

DEPARTMENT OF THE ARMY PERMIT

Permittee: Indiana Department of Transportation

Permit Number: LRL-2009-1236

Issuing Office: U.S. Army Engineer District, Louisville

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: to discharge 23,828 cubic yards (cys) of fill material into 1.63 acres of emergent and scrub-shrub wetlands adjacent to the Wabash River to facilitate the construction of 5.3 miles of new highway. An additional 25,226 cys of fill material would be discharged into 2.15 acres of wetlands adjacent to the unnamed tributary to Jordan Creek, for a total wetland fill of 3.78 acres. An unnamed tributary to Jordan Creek will be encapsulated for 320 linear feet (lf) and will include 88 lf of riprap for bank stabilization. The project is located in West Lafayette, Tippecanoe County, Indiana (Des. No. 9700830 & 0300431). To compensate for these impacts the application proposes to stabilize 1,741 lf of Wea Creek and planting a 25-foot riparian buffer. Additionally, the applicant proposes to create 4.64 acres of emergent wetlands and 4.37 acres of scrub-shrub wetlands adjacent to Wea Creek.

Project Location: The project is located on jurisdictional wetlands adjacent to the Wabash River and an unnamed tributary to Jordan Creek and its abutting jurisdictional wetlands in Tippecanoe County, Indiana.

Permit Conditions:

General Conditions:

1. The time limit for completing the authorized activity ends on **February 24, 2014**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification from this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished with the terms and conditions of your permit.

Special Conditions:

1. The permittee shall be responsible for implementing the restoration and mitigation in accordance with the Mitigation and Monitoring Plan dated July 14, 2010, and revised on November 18, 2010.
2. The permittee shall monitor the mitigation site annually for a period of five years. The permittee shall submit monitoring reports to the U.S. Army Corps of Engineers, Indianapolis Regulatory Office by December 31 of each monitoring year.
3. The permittee shall permanently protect the entire mitigation area through the implementation of the Corps approved deed restriction. A copy of the signed and recorded deed restriction for the mitigation area shall be submitted with the final monitoring report. The Corps shall be notified in writing prior to the transfer of the mitigation site to another entity or individual. Permanent protection shall transfer with the property.
4. The permittee shall limit tree clearing activities to only occur between October 1 and April 1 to avoid any impacts to the Indiana bat (*Myotis sodalis*).
5. The permittee's responsibility to complete the required compensatory mitigation as set forth in Special Condition 1 shall not be considered fulfilled until they have demonstrated compensatory mitigation project success and have received written verification of that success from the U.S. Army Corps of Engineers.

Further Information:

1. Congressional Authorities. You have been authorized to undertake the activity described above pursuant to:
 - () Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
 - (X) Section 404 of the Clean Water Act (33 U.S.C. 1344).
 - () Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).
2. Limits of this authorization.
 - a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.
 - c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal project.
3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:
 - a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data. The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measure ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give you favorable consideration to a request for an extension of this time limit.

CELRL-OP-FN
Application LRL-2009-1236-sam

MEMORANDUM FOR RECORD

SUBJECT: Department of the Army Environmental Assessment and Statement of Finding for Above-Numbered Permit Application

This document constitutes the Environmental Assessment, 404(b)(1) Guidelines Evaluation, Public Interest Review, and Statement of Findings.

1. Application as described in the public notice.

APPLICANT: Indiana Department of Transportation (INDOT)

WATERWAY & LOCATION: Unnamed tributary to Jordan Creek and adjacent wetlands, and wetlands adjacent to the Wabash River in Tippecanoe County, Indiana.

LATITUDE & LONGITUDE: Latitude North: 40.4363
Longitude West: 86.9460

PROJECT PURPOSE

Basic: To construct two crossings of "waters of the U.S." in support of a highway relocation.

Overall: To relocate 5.4 miles of U.S. Route 231 in Lafayette and West Lafayette, Tippecanoe County, Indiana to reduce traffic flow problems, to improve access to Purdue University, and to improve access to U.S. Route 52. Relocating U.S. 231 would meet the goals identified in the local transportation plans, increase personal accessibility for area residents, improve traffic safety, and support local economic development initiatives.

Water Dependency Determination: Highway construction is a non-water dependent activity.

PROPOSED WORK: The applicant proposes to discharge 23,828 cubic yards (cys) of fill material into 1.63 acres of emergent and scrub-shrub wetlands adjacent to the Wabash River to facilitate the construction of 5.3 miles of new highway. Additionally, the applicant proposes to encapsulate 320 linear feet (lf) and to stabilize 88 lf of an unnamed tributary to Jordan Creek. An additional 25,226 cys of fill material would be discharged into 2.15 acres of wetlands adjacent to the unnamed tributary to Jordan Creek, for a total wetland fill of 3.78 acres.

Avoidance and Minimization Information: Impacts to streams and wetlands were unavoidable considering the proposed project involves constructing 5.3 miles of new 4-lane highway.

The applicant prepared two environmental documents to study this proposed action; a Final Environmental Impact Statement (FEIS) approved in 1992 and an Environmental

Assessment (EA) signed in 2003. The first portion of the project between South River Road and S.R. 26 is part of Line 1, the preferred alignment, in the 1992 FEIS. An alternative comparison between Line 1, Line 2 and the "Crossover" alignment (a composite line using parts of each of the other two alternates) selected Line 1 as the preferred alternative in part because it required fewer impacts to wetlands (6.92 acres vs. 22.08 acres for Line 2 and 29.81 acres for the Crossover alternative alignment).

Subsequent to the FEIS being approved, substantial development west of the City of West Lafayette and the Purdue campus prompted a second consideration of the proposed alignment for U.S. Route 231. The EA considered nine total alternatives, including both Line 1 and 2 from the 1992 FEIS. Five alternatives including the original Line 1 were advanced for detailed study with some proposed local projects. The preferred alternative was Line 7 over Line 1 which had fewer residential (18 vs. 335) and commercial (0 vs. 3) displacements but required more right of way (130 acres vs. 121 acres) and had greater environmental impacts to wetlands (4.5 total acres vs. 0 acres). The final alignment from S.R. 26 to U.S. 52 is a combination of Line 1 from S.R. 26 to Lindberg Road and Line 7 from Lindberg Road to U.S. 52. By starting along Line 1 instead of Line 7, two jurisdictional wetlands, totaling 3.4 acres, were avoided near the KBS Railroad as well as 13 private residences. Impacts to wetlands and streams were avoided and minimized to the greatest extent possible.

