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the **Map Service Center (MSC)** website at <http://msc.fema.gov>. 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 MSC website.

If you have **questions about this map**, how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange (FMIX)** at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov/business/nfip>.

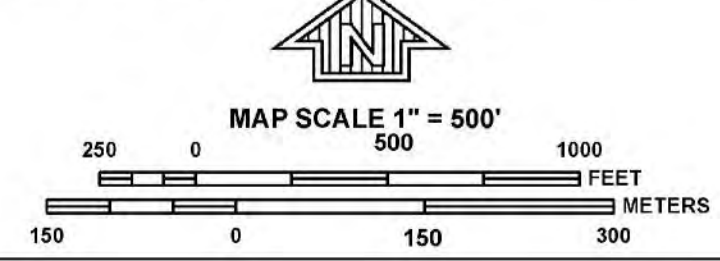
FIGURE 7-1B
FLOODPLAIN MAP



LEGEND

- SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**
The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.
- ZONE A** No Base Flood Elevations determined.
ZONE AE Base Flood Elevations determined.
ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently identified. 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 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
- FLOODWAY AREAS IN ZONE AE**
The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
- OTHER FLOOD AREAS**
ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
OTHER AREAS
ZONE D Areas determined to be outside the 0.2% annual chance floodplain.
ZONE X Areas in which flood hazards are undetermined, but possible.
- COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**
OTHERWISE PROTECTED AREAS (OPAs)
CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
1% Annual Chance Floodplain Boundary
0.2% Annual Chance Floodplain Boundary
Floodway boundary
Zone D boundary
CBRS and OPA boundary
Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
Base Flood Elevation line and value; elevation in feet*
Base Flood Elevation value where uniform within zone; elevation in feet*
- *Referenced to the North American Vertical Datum of 1988
- Cross section line**
Transect line
Culvert
Bridge
Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
5000-foot ticks: Indiana State Plane West Zone (FIPS Zone 1302), Transverse Mercator projection
1000-meter Universal Transverse Mercator grid values, zone 16
Bench mark (see explanation in Notes to Users section of this FIRM panel)
River Mile
MAP REPOSITORIES
Refer to Map Repositories list on Map Index
EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
December 21, 2018
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.
To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0291C

FIRM
FLOOD INSURANCE RATE MAP
JASPER COUNTY, INDIANA AND INCORPORATED AREAS

PANEL 291 OF 525
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
JASPER COUNTY	180439	0291	C
RENNELAER, CITY OF	180102	0291	C

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
18073C0291C
EFFECTIVE DATE
DECEMBER 21, 2018
Federal Emergency Management Agency

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

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 Flood Insurance Study Report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Indiana State Plane West Zone (FIPS zone 1302). The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM 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 this FIRM.

Flood elevations on this map 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 <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, NNGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

Base map information shown on this FIRM was derived from the 2013 Indiana Orthophotography (IndianaMap Framework Data www.indianamap.org). This information was photogrammetrically compiled at a scale of 1:2400 from aerial photography dated spring 2013.

The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

Corporate limits shown on this 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 this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the **Map Service Center (MSC)** website at <http://msc.fema.gov>. 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 MSC website.

If you have **questions about this map**, how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange (FMIX)** at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov/business/nfip>.

FIGURE 7-1C
FLOODPLAIN MAP



LEGEND

- SPECIAL FLOOD HAZARD AREAS (SFHAS) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**
The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.
- ZONE A** No Base Flood Elevations determined.
ZONE AE Base Flood Elevations determined.
ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently derelict. 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 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

