

Metadata:

- https://maps.indiana.edu/metadata/Geology/Petroleum_Wells.html
- https://maps.indiana.edu/metadata/Geology/Seismic_Earthquake_Liquefaction_Potential.html
- https://maps.indiana.edu/metadata/Geology/Industrial_Minerals_Sand_Gravel_Resources.html
- https://maps.indiana.edu/metadata/Hydrology/Floodplains_FIRM.html
- https://maps.indiana.edu/metadata/Geology/Bedrock_Geology.html



Natural Resources Conservation Service
Indiana State Office
6013 Lakeside Boulevard
Indianapolis, IN 46278
317-290-3200

November 20, 2019

Molly Barletta
Kaskaski Engineering Group, LLC
323 Main Street, Suite E
Evansville, Indiana 47708

Dear Ms. Barletta:

The proposed project to install new pavement along State Road 65 through the Town of Cynthiana, Posey County, Indiana (Des No. 1601062), as referred to in your letter received October 31, 2019, will cause a conversion of prime farmland.

The attached packet of information is for your use completing Parts VI and VII of the AD-1106. After completion, the federal funding agency needs to forward one copy to NRCS for our records.

If you need additional information, please contact John Allen at 317-295-5859.

Sincerely,

JERRY RAYNOR
State Conservationist

Enclosures

Helping People Help the Land.



USDA is an equal opportunity provider, employer and lender.

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request				
Name of Project		Federal Agency Involved				
Proposed Land Use		County and State				
PART II (To be completed by NRCS)		Date Request Received By NRCS		Person Completing Form:		
Does the site contain Prime, Unique, Statewide or Local Important Farmland? (If no, the FPPA does not apply - do not complete additional parts of this form)		YES ☐	NO ☐	Acres Irrigated	Average Farm Size	
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %		Amount of Farmland As Defined in FPPA Acres: %			
Name of Land Evaluation System Used	Name of State or Local Site Assessment System		Date Land Evaluation Returned by NRCS			
PART III (To be completed by Federal Agency)		Alternative Site Rating				
		Site A	Site B	Site C	Site D	
A. Total Acres To Be Converted Directly						
B. Total Acres To Be Converted Indirectly						
C. Total Acres In Site						
PART IV (To be completed by NRCS) Land Evaluation Information						
A. Total Acres Prime And Unique Farmland						
B. Total Acres Statewide Important or Local Important Farmland						
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted						
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value						
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)						
PART VI (To be completed by Federal Agency) Site Assessment Criteria (Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)		Maximum Points	Site A	Site B	Site C	Site D
1. Area In Non-urban Use		(15)				
2. Perimeter In Non-urban Use		(10)				
3. Percent Of Site Being Farmed		(20)				
4. Protection Provided By State and Local Government		(20)				
5. Distance From Urban Built-up Area		(15)				
6. Distance To Urban Support Services		(15)				
7. Size Of Present Farm Unit Compared To Average		(10)				
8. Creation Of Non-farmable Farmland		(10)				
9. Availability Of Farm Support Services		(5)				
10. On-Farm Investments		(20)				
11. Effects Of Conversion On Farm Support Services		(10)				
12. Compatibility With Existing Agricultural Use		(10)				
TOTAL SITE ASSESSMENT POINTS		160				
PART VII (To be completed by Federal Agency)						
Relative Value Of Farmland (From Part V)		100				
Total Site Assessment (From Part VI above or local site assessment)		160				
TOTAL POINTS (Total of above 2 lines)		260				
Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES ☐ NO ☐				
Reason For Selection:						
Name of Federal agency representative completing this form:						
Date:						

(See Instructions on reverse side)

Form AD-1006 (03-02)

Krista N. Bollmann

From: McWilliams, Robin <robin_mcwilliams@fws.gov>
Sent: Tuesday, November 05, 2019 12:46 PM
To: Krista N. Bollmann
Subject: Re: [EXTERNAL] SR 65, Roadway Project, Posey County, IN (DES 1601062)

Dear Krista,

This responds to your recent letter, requesting our comments on the aforementioned project.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The project is within the range of the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) and should follow the new Indiana bat/northern long-eared bat programmatic consultation process, if applicable (*i.e.* a federal transportation nexus is established). We will review that information once it is received.

Based on a review of the information you provided, the U.S. Fish and Wildlife Service has no objections to the project as currently proposed. However, should new information arise pertaining to project plans or a revised species list be published, it will be necessary for the Federal agency to reinitiate consultation. Standard recommendations are provided below.

We appreciate the opportunity to comment at this early stage of project planning. If project plans change such that fish and wildlife habitat may be affected, please re-coordinate with our office as soon as possible. If you have any questions about our recommendations, please call (812) 334-4261 x. 207.

Sincerely,
 Robin McWilliams Munson

Standard Recommendations:

1. Do not clear trees or understory vegetation outside the construction zone boundaries. **(This restriction is not related to the "tree clearing" restriction for potential Indiana Bat habitat.)**
2. Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap.

Culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and be installed where practicable on an essentially flat slope. When an open-bottomed culvert or arch is used in a stream, which has a good natural bottom substrate, such as gravel, cobbles and boulders, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community.

3. Restrict channel work and vegetation clearing to the minimum necessary for installation of the stream crossing structure.

4. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If rip rap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat.
5. Implement temporary erosion and sediment control methods within areas of disturbed soil. All disturbed soil areas upon project completion will be vegetated following INDOT's standard specifications.
6. Avoid all work within the inundated part of the stream channel (in perennial streams and larger intermittent streams) during the fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below Ordinary High Water Mark during this time unless the machinery is within the caissons or on the cofferdams.
7. Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing.

Robin McWilliams Munson

U.S. Fish and Wildlife Service
620 South Walker Street
Bloomington, Indiana 46403
812-334-4261 x. 207 Fax: 812-334-4273

Monday, Tuesday - 7:30a-3:00p

Wednesday, Thursday - telework 8:30a-3:00p

On Thu, Oct 31, 2019 at 3:06 PM Krista N. Bollmann <KBollmann@kaskaskiaeng.com> wrote:

Ms. McWilliams Munson,

Please find attached an early coordination letter and supporting exhibits for the above referenced project.

Thanks!



Krista Bollmann

Scientist II

Certified: WBE/DBE/WOSB/EDWOSB

618.218.7637 cell | 618.233.5877 office
KBollmann@kaskaskiaeng.com



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

Phone: (812) 334-4261 Fax: (812) 334-4273

<http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html>



In Reply Refer To:

November 03, 2020

Consultation Code: 03E12000-2020-SLI-0351

Event Code: 03E12000-2021-E-00626

Project Name: SR 65, Pavement Replacement and HMA Overlay, DES 1601062

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies any federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the Service if they determine their project "may affect" listed species or critical habitat.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally. You may verify the list by visiting the ECOS-IPaC website <http://ecos.fws.gov/ipac/> at regular intervals during project planning and implementation and completing the same process you used to receive the attached list. As an alternative, you may contact this Ecological Services Field Office for updates.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - <http://www.fws.gov/midwest/endangered/section7/s7process/index.html>. This website contains step-by-step instructions which will help you

determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process.

For all **wind energy projects** and **projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*) and Migratory Bird Treaty Act (16 U.S.C. 703 *et seq.*), as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at <http://www.fws.gov/midwest/midwestbird/EaglePermits/index.html> to help you determine if you can avoid impacting eagles or if a permit may be necessary.

We appreciate your concern for threatened and endangered species. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

(812) 334-4261

Project Summary

Consultation Code: 03E12000-2020-SLI-0351

Event Code: 03E12000-2021-E-00626

Project Name: SR 65, Pavement Replacement and HMA Overlay, DES 1601062

Project Type: TRANSPORTATION

Project Description: The project is located on SR 65, from 0.6 mile south of the west junction with SR 68 to the east junction with SR 68, in Cynthiana, Indiana in the Indiana Department of Transportation (INDOT) Vincennes District. The project is located in Posey County. The proposed work includes a combination of full depth pavement replacement and preventative maintenance HMA overlay. The project will involve constructing a new urban cross section including curb, gutter, and sidewalks through the limits of full depth replacement. Profile modifications to improve drainage and pavement widening and approach radii where truck turning movements are inadequate will be implemented, where feasible. Installation of temporary or permanent lighting is not anticipated. It is estimated that greater than 5 acres of right-of-way will need to be acquired for this project. There is suitable summer habitat within the project action area. Approximately 15 trees will be removed as part of this project, the dominant species being Oak and Maple. Trees will be removed during the inactive season. The trees being removed are not considered suitable habitat due to their location within the town of Cynthiana.

The project is located in an urbanized area, with the exception of the northern portion of the project which is more rural with agricultural fields. INDOT personnel from the Vincennes District stated on June 4, 2019 that a review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area.

Construction is anticipated to begin in 2022.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/38.18771154377271N87.7062434165241W>



Counties: Posey, IN

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/1/office/31440.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See www.fws.gov/midwest/endangered/mammals/nleb/index.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

Phone: (812) 334-4261 Fax: (812) 334-4273

<http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html>



IPaC Record Locator: 875-19302598

December 03, 2019

Subject: Consistency letter for the 'SR 65, Pavement Replacement and HMA Overlay, DES 1601062' project (no current TAILS record) under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request to verify that the **SR 65, Pavement Replacement and HMA Overlay, DES 1601062** (Proposed Action) may rely on the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action will have no effect on the endangered Indiana bat (*Myotis sodalis*) or the threatened Northern long-eared bat (*Myotis septentrionalis*). If the Proposed Action is not modified, **no consultation is required for these two species.**

For Proposed Actions that include bridge/structure removal, replacement, and/or maintenance activities: If your initial bridge/structure assessments failed to detect Indiana bats, but you later detect bats during construction, please submit the Post Assessment Discovery of Bats at Bridge/Structure Form (User Guide Appendix E) to this Service Office. In these instances, potential incidental take of Indiana bats may be exempted provided that the take is reported to the Service.

If the Proposed Action may affect any other federally-listed or proposed species and/or designated critical habitat, additional consultation between the lead Federal action agency and this Service Office is required. If the proposed action has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please advise the lead Federal action agency accordingly.

Project Description

The following project name and description was collected in IPaC as part of the endangered species review process.

Name

SR 65, Pavement Replacement and HMA Overlay, DES 1601062

Description

The project is located on SR 65, from 0.6 mile south of the west junction with SR 68 to the east junction with SR 68, in Cynthiana, Indiana in the Indiana Department of Transportation (INDOT) Vincennes District. The project is located in Posey County. The proposed work includes a combination of full depth pavement replacement and preventative maintenance HMA overlay. The project will involve constructing a new urban cross section including curb, gutter, and sidewalks through the limits of full depth replacement. Profile modifications to improve drainage and pavement widening and approach radii where truck turning movements are inadequate will be implemented, where feasible. Installation of temporary or permanent lighting is not anticipated. It is estimated that greater than 5 acres of right-of-way will need to be acquired for this project. There is suitable summer habitat within the project action area. Approximately 15 trees will be removed as part of this project, the dominant species being Oak and Maple. Trees will be removed during the inactive season. The trees being removed are not considered suitable habitat due to their location within the town of Cynthiana.

The project is located in an urbanized area, with the exception of the northern portion of the project which is more rural with agricultural fields. INDOT personnel from the Vincennes District stated on June 4, 2019 that a review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area.

Construction is anticipated to begin in 2022.

Determination Key Result

Based on the information you provided, you have determined that the Proposed Action will have no effect on the endangered Indiana bat and/or the threatened Northern long-eared bat. Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for these two species.

Qualification Interview

1. Is the project within the range of the Indiana bat^[1]?

[1] See [Indiana bat species profile](#)

Automatically answered

Yes

2. Is the project within the range of the Northern long-eared bat^[1]?

[1] See [Northern long-eared bat species profile](#)

Automatically answered

Yes

3. Which Federal Agency is the lead for the action?

A) Federal Highway Administration (FHWA)

4. Are *all* project activities limited to non-construction^[1] activities only? (examples of non-construction activities include: bridge/abandoned structure assessments, surveys, planning and technical studies, property inspections, and property sales)

[1] Construction refers to activities involving ground disturbance, percussive noise, and/or lighting.