Compensatory Mitigation: The applicant proposes offsite mitigation that includes the stabilization of 1,741 lf of Wea Creek and planting a 25-foot riparian buffer. Additionally, the applicant proposes to create 4.64 acres of emergent wetlands and 4.37 acres of scrub-shrub wetlands adjacent to Wea Creek. The proposed mitigation is located within the same 8-digit HUC watershed (05120108) as the impact sites.

EXISTING CONDITIONS: Crossings 1 and 2 are located on the southwest and west side of the city of West Lafayette, Tippecanoe County, Indiana in Sections 25 and 11 respectively, Township 23 North, Range 5 West. Set in the suburbs of Lafayette, these areas have experienced increased residential growth and movement of commercial businesses away from the city.

Crossing 1 is located on the southwest side of the city adjacent to the existing U.S. Route 231. Bound by U.S. 31 on the east and South River Road to the north, Crossing 1 sits in an area characterized as a depression, within the 100-year floodplain of the Wabash River. The 1.61 acre scrub-shrub wetland connects to the Wabash River through a road side ditch along U.S. 31 and is dominated by reed canary grass and panicled aster. Using the U.S. Department of Agriculture's Web Soil Survey, the substrate composition for Crossing 1 is classified as Sawabash silty clay loam, which is frequently flooded and considered hydric soil.

Crossing 2 is located on the west side of West Lafayette abutting an unnamed tributary to Jordan Creek. Bound by McCormick Road (County Road 250 W) on the north and east, the wetland complex is adjacent to a subdivision. A small line of trees and an in line detention basin of the unnamed tributary to Jordan Creek separates the wetlands from the

adjacent subdivision. The 3.1 acres emergent wetland is dominated by reed canary grass and panicked aster. Using the U.S. Department of Agriculture's Web Soil Survey, the substrate composition of Crossing 2 is partially classified as Peotone silty clay loam while the other portion is considered to be Wallkill silt loam. Both soil types are hydric.

2. Authority.

Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. §403).

Section 404 of the Clean Water Act (33 U.S.C. §1344).

Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

3. Scope of Analysis.

a. NEPA. *(Write an explanation of rationale in each section, as appropriate)*

(1) Factors.

(i) Whether or not the regulated activity comprises "merely a link" in a corridor type project.

The NEPA Scope of Analysis includes jurisdictional "waters of the U.S." that would be filled, directly or indirectly, by the construction of each separate and complete crossing and the immediate adjacent riparian corridor. Each crossing would be a link in a corridor project.

(ii) Whether there are aspects of the upland facility in the immediate vicinity of the regulated activity which affect the location and configuration of the regulated activity.

The proposed crossings are part of a proposed four-lane highway. The road in the immediate vicinity of the regulated activity was designed to avoid and minimize impacts to "waters of the U.S." to the greatest extent possible.

(iii) The extent to which the entire project will be within the Corps jurisdiction.

The CWA does not provide the Corps legal authority to regulate interstate highway projects, such as the proposed U.S. 231 Bypass, beyond the limits of the "waters of the U.S." The proposed construction of U.S. 231 bypass of Lafayette would include eight separate and complete crossings of "waters of the U.S." In a letter dated November 19, 2010, the Corps of Engineers verified that six of these crossings, which impacted a total of 1,679 linear feet of stream were eligible for Indiana Regional Permit (RGP) No. 1 with special conditions. The remaining two crossings have proposed impacts that exceed those allowed by RGP No. 1 and are being processed as a standard permit. The construction of the road in areas that would not require the placement of fill into "waters of the U.S." will not be within the Corps jurisdiction.

(iv) The extent of cumulative Federal control and responsibility.

Overall responsibility for the construction and approval of interstate highway projects is the responsibility of the Federal Highways Administration (FHWA). FHWA prepared an Environmental Impact Statement (EIS) in 1992 that evaluated the need for the proposed road and alternative corridors. A Record of Decision (ROD) was issued for the EIS that approved a build alternative (Line 1). In 2002, the FHWA prepared a draft Environmental Assessment (EA) to address significant developments since the 1993 EIS that warranted the alternatives to be re-evaluated. On September 17, 2002, a Draft EA was issued for public comment, with a final EA and FONSI being issued on May 21, 2003 identifying Line 7 as the preferred alternative

- (2) Determined scope.
- Only within the footprint of the regulated activity within the delineated water.
 - Over entire property. *Explain.*

b. NHPA "Permit Area".

- (1) Tests. Activities outside the waters of the United States are/are not included because all of the following tests are/are not satisfied: Such activity would/would not occur but for the authorization of the work or structures within the waters of the United States; Such activity is/is not integrally related to the work or structures to be authorized within waters of the United States (or, conversely, the work or structures to be authorized must be essential to the completeness of the overall project or program); and Such activity is/is not directly associated (first order impact) with the work or structures to be authorized. *Explain.* The proposed crossings are part of a linear project that could have been designed to avoid placement of fill within "waters of the U.S." Appendix C of 33 CFR 325 states that for such projects, the "but for" test is not met by the entire project right-of-way. The APE is restricted to the permit area and any associated areas within a 100-foot buffer.
- (2) Determined scope. *Describe.* Impacts within a 100-foot buffer of each separate and complete crossing of a "water of the U.S." were considered in the NHPA "Permit Area."

c. ESA "Action Area".

- (1) Action area means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.
- (2) Determined scope. Impacts within a 100-foot buffer of each separate and complete crossing of a "water of the U.S." were considered in the ESA "Action Area."

d. Public notice comments. NA

- (1) The public also provided comments at public hearing, public meeting, and/or *Explain.*

(2) Commentors and issues raised.

Name	Issue
Kickapoo Tribe of Oklahoma	No objections to the proposed development at the intended site(s). -11/17/10
U.S. Fish and Wildlife Service	No objection to permit issuance provided the mitigation planting plan is modified to remove <i>prairie</i> buffer between Wea Creek and the scrub-shrub wetland. Should be planted with trees to provide wooded riparian habitat. Tree removal should be done when the Indiana bat would not be present, which is between October 1 and April 1. - 11/19/2010
Citizen Potawatomi Nation	Cultural ties to the general land around the area; however no specific sites fall within the APE. - 12/16/2010
Indiana SHPO	We have not identified any historic buildings, structures, districts, or objects, listed in or eligible for listing in the NRHP within the probable APE. -12/17/2010

(3) Site was/ was not visited by the Corps to obtain information in addition to delineating jurisdiction. *Include dates and synopsis of information gathered if site was visited.* A site inspection was initially conducted on November 18, 2009 by Corps staff, the applicant and their agent to determine the jurisdictional status of the waters within the project area. It was determined that some of the waters were man-made features constructed in the uplands for mining activities. Additionally, potential “waters of the U.S.” that were not included in the *Waters Determination Report* were identified.

