

Appendix C

Early Coordination

	<u>Page(s)</u>
Sample Early Coordination Letter	C-1
List of Agencies	C-4
IDNR-DFW Letter.....	C-5
IGWS Electronic Letter	C-10
IDEM Electronic Letter	C-14
City of Indianapolis Letter	C-21
INDOT Aviation email	C-22
USFWS Official Species List	C-23
Project Submittal Form	C-29
Email re: USFWS Approval	C-40
Utility Coordination Letter	C-41

June 25, 2019

[Address Block]

Example Early
Coordination Letter
(ECL)

Re: Des. No.: 1802075
Description: I-465 Reconfiguration
Marion County, Indiana

Dear [Name],

The Indiana Department of Transportation (INDOT) proposes an added travel lane project on I-465 in Marion County, Indiana. Specifically, the project is located in the Indianapolis Bridgeport, Maywood, and Beech Grove Quadrangles (Section A/B: 39.699745 N, 86.130223 W and Section C: 39.699323 N, 68.257783 W). Furthermore, the project is located within:

- Sections 25 and 36 of Township 15 North, Range 2 East,
- Section 31 and 36 of Township 15 North, Range 3 East, and
- Sections 31 and 32 of Township 15 North, Range 4 East.

Environmental analysis is being conducted for this project. The project is funded, in part, by the Federal Highway Administration (FHWA). This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above designation number and description in your reply. We will incorporate your comments into a study of the project’s environmental impacts.

Purpose and Need: The needs for this project are due to insufficient capacity along I-465 and safety issues that result in a high rate of crashes. Safety issues include substandard interchange ramp lengths that do not meet current *Indiana Design Manual 2013* (revised 2019) standards. This project is divided into two sections, Section A/B and Section C. Within Section A/B, there are back-ups and accidents at the I-465 to northbound US 31 ramps, the southbound US 31 to I-465 ramp, and the southbound US 31 to eastbound I-465 entrance lane. Within Section C, there are back-ups and accidents where the eastbound I-70 to eastbound I-465 entrance lane drops, at the eastbound I-465 to State Road (SR) 67 entrance ramp, at the westbound I-465 to eastbound I-70 exit ramp, and at the westbound I-465 to SR 67 on-ramp.

The purpose of the I-465 Reconfiguration Project is to improve overall traffic operation within these sections of I-465 by increasing capacity, increasing ramp lengths to meet current standards, and to improve safety.

Existing Conditions: The project is located in an urban area on the south side of the City of Indianapolis (see Project Area Map, Attachments, Page 1). Within Section A/B, I-465 has three 12-foot travel lanes in each direction, with 10- to 12-foot inside shoulders and 12-foot outside shoulders. Section A/B includes the I-65 and East Street interchanges, and has overpasses for Carson Avenue, Keystone Avenue, the Louisville & Indiana Railroad, and Madison Avenue.

Within Section C, I-465 has three 12-foot travel lanes in each direction, with 16.75-foot inside shoulders and 10- to 12-foot outside shoulders. Section C includes the Mann Road, I-67/Kentucky Avenue, and I-70 interchanges, and has overpasses for Mooresville Road Bypass and Hanna Avenue.

Proposed Project: Section A/B begins at the I-465/I-65 interchange and ends approximately 0.3 mile west of the I-465/US 31 interchange. The proposed work for Section A/B includes building auxiliary lanes on I-465 eastbound and westbound with retaining walls, reconfiguring the eastbound I-465 to northbound US 31 exit ramp, extending the southbound US 31 to eastbound I-465 merge area, and extending the entrance lane from



southbound US 31 to eastbound I-465. The proposed work for Section A/B also includes the replacement of the Madison Avenue, Keystone Avenue, and Carson Avenue bridges.

Section C begins just west of the Mann Road interchange and ends at the I-465/I-70 interchange. The proposed work for Section C includes added travel lanes along I-465, full depth pavement replacement at the shoulders, and replacement of the Mooresville Road Bypass bridge.

All work will occur within existing right-of-way. Less than one acre of temporary right-of-way maybe be required.

During construction, traffic will be maintained along I-465 with shoulder and lane closures. All ramps within the interchanges will primarily remain open during construction. Local roads will experience closures while the Madison Avenue, Keystone Avenue, Carson Avenue, and Mooresville Road Bypass bridges are replaced, and detours will be provided.

Environmental Concerns: The USGS 7.5-minute quadrangle topographic map shows two streams (McFarland Creek and Lick Creek) within the project area (Attachments, Pages 2-4). On May 8-10, 13-16, 20-24, and 28-30, 2019, Parsons conducted a waters investigation to determine the presence of jurisdictional streams and wetlands. Parsons identified thirty-one likely jurisdictional streams and forty-eight wetlands within the study area. A Waters of the US Report will be prepared to document the likely jurisdictional water resources in the project area. All applicable permits will be applied for and acquired before construction can begin. Parsons will continue to work in coordination with the INDOT Ecology and Waterway Permitting Office to determine the presence and impacts to ecological resources.

Based on the Soil Survey Geographic (SSURGO) Database for Marion County, Indiana, the study area is comprised of hydric, predominantly hydric, not hydric, and predominantly non-hydric soil types. The sixteen mapped soil units within the study area are shown in Table 1: Mapped Soil Units within the Study Area and the NRCS Soils Maps (Attachments, Pages 5-21).