No

5. Does the project include *any* activities that are **greater than** 300 feet from existing road/rail surfaces^[1]?

[1] Road surface is defined as the actively used [e.g. motorized vehicles] driving surface and shoulders [may be pavement, gravel, etc.] and rail surface is defined as the edge of the actively used rail ballast.

No

6. Does the project include *any* activities **within** 0.5 miles of a known Indiana bat and/or NLEB hibernaculum^[1]?

[1] For the purpose of this consultation, a hibernaculum is a site, most often a cave or mine, where bats hibernate during the winter (see suitable habitat), but could also include bridges and structures if bats are found to be hibernating there during the winter.

No

7. Is the project located **within** a karst area?

No

8. Is there *any* suitable^[1] summer habitat for Indiana Bat or NLEB **within** the project action area^[2]? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

[2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the [national consultation FAQs](#).

Yes

9. Will the project remove *any* suitable summer habitat^[1] and/or remove/trim any existing trees **within** suitable summer habitat?

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

No

10. Does the project include activities **within documented Indiana bat habitat**^{[1][2]}?

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

[2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

No

11. Does the project include activities **within documented NLEB habitat**^{[1][2]}?

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

[2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

No

12. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?

No

13. Does the project include slash pile burning?

No

14. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?

No

15. Does the project include the removal, replacement, and/or maintenance of *any* structure other than a bridge? (e.g., rest areas, offices, sheds, outbuildings, barns, parking garages, etc.)

No

16. Will the project involve the use of **temporary** lighting *during* the active season?

No

17. Will the project install new or replace existing **permanent** lighting?

No

18. Does the project include percussives or other activities (**not including tree removal/trimming or bridge/structure work**) that will increase noise levels above existing traffic/background levels?

Yes

19. Will the activities that use percussives (**not including tree removal/trimming or bridge/structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the active season^[1]?

[1] Coordinate with the local Service Field Office for appropriate dates.

No

20. Are *all* project activities that are **not associated with** habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

Examples: lining roadways, unlighted signage , rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.

Yes

21. Will the project raise the road profile **above the tree canopy**?

No

22. Are the project activities that use percussives (not including tree removal/trimming or bridge/structure work) and/or increase noise levels above existing traffic/background levels consistent with a No Effect determination in this key?

Automatically answered

Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and conducted during the inactive season

Determination Key Description: FHWA, FRA, FTA Programmatic Consultation For Transportation Projects Affecting NLEB Or Indiana Bat

This key was last updated in IPaC on December 02, 2019. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) for the endangered **Indiana bat** (*Myotis sodalis*) and the threatened **Northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's [February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects](#). The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.



September 23, 2019

Subject: Initial Notice of Proposed Improvement Project Des. No. 1601062

Dear Utility;
Cynthiana Water & Sewer, Town of

Our firm has been assigned the task of utility coordination for the project referenced above by the Indiana Department of Transportation. In accordance with 105 IAC 13-3-1(c), this letter serves as your initial notice of the proposed improvement project Des. No. 1601062, SR 65, Cynthiana, Smith Township, Posey County, Indiana. We are attaching a copy of a Goggle Earth file that shows the project area.

In accordance with 105 IAC 13-3-1(c), the following information is provided. The dates listed in items (4) and (5) below are the currently scheduled dates.

- | | |
|---|----------------------------------|
| (1) Name or route number: | SR 65 |
| (2) Geographical limits: | SR 65, through Cynthiana |
| (3) General description of work: | Pavement Replacement |
| (4) Date approved work plan will be needed: | 11-15-2019 |
| (5) Ready for contracts date: | TBD |
| (6) Name of designer and contact information: | Kelli McNamara, PE, 317-287-3416 |
| (7) Major or minor project: | Major |

In accordance with 105 IAC 13-3-1(d), within 30 days10,23,2019 after receiving the initial notice, the utility shall respond in writing with a:

- (1) Description of the type and location of its facilities within the geographical limits of the proposed improvement project. We would prefer a copy of facility plans so we can see where your facilities are located in relation to the project limits; or
- (2) If the utility has determined to the best of their abilities that they do not have facilities within the geographical limits of the improvement project; complete, sign, and return Page 1 of the attached Work Plan.

WSP USA
Suite 1270S
115 West Washington Street
Indianapolis, IN 46204

Tel.: +1 317 972-1706
Fax: +1 317 972-1708
wsp.com



Additionally, please provide us the name, telephone number, postal address and email address of the person selected as your designated contact for this project to expedite future communications. We will contact Indiana 811 and request locates for this project prior to our survey. If you would prefer to provide us location information by some other means please contact this office to discuss.

Please send your response to Christopher S Baldwin, WSP USA, 115 W. Washington Street, Suite 1270S, Indianapolis, IN 46204, telephone: 317-972-1708 Chris.Baldwin@wsp.com. Thank you for your attention to these matters.

Sincerely;

A handwritten signature in blue ink, appearing to read 'Chris Baldwin', written over a light blue circular stamp.

Christopher S Baldwin
Technical Specialist II

Cc: File

APPENDIX D

Section 106 of the NHPA

Minor Projects PA Project Assessment Form– Category B Projects with Archaeology Work

Date: 10/20/2020

Project Designation Number: 1601062

Route Number: SR 65

Project Description: Road Improvement Project, 0.6 mile S of W Junction with SR 68 to E Junction with SR 68

The Indiana Department of Transportation (INDOT) Vincennes District with funding from the Federal Highway Administration (FHWA) is proposing to proceed with a road improvement project along SR 65 starting approximately 0.6 mile south of the west junction with SR 68 to the east junction with SR 68 and passing through the Town of Cynthiana in Posey County. The project is located within Sections 11, 12, and 14 of Township 4 South, Range 12 West of the USGS 7.5' series Cynthiana, Indiana, topographic quadrangle map.

This project is a combination full depth pavement replacement and preventative maintenance HMA overlay project on SR 65 through Cynthiana, Indiana. The existing pavement has many locations showing base failures with alligator cracking, block cracking, edge failures, and longitudinal cracking. Drainage through the limits of full depth replacement is poor due to the lack of inlets and curb reveal. There are many locations where the existing pavement is at a higher elevation than the surrounding sidewalks. Truck turning movements through the corridor are also problematic due to tight radii on SR 65 and several street approaches. The purpose of the project is to improve these issues by building a new urban cross section including curb, gutter, ADA-compliant curb ramps, and sidewalks through the limits of full depth replacement. Profile modifications to improve drainage where feasible will be implemented. Pavement widening and approach radii where truck turning movements are inadequate will also be modified where feasible.

The total length of the project is approximately 2.0 miles. The length of full depth pavement replacement is approximately 1.2 miles. While the total amount of right-of-way is unknown at this time, the project is estimated to require more than five (5) acres of additional right-of-way.

Feature crossed (if applicable):

Township: Smith Township

City/County: Cynthiana/Posey County

Information reviewed (please check all that apply):

☒ General project location map ☒ USGS map ☒ Aerial photograph ☒ Interim Report

☒ Written description of project area ☒ General project area photos ☒ Soil survey data

☐ Previously completed historic property reports ☒ Previously completed archaeology reports

☐ Bridge Inspection Information

Other (please specify): SHAARD GIS; SHAARD; online street-view imagery; Indiana Historic Building, Bridges, and Cemeteries Map (IHBBM); County GIS data (accessed via <https://poseyin.wthgis.com/>); project information provided by Weintraut & Associates, Inc., dated 9/30/2019 and 12/26/2019;

Goldbach, Jason and Jessica Simpson

2020 Phase Ia Archaeological Records Check and Field Reconnaissance: SR 65 Road Improvement Project Town of Cynthiana, Posey County, Indiana Des. No.: 1601062. Weintraut and Associates, Inc. Submitted to WSP USA. Report on file at IDNR, DHPA.

Results of the Records Review for Above-Ground Resources:

With regard to above-ground resources, an INDOT-Cultural Resources Office (CRO) historian, who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61, first performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for Posey County. No listed resources are present adjacent to the project area.

The *Posey County Interim Report* (2004; Smith Township, Cynthiana Scattered Sites) of the Indiana Historic Sites and Structures Inventory (IHSSI) was also consulted. The National Register & IHSSI information is available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBM). The SHAARD information was checked against the Interim Report hard copy maps. The following IHSSI sites are recorded along the project area.

Smith Township

IHSSI #129-146-00003 (Liberty Cemetery, SR 65, c. 1860-present; rated "contributing")

Cynthiana Scattered Sites

IHSSI #129-146-01001 (House, 11300 North St., c. 1925; rated "contributing")
 IHSSI #129-146-01002 (House 11200 North St., c. 1920; rated "contributing")
 IHSSI #129-146-01016 (House, 10965 Main St., c. 1890; rated "contributing")
 IHSSI #129-146-01017 (Commercial Building, Main St., c. 1900; rated "contributing")—demolished
 IHSSI #129-146-01014 (Commercial Building, 10868 Main St., 1892; rated "notable")
 IHSSI #129-146-01013 (United States Post Office, 10864 Main St., 1960; rated "contributing")
 IHSSI #129-146-01018 (Bandstand, Main St., c. 1900; rated "contributing")
 IHSSI #129-146-01019 (Bank, Main St., c. 1910; rated "contributing")
 IHSSI #129-146-01012 (Gas Station, 10802 Main St., c. 1920; rated "contributing")
 IHSSI #129-146-01011 (Auction House, 10766 Main St., c. 1900/c.1945; rated "contributing")—demolished
 IHSSI #129-146-01021 (House, 10360 Evansville St., c. 1915; rated "contributing")
 IHSSI #129-146-01029 (House, 10322 Evansville St., c. 1925; rated "contributing")
 IHSSI #129-146-01028 (House, 10801 Locust St., 1902; rated "notable")
 IHSSI #129-146-01030 (House, 10318 Evansville St., c. 1925; rated "contributing")
 IHSSI #129-146-01032 (Farm, SR 65, c. 1870; rated "contributing")

According to the IHSSI rating system, generally properties rated "contributing" do not possess the level of historical or architectural significance necessary to be considered individually National Register eligible, although they would contribute to a historic district. If they retain material integrity, properties rated "notable" might possess the necessary level of significance after further research. Properties rated "outstanding" usually possess the necessary level of significance to be considered National Register eligible, if they retain material integrity. Historic districts identified in the IHSSI are usually considered eligible for the National Register.

An INDOT-CRO historian performed a desktop review of the project area. The project is located in a rural area, passing through a small town along its main thoroughfare. Due to the scope of work being limited to the current roadbed, sidewalks, and the curbs/curb ramps, only those properties that immediately border the project area have any potential for impacts.

The following project areas fall under Condition B-i of Category B-1 of the MPPA due to their scope of work being limited to the roadway, sidewalk, and curb ramp construction outside and not adjacent to a National Register-listed or National Register-eligible bridge, property, or historic district. No further review is required of these intersections:

SR 65 & Church St.	SR 65 & Oak St.
SR 65 & Greeley St.	SR 65 & North St./Gum St.
SR 65 & Garfield St.	SR 65 & Main St./Gum St.
SR 65 & Gordon St.	SR 65 & Walnut St.
SR 65 & Green St.	SR 65 & Mill St.
SR 65 & Owensville Rd.	SR 65 & Evansville St.
SR 65 & East St.	SR 65 & South St.

All locations where the sidewalk will be reconstructed, except those listed below, are outside and not adjacent to a National Register-listed or National Register-eligible bridge, property, or historic district. Only the intersections of SR 65 & Whiting St. and SR 65 & Locust St. require further review.

No National Register-listed or National Register-eligible resources are located adjacent to the locations where pavement widening will occur on SR 65 at the intersections of Evansville St. & Main St., Main St. & Gum St., Gum St. & North St., and North St. and Greeley St.

For the following intersections, a site visit by a qualified professional (QP) who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 is required for application of Condition B-ii of Category B-1 of the MPPA to determine the presence of any unusual features such as brick or stone sidewalks, curbs or sidewalks/curb ramps; stepped or elevated sidewalks, curbs or sidewalks/curb ramps; or any other feature whose replacement or modification might constitute an adverse effect.