A second site inspection was performed on November 10, 2010, to review the proposed crossings and the mitigation site. It was noted that Crossing 1 is located adjacent to the existing U.S. Route 31 and consists primarily of emergent vegetation. The site is bordered on the north by an arterial road. Crossing 1 connects to the Wabash River through a roadside ditch, which is located approximately one quarter of a mile south of Crossing 1 and separated by upland areas. Crossing 2 is located in the northern portion of the U.S. 231 corridor and is bounded by a residential community to the west and southwest. Crossing 2 abuts an unnamed tributary to Jordan Creek, consisting primarily of emergent and scrub-shrub wetlands. The road crossing, as proposed, would not eliminate the existing treeline on the west side of the wetland, which would help serve as a buffer from the new roadway. During this site visit, the mitigation site was visited to determine applicability and to determine the likelihood of success. The mitigation site is located in a rural area away from any roads on private property with Wea Creek located along the south portion of the property, agricultural lands to the north and forested corridor to the east and west. The proposed wetland mitigation site is located adjacent to Wea Creek with a direct hydrologic connection from an unnamed tributary. Observable evidence indicated waters frequently overtopped the banks of Wea Creek and flowed through the proposed wetland area. Wea Creek is a sinuous perennial stream with almost vertical banks. The agent for the project indicated that several of the trees that were along the banks of the creek a few months prior had fallen into the creek, apparently undercut by the sloughing of the banks due to high water. It was noted that Wea Creek

could be enhanced by sloping the banks and stabilizing them with vegetation. A 25-foot riparian buffer would be planted along the Creek. It was noted that the proposed mitigation includes a 25-foot prairie buffer between the riparian corridor and the wetland mitigation. This prairie buffer was an agreement with the landowner to allow access to the west portion of the property. Successful mitigation would likely result in restoring the historical condition of the site and connecting the riparian corridors east and west of the property along Wea Creek for a wildlife corridor.

- (4) Issues identified by the Corps. *Describe.* None.
- (5) Issues/comments forwarded to the applicant. NA/Yes.
- (6) Applicant replied/provided views. NA/Yes.
- (7) The following comments are not discussed further in this document as they are outside the Corps purview. NA/ Yes *Explain.*

4. Alternatives Analysis.

a. Basic and Overall Project Purpose (as stated by applicant and independent definition by Corps).

- Same as Project Purpose in Paragraph 1.
- Revised: *Insert revised project purpose here and explain why it was revised.*

b. Water Dependency Determination:

- Same as in Paragraph 1.
- Revised: *Insert revised water dependency determination here if it has changed due to changing project purpose or new information.*

c. Applicant preferred alternative site and site configuration.

- Same as Project Description in Paragraph 1.
- Revised: *Explain any difference from Paragraph 1*

Criteria. Minimize Environmental and Economic impact and maximize the consistency with local plans, Avoidance of Section 4(f) resources

Issue	Measurement and/or constraint
Wetlands	3.78 Acres
Stream	408 linear feet
Farmland	70 Acres
Consistency with local plans	7 (value of 1 not being consistent with local transportation plans while a 10 is complete consistency)
Residential Displacements	5 Units
Business Displacements	0 Units
Floodplain Impacts	0 Acres

d. Off-site locations and configuration(s) for each. (e.g. alternatives located on property not currently owned by the applicant are not practicable under the Section 404(b)(1) Guidelines as this project is the construction or expansion of a single family home and attendant features, such as a driveway, garage, storage shed, or septic field; or the construction or expansion of a barn or other farm building; or the expansion of a small business facility; and involves discharges of dredged or fill material less than two acres into jurisdictional wetlands.)

Off-site locations and configurations

Description	Comparison to criteria
Line 4	Identified in the Environmental Assessment, Line 4 would result in 1.1 acres of additional impact to wetlands and impact an additional 776 linear feet of stream. Additionally, Line 4 would result in an additional loss of 54 acres of farmland, result in the additional displacement of 119 residential units, result in the loss of 4 local businesses and would require impacts 3.8 acres of floodplain. This alternative would not be consistent with local transportation plans, receiving a rating of 2.
Line 10	Identified in the Environmental Assessment, Line 10 would result in 1.3 acres of additional impacts to wetlands and an additional 720 linear feet of stream impact. Additionally, Line 10 would result in an additional loss of 52 acres of farmland, result in the additional displacement of 31 residential units, result in the loss of 2 local businesses and would require impacts 3.0 acres of floodplain. This alternative would not be consistent with local transportation plans, receiving a rating of 2.

e. NA) Site selected for further analysis and why.

f. On-site configurations.

Description	Comparison to criteria
Line 1	Identified as the Preferred Alternative in the Environmental Impact Statement, it would have the least wetland and stream impacts, it would result in the loss of 330 additional residential units and 3 businesses, and 39 acres of additional farmland. There would be the same impact to floodplains. This alternative would have a rating of 4 for consistency with local plans.
Line 7	Identified in the Environmental Assessment, it would result in 0.5 acres of additional wetland impact and an additional 8 linear feet of stream impact, result in 18 acres of less farmland impact, result in 11 additional residential impacts, and would have the same impact on businesses. This alternative would have a rating of 8 for consistency with local plans.
Line 9	Identified in the Environmental Assessment, Line 9 would result in 0.5 acres of additional wetland impact and 58 linear feet of stream. Additionally, Line 9 would result in a loss of 104 additional residential units, the same number of businesses lost, the same number of acres of floodplain impact and an additional loss of 65 acres of farmland. This alternative would have a rating of 8 for consistency with local plans.
Line 7 Modified	Line 7 Modified resulted after the comments from the draft EA. It has the same impacts as the criteria.

g. Other alternatives not requiring a permit, including No Action.

Description	Comparison to criteria
No Action	The no action alternative would have no environmental or economic impacts; however, it would not meet the stated purpose and need of the proposed project and would conflict with local transportation plans.

h. Alternatives not practicable or reasonable. *Describe/explain*

Lines 2, 3, 5, 6 and 8 were eliminated from further evaluation due to their high levels of environmental impacts, residential displacements, or not meeting the future transportation needs of the area. Lines 2 and 3 were eliminated because they had increased residential displacements, wetland impacts, and impacted either the Celery Bog or local schools, both of which are Section 4(f) resources. Lines 5, 6, and 8 were eliminated from further consideration because they did not meet the traffic element of the stated purpose and need and were inconsistent with the 2025 Transportation Plan and the Purdue Transportation Plan.

i. Least environmentally damaging practicable alternative. *Describe/explain*

Line 7 Modified was the least environmentally damaging practicable alternative. This alternative combined the original preferred alternative from the 1993 Final EIS and the preferred alternative from the 2002 Draft EA to develop a third alternative that minimized the impacts to wetlands and streams and minimized the impacts to residents and businesses. While Line 1 resulted in the fewest impacts to streams and wetlands, it resulted in the highest amount of residential displacements. As a result line 1 was deemed not practicable.