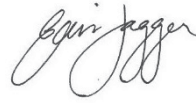
This project is within the range of the federally endangered Indiana bat (*Myotis sodalis*) and federally threatened northern long-eared bat (*Myotis septentrionalis*). The Indiana Bat and Northern Long-eared Bat Range-Wide Programmatic Informal Consultation is anticipated to be applied to this project. Project information was uploaded to the United States Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) website to identify if any species listed or proposed to be listed may be present in the area of the proposed action. Based on the criteria for programmatic informal consultation, a finding of "May Affect, Not Likely to Adversely Affect with Avoidance and Minimization Measures" is anticipated. The required IPaC System for Listed Bat Consultation will be completed to confirm this finding.

Coordination with the INDOT Cultural Resources Office (CRO) is ongoing. If this project does not meet the conditions of the Minor Projects Programmatic Agreement (MPPA), full Section 106 coordination will occur.

Please respond with your comments on any environmental impacts associated with this project. **Should we not receive your response within thirty (30) calendar days from the date of this letter, it will be assumed that your agency feels that there will be no adverse effects incurred as a result of the proposed project.** However, should you find that an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions regarding this matter, please contact me at (317) 616-1011 or via e-mail at Eric.Jagger@Parsons.com. Thank you in advance for your input.

Early Coordination Letter
I-465 Reconfiguration
June 25, 2019

Sincerely,



Eric Jagger
Associate Environmental Planner
Parsons

Attachments

Attachments
intentionally omitted
to avoid duplication,
refer to Appendix B.

Early Coordination Letter
I-465 Reconfiguration
June 25, 2019

The following agencies received Early Coordination Letters:

U.S. Army Corps of Engineers
Louisville District
ATTN: CELRL-RDN
P.O. Box 59
Louisville, KY 40201-0059

Field Supervisor
US Fish and Wildlife Service
Bloomington Indiana Field Office
620 South Walker Street
Bloomington, IN 47403-2121

Federal Highway Administration
Federal Office Building
575 North Pennsylvania Street, Room 254
Indianapolis, IN 46204

Environmental Coordinator
Indiana Department of Natural Resources
Division of Fish and Wildlife
402 West Washington Street, Room W273
Indianapolis, IN 46204-2641

Indiana Department of Environmental
Management
100 North Senate Avenue
Indianapolis, IN 46204
(Electronic Coordination)

Manger, Public Hearings
Indiana Department of Transportation
100 North Senate Avenue, Room 642
Indianapolis, IN 46204

Indiana Department of Transportation
Office of Aviation
Room N955, IGC North
100 North Senate Avenue
Indianapolis, IN 46204

State Conservationist
Natural Resources Conservation Service
6013 Lakeside Boulevard
Indianapolis, IN 46278

Storm Water Project Manager
Department of Public Works
1200 Madison Avenue, Suite 200
Indianapolis, IN 46225

Executive Director
Indianapolis Metropolitan Planning Organization
200 East Washington Street, Suite 1922
Indianapolis, IN 46204

Indiana Department of Transportation
Greenfield District
32 South Broadway
Greenfield, IN 46140

Field Environmental Officer
Chicago Regional Office
US Department of Housing & Urban Development
Metcalf Federal Building
77 West Jackson Boulevard, Room 2401
Chicago, IL 60604

Regional Environmental Coordinator
Midwest Regional Office
National Park Service
601 Riverfront Drive
Omaha, Nebraska 68102

Indiana Geological and Water Survey
611 North Walnut Grove
Bloomington, IN 47405

Rail Programs Manager
Indiana Department of Transportation
100 North Senate Avenue, IGCN 955
Indianapolis, IN 46204

State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

DNR #: ER-21644

Request Received: June 25, 2019

Requestor: Parsons
Eric Jagger
101 West Ohio Street, Suite 2121
Indianapolis, IN 46204

Project: I-465 reconfiguration from I-65 to about 0.3 mile west of US 31 (Section A/B) and from west of Mann Road to I-70 (Section C), and bridge replacements over Madison Avenue, Keystone Avenue, Carson Avenue, and Mooresville Road Bypass; Des #1802075

County/Site info: Marion

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

If our agency has regulatory jurisdiction over the project, the recommendations contained in this letter may become requirements of any permit issued. If we do not have permitting authority, all recommendations are voluntary.

Regulatory Assessment: This proposal may require the formal approval of our agency pursuant to the Flood Control Act (IC 14-28-1) for any proposal to construct, excavate, or fill in or on the floodway of a stream or other flowing waterbody which has a drainage area greater than one square mile, unless it qualifies for a bridge exemption (see enclosure) or qualifies under the INDOT and IDNR Memorandum of Understanding for Maintenance Activity Exemption, dated March 1997. Please include a copy of this letter with the permit application, if required.

Natural Heritage Database: The Natural Heritage Program's data have been checked. The animal species below have been documented within 1/2 mile of the project areas, as indicated.

Sections A & B:

1. Kirtland's Snake (*Clonophis kirtlandii*), state endangered
2. American Badger (*Taxidea taxus*), state special concern

Section C: Upland Sandpiper (*Bartramia longicauda*), state endangered

Fish & Wildlife Comments: We do not foresee any impacts to the Upland Sandpiper or Kirtland's Snake as a result of this project.

Also, badgers are a wide ranging species that prefer an open, prairie-type habitat, with Indiana being at the eastern edge of their natural range. The range of the badger continues to expand as a result of land-use changes from forest to farmland and open pastureland. Impacts to the American badger or its preferred habitat are unlikely as a result of this project.

Avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. The following are recommendations that address potential impacts identified in the proposed project area:

1) Stream Crossing:

Any replacement of or alterations to existing crossing structures should consider the following guidelines during project design. The Environmental Unit recommends bridges

Attachments: A - Bridge Exemption Criteria

State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

rather than culverts and bottomless culverts rather than box or pipe culverts. Wide culverts are better than narrow culverts, and culverts with shorter through lengths are better than culverts with longer through lengths. Multiple culverts or culverts with multiple openings are not recommended. These types of structures are often problematic for fish and wildlife passage as they tend to accumulate debris and become blocked. If box and pipe culverts are used the culvert bottoms should be buried a minimum of 6" (or 20% of the culvert height or diameter, whichever is greater up to a maximum of 2') below the stream bed elevation. Crossings should span the entire channel width (a minimum of 1.2 times the ordinary high water mark width). Banklines should be restored within structures to allow for wildlife passage above the ordinary highwater mark. Crossings should maintain the natural stream substrate within the structure (natural stream substrate should be replaced in sumped box and pipe culverts up to the existing flowline). Crossings should have a minimum openness ratio of 0.25. The openness ratio is defined as height x width / length. Stream depth, channel width and water velocities in the crossing structure during low-flow conditions should approximate those in the natural stream channel.

The new, replacement, or rehabilitated crossing structure, and any bank stabilization under or around the structure, must not create conditions that are less favorable for wildlife passage when compared to current conditions. The Division of Fish and Wildlife would like to emphasize the importance of wildlife passage issues and transportation infrastructure projects. The following is a good place to start in terms of resources to consider in the design of stream crossing structures:
<http://www.fs.fed.us/wildlifecrossings/library/>.

The following are recommended resources for designing and constructing stream crossings for maintenance of instream habitat and aquatic organism passage:
https://www.fs.fed.us/biology/nsaec/fishxing/aop_pdfs.html;
<https://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf>.

2) Bank Stabilization:

Some form of bank and/or streambed stabilization is almost always needed with the construction, repair, replacement, or modification of a stream channel or crossing structure. For streambank stabilization and erosion control, regrading to a stable slope (2:1 or shallower) and establishing native vegetation along the banks are typically the most effective techniques. A variety of methods to accomplish this include: planting plugs, whips, container stock, seeding, and live stakes. In addition to vegetation establishment, some additional level of bioengineered bank stabilization may be needed under certain circumstances (inability to regrade to a stable slope, flow velocities that exceed the limits of vegetation alone, etc.). Combining vegetation with any of the following bank stabilization methods can provide additional bank protection while not compromising benefits to fish, wildlife, and botanical resources: geotextiles (erosion control blankets and/or turf reinforcement mats that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles), vegetated geogrids or soil lifts, fiber rolls, glacial stone, or riprap. Information about bioengineering techniques can be found at <http://www.in.gov/legislative/iac/20120404-IR-312120154NRA.xml>.pdf. Additionally, the following is a link to a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization:
<http://directives.sc.egov.usda.gov/17553.wba>.

Riprap or other hard bank stabilization materials should be used only at the toe of the sideslopes up to the ordinary high water mark (OHWM) with the exception of areas directly under bridges for instance. The banks above the OHWM should be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Central Indiana and specifically for stream

State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

bank/floodway stabilization purposes as soon as possible upon completion. For streambed stabilization or scour protection, riprap or other stabilization materials should not be placed in the active stream channel above the existing streambed or flowline elevation. This is to prevent obstructions to the movement of aquatic organisms upstream and downstream.

3) Riparian Habitat:

We recommend a mitigation plan be developed (and submitted with the permit application, if required) for any unavoidable habitat impacts that will occur. The DNR's Floodway Habitat Mitigation guidelines (and plant lists) can be found online at: <http://www.in.gov/legislative/fac/20190130-IR-312190041NRA.xml.pdf>.

Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees) or by using the 1:1 replacement ratio based on area depending on the type of habitat impacted (individual canopy tree removal in an urban streetscape or park-like environment versus removal of habitat supporting a tree canopy, woody understory, and herbaceous layer). Impacts under 0.10 acres may still involve the replacement of large diameter trees but typically do not require any additional mitigation or additional plantings beyond seeding and stabilizing disturbed areas. There are exceptions for high quality habitat sites however.

4) Wetland Habitat:

Due to the presence or potential presence of wetland habitat on site, we recommend contacting and coordinating with the Indiana Department of Environmental Management (IDEM) 401 program and also the US Army Corps of Engineers (USACE) 404 program. Impacts to wetland habitat should be mitigated at the appropriate ratio according to the 1991 INDOT/IDNR/USFWS Memorandum of Understanding.

5) Coordination With DNR Programs:

The following is a link to the Division of Fish and Wildlife Habitat and Wildlife Landowner Assistance page: <https://www.in.gov/dnr/fishwild/2352.htm>. Of particular interest to this project are the Indiana CORRIDORS Program and the Urban Wildlife Habitat Cost Share Program which may offer cost share incentives for establishing native plantings within the INDOT right-of-way post-construction.

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:

1. Revegetate all bare and disturbed areas that will not be mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in regularly mowed areas only.
2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds.

Attachments: A - Bridge Exemption Criteria

THIS IS NOT A PERMIT

State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

- 6. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
- 7. Do not use broken concrete as riprap.
- 8. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
- 9. Minimize the movement of resuspended bottom sediment from the immediate project area.
- 10. Do not deposit or allow demolition/construction materials or debris to fall or otherwise enter the waterway.
- 11. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
- 12. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.
- 13. Seed and protect areas where runoff is conveyed through a channel/swale with heavy-duty net-free biodegradable erosion control blankets to minimize the entrapment and snaring of small wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation) or use an appropriate structural armament; seed and apply mulch on all other disturbed areas.

Contact Staff:

Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife
Our agency appreciates this opportunity to be of service. Please contact the above staff member at (317) 232-4080 if we can be of further assistance.