SR 65 & Whiting St.

IHSSI #129-146-01014 ("notable") is located in the NW quad. A mid-twentieth century commercial building is present in the NE quad. In the SE quad, an early-twentieth century house is present. The SW quad contains a park. No unusual features are present at this intersection. Condition B-ii.a is applicable.

SR 65 & Locust St.

In the NW quad, an early-twentieth century house is present. The NE quad contains a mid-to-late twentieth century commercial building. Located in the SW quad is IHSSI #129-146-01029 ("contributing"). IHSSI #129-146-01028 ("notable") is located in the SE quad. The sidewalk in front of this house, along Locust St., consists of brick pavers in a herringbone pattern. However, since the house was originally surveyed in 1985 and resurveyed in 2004, it has experienced physical alterations in addition to those noted in SHAARD. Several more windows have been replaced and the original siding was replaced with vinyl siding. Decorative architectural elements in the gables on the north and east sides of the house have also been removed. Due to the loss of integrity caused by these changes, in 2020 the house would receive a rating of "contributing" rather than "notable," per IHSSI standards. On 2/11/2020, SHPO concurred that the alterations the house has experienced have resulted in a reduction of the house's 2004 rating of "notable" to "contributing." Therefore, the previously referenced brick sidewalk is a contributing feature to a "contributing" property; as such, the property is not considered eligible to the National Register. Condition B-i is applicable.

A qualified professional historian from Weintraut & Associates, who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61, conducted field work on 10/29/2019 as dictated by the fieldwork and documentation requirements of Condition B-ii of Category B-1 of the MPPA when projects are within or adjacent to National Register-listed or eligible resources. During the site visit, the historian surveyed the above-ground resources adjacent to the project area, identifying any previously unsurveyed historic districts or individual resources that warrant a "notable" or "outstanding" rating according to the IHSSI criteria. In addition, the historian identified all unusual features along the project route that are adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource. Photographic documentation from the field work is on file at INDOT-CRO.

Based on the available information, as summarized above, no above-ground concerns exist as long as the project scope does not change.

Archaeology Report Author/Date:

Goldbach, Jason and Jessica Simpson/ August 2020

Summary of Archaeology Investigation Results:

With regard to above-ground resources, an INDOT-CRO archaeologist, who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61, reviewed and concurred with the archaeological report (Goldbach and Simpson 2020).

An archaeological records check in SHAARD hosted by the IDNR/ DHPA, was conducted on February 25, 2020. The results of the search showed that the survey area has not been previously surveyed and there are no previously recorded sites in the survey area.

Phase Ia archaeological field reconnaissance of the survey area resulted in the recording of eight previously undocumented archaeological sites designated 12PO1344 through 12PO1351. All eight of the sites are historical artifact scatters, but one site also contained a small remnant of a brick foundation. The portions of these sites within the survey area were either disturbed or lacked deposits that could yield important information. Therefore, sites 12PO1344 through 12PO1351 are not eligible for listing in the IRHSS or NRHP, and no further work is required.

Does the project appear to fall under the Minor Projects PA? yes ☒ no ☐

If yes, please specify category and number (applicable conditions are highlighted):

B-1. Replacement, repair, or installation of curbs, curb ramps, or sidewalks, including when such projects are associated with roadway work such as surface replacement, reconstruction, rehabilitation, or resurfacing projects, including overlays, shoulder treatments, pavement repair, seal coating, pavement grinding, and pavement marking, under the following conditions **[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]**:

Condition A (Archaeological Resources)

One of the two conditions listed below must be satisfied (*EITHER Condition i or Condition ii must be satisfied*):

- i. Work occurs in previously disturbed soils; *OR*
- ii. Work occurs in undisturbed soils and an archaeological investigation conducted by the applicant and reviewed by INDOT Cultural Resources Office determines that no National

Register-listed or potentially National Register-eligible archaeological resources are present within the project area. If the archaeological investigation locates National Register-listed or potentially National Register-eligible archaeological resources, then full Section 106 review will be required. Copies of any archaeological reports prepared for the project will be provided to the Division of Historic Preservation and Archaeology (DHPA) and any archaeological site form information will be entered directly into the State Historic Architectural and Archaeological Database (SHAARD) by the applicant. The archaeological reports will also be available for viewing (by Tribes only) on INSCOPE.

Condition B (Above-Ground Resources)

One of the two conditions listed below must be satisfied (*EITHER Condition i or Condition ii must be satisfied*):

- i. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *OR*
- ii. Work occurs adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource under one of the two additional conditions listed below (*EITHER Condition a OR Condition b must be met and field work and documentation must be completed as described below*):
 - a. No unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and historic brick or stone retaining walls are present in the project area adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *OR*
 - b. Unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and historic brick or stone retaining walls are present in the project area adjacent to or within a National Register-listed or National Register-eligible individual above-ground resource or district and ANY ONE of the conditions (1, 2, or 3) listed below must be fulfilled:
 1. Unusual features described above will not be impacted by the project. Firm commitments regarding the avoidance of these features must be listed in the MPPA determination form and the NEPA document and must be entered into the INDOT Project Commitments Database. These projects will also be flagged for quality assurance reviews by INDOT Cultural Resources Office during/after project construction.
 2. Unusual features described above have been determined not to contribute to the significance of the historic resource by INDOT Cultural Resources Office in consultation with the SHPO based on an analysis and justification prepared by their staff or review of such information from other qualified professional historians.
 3. Impacts to unusual features described above have been determined by INDOT Cultural Resources Office to be so minimal that they do not diminish any of the characteristics that contribute to the significance of the historic resource, based on an analysis and justification prepared by their staff or review of such information from other qualified professional historians.

Field work and documentation required for fulfillment of condition B-ii:

When the project takes place adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource, it must be field checked by INDOT Cultural Resources Office staff or other qualified professional historian (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) and photographic documentation must be prepared illustrating both the presence and/or absence of any unusual features along the project route adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource. This documentation must be submitted to INDOT Cultural Resources Office for review.

The only exception would be when it is determined that previous projects along the project route have eliminated the possibility that unusual features adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource exist. In this situation, documentation illustrating the modifications made through previous projects, such as replacement of curbs, curb ramps, or sidewalks, including plan sheets or contract documents and current photographs of the project area, must be submitted to the INDOT Cultural Resources Office for review. With such approved documentation, a site visit by a qualified professional is not required, unless questions arise during the review process. INDOT Cultural Resources Office has the discretion to require the project applicant's qualified professional conduct a site visit when it is not clear if unusual features may be present in the project area.

- B-3. Construction of added travel, turning, or auxiliary lanes (e.g., bicycle, truck climbing, acceleration and deceleration lanes) and shoulder widening under the following conditions **[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]**:

Condition A (Archaeological Resources)

One of the two conditions listed below must be met (*EITHER Condition i or Condition ii must be satisfied*):

- i. Work occurs in previously disturbed soils; *OR*
- ii. Work occurs in undisturbed soils and an archaeological investigation conducted by the applicant and reviewed by INDOT Cultural Resources Office determines that no National Register-listed or potentially National Register-eligible archaeological resources are present within the project area. If the archaeological investigation locates National Register-listed or potentially National Register-eligible archaeological resources, then full Section 106 review will be required. Copies of any archaeological reports prepared for the project will be provided to the DHPA and any archaeological site form information will be entered directly into the SHAARD by the applicant. The archaeological reports will also be available for viewing (by Tribes only) on INSCOPE.

Condition B (Above-Ground Resources)

Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource.

If no, please explain:

Additional comments: If any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, construction in the immediate area of the find will be stopped and the INDOT Cultural Resources office and the Division of Historic Preservation and Archaeology will be notified immediately.

INDOT Cultural Resources staff reviewer(s): Kelyn Alexander and Dave Moffatt

****Be sure to attach this form to the National Environmental Policy Act documentation for this project. Also, the NEPA documentation shall reference and include the description of the specific stipulation in the PA that qualifies the project as exempt from further Section 106 review.*

APPENDIX E

Red Flag and Hazardous Materials



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

PHONE: (317) 232-5113
FAX: (317) 233-4929

Eric Holcomb, Governor
Joe McGuinness, Commissioner

Date: April 9, 2020

To: Site Assessment & Management
Environmental Policy Office – Environmental Services Division
Indiana Department of Transportation
100 N Senate Avenue, Room N642
Indianapolis, IN 46204

From: Molly Barletta
Kaskaskia Engineering Group, LLC
323 Main Street, Suite E
Evansville, IN 47708
MBarletta@kaskaskiaeng.com

Re: RED FLAG INVESTIGATION ADDENDUM
DES # 1601062, State Project
Pavement Replacement
SR 65
Posey County, Indiana

PROJECT DESCRIPTION

A review of the original RFI signed on September 16, 2019, for the above DES # did not indicate substantive changes have occurred within the 0.5 mile radius and project area limits that will have an impact to the project. Since approval of the original RFI, field reconnaissance for the Section 106 determination identified an unmarked cemetery adjacent to the project area.

The following feature and/or item was not detailed in the original RFI document (September 16, 2019), but has since been identified and warrants further discussion.

1. Infrastructure –

Cemeteries: As indicated above, during field reconnaissance for the Section 106 determination, an unmarked cemetery was identified on the west side of SR 65, approximately 550 feet south of South Street. This cemetery (circa 1900) was not identified in the original RFI (September 16, 2019). There are no existing stones visible within the cemetery, it is located 100 feet west of the project area, and lacks a record identifying an actual boundary or location of the burials. Therefore, per coordination with INDOT Cultural Resources and the Indiana Department of Natural Resources-Division of Historic Preservation and Archaeology (DNR-DHPA), a Cemetery Development Plan is not required.

Nicole
Fohey-
Breting

Digitally signed by
Nicole Fohey-Breting
Date: 2020.04.09
18:01:38 -04'00'

INDOT Environmental Services concurrence:

(Signature)

Prepared by:

A handwritten signature in black ink that reads "Molly Barletta". The signature is written in a cursive, flowing style.

Molly Barletta
Senior Environmental Scientist
Kaskaskia Engineering Group, LLC



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

PHONE: (317) 232-5113
FAX: (317) 233-4929

Eric Holcomb, Governor
Joe McGuinness, Commissioner

Date: September 16, 2019

To: Site Assessment & Management
Environmental Policy Office – Environmental Services Division
Indiana Department of Transportation
100 N Senate Avenue, Room N642
Indianapolis, IN 46204

From: Molly Barletta
Kaskaskia Engineering Group, LLC
323 Main Street, Suite E
Evansville, IN 47708
MBarletta@kaskaskiaeng.com

Re: RED FLAG INVESTIGATION
DES # 1601062, State Project
Pavement Replacement
SR 65, 0.6 miles south of west junction with SR 68
Posey County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The proposed state project is located 0.6 miles south of the west junction with SR 68 to the east junction with SR 68, Cynthiana, Indiana in the Indiana Department of Transportation (INDOT) Vincennes District. The location is in Posey County, Smith Township, Cynthiana Quadrangle. The preferred alternative is a combination full depth pavement replacement and preventative maintenance HMA overlay project. The project will involve constructing a new urban cross section including curb, gutter, and sidewalks through the limits of full depth replacement. Where feasible, the following additional improvements will be implemented: profile modifications to improve drainage; and, pavement widening and approach radii where truck turning movements are inadequate.

Bridge and/or Culvert Work Included in Project: Yes ☐ No ☒ Structure #(s) _____

If this is a bridge project, is the bridge Historical? Yes ☐ No ☒ Select ☐ Non-Select ☐

(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

Proposed right of way: Temporary ☐ # Acres _____, Permanent ☐ # Acres _____, Not Applicable ☐

Type of excavation: The exact depth of excavation is unknown. Preliminary estimates are up to 20 feet of excavation for a new storm drainage system.

Maintenance of Traffic: MOT is still being determined, but will likely include lane closures and an unofficial detour.