5. Evaluation of the 404(b)(1) Guidelines. (NA)

a. Factual determinations.

Physical Substrate. <input type="checkbox"/> See Existing Conditions, paragraph 1 <input checked="" type="checkbox"/> Direct impacts to the substrate in the wetlands adjacent to the Wabash River (Crossing 1), the unnamed tributary to Jordan Creek and its abutting wetlands (Crossing 2) would consist of fill material being placed in these waters in order to construct two separate and complete crossings of the U.S. 231 Relocation. The substrate at each crossing would be completely changed due to fill material. The earthen fill material would comply with INDOT's 2010 Standard Specifications, which require borrow material to be "free of substances that will form deleterious deposits, or produce toxic concentrations or combinations that may be harmful to human, animal, plant or aquatic life, or otherwise impair the designation uses of the stream or area."
Water circulation, fluctuation, and salinity. <input checked="" type="checkbox"/> Addressed in the Water Quality Certification. <input type="checkbox"/>
Suspended particulate/turbidity. <input checked="" type="checkbox"/> Turbidity controls in Water Quality Certification. <input type="checkbox"/>
Contaminant availability. <input checked="" type="checkbox"/> General Condition requires clean fill. <input type="checkbox"/>
Aquatic ecosystem and organism. <input checked="" type="checkbox"/> Wetland/wildlife evaluations, paragraphs 5, 6, 7 & 8. <input type="checkbox"/>
Proposed disposal site. <input checked="" type="checkbox"/> Public interest, paragraph 7. <input type="checkbox"/>
Cumulative effects on the aquatic ecosystem. <input checked="" type="checkbox"/> See Paragraph 7.e. <input type="checkbox"/>

Secondary effects on the aquatic ecosystem. <input checked="" type="checkbox"/> See Paragraph 7.e. <input type="checkbox"/>

b. Restrictions on discharges (230.10).

- (1) It has/has not been demonstrated in paragraph 5 that there are no practicable nor less damaging alternatives which could satisfy the project's basic purpose. The activity is/is not located in a special aquatic site (wetlands, sanctuaries, and refuges, mudflats, vegetated shallows, coral reefs, riffle & pool complexes). The activity does/does not need to be located in a special aquatic site to fulfill its basic purpose.
- (2) The proposed activity does/does not violate applicable State water quality standards or Section 307 prohibitions or effluent standards (based on information from the certifying agency that the Corps could proceed with a provisional determination). The proposed activity does/does not jeopardize the continued existence of federally listed threatened or endangered species or affects their critical habitat. The proposed activity does/does not violate the requirements of a federally designate marine sanctuary.
- (3) The activity will/will not cause or contribute to significant degradation of waters of the United States, including adverse effects on human health; life stages of aquatic organisms' ecosystem diversity, productivity and stability; and recreation, esthetic, and economic values.
- (4) Appropriate and practicable steps have/have not been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem (see Paragraph 8 for description of mitigative actions).

6. Public Interest Review: All public interest factors have been reviewed as summarized here. Both cumulative and secondary impacts on the public interest were considered. Public interest factors that have had additional information relevant to the decision are discussed in number 7.

				+ Beneficial effect
				0 Negligible effect
				- Adverse effect
				M Neutral as result of mitigative action
+	0	-	M	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Conservation.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Economics.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Aesthetics.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	General environmental concerns.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Wetlands.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Historic properties.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fish and wildlife values
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Flood hazards.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Floodplain values.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Land use.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Navigation.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shore erosion and accretion.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Recreation.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Water supply and conservation.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Water quality.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Energy needs.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Safety.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Food and fiber production.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mineral needs.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Considerations of property ownership.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Needs and welfare of the people.

7. Effects, policies and other laws.

a. NA

Public Interest Factors. *(add factors that are relevant to specific project that you checked in number 6 above and add a discussion of that factor)*

Factor	Discussion
Conservation	This is not a factor associated with this activity.
Economics	Direct socio-economic impacts of the proposed crossings would include the loss of farm income due to the removal of farmland from production, project cost, increased employment during construction, annual maintenance and operation costs, changes in the local property tax base as a result of taking taxable property for public right-of-way, and changes in property values due to improved or diminished access or exposure. The proposed crossings would have the indirect socio-economic impact of increased business and employment associated with changes in land use due to development induced by improved access. Socio-economic benefits associated with the improved highway access would go to the travelling public, commercial trucking companies, and the residents of West Lafayette and Tippecanoe County and would be long-term. The net economic affect is negligible.
Aesthetics	<p>The proposed crossings are located in rural settings adjacent to existing roadways. Temporary impacts would be associated with both crossings due to the placement of construction equipment, clearing of areas for construction, and constructing the new highway. These temporary impacts would be mitigated by limiting the vegetation clearing to the area in the construction limits and quick re-vegetation upon completion of construction.</p> <p>Crossing 1 is located at the southern end of the project adjacent to U.S. Route 231 where the new construction would connect with the existing road. While temporary impacts would be associated with construction, there would be no long-term permanent impacts to the viewshed as Crossing 1 is adjacent U.S. 231.</p> <p>Crossing 2 is located between arterial roads to the east and north and a residential community to the west. The proposed construction of Crossing 2 would convert the existing viewshed from local roads to a 4-land divided</p>