Date: July 25, 2019

Christie L. Stanifer
Environ. Coordinator
Division of Fish and Wildlife

The Flood Control Act (IC 14-28-1) contains a provision (Section 22), which exempts certain bridge projects from its permitting requirement. Specifically, the Act states:

A permit is not required for "a construction or reconstruction project on a state or county highway bridge in a rural area that crosses a stream having an upstream drainage area of not more than fifty (50) square miles..."

Therefore, in order for a bridge project to be exempt, it must:

- be a state or county highway department project;
- be a bridge;
- be located in a rural area; and
- cross a stream having an upstream drainage area of less than 50 square miles.

The initial criterion is very specific - the structure must be a state or county highway department project.

The second requirement mandates that the project be a bridge (for this provision, the Department of Natural Resources considers a culvert to be a bridge). Projects such as bank protection, spoil disposal, borrow pits, etc. are not automatically exempt. Anyone proposing to undertake a non-bridge related activity should consult with the Division of Water's Technical Services Section staff at 317-232-4160 (or toll free at 1-877-928-3755) regarding the applicability of the exemption prior to initiating work.

The third criterion states that the project must be located in a rural area. The phrase "rural area" is defined as an area:

- where the lowest floor elevation, including a basement, of any residential, commercial, or industrial building impacted by the project is at least 2 feet above the 100 year flood elevation with the project in place;
- located outside the corporate boundaries of a consolidated or an incorporated city or town; and
- located outside of the territorial authority for comprehensive planning (generally, a 2 mile planning buffer around a city or town).

The final criterion limits the exemption to a project crossing a stream having an upstream drainage area of less than 50 square miles. The drainage area includes all land area contributing to runoff above the project site and is determined from the United States Geological Survey 7½ minute series quadrangle maps. The Department of Natural Resources will determine the drainage area upon written request.

This exemption has been grossly misunderstood and liberally applied in the past. As a result, the Department of Natural Resources is taking a firm stance on future violations. If challenged, it will be the responsibility of the person claiming the exemption to prove to the Department that all 4 criteria have been satisfied. Failure to do so will result in the Department initiating litigation with the potential for the imposition of fines in amounts up to \$10,000 per day.

Note: This exemption only applies to the Flood Control Act. If a bridge is to be constructed over a navigable waterway, or over or near a public freshwater lake, a permit will be required.

Organization and Project Information

Project ID:
Des. ID: 1802075
Project Title: I-465 Reconfiguration
Name of Organization: INDOT
Requested by: Eric Jagger

Environmental Assessment Report

1. Geological Hazards:
 - High liquefaction potential
 - Floodway
2. Mineral Resources:
 - Bedrock Resource: Moderate Potential
 - Sand and Gravel Resource: High Potential
3. Active or abandoned mineral resources extraction sites:
 - Petroleum Exploration Wells

*All map layers from Indiana Map (maps.indiana.edu)

DISCLAIMER:

This document was compiled by Indiana University, Indiana Geological Survey, using data believed to be accurate; however, a degree of error is inherent in all data. This product is distributed "AS-IS" without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use. No attempt has been made in either the design or production of these data and document to define the limits or jurisdiction of any federal, state, or local government. The data used to assemble this document are intended for use only at the published scale of the source data or smaller (see the metadata links below) and are for reference purposes only. They are not to be construed as a legal document or survey instrument. A detailed on-the-ground survey and historical analysis of a single site may differ from these data and this document.

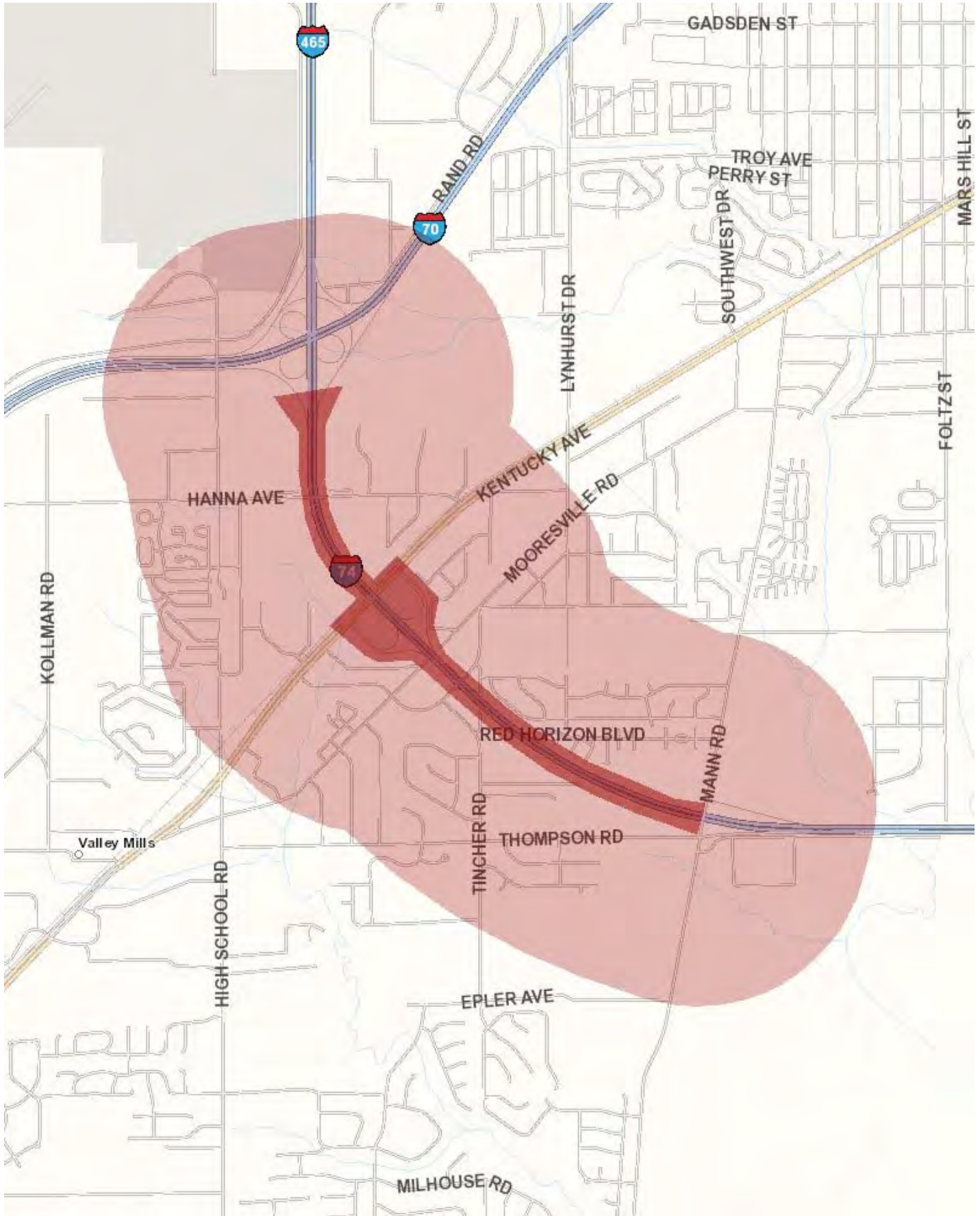
This information was furnished by Indiana Geological Survey