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

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

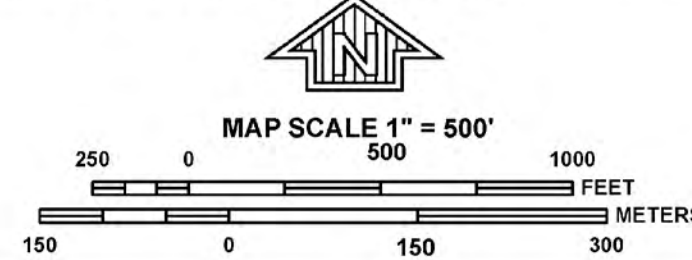
CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% Annual Chance Floodplain Boundary
0.2% Annual Chance Floodplain Boundary
Floodway boundary
Zone D boundary
CBRS and OPA boundary
Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
Base Flood Elevation line and value; elevation in feet*
Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- Cross section line
Transect line
Culvert
Bridge
Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
3100000 FT
5000-foot ticks: Indiana State Plane West Zone (FIPS Zone 1302), Transverse Mercator projection
1000-meter Universal Transverse Mercator grid values, zone 16
Bench mark (see explanation in Notes to Users section of this FIRM panel)
River Mile
MAP REPOSITORIES
Refer to Map Repositories list on Map Index
EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
December 21, 2018
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.
To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0284C

FIRM
FLOOD INSURANCE RATE MAP
JASPER COUNTY, INDIANA
AND INCORPORATED AREAS

PANEL 284 OF 525
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
JASPER COUNTY	180439	0284	C
RENSSELAER, CITY OF	180102	0284	C

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
18073C0284C
EFFECTIVE DATE
DECEMBER 21, 2018
Federal Emergency Management Agency

FIGURE 8
Surface Waters Map



2/11/2025

Area Features

- Rivers and Streams
- Lakes, Ponds, Reservoirs, and Estuaries

NHD Rivers, Streams, Canals, etc - Linear Water Bodies

- StreamRiver
- World Imagery
- Low Resolution 15m Imagery

High Resolution 60cm Imagery

High Resolution 30cm Imagery

Citations

4.8m Resolution Metadata

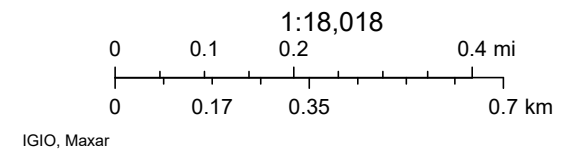
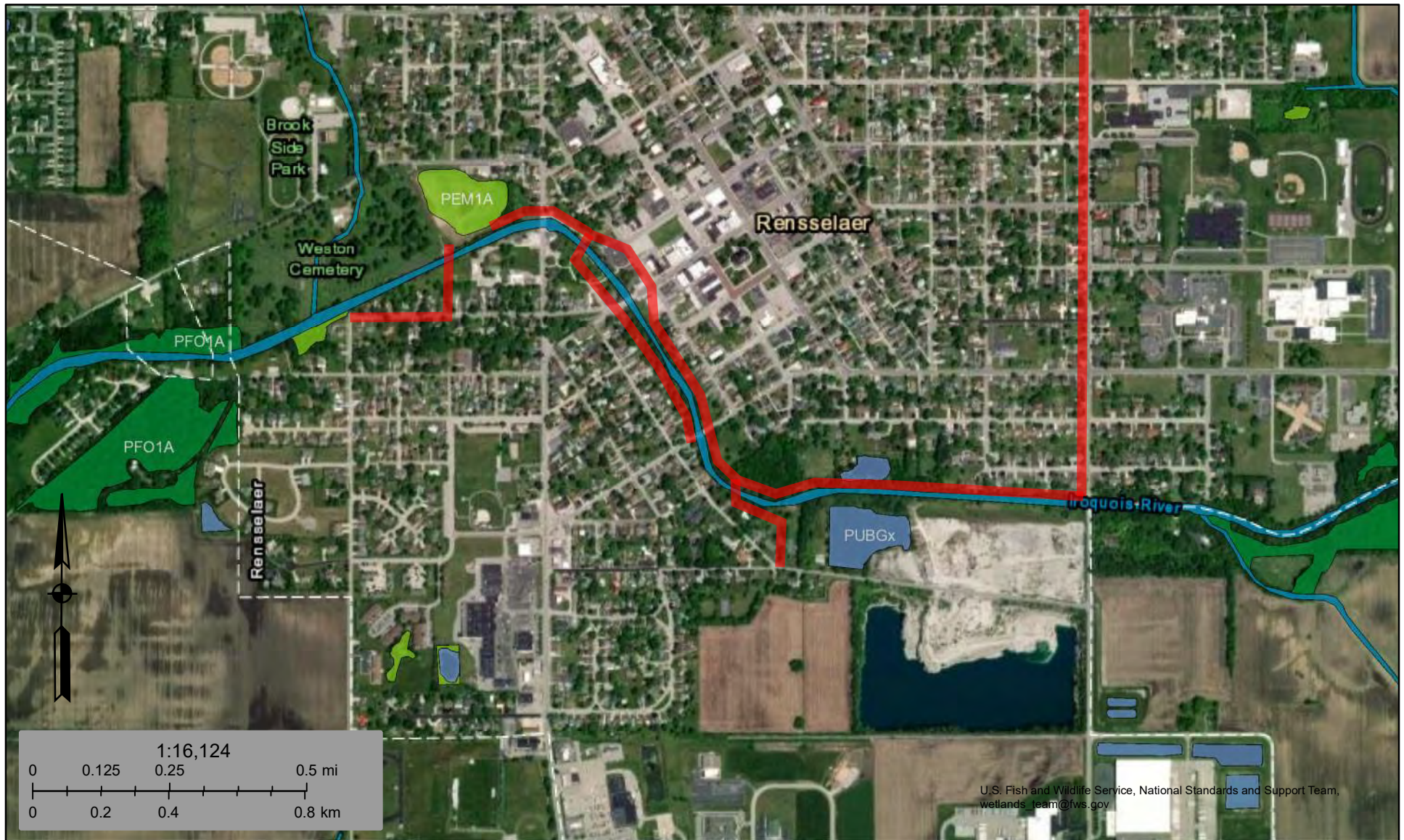