	<p>highway. The proposed highway has been designed so that it is located as far as possible from the nearby residents. An existing treeline along the west side of the wetlands is outside of the construction area and would be left in place to minimize the change in viewshed to the nearby residents.</p>
<p>General Environmental Concerns</p>	<p>Air: The proposed permit has been analyzed for conformity applicability pursuant to regulations implementing Section 176 (c) of the Clean Air Act. It has been determined that the activities proposed under this permit would not exceed de minimis levels of direct emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within Corps continuing program responsibility and generally cannot be practicably controlled by the Corps. For these reasons a conformity determination is not required for this permit action.</p> <p>Noise: The proposed crossings would be located in areas near existing highways and two-lane roads. The FHWA and INDOT conducted an analysis for the noise impacts for the 2003 Environmental Assessment. Noise level modeling demonstrated that three community receivers along the proposed project route had modeled noise levels approaching or exceeding the Noise Abatement Criterion of 67 dBA leg. The noise modeling also indicated that these three receivers experienced the same noise levels under the “No-Build” Alternative. While construction of the project would result in temporary increase of noise levels due to construction activities, construction of the two crossings as well as the proposed project would be consistent with existing conditions and would not have an adverse impact on the surrounding community.</p>
<p>Wetlands</p>	<p>The proposed construction of the two crossings would result in fill material being discharged into 2.32 acres of emergent wetlands and 1.46 acres of scrub-shrub wetlands. The existing wetlands provide surface water storage function and flood protection as 1.6 acres of impact is located within the 100-year floodplain of the Wabash River. The wetland hydrology is primarily driven by precipitation, overland flow, and flood water during the rainy parts of the year . The wetlands would also be expected to provide functions relating to nutrient transformations and processing, biomass accumulation, and decomposition. The wetlands also provide habitat for wildlife.</p>

	<p>Compensation for that wetland impacts would be provided through wetland creation at an offsite location in Tippecanoe County that is within the same 8-digit watershed. The mitigation site would include the construction of 4.64 acres of emergent wetlands and 4.37 acres of scrub-shrub wetlands adjacent to Wea Creek.</p>
Historic Properties	<p>There are no known historic buildings, structures, districts or objects listed in or eligible for inclusion in the National Register of Historic Places within the area of the two proposed crossings.</p>
Fish and Wildlife Values	<p>The proposed crossings would result in the loss of 3.78 acres of emergent and scrub-shrub wetlands as well as placement of fill into 408 lf of an unnamed tributary to Jordan Creek. These areas provide habitat for fish, birds, reptiles and mammals. Mitigation for this loss would be accounted for through the restoration of 1,741 lf of Wea Creek and construction of 9.01 acres of wetlands at an offsite location.</p>
Flood Hazards	<p>The Environmental Assessment prepared in 2003 identified approximately 1,000 acres of floodplain within the U.S. 231 relocation study corridor. Crossing 1 would require the placement of fill into 1.63 acres of floodplain wetlands, representing 0.16% of the available storage capacity within the study area. There are no flood plain impacts as a result of constructing Crossing 2.</p> <p>Construction of Crossings 1 and 2 would impact less than 1% of the available flood storage capacity within the project boundary and would not adversely increase the flood hazard for nearby residential and commercial properties.</p>
Floodplain values	<p>Crossing 1 is located on the edge of the Wabash River floodplain and would require the placement of fill into 1.63 acres of wetlands. This fill would result in the loss of flood water storage capacity and reduce the amount flood protection for the surrounding area. The proposed crossing would be constructed in accordance with an Indiana Department of Natural Resources Construction in a Floodway permit, issued on March 17, 2007. Mitigation for the loss of flood control function would include the 1,741 linear feet of restoration along Wea Creek and creation of adjacent emergent and scrub-shrub wetlands. Wea Creek is a tributary of the Wabash River, located upstream of Crossing 1. The proposed mitigation would increase floodplain storage capacity upstream of Crossing 1</p>

	<p>and would offset the loss of floodplain storage as a result of the discharge of fill at Crossing 1.</p> <p>Crossing 2 would be located outside of a floodplain and would not have an adverse impact on floodplains.</p>
Land use	<p>The proposed project would have a direct impact to land use in the area of the road construction. The construction of the two crossings and relocation of U.S. 231 would change land use from its agriculture, forest, and native areas to a four-lane divided highway. The entire road corridor had previously been incorporated into the local long range plans for project development. The proposed action would not have any adverse impacts to future planned land use activities.</p> <p>There is no known prime or unique farmland in the area of the proposed crossings. Therefore, the crossings would have no direct effect on prime or unique farm land. The entire U.S. 231 relocation corridor would convert 79 acres of prime and statewide important farmland to interstate highway. An evaluation by the Natural Resources Conservation Service (NRCS) evaluated the impacts to have a Farmland Conversion Impact Rating of 101. According to the federal register (7 CFR part 658.4(c)(2)), impacts that have an impact rating of less than 160 do not require further consideration or protection or evaluation of additional sites.</p>
Navigation	<p>This is not a factor associated with this activity.</p>
Shore erosion and accretion	<p>No adverse effect to erosion and accretion rates or patterns is expected from any of the crossings. Erosion control measures would be implemented on the worksites to protect the waterways from receiving increased sedimentation from the work area.</p>
Recreation	<p>The 1993 EIS and 2003 EA identified several nature parks and Section 4(f) resources within the proposed corridor of the U.S. 231 relocation; however, none of these resources are within or adjacent to the boundaries of the two crossings. The proposed crossings and construction of the preferred alternative have been designed to avoid these areas. As part of the alternative analysis, any alternative impacting a Section 4(f) resources was eliminated from further consideration due to its potential impact. Construction of the two crossings and relocation of U.S. 231 would not have an impact on parks, national and historic monuments, wild and scenic rivers, wilderness area, research sites, etc.</p>

<p>Water Supply and Conservation</p>	<p>There are both bedrock (consolidated) and unconsolidated aquifers within the project area. The Borden Group bedrock aquifer is located throughout the project site with a reported thickness from 10 to 225 feet with yields ranging from 1 to 270 gallons per minute (gpm). The second bedrock aquifer, the Wabash Formation is located on the eastern side of the project area with a thickness of 20 to 90 feet. The two unconsolidated aquifers include sand and gravel deposits and have a thickness of 10 to 225 feet. With one being located in the southern half of the project area and the other located in the northern half of the project area, they yield from 25 – 2,500 gpm. The two proposed crossings would have no impact on aquifer recharge. Neither of the proposed crossings nor the entire length of the project would create areas of impermeable surfaces large enough to have an adverse effect on aquifer recharge.</p> <p>There are two public waters supplies located within the project area that supply water to nearby residents. Additionally, many residents still receive their drinking water from private wells.</p> <p>The relocation of U.S. 231 would not have an impact any public water wells. Seven private water wells were identified within the project corridor. Three of these wells are associated with residents that are being relocated and would be capped according to the Indiana State Regulations. The other four wells are located outside of the construction area and would not be impacted. In the event that a private well is located or needs to be moved, the INDOT would cap the existing well and re-drill a new well for the land owner at the State's costs.</p>
<p>Water Quality</p>	<p>The 2 proposed crossings would result in the permanent discharge of fill material into jurisdictional wetlands, resulting in the loss of these features. Additionally, Crossing 2 would require the encapsulation of 320 linear feet of an unnamed tributary to Jordan Creek. While best management practices would be incorporated to minimize temporary impacts, the encapsulation would result in the permanent loss of in-stream habitat for this section of creek. To mitigate these impacts, the applicant has proposed the creation of wetlands at an offsite mitigation location adjacent to Wea Creek. Additionally, the applicant has proposed to stabilize and enhance 1,741 lf of Wea Creek.</p>