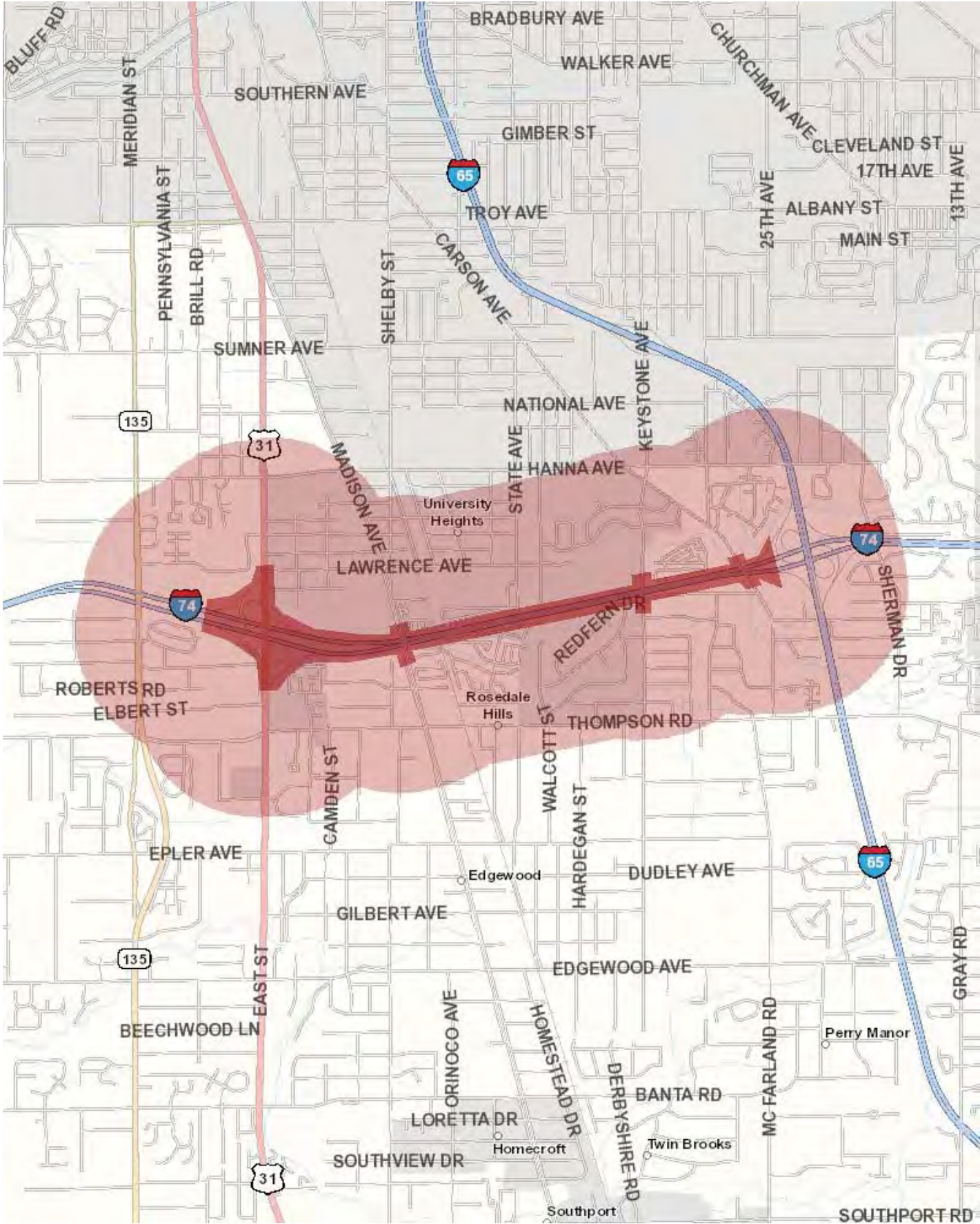
Address: 420 N. Walnut St., Bloomington, IN 47404