Work in waterway: Yes ☒ No ☐ Below ordinary high water mark: Yes ☒ No ☐

Any other factors influencing recommendations: Right-of-way to be determined, but is anticipated to consist of temporary and permanent ROW totaling 5+ acres.

INFRASTRUCTURE TABLE AND SUMMARY

Infrastructure Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Religious Facilities	3*	Recreational Facilities	2
Airports ¹	1*	Pipelines	4
Cemeteries	2	Railroads	3
Hospitals	N/A	Trails	1
Schools	N/A	Managed Lands	N/A

¹In order to complete the required airport review, a review of public airports within 3.8 miles (20,000 feet) is required.

Explanation:

Religious Facilities - Three (3) religious facilities are located within the 0.5 mile search radius. Only one of the religious facilities are denoted on the GIS map, as the others were determined from Google Maps. The nearest facility is approximately 0.05 mile north of the project area. No impact is expected.

Recreational Facilities – Two (2) recreational facilities are located within the 0.5 mile search radius. The nearest facility, Cynthiana Community Park, is located directly adjacent to the project area. Traffic will be maintained through flagger operation, lane closures, and detours near the Cynthiana Community Park. Coordination with the Cynthiana Park Board will occur.

Airports – Although not located within the 0.5 mile search radius, one (1) public airport, Ralph E. Koch Airport, is located within 3.8 miles (20,000 feet) of the project area. The public airport is located approximately 3.78 miles northeast of the project area; therefore, early coordination with INDOT Aviation will occur.

Pipelines – Four (4) pipeline segments are located within the 0.5 mile search radius. One (1) pipeline segment, owned by Community Natural Gas Co. Inc., runs parallel to and crosses SR 65 within the project area from the northern termini extending south to Church Street. Coordination with INDOT Utilities and Railroads should occur.

Cemeteries – Two (2) cemeteries are located within the 0.5 mile search radius. The nearest cemetery, Liberty Cemetery, is located adjacent to the project area. A Cemetery Development Plan may be required since this project is within 100 feet of the cemetery. Coordination with INDOT Cultural Resources will occur. Traffic will be maintained through flagger operations near the Liberty Cemetery. Coordination with Liberty Cemetery will occur.

Railroads – Three (3) railroad segments are located within the 0.5 mile search radius. One (1) railroad segment crosses the project area; however, upon aerial review, railroad tracks are no longer present. No impact is expected.

Trails – One (1) trail segment is located within the 0.5 mile search radius. The trail is located approximately 0.12 mile north of the project area. No impact is expected.

WATER RESOURCES TABLE AND SUMMARY

Water Resources Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	N/A	Canal Routes - Historic	N/A
Karst Springs	N/A	NWI - Wetlands	9

Canal Structures - Historic	N/A	Lakes	6
NPS NRI Listed	N/A	Floodplain - DFIRM	1
NWI-Lines	4	Cave Entrance Density	N/A
IDEM 303d Listed Streams and Lakes (Impaired)	N/A	Sinkhole Areas	N/A
Rivers and Streams	8	Sinking-Stream Basins	N/A

Explanation:

NWI - Wetlands - Nine (9) NWI-Wetlands are located within the 0.5 mile search radius. The nearest NWI-Wetlands are located approximately 0.32 mile west and southeast of the project area. No impact is expected.

Lakes - Six (6) lakes are located within the 0.5 mile search radius. The nearest lake is located approximately 0.09 mile east of the project area. No impact is expected.

Floodplain - DFIRM - One (1) floodplain polygon is located within the 0.5 mile search radius. It is located, at its nearest point, approximately 0.03 mile south of the project area. No impact is expected.

NWI - Lines - Four (4) NWI-Line segments are located within the 0.5 mile search radius. The nearest NWI-Line segment is located approximately 0.31 mile southeast of the project area. No impact is expected.

Rivers and Streams - Eight (8) river and stream segments are located within the 0.5 mile search radius. One stream segment crosses the southern portion of the project area. A Waters of the US Report will be prepared and coordination with INDOT Ecology and Waterway Permitting will occur.

URBANIZED AREA BOUNDARY SUMMARY

Explanation: N/A.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

Mining/Mineral Exploration			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Petroleum Wells	18	Mineral Resources	N/A
Mines - Surface	N/A	Mines - Underground	N/A

Explanation:

Petroleum Wells - Eighteen (18) wells are located within the 0.5 mile search radius. The nearest well is located 0.12 mile east of the southern segment of the project area. No impact is expected.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

Hazardous Material Concerns			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Superfund	N/A	Manufactured Gas Plant Sites	N/A
RCRA Generator/ TSD	N/A	Open Dump Waste Sites	N/A
RCRA Corrective Action Sites	N/A	Restricted Waste Sites	N/A

State Cleanup Sites	N/A	Waste Transfer Stations	N/A
Septage Waste Sites	N/A	Tire Waste Sites	N/A
Underground Storage Tank (UST) Sites	1	Confined Feeding Operations (CFO)	N/A
Voluntary Remediation Program	N/A	Brownfields	N/A
Construction Demolition Waste	N/A	Institutional Controls	N/A
Solid Waste Landfill	N/A	NPDES Facilities	N/A
Infectious/Medical Waste Sites	N/A	NPDES Pipe Locations	N/A
Leaking Underground Storage (LUST) Sites	1	Notice of Contamination Sites	N/A

Explanation:

Underground Storage Tank (UST) – One (1) underground storage tank is located within the 0.5 mile search radius. The UST site is located approximately 0.07 mile north of the project area. No impact is expected.

Leaking Underground Storage Tank (LUST) - One (1) leaking underground storage tank is located within the 0.5 mile search radius. Four tanks were located on Main Street (AI 50339). An exact address is not available, but maps included in the Virtual File Cabinet (VFC) suggest the site was located in the northeast quadrant of Main Street and Evansville Street. Therefore, this site would be located adjacent to the project area. The four tanks were removed and the site was remediated. A No Further Action was issued on December 30, 1999. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Posey County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is attached with ETR species highlighted. A preliminary review of the Indiana Natural Heritage Database by INDOT Environmental Services did not indicate the presence of ETR species. Coordination with USFWS and IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to “Using the USFWS IPaC System for Listed Bat Consultation for INDOT Projects”.

Rusty Patched Bumble Bee:

An inquiry using the USFWS Information for Planning and Consultation (IPaC) website did not indicate the presence of the federally endangered species, the Rusty Patched Bumble Bee, in or within 0.5 mile of the project area. No impact is expected.

RECOMMENDATIONS SECTION

Include recommendations from each section. If there are no recommendations, please indicate N/A:

INFRASTRUCTURE:

- Liberty Cemetery is located adjacent to the project area. A Cemetery Development Plan may be required since this project is within 100 feet of the cemetery. Coordination with INDOT Cultural Resources will occur.
- The Cynthiana Community Park is located directly adjacent to the project area. Coordination with the Cynthiana Park Board will need to occur.
- One (1) pipeline crosses the project area. Coordination with INDOT Utilities and Railroads should occur.

WATER RESOURCES:

- One stream segment crosses the southern portion of the project area. A Waters of the US Report will be prepared and coordination with INDOT Ecology and Waterway Permitting will occur.

URBANIZED AREA BOUNDARY: N/A

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: N/A

ECOLOGICAL INFORMATION: Coordination with USFWS and IDNR will occur. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

INDOT Environmental Services concurrence: Nicole Fohey-Breting Digitally signed by Nicole Fohey-Breting
Date: 2019.09.16 12:53:58 -04'00' (Signature)

Prepared by:



Molly Barletta
Senior Environmental Scientist
Kaskaskia Engineering Group, LLC

Graphics:

A map for each report section with a 0.5 mile search radius buffer around all project area(s) showing all items identified as possible items of concern is attached. If there is not a section map included, please change the YES to N/A:

SITE LOCATION: YES

INFRASTRUCTURE: YES

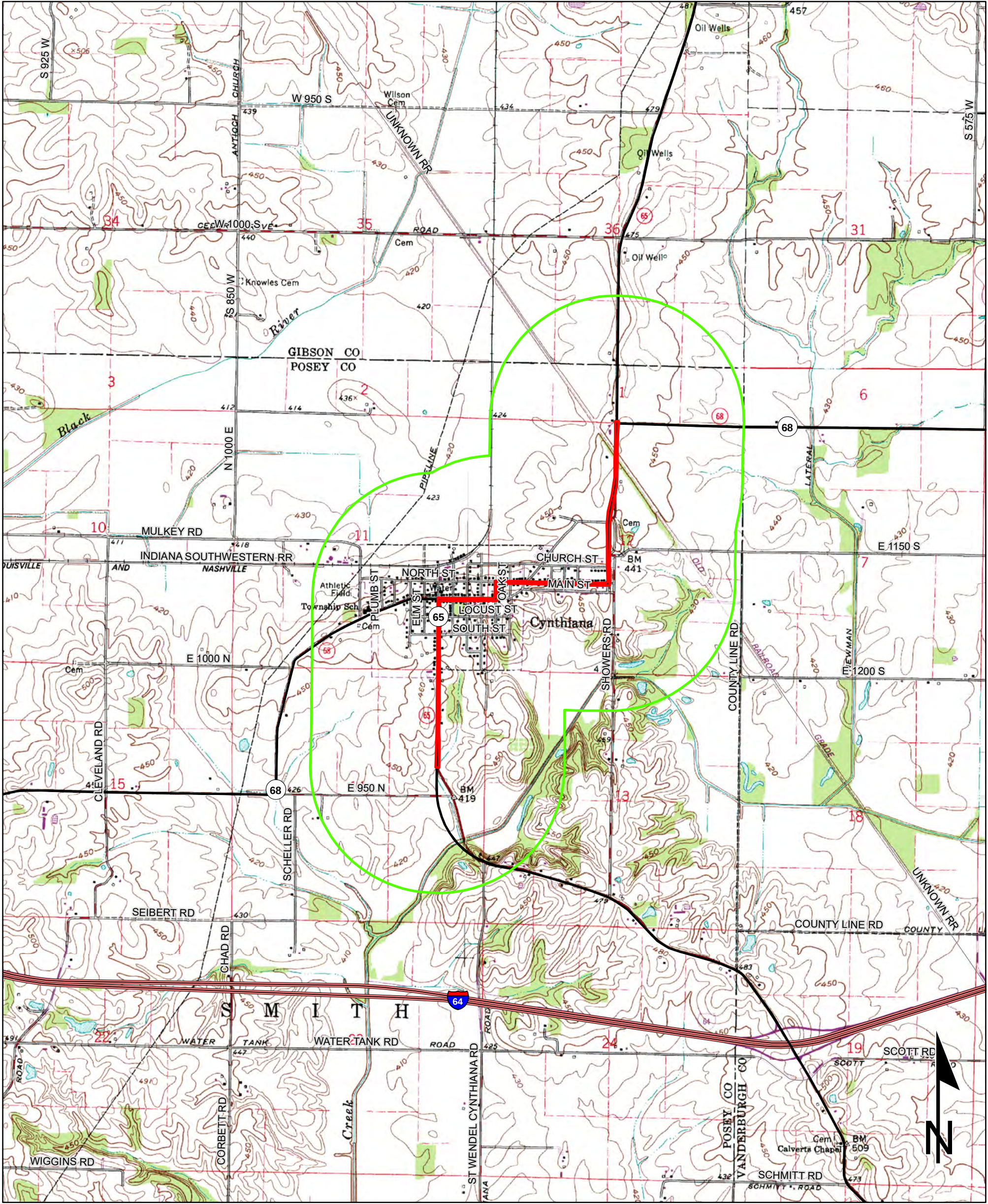
WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: N/A