	<p>Along the entire length of the road project, the Corps verified that six crossings of “waters of the U.S.” qualified for Indiana Regional General Permit No. 1. All of these would require the permanent discharge of fill into a stream. The applicant proposes to minimize temporary impacts through best management practices; however, the permanent impacts were unavoidable. Mitigation for these unavoidable impacts would be a part of the 1,741 lf of stream stabilization and enhancement along Wea Creek.</p>
<p>Energy Needs</p>	<p>The proposed project would result in a temporary increase in energy consumption due to construction activities. These impacts would be short-term and would be at a level commensurate with other construction activities of this type. It is expected that the proposed project would have a long-term positive impact for energy consumption. Once the project is complete, the proposal would improve regional transportation issues by removing congestion for arterial streets and improving vehicle safety. Additionally, energy would be saved due to the improvement of operational speed of the vehicles traveling on the road because they are not having to travel through congested streets and stop at intersections.</p>
<p>Safety</p>	<p>The proposed crossings are a part of a larger project that would improve safety by reducing the vehicle miles traveled and reducing the number of automobile accidents. The proposed road construction would remove congestion from clogged arterial streets, allowing vehicles to travel through the region on a divided, limited access, four-lane highway. While crashes will still existing on the new highway, state-wide average crash rates show that urban principal roadways (proposed action) have lower crash rates than urban minor arterials and two-lane collector streets. Therefore, the proposed project should have a long-term positive impact for vehicle safety within the study area.</p> <p>The proposed crossings would be part of the relocation of U.S. Route 231 around the west side of West Lafayette. Future traffic assignments indicate that by design year 2025, the volume of traffic on multiple segments of the existing U.S. 231 and associated street network would be at unacceptable levels if the existing conditions remain. The AASHTO 2001 volume of A Policy on Geometric Design of Highways and Streets states that an acceptable level of service (LOS) for urban/suburban highways is LOS C or better. The INDOT Design Manual states that for arterial</p>

	<p>streets the desirable LOS is LOS B with LOS C as a minimum. The 2025 Traffic Analysis Area (TAA) model indicates that US 231 from Lindberg Road (CR 200 N) to the east junction with US 52 will have 33,500 Average Annual Daily Traffic (AADT) resulting in a LOS D and US 231 from Stadium Avenue to SR 126 (Cherry Lane) will have 23,600 AADT resulting in a LOS C. Related street network segments on SR 26 from Second Street in Lafayette west to CR 500 W the LOS is LOS C or lower with segments from McCormick Road to CR 250 W at LOS D. The worst LOS in the TAA is for the Harrison Bridge over the Wabash River between Lafayette and West Lafayette with a LOS E.</p> <p>The U.S. 231 relocation would divert traffic from the congested arterial roads, thereby reducing congestion and travel times, and allowing these segments of roads to be in compliance with the INDOT Design Manual. Additionally, the relocation provides an additional North/South route that would meet the needs of the County's Planning Commission.</p>
<p>Food and Fiber Production</p>	<p>The proposed crossings would not have an adverse impact on food and/or fiber production. The two crossings located within wetland complexes are not adjacent to agricultural areas. Construction of the two crossings would not result in the loss of agricultural fields or riparian habitat used for harvesting.</p>
<p>Mineral Needs</p>	<p>The project would have no impacts on mineral needs.</p>
<p>Considerations of Property Owners</p>	<p>The two proposed crossings are part of the larger, U.S. Route 231 relocation. While the two crossing would not adversely impact property owners, the entire project would result in the displacement of 1 community church and 5 residences. These parcels account for approximately 6 acres of the total 132 acres of land needed for the project making up less than 5% of the total land needed. Since the 6 parcels represent a small percentage of the overall area needed for the project, the project would have a minimal impact on private property.</p> <p>The community church and each resident would receive fair market value for their home and property as determined by a licensed real estate appraiser. Each resident would be assisted in finding a new home or property and would be reimbursed for costs associated with moving.</p>

	The adjoining property owners were mailed a copy of the public notice to provide an opportunity for comment. No comments were received. Adjoining property owners should not be adversely affected by the proposed crossings.
Needs and welfare of the people	The public and private need for the proposed project is to provide improved regional travel between the southern part of the region to the northwest part of the region. The proposal would improve regional transportation issues by removing congestion for arterial streets and improving vehicle safety.

b. Endangered Species Act. NA

The proposed project:

(1) Will not affect these threatened or endangered species:

Any/ . *Explain.*

(2) May affect, but is not likely to adversely affect:

Species: Indiana bat (*Myotis sodalis*), clubshell mussel (*Pleurobema clava*), and fan shell mussel (*Cyprogenia stegaria*). *Explain.* Through early coordination with the U.S. Fish and Wildlife Service (USFWS), the applicant identified that the proposed project was within the range of the federally endangered Indiana bat (*Myotis sodalis*), clubshell mussel (*Pleurobema clava*), and the fanshell mussel (*Cyprogenia stegaria*). Additionally, the project is located within the range of a nesting pair of bald eagles (*Haliaeetus leucocephalus*), which are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. With USFWS guidance, the applicant completed a mist net survey to determine if there were Indiana bats within the project area. No Indiana bats were captured during the mist net surveys, indicating a probable absence of these species in summertime habitat. Based on the results, it was determined that the proposed project is not likely to adversely affect the Indiana bat.

The clubshell mussel and fanshell mussel are restricted to the Wabash River. Since the project does not directly affect the Wabash River, no direct or indirect impacts would occur to the mussel habitat due to this project.

A known nest site for the Bald eagle is located along the Wabash River, downstream from the proposed project area. No surveys were conducted for this species since the proposed project would not occur within a quarter mile of possible habitat.

In a letter dated September 10, 2002, the USFWS concurred with the applicant's findings of not likely to adversely impact threatened or endangered species.