Email: IGSEnvir@indiana.edu

Phone: 812 855-7428

Date: June 26, 2019





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



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

100 North Senate Avenue - Indianapolis, IN 46204
(800) 451-6027 - (317) 232-8603 - www.idem.IN.gov

INDOT

100 N Senate Avenue
Room N642
Indianapolis , IN 46204
Date

Parsons
Eric Jagger
101 W Ohio St
Suite 2121
Indianapolis , IN 46204

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: Section A/B begins at the I-465/I-65 interchange and ends approximately 0.3 mile west of the I-465/US 31 interchange. The proposed work for Section A/B includes building auxiliary lanes on I-465 eastbound and westbound with retaining walls, reconfiguring the eastbound I-465 to northbound US 31 exit ramp, extending the southbound US 31 to eastbound I-465 merge area, and extending the entrance lane from southbound US 31 to eastbound I-465. The proposed work for Section A/B also includes the replacement of the Madison Avenue, Keystone Avenue, and Carson Avenue bridges. Section C begins just west of the Mann Road interchange and ends at the I-465/I-70 interchange. The proposed work for Section C includes added travel lanes along I-465, full depth pavement replacement at the shoulders, and replacement of the Mooresville Road Bypass bridge. All work will occur within existing right-of-way. Less than one acre of temporary right-of-way maybe be required. During construction, traffic will be maintained along I-465 with shoulder and lane closures. All ramps within the interchanges will primarily remain open during construction. Local roads will experience closures while the Madison Avenue, Keystone Avenue, Carson Avenue, and Mooresville Road Bypass bridges are replaced, and detours will be provided.

This letter from the Indiana Department of Environmental Management (IDEM) serves as a standardized response to enquiries inviting IDEM comments on roadway construction, reconstruction, or other improvement projects within existing roadway corridors when the proposed scope of the project is beneath the threshold requiring a formal National Environmental Policy Act-mandated Environmental Assessment or Environmental Impact Statement. As the letter attempts to address all roadway-related environmental topics of potential concern, it is possible that not every topic addressed in the letter will be applicable to your particular roadway project.

For additional information on specific roadway-related topics of interest, please visit the appropriate Web pages cited below, many of which provide contact information for persons within the various program areas who can answer questions not fully addressed in this letter. Also please be mindful that some environmental requirements may be subject to change and so each person intending to include a copy of this letter in their project documentation packet is advised to download the most recently revised version of the letter; found at: <http://www.in.gov/idem/5283.htm> (<http://www.in.gov/idem/5283.htm>).

To ensure that all environmentally-related issues are adequately addressed, IDEM recommends that you read this letter in its entirety, and consider each of the following issues as you move forward with the planning of your proposed roadway construction, reconstruction, or improvement project:

WATER AND BIOTIC QUALITY

1. Section 404 of the Clean Water Act requires that you obtain a permit from the U.S. Army Corps of Engineers (USACE) before discharging dredged or fill materials into any wetlands or other waters, such as rivers, lakes, streams, and ditches. Other activities regulated include the relocation, channelization, widening, or other such alteration of a stream, and the mechanical clearing (use of heavy construction equipment) of wetlands. Thus, as a project owner or sponsor, it is your responsibility to ensure that no wetlands are disturbed without the proper permit. Although you may initially refer to the U.S. Fish and Wildlife Service National Wetland Inventory maps as a means of identifying potential areas of concern, please be mindful that those maps do not depict jurisdictional wetlands regulated by the USACE or the Department of Environmental Management. A valid jurisdictional wetlands determination can only be made by the USACE, using the 1987 Wetland Delineation Manual.

USACE recommends that you have a consultant check to determine whether your project will abut, or lie within, a wetland area. To view a list of consultants that have requested to be included on a list posted by the USACE on their Web site, see USACE Permits and Public Notices (<http://www.lrl.usace.army.mil/orf/default.asp>) (<http://www.lrl.usace.army.mil/orf/default.asp>) and then click on "Information" from the menu on the right-hand side of that page. Their "Consultant List" is the fourth entry down on the "Information" page. Please note that the USACE posts all consultants that request to appear on the list, and that inclusion of any particular consultant on the list does not represent an endorsement of that consultant by the USACE, or by IDEM.

Much of northern Indiana (Newton, Lake, Porter, LaPorte, St. Joseph, Elkhart, LaGrange, Steuben, and Dekalb counties; large portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and lesser portions of Benton, White, Pulaski, Kosciusko, and Wells counties) is served by the USACE District Office in Detroit (313-226-6812). The central and southern portions of the state (large portions of Benton, White, Pulaski, Kosciusko, and Wells counties; smaller portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and all other Indiana counties located in north-central, central, and southern Indiana) are served by the USACE Louisville District Office (502-315-6733).

Additional information on contacting these U.S. Army Corps of Engineers (USACE) District Offices, government agencies with jurisdiction over wetlands, and other water quality issues, can be found at <http://www.in.gov/idem/4396.htm> (<http://www.in.gov/idem/4396.htm>). IDEM recommends that impacts to wetlands and other water resources be avoided to the fullest extent.

2. In the event a Section 404 wetlands permit is required from the USACE, you also must obtain a Section 401 Water Quality Certification from the IDEM Office of Water Quality Wetlands Program. To learn more about the Wetlands Program, visit: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>).
3. If the USACE determines that a wetland or other water body is isolated and not subject to Clean Water Act regulation, it is still regulated by the state of Indiana. A State Isolated Wetland permit from IDEM's Office of Water Quality (OWQ) is required for any activity that results in the discharge of dredged or fill materials into isolated wetlands. To learn more about isolated wetlands, contact the OWQ Wetlands Program at 317-233-8488.
4. If your project will involve over a 0.5 acre of wetland impact, stream relocation, or other large-scale alterations to water bodies such as the creation of a dam or a water diversion, you should seek additional input from the OWQ Wetlands Program staff. Consult the Web at: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>) for the appropriate staff contact to further discuss your project.