MINING/MINERAL EXPLORATION: YES

HAZMAT CONCERNS: YES

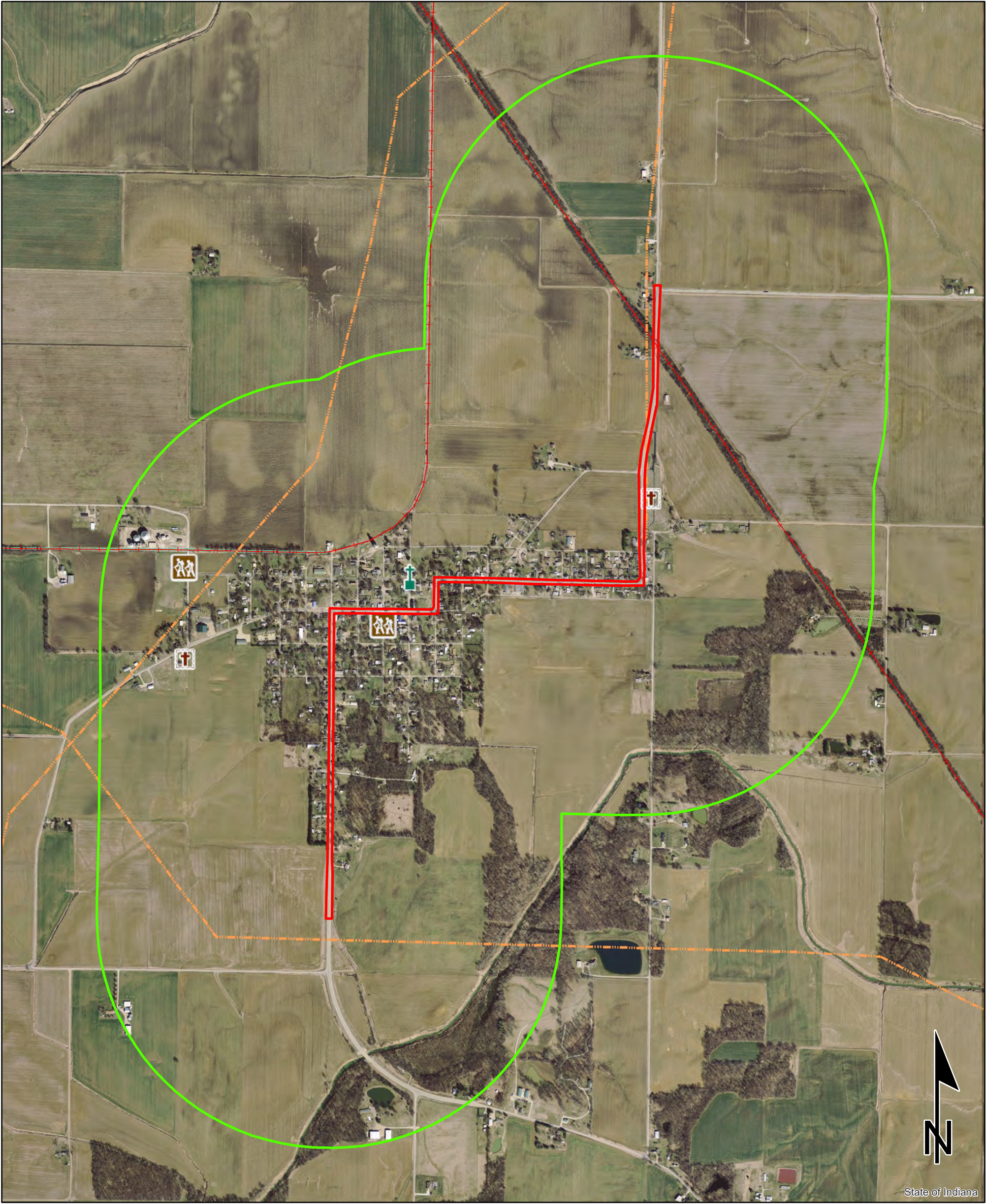
Red Flag Investigation - Site Location
SR 65, from 0.6 miles south of west junction with SR 68 to east junction
Des. No. 1601062 , Pavement Replacement
Posey County, Indiana



Sources: 0.5 0.25 0 0.5 Miles
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N Map Datum: NAD83
This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

CYNTHIANA QUADRANGLE
INDIANA
7.5 MINUTE SERIES
(TOPOGRAPHIC)

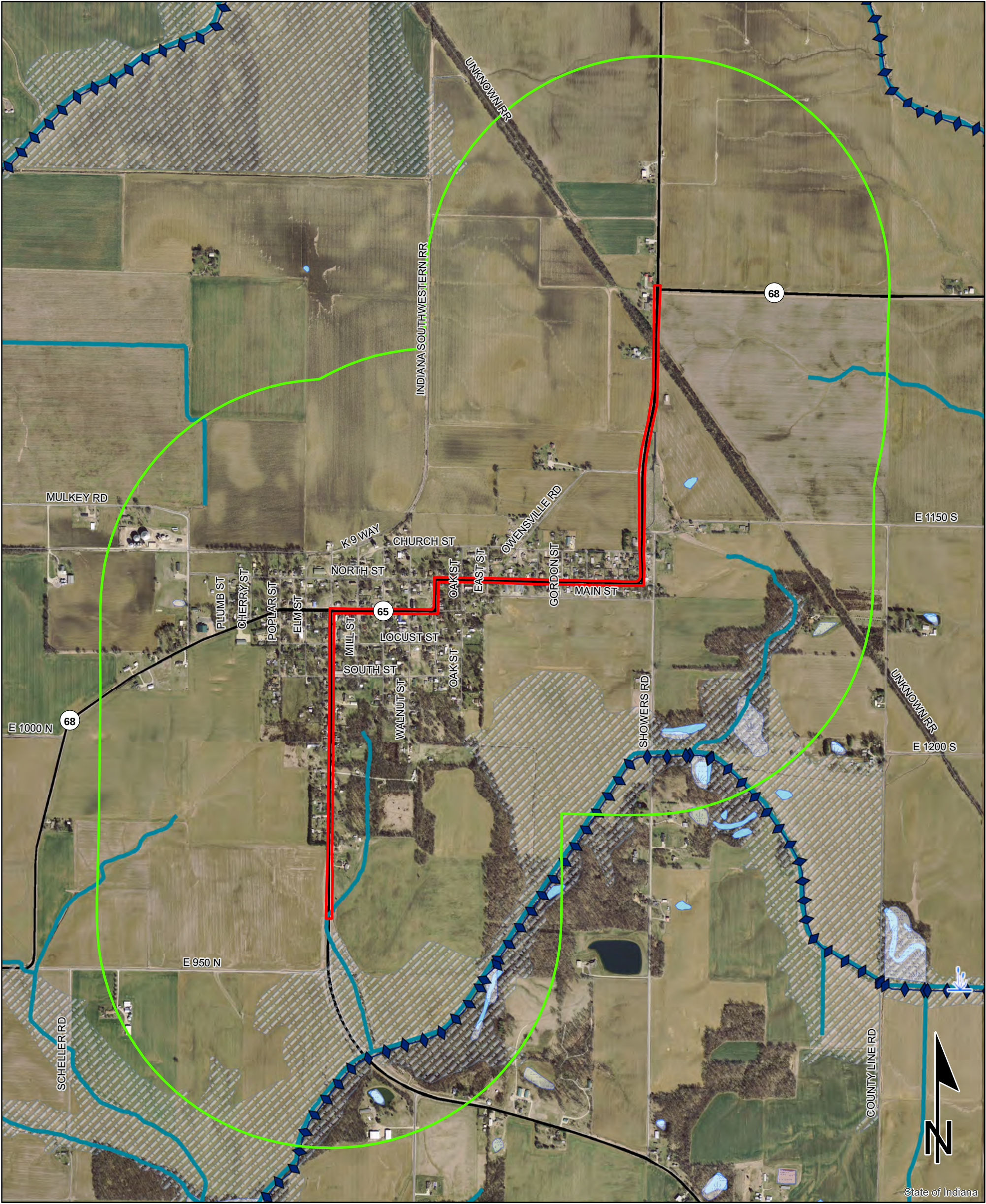
Red Flag Investigation - Infrastructure Map
SR 65, from 0.6 miles south of west junction with SR 68 to east junction
Des. No. 1601062 , Pavement Replacement
Posey County, Indiana



Sources: 0.25 0.125 0 0.25 Miles
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83
This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

	Religious Facility		Recreation Facility		Project Area
	Airport		Pipeline		Half Mile Radius
	Cemeteries		Railroad		Toll
	Hospital		Trails		Interstate
	School		Managed Lands		State Route
			County Boundary		US Route
					Local Road

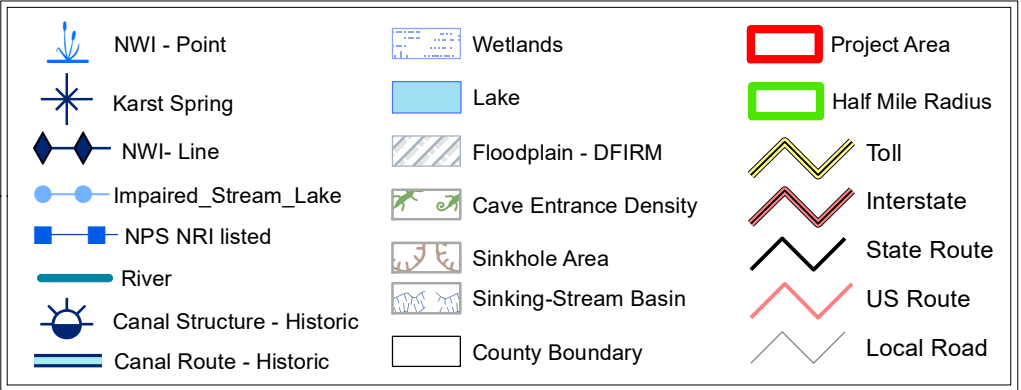
Red Flag Investigation - Water Resources Map
SR 65, from 0.6 miles south of west junction with SR 68 to east junction
Des. No. 1601062 , Pavement Replacement
Posey County, Indiana



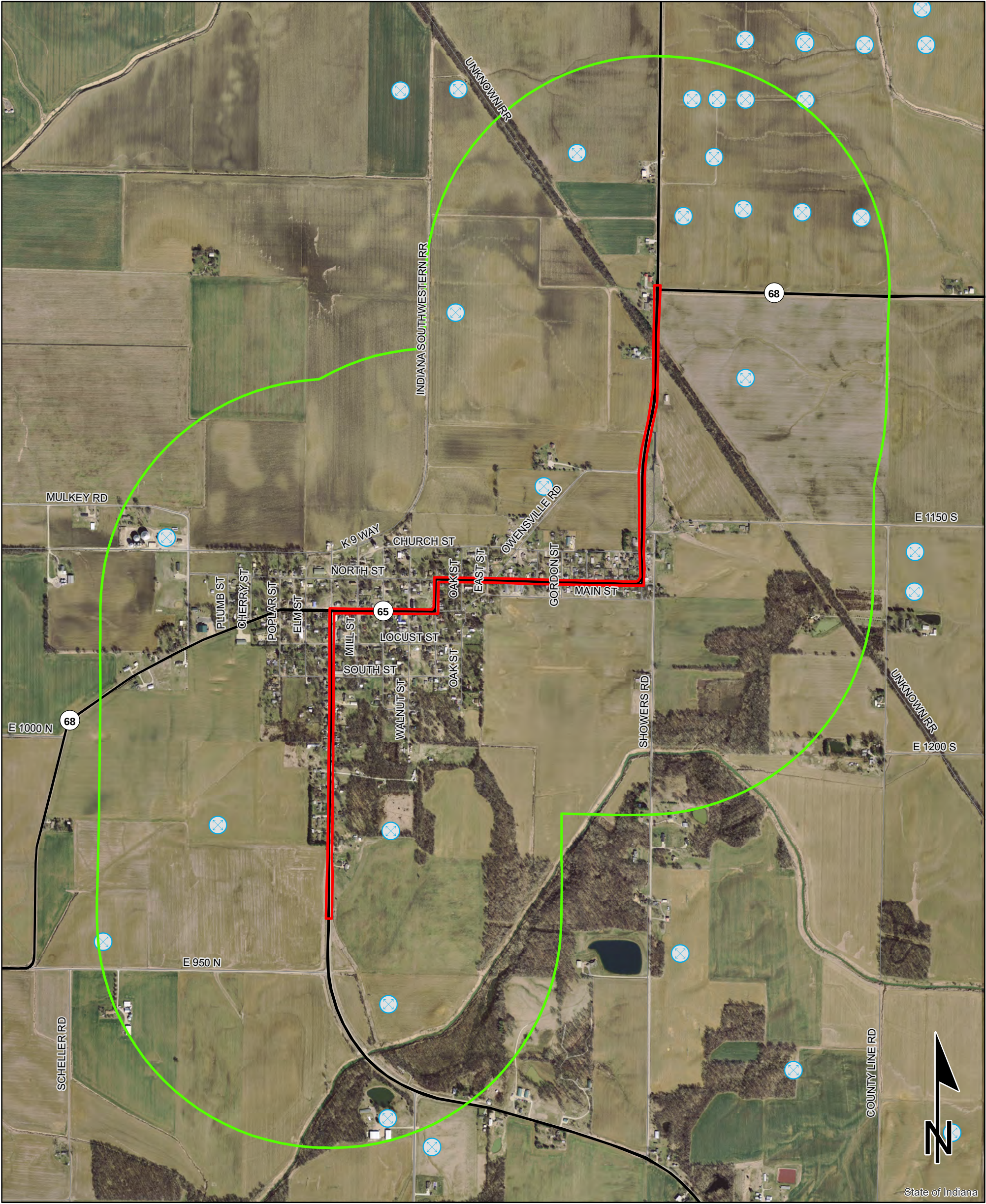
Sources: 0.25 0.125 0 0.25 Miles
Non Orthophotography

Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

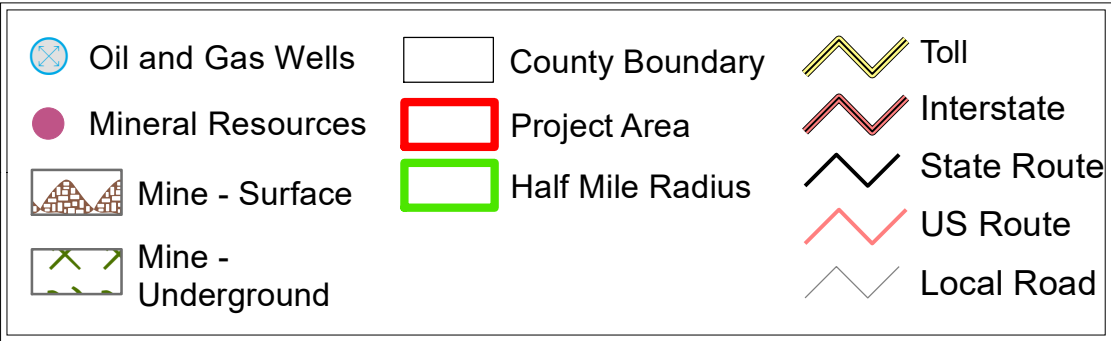


Red Flag Investigation - Mining and Mineral Map
SR 65, from 0.6 miles south of west junction with SR 68 to east junction
Des. No. 1601062 , Pavement Replacement
Posey County, Indiana



Sources:
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

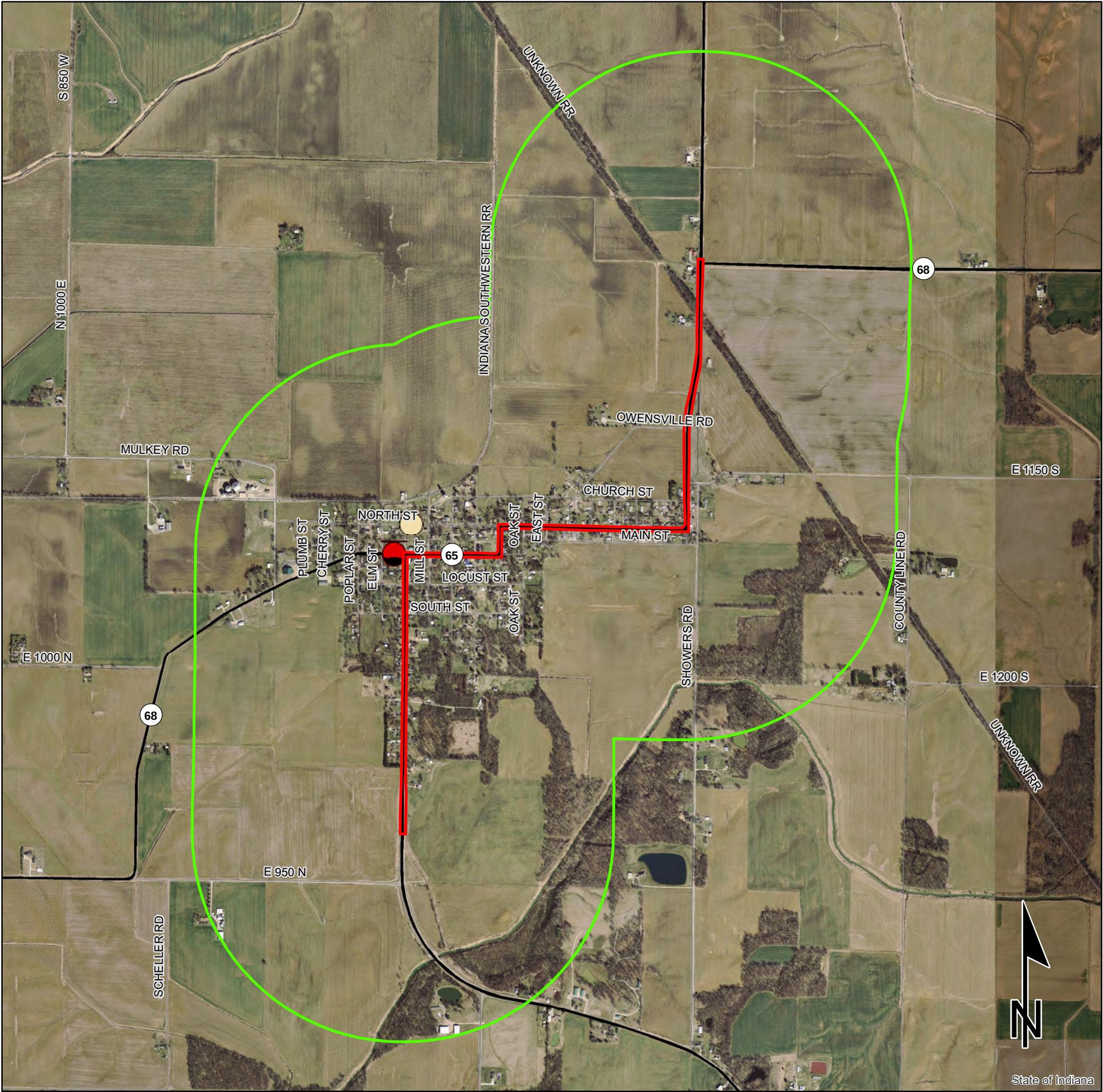


Red Flag Investigation - Hazardous Material Map

SR 65, from 0.6 miles south of west junction with SR 68 to east junction

Des. No. 1601062 , Pavement Replacement

Posey County, Indiana



	Brownfield		RCRA Generator/TSD		Institutional Controls
	RCRA Corrective Action Sites		Restricted Waste Site		County Boundary
	Confined Feeding Operation		Septage Waste Site		Project Area
	Notice_Of_Contamination		Solid Waste Landfill		Half Mile Radius
	Construction/Demolition Site		State Cleanup Site		Toll
	Infectious/Medical Waste Site		Superfund		Interstate
	Leaking Underground Storage Tank		Tire Waste Site		State Route
	Manufactured Gas Plant		Underground Storage Tank		US Route
	NPDES Facilites		Voluntary Remediation Program		Local Road
	NPDES Pipe Locations		Waste Transfer Station		
	Open Dump Waste Site				



This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Sources:

Non Orthophotography

Data - Obtained from the State of Indiana Geographical Information Office Library

Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Map Projection: UTM Zone 16 N Map Datum: NAD83

Indiana County Endangered, Threatened and Rare Species List

E-13

County: Posey

Species Name	Common Name	FED	STATE	GRANK	SRANK
Crustacean: Malacostraca					
Orconectes indianensis	Indiana Crayfish		SR	G3	S2
Mollusk: Bivalvia (Mussels)					
Arcidens confragosus	Rock Pocketbook			G4	S2
Cumberlandia monodonta	Spectaclecase	LE	SX	G3	SX
Cyprogenia stegaria	Eastern Fanshell Pearlymussel	LE	SE	G1Q	S1
Epioblasma flexuosa	Leafshell		SX	GX	SX
Epioblasma propinqua	Tennessee Riffleshell		SX	GX	SX
Epioblasma sampsonii	Wabash Riffleshell		SX	GX	SX
Epioblasma torulosa	Tubercled Blossom	LE	SX	GX	SX
Epioblasma triquetra	Snuffbox	LE	SE	G3	S1
Fusconaia subrotunda	Longsolid	C	SX	G3	SX
Lampsilis abrupta	Pink Mucket	LE	SX	G2	SX
Lampsilis ovata	Pocketbook			G5	S2
Leptodea leptodon	Scaleshell	LE	SX	G1G2	SX
Ligumia recta	Black Sandshell			G4G5	S2
Obovaria retusa	Ring Pink	LE	SX	G1	SX
Obovaria subrotunda	Round Hickorynut	C	SE	G4	S1
Plethobasus cicatricosus	White Wartyback	LE	SX	G1	SX
Plethobasus cooperianus	Orangefoot Pimpleback	LE	SX	G1	SX
Plethobasus cyphus	Sheepnose	LE	SE	G3	S1
Pleurobema clava	Clubshell	LE	SE	G1G2	S1
Pleurobema cordatum	Ohio Pigtoe		SSC	G4	S2
Pleurobema plenum	Rough Pigtoe	LE	SE	G1	S1
Pleurobema rubrum	Pyramid Pigtoe		SX	G2G3	SX
Potamilus capax	Fat Pocketbook	LE	SE	G2	S1
Ptychobranhus fasciolaris	Kidneyshell		SSC	G4G5	S2
Quadrula cylindrica cylindrica	Rabbitsfoot	LT	SE	G3G4T3	S1
Simpsonaias ambigua	Salamander Mussel	C	SSC	G3	S2
Toxolasma lividus	Purple Lilliput	C	SSC	G3Q	S2
Villosa fabalis	Rayed Bean	LE	SE	G2	S1
Mollusk: Gastropoda					
Catinella gelida	Frigid ambersnail			G1Q	SH
Xolotrema obstrictum	Sharp Wedge		SE	G4	S1
Insect: Coleoptera (Beetles)					
Necrophilus pettiti	A Carrion Beetle		ST	GNR	S1?
Nicrophorus americanus	American Burying Beetle	LE	SX	G2G3	SX
Photuris walldoxeyi	Cypress firefly		WL	GNR	SU
Insect: Ephemeroptera (Mayflies)					

Indiana Natural Heritage Data Center
Division of Nature Preserves
Indiana Department of Natural Resources
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting
State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list
GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank
SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