- (3) Will/ Will not adversely modify designated critical habitat for the
Explain.
- (4) Is/ Is not likely to jeopardize the continued existence of the
Explain.
- (5) The Services concurred/ provided a Biological Opinion(s). *Explain.*
- c. Essential Fish Habitat. Adverse impacts to Essential Fish Habitat will/ will not result from the proposed project. *Explain.* There is no Essential Fish Habitat within the project area.
- d. Historic Properties. The proposed project will/ will not have any affect on any sites listed, or eligible for listing, in the National Register of Historic Places, or otherwise of national, state, or local significance based on letter from SHPO/
Explain. Letter from the Indiana SHPO dated December 17, 2010, stating, "have not identified any historic buildings, structures, districts, or objects listed in or eligible for inclusion in the National Register of Historic Places within the probable area of potential effects."
- e. Cumulative & Secondary Impacts. The geographic area for this assessment is the 8-digit watershed.
- (1) Baseline. Approximately 0.9% of the watershed area is wetland. There are also approximately 2,240.00 stream miles contained within the watershed comprised of 8% perennial, 14% intermittent, and 78% ephemeral tributaries. Corps permits for the period 2005-2010 authorized the fill of 4,491 acres of wetlands and 20,594 linear feet of stream. The projection is that authorizations will continue at the current rate/ increase/ because of continued development in and around Lafayette and the I-65 corridor. There are no natural resource issues of particular concern [from Corps & non-Corps activities].
- (2) Context. The proposed project is typical of/ a precedent/ very large compared to other road transportation activities in the watershed. Development similar to the proposal has occurred since divided highways and interstates were first developed during the era of the Great Depression. Future conditions are expected to be similar to existing conditions (i.e. agricultural production, future population growth, expansion of Lafayette and West Lafayette, and expansion of Purdue University). Besides Corps authorized projects, other activities include mining operations, maintenance of agricultural fields, city development, and parks and recreation development. Resulting natural resource changes and stresses include conversion of woods, streams and wetlands, for agriculture and city development. A key issue of concern in this watershed is the potential impacts and flooding along the Wabash River

resulting from wetland loss.

- (3) Mitigation and Monitoring. The project affects the following key issue(s): the proposed crossings include 3.78 acres of wetlands that would be cleared and filled and 408 linear feet of stream that would be relocated, encapsulated, and/or lined with riprap. The magnitude of the proposed effect is approximately 0.03% of total wetland area within the watershed. Avoidance and minimization methods include the preparation of two NEPA documents that reviewed alternative alignments choosing alternatives that minimized environmental impacts, economic impacts, and met the needs of the area transportation plans. Final design work further modified the proposed project to reduce the amount of fill being discharged to "waters of the U.S." Avoidance and minimization measures resulted in the proposed impacts, compared with the other alignments and designs that had impacts from 2 – 22.08 acres of additional wetland impact. Compensatory mitigation, namely the proposed wetland and stream mitigation and monitoring described herein will result in the stabilization and enhancement of 1,741 linear feet of Wea Creek and the creation of 4.64 acres of emergent wetlands and 4.37 acres of scrub-shrub wetlands. A 25-foot riparian buffer would be constructed on the north side of Wea Creek. A 25-foot prairie buffer would be constructed between the riparian buffer and the wetland mitigation site.

The U.S. Fish and Wildlife Service commented that the 25-foot prairie buffer should be changed to trees to provide a wooded riparian habitat. A 25-foot riparian corridor is planned along Wea Creek. The 25-foot prairie buffer is an agreement with the landowner so that he may continue to have access to this portion of the property for recreational activities along the stream. The prairie buffer would also allow access to the site for equipment in the event that maintenance needs to be performed. While an additional 25-foot riparian corridor would create a better riparian corridor, the mitigation plan includes a 25-foot riparian corridor along Wea Creek and the applicant would construct forested wetlands onsite to compensate for isolated wetlands impacts. The 25-foot prairie buffer is a beneficial compromise with the land owner to create mitigation that is likely to succeed. Additionally, this mitigation site would be protected in perpetuity through a deed restriction.

- f. Corps Wetland Policy. Based on the public interest review herein, the beneficial effects of the project outweigh the detrimental impacts of the project.
- g. NA) Water Quality Certification under Section 401 of the Clean Water Act has has not yet been issued by / State / Commonwealth.
- h. Coastal Zone Management (CZM) consistency/permit: Issuance of a State permit certifies that the project is consistent with the CZM plan. There is no evidence or indication from the _____ that the project is inconsistent with their CZM plan.

- i. Other authorizations.
- j. (NA) Significant Issues of Overriding National Importance. *Explain.*

8. Compensation and other mitigation actions.

a. Compensatory Mitigation

(1) Is compensatory mitigation required? yes no [If "no," do not complete the rest of this section]

(2) Is the impact in the service area of an approved mitigation bank? yes no

(i) Does the mitigation bank have appropriate number and resource type of credits available? yes no

(3) Is the impact in the service area of an approved in-lieu fee program?
 yes no

(i) Does the in-lieu fee program have appropriate number and resource type of credits available? yes no

(4) Check the selected compensatory mitigation option(s):

mitigation bank credits

in-lieu fee program credits

permittee-responsible mitigation under a watershed approach

permittee-responsible mitigation, on-site and in-kind

permittee-responsible mitigation, off-site and out-of-kind

(5) If a selected compensatory mitigation option deviates from the order of the options presented in §332.3(b)(2)-(6), explain why the selected compensatory mitigation option is environmentally preferable. Address the criteria provided in §332.3(a)(1) (i.e., the likelihood for ecological success and sustainability, the location of the compensation site relative to the impact site and their significance within the watershed, and the costs of the compensatory mitigation project):

The proposed mitigation site is located within the Middle Wabash-Little Vermilion USGS 8-digit watershed (05120108) and the floodplain of Wea Creek. Located approximately 9.5 miles southeast of the project area, the 13 acre mitigation site is located adjacent to Wea Creek on its northern bank in a rural area of the county primarily comprised of agricultural lands. Surrounding land use of the mitigation site includes agricultural land to the north, forest parcels east and west of the property and forested parcels south of Wea Creek. A review of the National Wetland Inventory Map identifies a large portion of the riparian corridor along Wea Creek, both upstream and downstream from the mitigation site, as palustrine forested wetlands (PFO) with inclusions of

emergent wetlands scattered throughout. There is an existing small forested wetland complex on the north side of the planned emergent and scrub-shrub wetlands within the mitigation area. The Websoil Survey, maintained by the Natural Resources Conservation Service (NRCS), identifies the soil type for the mitigation area as Cohoctah loam. Cohoctah loam is categorized as all hydric and occasionally flooded. Hydrology for the site would be provided primarily through the floodwaters of Wea Creek which is located within 50 feet of the boundary of the wetland mitigation area. Communication with the landowner indicates that the area frequently floods and is inundated with water from Wea Creek. In addition, farming the parcel is difficult during wet periods of the year.