5. Work within the one-hundred year floodway of a given water body is regulated by the Department of Natural Resources, Division of Water. The Division issues permits for activities regulated under the follow statutes:
- IC 14-26-2 Lakes Preservation Act 312 IAC 11
 - IC 14-26-5 Lowering of Ten Acre Lakes Act No related code
 - IC 14-28-1 Flood Control Act 310 IAC 6-1
 - IC 14-29-1 Navigable Waterways Act 312 IAC 6
 - IC 14-29-3 Sand and Gravel Permits Act 312 IAC 6
 - IC 14-29-4 Construction of Channels Act No related code

For information on these Indiana (statutory) Code and Indiana Administrative Code citations, see the DNR Web site at: <http://www.in.gov/dnr/water/9451.htm> (<http://www.in.gov/dnr/water/9451.htm>) . Contact the DNR Division of Water at 317-232-4160 for further information.

The physical disturbance of the stream and riparian vegetation, especially large trees overhanging any affected water bodies should be limited to only that which is absolutely necessary to complete the project. The shade provided by the large overhanging trees helps maintain proper stream temperatures and dissolved oxygen for aquatic life.

6. For projects involving construction activity (which includes clearing, grading, excavation and other land disturbing activities) that result in the disturbance of one (1), or more, acres of total land area, contact the Office of Water Quality – Watershed Planning Branch (317/233-1864) regarding the need for of a Rule 5 Storm Water Runoff Permit. Visit the following Web page
- <http://www.in.gov/idem/4902.htm> (<http://www.in.gov/idem/4902.htm>)

To obtain, and operate under, a Rule 5 permit you will first need to develop a Construction Plan (<http://www.in.gov/idem/4917.htm#constreq> (<http://www.in.gov/idem/4917.htm#constreq>)), and as described in 327 IAC 15-5-6.5 (<http://www.in.gov/legislative/iac/T03270/A00150> [PDF] (<http://www.in.gov/legislative/iac/T03270/A00150.PDF>), pages 16 through 19). Before you may apply for a Rule 5 Permit, or begin construction, you must submit your Construction Plan to your county Soil and Water Conservation District (SWCD) (<http://www.in.gov/isda/soil/contacts/map.html> (<http://www.in.gov/isda/soil/contacts/map.html>)).

Upon receipt of the construction plan, personnel of the SWCD or the Indiana Department of Environmental Management will review the plan to determine if it meets the requirements of 327 IAC 15-5. Plans that are deemed deficient will require re-submittal. If the plan is sufficient you will be notified and instructed to submit the verification to IDEM as part of the Rule 5 Notice of Intent (NOI) submittal. Once construction begins, staff of the SWCD or Indiana Department of Environmental Management will perform inspections of activities at the site for compliance with the regulation.

Please be mindful that approximately 149 Municipal Separate Storm Sewer System (MS4) areas are now being established by various local governmental entities throughout the state as part of the implementation of Phase II federal storm water requirements. All of these MS4 areas will eventually take responsibility for Construction Plan review, inspection, and enforcement. As these MS4 areas obtain program approval from IDEM, they will be added to a list of MS4 areas posted on the IDEM Website at: <http://www.in.gov/idem/4900.htm> (<http://www.in.gov/idem/4900.htm>).

If your project is located in an IDEM-approved MS4 area, please contact the local MS4 program about meeting their storm water requirements. Once the MS4 approves the plan, the NOI can be submitted to IDEM.

Regardless of the size of your project, or which agency you work with to meet storm water requirements, IDEM recommends that appropriate structures and techniques be utilized both during the construction phase, and after completion of the project, to minimize the impacts associated with storm water runoff. The use of appropriate planning and site development and appropriate storm water quality measures are recommended to prevent soil from leaving the construction site during active land disturbance and for post construction water quality concerns. Information and assistance regarding storm water related to construction activities are available from the Soil and Water Conservation District (SWCD) offices in each county or from IDEM.

7. For projects involving impacts to fish and botanical resources, contact the Department of Natural Resources - Division of Fish and Wildlife (317/232-4080) for addition project input.
8. For projects involving water main construction, water main extensions, and new public water supplies, contact the Office of Water Quality - Drinking Water Branch (317-308-3299) regarding the need for permits.
9. For projects involving effluent discharges to waters of the State of Indiana , contact the Office of Water Quality - Permits Branch (317-233-0468) regarding the need for a National Pollutant Discharge Elimination System (NPDES) permit.
10. For projects involving the construction of wastewater facilities and sewer lines, contact the Office of Water Quality - Permits Branch (317-232-8675) regarding the need for permits.

AIR QUALITY

The above-noted project should be designed to minimize any impact on ambient air quality in, or near, the project area. The project must comply with all federal and state air pollution regulations. Consideration should be given to the following:

1. Regarding open burning, and disposing of organic debris generated by land clearing activities; some types of open burning are allowed (<http://www.in.gov/idem/4148.htm> (<http://www.in.gov/idem/4148.htm>)) under specific conditions. You also can seek an open burning variance from IDEM.

However, IDEM generally recommends that you take vegetative wastes to a registered yard waste composting facility or that the waste be chipped or shredded with composting on site (you must register with IDEM if more than 2,000 pounds is to be composted; contact 317/232-0066). The finished compost can then be used as a mulch or soil amendment. You also may bury any vegetative wastes (such as leaves, twigs, branches, limbs, tree trunks and stumps) onsite, although burying large quantities of such material can lead to subsidence problems, later on.