Indiana County Endangered, Threatened and Rare Species List

E-14

County: Posey

Species Name	Common Name	FED	STATE	GRANK	SRANK
Pentagenia vittigera	Common Spiny-headed Burrowing Mayfly		WL	G5	S3
Tortopsis primus	Manitoba White Burrowing Mayfly		ST	G5	S1
Insect: Lepidoptera (Butterflies & Moths)					
Catocala marmorata	Marbled Underwing Moth		SE	G3G4	S1
Eosphropteryx thyatyroides	Pinkpatched Looper Moth		ST	G4G5	S2
Hyperaeschra georgica	A Prominent Moth			G5	S2
Lesmone detrahens	Detracted Owlet		SR	G5	S2
Lethe appalachia appalachia	Appalachian Eyed Brown		ST	G4T4	S2
Fish					
Acipenser fulvescens	Lake Sturgeon		SE	G3G4	S1
Ammocrypta clara	Western Sand Darter		SSC	G3	S2
Crystallaria asprella	Crystal Darter			G3	SX
Elassoma zonatum	Banded Pygmy Sunfish		SSC	G5	S1
Etheostoma squamiceps	Spottail Darter			G4G5	S2S3
Percina evides	Gilt Darter		SE	G4	S1
Percina uranidea	Stargazing Darter			G3	SX
Amphibian					
Acris blanchardi	Blanchard's Cricket Frog		SSC	G5	S4
Ambystoma talpoideum	Mole Salamander		SE	G5	S1
Cryptobranchus alleganiensis alleganiensis	Eastern Hellbender	C	SE	G3G4T3T4	S1
Reptile					
Crotalus horridus	Timber Rattlesnake		SE	G4	S2
Kinosternon subrubrum subrubrum	Eastern Mud Turtle		SE	G5T5	S2
Macrochelys temminckii	Alligator Snapping Turtle	C	SE	G3G4	SH
Nerodia erythrogaster neglecta	Copperbelly Water Snake	PS:LT	SE	G5T3	S2
Opheodrys vernalis	Smooth Green Snake		SE	G5	S2
Pseudemys concinna concinna	Eastern River Cooter		SE	G5T5	S1
Thamnophis proximus proximus	Western Ribbon Snake		SSC	G5T5	S3
Bird					
Ardea alba	Great Egret		SSC	G5	S1B
Certhia americana	Brown Creeper			G5	S2B
Gavia immer	Common Loon		SX	G5	SXB
Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2
Ictinia mississippiensis	Mississippi Kite		SSC	G5	S1B
Ixobrychus exilis	Least Bittern		SE	G5	S3B
Lanius ludovicianus	Loggerhead Shrike		SE	G4	S3B
Lophodytes cucullatus	Hooded Merganser			G5	S2S3B
Nyctanassa violacea	Yellow-crowned Night-heron		SE	G5	S2B

Indiana Natural Heritage Data Center
Division of Nature Preserves
Indiana Department of Natural Resources
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting
State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list
GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank
SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

Indiana County Endangered, Threatened and Rare Species List

County: Posey

Species Name	Common Name	FED	STATE	GRANK	SRANK
Pandion haliaetus	Osprey		SSC	G5	S1B
Setophaga cerulea	Cerulean Warbler		SE	G4	S3B
Sternula antillarum athalassos	Interior Least Tern	LE	SE	G4T2Q	S1B
Mammal					
Myotis sodalis	Indiana Bat	LE	SE	G2	S1
Nycticeius humeralis	Evening Bat		SE	G5	S1
Sylvilagus aquaticus	Swamp Rabbit		SE	G5	S1
Taxidea taxus	American Badger		SSC	G5	S2
Vascular Plant					
Azolla caroliniana	Carolina Mosquito-fern		SR	G5	S3
Calyccarpum lyonii	Cup-seed		ST	G5	S2
Carex aureolensis	Land of Gold Sedge		SE	GNR	S1
Carex bushii	Bush's Sedge		ST	G4	S2
Carex gigantea	Large Sedge		SE	G4	S1
Carex lupuliformis	False Hop Sedge		ST	G4	S2
Carex socialis	Social Sedge		ST	G4	S2
Catalpa speciosa	Northern Catalpa		SR	G4?	S3
Chamaelirium luteum	Devil's-bit		SE	G5	S1
Chelone obliqua var. speciosa	Rose Turtlehead		WL	G4T3	S3
Cimicifuga rubifolia	Appalachian Bugbane		SE	G3	S1
Clematis pitcheri	Pitcher Leather-flower		SR	G4G5	S3
Crataegus viridis var. viridis	Green Hawthorn		ST	G5T5	S2
Cuscuta cuspidata	Cusp Dodder		SE	G5	S1
Cyperus acuminatus	Short-point Flatsedge		WL	G5	S3
Cyperus pseudovegetus	Green Flatsedge		SR	G5	S2
Dichanthelium scoparium	Broom Panic-grass		SE	G5	S1
Didiplis diandra	Water-purslane		SE	G5	S1
Diervilla lonicera	Northern Bush-honeysuckle		WL	G5	S3
Echinodorus cordifolius	Creeping Bur-head		SE	G5	S1
Eleocharis wolfii	Wolf Spikerush		ST	G3G5	S2
Festuca paradoxa	Cluster Fescue		ST	G5	S2
Gleditsia aquatica	Water-locust		SE	G5	S1
Hottonia inflata	Featherfoil		ST	G4	S2
Hypericum virgatum	Coppery St. John's-wort		ST	G4?	S2
Iresine rhizomatosa	Eastern Bloodleaf		ST	G5	S3
Isoetes melanopoda	Blackfoot Quillwort		ST	G5	S2
Lemna minuta	Least Duckweed		SE	G4	S1
Leptochloa panicoides	Amazon Sprangle-top		SE	G5	S1
Lespedeza stuevei	Tall Bush-clover		SX	G4?	SX
Ludwigia decurrens	Primrose Willow		WL	G5	S3

Indiana Natural Heritage Data Center
Division of Nature Preserves
Indiana Department of Natural Resources
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting
State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list
GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank
SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

Indiana County Endangered, Threatened and Rare Species List

County: Posey

Species Name	Common Name	FED	STATE	GRANK	SRANK
Ludwigia glandulosa	Cylindric-fruited Seedbox		ST	G5	S2
Monarda bradburiana	Eastern Bee-balm		SE	G5	S1
Nothoscordum bivalve	Crow-poison		SR	G4	S3
Orobanche riparia	Bottomland Broomrape		SE	G4?	S1
Panax quinquefolius	American Ginseng		WL	G3G4	S3
Perideridia americana	Eastern Eulophus		SE	G4	S1
Physaria globosa	Short's bladderpod	LE	SE	G2	S1
Platanthera flava var. flava	Southern Rein Orchid		SE	G4?T4?Q	S1
Prenanthes aspera	Rough Rattlesnake-root		SR	G4?	S3
Ranunculus laxicaulis	Mississippi Buttercup		SE	G5?	S1
Ranunculus pusillus	Pursh Buttercup		SE	G5	S1
Rhynchospora corniculata var. interior	Short-bristle Horned-rush		ST	G5TNR	S2
Scutellaria parvula var. australis	Southern Skullcap		WL	G4T4?	S2
Solidago buckleyi	Buckley's Goldenrod		SE	G4	S1
Spigelia marilandica	Woodland Pinkroot		SE	G4	S1
Styrax americanus	American Snowbell		SR	G5	S3
Taxodium distichum var. distichum	Bald Cypress		ST	G5	S2
Thalictrum pubescens	Tall Meadowrue		SR	G5	S3
Thyrsanthella difformis	Climbing Dogbane		SR	G4G5	S3
Trifolium reflexum var. glabrum	Buffalo Clover		SE	G5T2T4Q	S1
Vitis palmata	Catbird Grape		SR	G4	S3
Wisteria frutescens	American Wisteria		SR	G5	S3
High Quality Natural Community					
Forest - flatwoods southwestern lowland mesic	Mesic Southwestern Lowland Flatwoods		SG	G2?	S1
Forest - floodplain wet-mesic	Wet-mesic Floodplain Forest		SG	G3?	S3
Forest - upland mesic Southern Bottomlands	Southern Bottomlands Mesic Upland Forest		SG	GNR	S1
Wetland - swamp forest	Forested Swamp		SG	G2?	S2
Wetland - swamp shrub	Shrub Swamp		SG	GU	S2
Other Significant Feature					
Geomorphic - Nonglacial Erosional Feature - Water Fall and Cascade	Water Fall and Cascade			GNR	SNR

Indiana Natural Heritage Data Center
Division of Nature Preserves
Indiana Department of Natural Resources
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting
State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list
GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank
SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

APPENDIX F

Water Resources

From: [Cooper, Nicholas](#)
To: [Virginia Flynn](#)
Cc: [Arnold, Troy](#)
Subject: RE: Des. No. 1601062 - SR 65 Pavement Replacement, Waters Determination Report submitted via ERMS for INDOT EWPO review.
Date: Thursday, November 07, 2019 8:48:12 AM
Attachments: [Des. No. 1601062 Waters Report - Final signed.pdf](#)

Virginia,

On the data sheets, I changed the T/S/R to only include the section where the data point was collected. Also, on page two of each data sheet they were labeled as "9," and I made a change to that as well.

Thank you for submitting the waters report for **SR 65 Pavement Replacement, Des. No. 1601062**. Your most recent submission has been reviewed and approved. For the INDOT PM, the approved report can be found on Projectwise through this link: [Des. No. 1601062 Waters Report - Final](#). It is the responsibility of the Project Manager to forward a copy of this report to the Project Designer.

Beginning November 2019, we are signing and dating the front page of Waters Reports to assist in the NEPA review. I have attached this signature page which should be incorporated into the Waters Report going forward. The information in this report should be used by the Project Designer to determine if waters of the U.S. will be impacted by the project. Avoidance and minimization of impacts must occur before mitigation will be considered. If mitigation is required, the Project Manager or Project Designer must coordinate with the Ecology and Waterway Permitting Office to discuss how adequate compensatory mitigation will be provided.

The Project Manager should notify the Ecology and Waterway Permitting Office if there is any change to the project footprint presented in this report. Such changes may require additional fieldwork and submittal of an updated waters report covering areas not previously investigated. This report is only valid for a period of five years from the date of earliest fieldwork. If the report expires prior to waterway permit application submittal, additional fieldwork and a revised waters report will be required.

It will not be sent to the United States Army Corps of Engineers (USACE) or the Indiana Department of Environmental Management (IDEM) until the waterways permit applications are submitted to these agencies.

Nick Cooper

Ecology and Waterway Permitting Specialist
 Indiana Department of Transportation
 Ph. (317) 233-3698

From: Virginia Flynn [mailto:VFlynn@kaskaskiaeng.com]
Sent: Tuesday, November 05, 2019 9:53 AM
To: Cooper, Nicholas <NCooper5@indot.IN.gov>
Subject: RE: Des. No. 1601062 - SR 65 Pavement Replacement, Waters Determination Report

WATERS OF THE U.S.
DETERMINATION REPORT

SR 65

SR 65 Pavement Replacement, Small Town -
Cynthiana, from 0.6 mile South of West
Junction with SR 68 to East Junction with SR 68
Posey County, Indiana

INDOT Des. No. 1601062

Photo Log Omitted, See Appendix B

Authored By:

Virginia Flynn, PWS and
Krista Bollmann
Kaskaskia Engineering Group, LLC
208 East Main Street, Suite 100
Belleville, IL 62220
618-233-5877

Prepared for:

WSP USA
115 West Washington Street, Suite 1270S
Indianapolis, Indiana 46204

November 5, 2019

Nicholas J. Cozart

11/7/2019



WATERS OF THE U.S. DETERMINATION REPORT

**SR 65 Pavement Replacement, Small Town - Cynthiana, from 0.6 mile South of West Junction with SR 68 to East Junction with SR 68
Des. No. 1601062**

1.0 PROJECT INFORMATION

Date of Waters Field Investigation:

September 17 and October 9, 2019

Project Location:

Cynthiana, Indiana Quadrangle
Sections 11, 12, 14, Township 4 S, Range 12 W
38.177393, -87.710462 (Begin); 38.197657, -87.697471 (End)
Smith Township
Posey County, Indiana

Project Description:

The proposed state project is located along SR 65, from 0.6 mile south of the west junction with SR 68 to the east junction with SR 68, in Cynthiana, Indiana in the Indiana Department of Transportation's (INDOT's) Vincennes District (Figure 1). The project is a combination full depth pavement replacement and preventative maintenance HMA overlay project (RP 13+00 to RP 14.92). The existing pavement has many locations showing base failures with alligator cracking, block cracking, edge failures, and longitudinal cracking. Drainage through the limits of full depth replacement is poor due to the lack of inlets and curb reveal. There are many locations where the existing pavement is at a higher elevation than the surrounding sidewalks. Truck turning movements through the corridor are also problematic due to tight radii on SR 65 and several street approaches. The purpose of the project is to improve these issues by building a new urban cross section including curb, gutter, and sidewalks through the limits of full depth replacement. Profile modifications to improve drainage where feasible will be implemented. Pavement widening and approach radii where truck turning movements are inadequate will also be modified where feasible.