This mitigation site was selected due to its proximity to Wea Creek and the likelihood that the mitigation would be successful. Hydric soils already exist at the site, indicating that the mitigation site should receive adequate hydrology for successful mitigation. Upon successful development, the wetlands would connect with forested wetland corridor along Wea Creek, creating a 1,000 foot buffer that provides important wildlife corridor and habitat in a portion of the state dominated by agricultural use. The successful development of the mitigation site would most likely restore the historic condition of the property prior to being used as farmland.

(6) Other Mitigative Actions – Additional mitigation measures are not required.

9. General evaluation criteria under the public interest review. We considered the following within this document:

- a. The relative extent of the public and private need for the proposed structure or work. (e.g. Public benefits include employment opportunities and a potential increase in the local tax base. Private benefits include land use and economic return on the property; for transportation projects benefits include safety, capacity and congestion issues.)

Explain:

The public and private need for the relocation of U.S. 231 is to reduce congestion on arterial streets and improve safety. Future growth surveys project the continued growth of the community. Traffic studies indicate that many of the arterial roads are either failing or will be failing in the future when it comes to vehicle accidents. The proposed relocation of U.S. 231 would provide a four-lane highway from the southern portion of the region to the northwest portion of the region, thereby removing traffic from already congested arterial streets. Additionally, the proposed road would be consistent with future transportation needs of the area.

- b. There are no unresolved conflicts as to resource use. (There are unresolved conflicts as to resource use. One or more of the alternative locations and methods described above are reasonable or practicable to accomplish the objectives of the proposed structure or work but are not being accepted by the applicant.) (There are

unresolved conflicts as to resource use however there are no practicable reasonable alternative locations and methods to accomplish the objective of the proposed work.)

- c. The extent and permanence of the beneficial and/or detrimental effects, which the proposed work is likely to have on the public, and private uses to which the area is suited. Detrimental impacts are expected to be minimal although they would be permanent in the construction area. The beneficial effects associated with utilization of the property would be permanent. *Explain.* The proposed crossings are located adjacent to existing roadways. These areas would be converted to public highway. The proposed crossings includes 3.78 acres of wetlands and 408 linear feet of encapsulation. In addition to the impacts from the two crossings, the relocation of U.S. 231 would require the additional impact to 1,133 linear feet of stream that was authorized under RGP #1. To offset the wetland and stream losses, the applicant would create wetlands at the offsite mitigation site and stabilize and enhance a portion of Wea Creek.

10. Determinations.

- a. Public Hearing Request: NA

I have reviewed and evaluated the requests for a public hearing. There is sufficient information available to evaluate the proposed project; therefore, the requests for a public hearing are denied.

- b. Section 176(c) of the Clean Air Act General Conformity Rule Review: The proposed permit action has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined that the activities proposed under this permit will not exceed de minimis levels of direct or indirect emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within the Corps' continuing program responsibility and generally cannot be practicably controlled by the Corps. For these reasons a conformity determination is not required for this permit action.

- c. Relevant Presidential Executive Orders.

- (1) EO 13175, Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians. This action has no substantial direct effect on one or more Indian tribes. *Received response to the public notice from the Kickapoo Tribe of Oklahoma on November 17, 2010, stating that they had no objections to the proposed development at the intended sites. Received letter from the Citizen Potawatomi Nation on December 17, 2010, saying they have cultural ties to the area, however no specific sites fall within the APE.*
- (2) EO 11988, Floodplain Management. Not in a floodplain. (Alternatives to location within the floodplain, minimization, and compensation of the effects were considered above.)

- (3) EO 12898, Environmental Justice. In accordance with Title III of the Civil Right Act of 1964 and Executive Order 12898, it has been determined that the project would not directly or through contractual or other arrangements, use criteria, methods, or practices that discriminate on the basis of race, color, or national origin nor would it have a disproportionate effect on minority or low-income communities.
- (4) EO 13112, Invasive Species.
 There were no invasive species issues involved.
 The evaluation above included invasive species concerns in the analysis of impacts at the project site and associated compensatory mitigation projects.
 Through special conditions, the permittee will be required to control the introduction and spread of exotic species.
- (5) EO 13212 and 13302, Energy Supply and Availability. The project was not one that will increase the production, transmission, or conservation of energy, or strengthen pipeline safety. (The review was expedited and/or other actions were taken to the extent permitted by law and regulation to accelerate completion of this energy-related (including pipeline safety) project while maintaining safety, public health, and environmental protections.)
- b. Finding of No Significant Impact (FONSI). Having reviewed the information provided by the applicant and all interested parties and an assessment of the environmental impacts, I find that this permit action will not have a significant impact on the quality of the human environment. Therefore, an Environmental Impact Statement will not be required.
- c. Compliance with 404(b)(1) guidelines. NA

Having completed the evaluation in paragraph 5, I have determined that the proposed discharge complies/ does not comply with the 404(b)(1) guidelines.

- d. Public Interest Determination: I find that issuance of a Department of the Army permit is not/ is contrary to the public interest, if properly conditioned. Therefore, I have decided to issue the requested Department of the Army permit subject to all Standard Conditions and the following Special Conditions:
1. The permittee shall be responsible for implementing the restoration and mitigation in accordance with the Mitigation and Monitoring Plan dated July 14, 2010, and revised on November 18, 2010.
 2. The permittee shall monitor the mitigation site annually for a period of five years. The permittee shall submit monitoring reports to the U.S. Army Corps of Engineers, Indianapolis Regulatory Office by December 31 of each monitoring year.

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3. The permittee shall permanently protect the entire mitigation area through the implementation of the Corps approved deed restriction. A copy of the signed and recorded deed restriction for the mitigation area shall be submitted with the final monitoring report. The Corps shall be notified in writing prior to the transfer of the mitigation site to another entity or individual. Permanent protection shall transfer with the property.
4. The permittee shall limit tree clearing activities to only occur between October 1 and April 1 to avoid any impacts to the Indiana bat (*Myotis sodalis*).
5. The permittee's responsibility to complete the required compensatory mitigation as set forth in Special Condition 1 shall not be considered fulfilled until they have demonstrated compensatory mitigation project success and have received written verification of that success from the U.S. Army Corps of Engineers.

PREPARED BY:



Date: 2/28/11

Scott A. Matthews
Project Manager
Indianapolis Regulatory Office

APPROVED BY:



Date 2/24/11

Greg McKay
Chief, North Section
Regulatory Branch