FIGURE 9-11
WETLANDS MAP



February 16, 2024

Wetlands


- | | | |
|--|---|--|
|  Estuarine and Marine Deepwater |  Freshwater Emergent Wetland |  Lake |
|  Estuarine and Marine Wetland |  Freshwater Forested/Shrub Wetland |  Other |
| |  Freshwater Pond |  Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

FIGURE 9-2
WETLANDS MAP



Wetlands

- | | | | | | |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland |  | Lake |
|  | Estuarine and Marine Wetland |  | Freshwater Forested/Shrub Wetland |  | Other |
| | |  | Freshwater Pond |  | Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

ARTICLE 10. FLOOD PLAIN MANAGEMENT

312 IAC 10-2-42 "Utility line crossing" defined

Authority: IC 14-28-1-5; IC 14-28-3-2

Affected: IC 14-27-7; IC 14-28-1; IC 14-28-3

Sec. 42. "Utility line crossing" means the utility crosses the waterway in a straight line at an angle of between forty-five (45) degrees and one hundred thirty-five (135) degrees from the streambank and does not parallel the waterway for more than fifty (50) feet in the floodway before crossing unless the parallel portion of the line is contained within existing road right-of-way. (*Natural Resources Commission; 312 IAC 10-2-42; filed Jul 5, 2001, 9:12 a.m.: 24 IR 3389, eff Jan 1, 2002*)

Rule 5. General Licenses and Specific Exemptions from Floodway Licensing

312 IAC 10-5-0.3 Determining project eligibility for a general license; general criteria

Authority: IC 14-10-2-4; IC 14-28-1-5

Affected: IC 14-28-1; IC 14-29-1

Sec. 0.3. (a) Except as provided in subsections (b) and (c), a project for a utility line crossing, the removal of logjams and obstructions, or the placement of outfall projects within a floodway is eligible for a general license if the project satisfies the requirements of this rule. For the removal of logjams and obstructions, these requirements include the procedures established by section 0.6 of this rule.

(b) Subsection (a) does not authorize a project in any of the following circumstances:

(1) Within a river or stream listed in the Indiana Register at 16 IR 1677 in the Outstanding Rivers List for Indiana unless prior written approval from the division of water's environmental unit has been obtained.