2.0 OFFICE EVALUATION

Methodology:

A desktop review of the project area was conducted to identify areas likely to contain potential wetlands and Waters of the U.S. (streams, wetlands, ponds, etc.). This included a review of historic and recent aerial photography, National Wetland Inventory (NWI) mapping, United States Geological Survey (USGS) topographic maps (7.5'), and National Hydrography Dataset (NHD) mapping, which is a GIS-based database that interconnects and uniquely identifies the stream segments or reaches that make up the nation's surface water drainage system. The United States Department of Agriculture Natural Resources Conservation Service (USDA-NRCS) Web Soil Survey was used to review the mapped soil units in the project area.

Results:

NWI Mapping

The NWI map was reviewed for the presence of potential wetlands in, or adjacent to, the investigated area (Figure 2). There are no wetlands located within or directly adjacent to the investigated area. The closest NWI wetlands are located approximately between 0.3 and 0.5 mile

southeast of the investigated area (one R2UBHX, two PFO1Cs, and one PUBGh) and 0.31 mile west of the investigated area (PABG).

USGS Mapping

The USGS Cynthiana, Indiana 7.5 minute topographic quadrangle map indicates a dashed blue-line (intermittent stream) within the investigated area, near the south terminus (Figures 3a and 3b).

Mapped Soil Units

According to the Web Soil Survey geographic database for Posey County, Indiana (USDA- NRCS 2019), the investigated area contains eight map units (Figure 4, Table 1). Two of the soils are considered hydric, while the remaining six are considered non-hydric.

Table 1 - Soil Units within the Investigated Area

Soil Unit Symbol	Soil Unit Name	Hydric Rating
AIB2	Alford silt loam, 2 to 5 percent slopes, eroded	Not Hydric (0%)
AIC3	Alford silt loam, 5 to 10 percent slopes, severely eroded	Not Hydric (0%)
AID3	Alford silt loam, 10 to 18 percent slopes, severely eroded	Not Hydric (0%)
Bd	Birds silt loam, frequently flooded	Hydric (100%)
IoA	Iona silt loam, 0 to 2 percent slopes	Not Hydric (0%)
IoB2	Iona silt loam, 2 to 6 percent slopes, eroded	Not Hydric (0%)
IoB3	Iona silt loam, 2 to 6 percent slopes, severely eroded	Not Hydric (0%)
RIA	Reesville silt loam, 0 to 2 percent slopes	Hydric (5%)

Hydrology

There are no streams with upstream drainage within the investigated area (USGS StreamStats). It is within USGS 12-Digit Hydrological Unit Code 051201130702 and 051201130502. Majority of the waterbodies near the investigated area drain into Big Creek, which is located south of the investigated area.

According to the USGS NHD map (Figure 5), three flowlines are located in the investigated area. One flows south on the west side of SR 65/68, near the culvert by the cemetery. The other two are located near the southern terminus of the investigated area, and flow south.

According to the Federal Emergency Management Agency (FEMA) DFIRM ID#18129C0065C and 18129C0055C, there are no floodplains located in the investigated area (Figure 6).

This project does not lie within the karst region of Indiana. A review of IndianaMAP data (<https://www.indianamap.org/>) did not indicate karst features within 0.5 mile of the investigated area.

3.0 FIELD RECONNAISSANCE

Methodology:

A field visit was conducted by Virginia Flynn and Krista Bollmann on September 17 and October 9, 2019 to survey and document streams, wetlands, and other water resources within the investigated area. The investigated area was between 50 to 150 feet wide (encompassing the roadway), and extends along the entire project corridor.

Any identified streams were assessed for jurisdictional disposition Ordinary High Water Mark (OHWM) and relative quality. The OHWM measurements were taken by a hand-held measuring tape at the widest, non-scour hole location, outside of the influence of the structure.

The investigated area was surveyed for the presence of vegetation, soil, or hydrological indicators that would signify a potential for wetlands to be present, according to the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region*.

All roadside ditches (RSDs) within the investigated area were also evaluated for consideration as jurisdictional or non-jurisdictional aquatic resources.

Culverts were investigated for the presence of migratory bird nests and bats during the September 2019 visit; however, none were noted.

Results:

No likely jurisdictional streams and one (1) likely jurisdictional wetland were identified within the investigated area. Eight (8) roadside ditches were found. Figure 7 shows all identified water resource features within the investigated areas. Photographs and a photo direction map are included after the figures.

Streams:

No water bodies with an OHWM or defined bed and bank were found. No streams were present within the investigated area. An intermittent blue-line shown on USGS topographic maps (Figures 3a and 3b) appears to have previously gone under SR 65 and then proceeded to flow south on the west side of the road. It has been realigned to the east side of the roadway and, based field observations, is not a stream within the investigated area (see Wetlands narrative below).

Wetlands:

Wetland 1 is an approximately 0.038 acre palustrine emergent wetland (PEM) (Cowardin *et. al.* 1979) located 0.15 mile south of Cynthiana on the east side of SR 65. The wetland is within a ditch that extends outside the investigated area to the south. It is not classified as an NWI wetland. Wetland 1 is within the floodplain of Big Creek, which is approximately 0.29 mile to the south.

Data Point (DP) 1 was taken within a roadside ditch near a culvert outlet, draining from an agricultural field. Dominant vegetation consisted of barnyard grass (*Echinochloa crus-galli*) (FACW) and rice cut grass (*Leersia oryzoides*) (OBL), and shrubby red maple (*Acer rubrum*) (FAC). This met the dominance test for hydrophytic vegetation. According to a review of the USDA web soil survey, the Birds silt loam series is mapped in this location and is classified as hydric. The soil profile met the depleted matrix hydric soil indicator at 7 inches. Two primary indicators of hydrology were observed: Saturation (A3) and Oxidized Rhizospheres on Living Roots (C3). Three secondary indicators were observed, Crayfish Burrows (C8), Geomorphic Position (D2), and FAC-Neutral Test (D5). Since all three wetland criteria were met at DP 1, this area would likely be considered a wetland.

DP 2 was taken on the slope of the ditch above DP 2. Dominant vegetation consisted of Bermuda grass (*Cynodon dactylon*) (FACU), thin paspalum (*Paspalum setaceum*) (FACU), green foxtail (*Setaria viridis*) (UPL), and tall fescue (*Schedonorus arundinaceus*) (UPL). This point did not pass any test for hydrophytic vegetation. No indicators of hydrology were observed. No hydric soil indicators were observed. Since none of the three wetland indicators were met, this point was determined to be upland. DP 2 helped establish the wetland/upland boundary for Wetland 1. There was a distinct change in plant communities and topographic change that was used in establishing the wetland/upland boundary.

Wetland 1 is a PEM formed due to lack of drainage within a channelized ditch. The quality of the wetland was considered poor based on low species diversity and presence of non-native species. Water within Wetland 1 likely flows south from the investigated area for 0.18 miles via a channelized ditch, and empties into Big Creek. Due to its hydrological connection to Big Creek, this feature is likely a jurisdictional wetland.

Roadside Ditches:

There are eight (8) RSD within the investigated area.

RSD 1 is located on the western side of SR 65, near the southern terminus. It consisted of a swale vegetated by roadside grasses.

RSD 2 is located on the eastern side of SR 65, near the southern terminus. It consisted of a swale vegetated by roadside grasses.

RSD 3 is located near the southern edge of Cynthiana, on the west side of SR 65. It consisted of a swale vegetated by roadside grasses.

RSD 4 is located under and east of SR 65, approximately 0.19 mile south of South Street. It drains east from a culvert under SR 65. Vegetation in the ditch consisted of bush honeysuckle (*Lonicera maakii*) (UPL) and silver maple (*Acer saccharinum*) (FACW).

RSD 5 is located on the south side of SR 65 near Green Street. It drains south from a culvert under SR 65. It consists of a vegetated swale with maintained turf grasses.

RSD 6 is located on the north side of SR 65 east of Garfield Street. It consists of a vegetated swale with maintained turf grasses.

RSD 7 is located just north of Owensville Road. It flows south along the west side of SR 65, and then east under SR 65 via a culvert and then through the cemetery property via another culvert. It consists of a vegetated swale dominated by green foxtail and barnyard grass.

RSD 8 is located on the east side of SR 65 just north of where RSD 7 crosses SR 65. It consists of a vegetated swale with maintained turf grasses.

For all RSDs, vegetation did not appear to be matted down or disturbed by flowing water. No defined OHWM was observed. No indicators of hydric soil, a dominance of wetland vegetation, or hydrological indicators were found that would signify the presence of wetlands. It is likely these ditches carry water intermittently but they would not be classified as a wetland or Waters of the U.S.

4.0 CONCLUSIONS

Field observations revealed no likely jurisdictional streams, one (1) likely jurisdictional palustrine emergent wetland, and 8 likely non-jurisdictional roadside ditches within the investigated area. Every effort should be taken to avoid and minimize impacts to wetlands and waterways. If impacts are necessary, then mitigation may be required. The INDOT Environmental Services Division should be contacted immediately if impacts will occur. The final determination of jurisdictional waters is ultimately made by the USACE. This report is our best judgment based on the guidelines set forth by the USACE.

5.0 ACKNOWLEDGEMENT

This waters determination report has been prepared based on the best available information, interpreted in the light of the investigator's training, experience, and professional judgement in conformance with the 1987 *Corps of Engineers Wetlands Delineation Manual*, the appropriate regional supplement, the USACE *Jurisdictional Determination Form Instructional Guidebook*, and other appropriate agency guidelines.

Virginia Flynn

A handwritten signature in cursive script that reads "Virginia Flynn".

Senior Environmental Scientist, PWS
Kaskaskia Engineering Group, LLC

**Table 2 - Wetland Summary Table
SR 65 SR 65 Pavement Replacement
Posey County, IN - Des. No. 1601062**

ID	Coordinates		Classification	Relative Quality	Estimated Amount of Aquatic Resources in Review Area (acres)	Photograph Numbers	Likely Water of the U.S.?
	Latitude	Longitude					
Wetland 1	38.177839	-87.710295	PEM	Low	0.038	2-10	Yes

**Table 3 – Wetland Data Point Summary Table
SR 65 SR 65 Pavement Replacement
Posey County, IN - Des. No. 1601062**

Data Point	Latitude	Longitude	Vegetation	Soils	Hydrology	Upland/Wetland
1	38.177839	-87.710295	Yes	Yes	Yes	Wetland
2	38.177829	-87.710319	No	No	No	Upland

6.0 REFERENCES

Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. U.S. Fish and Wildlife Service. FWS/OBS-79/31. Washington, DC.

Environmental Laboratory. 1987. *U.S. Army Corps of Engineers Wetlands Delineation Manual*. U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. Technical Report Y-87-1. 207 p.

ESRI. 2014. ArcGIS, version 10.2.2. Environmental Systems Research Institute, Redlands, CA, USA.

IndianaMAP. 2016. Indiana Geological Survey. Available online at <http://www.indianamap.org/index.php> [Accessed September 2019].

Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm> [Accessed September 2019].

U.S. Army Corps of Engineers. 2016. National Wetland Plant List. (http://wetland-plants.usace.army.mil/nwpl_static/v33/home/home.html). U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH.

U.S. Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0), ed. J.S. Wakely, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-10-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

U.S. Department of Agriculture, Natural Resources Conservation Service. 2010. *Field indicators of hydric soils in the United States. Version 7*. L.M. Vasilas, G.W. Hunt, and C.V. Noble, eds. USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

U.S. Fish and Wildlife Service. 2019. Wetlands Mapper, online at <http://www.fws.gov/wetlands/Data/Mapper.html>. [Accessed September 2019].

U.S. Geological Survey (USGS), 2017. The National Map. Hydrography Local Resolution Flowline, USGS NHD View (V 1.0). <https://www.usgs.gov/core-science-systems/ngp/tnm-delivery/>. [Accessed September 2019].

USGS StreamStats. 2016. Online at <http://water.usgs.gov/osw/streamstats/indiana.html>. [Accessed September 2019].

Indiana Geological Survey (IGS) 2011-2013. LiDAR color hillshade. Available online at http://gis.iu.edu/datasetInfo/statewide/in_2011.php [Accessed September 2019].