(2) Within a salmonid stream designated under 327 IAC 2-1.5-5(a)(3).

(3) Within a natural, scenic, or recreational river or stream designated under 312 IAC 7-2.

(4) For a utility line crossing, below the ordinary high watermark of a navigable waterway listed in the Indiana Register at 20 IR 2920 in the Roster of Indiana Waterways Declared Navigable or Nonnavigable unless the utility line is placed beneath the bed of the waterway under section 4(b) of this rule.

(5) Where the project requires an individual permit from the United States Army Corps of Engineers under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act.

(c) Subsection (a) does not authorize the removal of logjams or obstructions within one-half (½) mile of any of the following:

(1) A species listed in the Indiana Register at 15 IR 1312 in the Roster of Indiana Animals and Plants Which Are Extirpated, Endangered, Threatened, or Rare.

(2) A known mussel resource.

(3) An outstanding natural area, as contained on the registry of natural areas maintained in the natural heritage data center of the department.

(d) The limitations contained in subsection (b) and subsection (c) [subsections (b) and (c)] do not apply to section 7 of this rule.

(*Natural Resources Commission; 312 IAC 10-5-0.3; filed Aug 2, 2004, 3:18 p.m.: 27 IR 3875*)

312 IAC 10-5-2 General licensing for utility line crossings

Authority: IC 14-10-2-4; IC 14-28-1-5

Affected: IC 14-27-7; IC 14-28-1; IC 14-29-1

Sec. 2. Except as provided in sections 3 and 4 of this rule, a license is required under IC 14-28-1, IC 14-29-1, and 312 IAC 10-4 to place a utility line in or on a floodway where:

(1) the drainage area of a river or stream is at least one (1) square mile at the downstream end of the line's floodway segment; or

(2) a dam or levee regulated under IC 14-27-7 is affected.

(*Natural Resources Commission; 312 IAC 10-5-2; filed Jul 5, 2001, 9:12 a.m.: 24 IR 3394, eff Jan 1, 2002*)

312 IAC 10-5-3 Aerial electric, telephone, or cable television lines; general license

Authority: IC 14-10-2-4; IC 14-28-1-5

Affected: IC 14-28-1; IC 14-29-1; IC 14-29-6

Sec. 3. The placement of an aerial electric, telephone, or cable television line is authorized without a written license issued by the department under IC 14-28-1, IC 14-29-1, and 312 IAC 10-4 if:

(1) the activity does not disturb the bed of the waterway beneath the line;

(2) the activity conforms with the minimum clearance requirements of section 4(b)(9) of this rule;

(3) the support mechanisms are located at least seventy-five (75) feet from the top of the bank; and

(4) the utility line crossing is not within the floodway of a natural river, scenic river, or recreational river designated under 312 IAC 7-2.

(*Natural Resources Commission; 312 IAC 10-5-3; filed Jul 5, 2001, 9:12 a.m.: 24 IR 3394, eff Jan 1, 2002; filed Aug 2, 2004, 3:18 p.m.: 27 IR 3876*)

312 IAC 10-5-4 Qualified utility line crossings; general license

Authority: IC 14-10-2-4

Affected: IC 13-11-2-260; IC 14-27-7; IC 14-28-1-29; IC 14-33; IC 36-9-27

Sec. 4. (a) This section establishes a general license for the placement of a qualified utility line crossing in a floodway.

(b) A person who wishes to implement a project for the placement of a qualified utility line crossing on a river or stream, other than on a river or stream identified in section 0.3(b) or 0.3(c) of this rule, may do so without notice to the department if the project conforms to the following conditions:

- (1) Tree removal and brush clearing shall be contained and minimized within the utility line crossing area. No more than one (1) acre of trees shall be removed within the floodway.
- (2) Construction activities within the waterway from April 1 through June 30 shall not exceed a total of two (2) calendar days.
- (3) Best management practices shall be used during and after construction to minimize erosion and sedimentation.
- (4) Following the completion of construction, disturbed areas shall be reclaimed and revegetated. Disturbed areas shall be mulched with straw, wood fiber, biodegradable erosion blanket, or other suitable material. To prevent erosion until revegetated species are established, loose mulch shall be anchored by crimping, tackifiers, or netting. To the extent practicable, revegetation must restore species native to the site. If revegetation with native species is not practicable, revegetation shall be performed by the planting of a mixture of red clover, orchard grass, timothy, perennial rye grass, or another species that is approved by the department as being suitable to site and climate conditions. In no case shall tall fescue be used to revegetate disturbed areas.
- (5) Disturbed areas with slopes of three to one (3:1) or steeper, or areas where run-off is conveyed through a channel or swale, shall be stabilized with erosion control blankets or suitable structural armament.
- (6) No pesticide will be used on the banks.
- (7) If a utility line transports a substance that may cause water pollution as defined in IC 13-11-2-260, the utility line will be equipped with an emergency closure system.
- (8) If a utility line is placed beneath the bed of a river or stream, the following conditions are met:
 - (A) Cover of at least three (3) feet measured perpendicularly to the utility line is provided between the utility line and the banks.
 - (B) If the placement of a utility line is not subject to regulation under IC 14-28-1-29, IC 14-33, or IC 36-9-27, cover is provided as follows:
 - (i) At least three (3) feet, measured perpendicularly to the utility line, between the lowest point of the bed and the top of the utility line or its encasement, whichever is higher, if the bed is composed of unconsolidated materials.
 - (ii) At least one (1) foot, measured perpendicularly to the line, between the lowest point of the bed and the top of the utility line or its encasement, whichever is higher, if the bed is composed of consolidated materials.
 - (C) If the placement of the utility line is subject to regulation under IC 14-28-1-29, IC 14-33, or IC 36-9-27, cover is provided as follows:
 - (i) At least three (3) feet, measured perpendicularly to the utility line, between the design bed and the top of the line or its encasement, whichever is higher, if the bed is composed of unconsolidated materials.
 - (ii) At least one (1) foot, measured perpendicularly to the line, between the design bed and the top of the line or its encasement, whichever is higher, if the bed is composed of consolidated materials.
 - (D) Negative buoyancy compensation is provided where the utility line has a nominal diameter of at least eight (8) inches and transports a substance having a specific gravity of less than one (1).
- (9) If a utility line is placed above the bed of a river or stream, the following conditions are met:
 - (A) Except as provided in clauses (B) and (C), minimum clearance is provided from the lowest point of the utility line (determined at the temperature, load, wind, length of span, and type of supports that produce the greatest sag) calculated as the higher of the following:
 - (i) Twelve and one-half (12½) feet above the ordinary high watermark.
 - (ii) Three (3) feet above the regulatory flood elevation.
 - (B) If the river or stream is a navigable waterway that is subject to IC 14-28-1, the utility line that crosses over the waterway must be placed to provide the greater of the following:
 - (i) The minimum clearance required under clause (A).
 - (ii) The minimum clearance required for the largest watercraft that is capable of using the waterway. The utility must consult in advance with the department to determine the minimum clearance for watercraft at the crossing.
 - (C) If a utility line is attached to or contained in the embankment of an existing bridge or culvert, no portion of the utility line or its support mechanism may project below the low structure elevation or otherwise reduce the effective waterway area.
- (10) A utility line placed in a dam or levee regulated under IC 14-27-7 does not qualify for a general license under this subsection.

(c) A person who elects to act under this section must comply with the general conditions under subsection (b). Failure to comply with these terms and conditions may result in the revocation of the general license, a civil penalty, a commission charge, and any other sanction provided by law for the violation of a license issued under IC 14-28-1 and, if the waterway is navigable, the violation of a license issued under IC 14-29-1. (*Natural Resources Commission; 312 IAC 10-5-4; filed Jul 5, 2001, 9:12 a.m.: 24 IR 3394, eff Jan 1, 2002; filed Dec 26, 2001, 2:42 p.m.: 25 IR 1545; errata filed Mar 13, 2002, 11:51 a.m.: 25 IR 2521; filed Aug 2, 2004, 3:18 p.m.: 27 IR 3876*)