Reasonable precautions must be taken to minimize fugitive dust emissions from construction and demolition activities. For example, wetting the area with water, constructing wind barriers, or treating dusty areas with chemical stabilizers (such as calcium chloride or several other commercial products). Dirt tracked onto paved roads from unpaved areas should be minimized.

Additionally, if construction or demolition is conducted in a wooded area where blackbirds have roosted or abandoned buildings or building sections in which pigeons or bats have roosted for 3-5 years precautionary measures should be taken to avoid an outbreak of histoplasmosis. This disease is caused by the fungus *Histoplasma capsulatum*, which stems from bird or bat droppings that have accumulated in one area for 3-5 years. The spores from this fungus become airborne when the area is disturbed and can cause infections over an entire community downwind of the site. The area should be wetted down prior to cleanup or demolition of the project site. For more detailed information on histoplasmosis prevention and control,

please contact the Acute Disease Control Division of the Indiana State Department of Health at (317) 233-7272.

2. The U.S. EPA and the Surgeon General recommend that people not have long-term exposure to radon at levels above 4 pCi/L. (For a county-by-county map of predicted radon levels in Indiana, visit: <http://www.in.gov/idem/4145.htm> (<http://www.in.gov/idem/4145.htm>).

The U.S. EPA further recommends that all homes (and apartments within three stories of ground level) be tested for radon. If in-home radon levels are determined to be 4 pCi/L, or higher, EPA recommends a follow-up test. If the second test confirms that radon levels are 4 pCi/L, or higher, EPA recommends the installation of radon-reduction measures. (For a list of qualified radon testers and radon mitigation (or reduction) specialists visit: http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf (http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf)). It also is recommended that radon reduction measures be built into all new homes, particularly in areas like Indiana that have moderate to high predicted radon levels.

To learn more about radon, radon risks, and ways to reduce exposure visit:

<http://www.in.gov/isdh/regsvcs/radhealth/radon.htm> (<http://www.in.gov/isdh/regsvcs/radhealth/radon.htm>), <http://www.in.gov/idem/4145.htm> (<http://www.in.gov/idem/4145.htm>), or <http://www.epa.gov/radon/index.html> (<http://www.epa.gov/radon/index.html>).

3. With respect to asbestos removal: all facilities slated for renovation or demolition (except residential buildings that have (4) four or fewer dwelling units and which will not be used for commercial purposes) must be inspected by an Indiana-licensed asbestos inspector prior to the commencement of any renovation or demolition activities. If regulated asbestos-containing material (RACM) that may become airborne is found, any subsequent demolition, renovation, or asbestos removal activities must be performed in accordance with the proper notification and emission control requirements.

If no asbestos is found where a renovation activity will occur, or if the renovation involves removal of less than 260 linear feet of RACM off of pipes, less than 160 square feet of RACM off of other facility components, or less than 35 cubic feet of RACM off of all facility components, the owner or operator of the project does not need to notify IDEM before beginning the renovation activity.

For questions on asbestos demolition and renovation activities, you can also call IDEM's Lead/Asbestos section at 1-888-574-8150.

However, in all cases where a demolition activity will occur (even if no asbestos is found), the owner or operator must still notify IDEM 10 working days prior to the demolition, using the form found at <http://www.in.gov/icpr/webfile/formsdiv/44593.pdf> (<http://www.in.gov/icpr/webfile/formsdiv/44593.pdf>).

Anyone submitting a renovation/demolition notification form will be billed a notification fee based upon the amount of friable asbestos containing material to be removed or demolished. Projects that involve the removal of more than 2,600 linear feet of friable asbestos containing materials on pipes, or 1,600 square feet or 400 cubic feet of friable asbestos containing material on other facility components, will be billed a fee of \$150 per project; projects below these amounts will be billed a fee of \$50 per project. All notification remitters will be billed on a quarterly basis.

For more information about IDEM policy regarding asbestos removal and disposal, visit: <http://www.in.gov/idem/4983.htm> (<http://www.in.gov/idem/4983.htm>).

4. With respect to lead-based paint removal: IDEM encourages all efforts to minimize human exposure to lead-based paint chips and dust. IDEM is particularly concerned that young children exposed to lead can suffer

from learning disabilities. Although lead-based paint abatement efforts are not mandatory, any abatement that is conducted within housing built before January 1, 1978, or a child-occupied facility is required to comply with all lead-based paint work practice standards, licensing and notification requirements. For more information about lead-based paint removal visit: <http://www.in.gov/isdh/19131.htm> (<http://www.in.gov/isdh/19131.htm>).

5. Ensure that asphalt paving plants are permitted and operate properly. The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited during the months April through October. See 326 IAC 8-5-2, Asphalt Paving Rule (<http://www.ai.org/legislative/iac/T03260/A00080.PDF> (<http://www.ai.org/legislative/iac/T03260/A00080.PDF>)).
6. If your project involves the construction of a new source of air emissions or the modification of an existing source of air emissions or air pollution control equipment, it will need to be reviewed by the IDEM Office of Air Quality (OAQ). A registration or permit may be required under 326 IAC 2 (View at: www.ai.org/legislative/iac/t03260/a00020.pdf (<http://www.ai.org/legislative/iac/t03260/a00020.pdf>)). New sources that use or emit hazardous air pollutants may be subject to Section 112 of the Clean Air Act and corresponding state air regulations governing hazardous air pollutants.
7. For more information on air permits visit: <http://www.in.gov/idem/4223.htm> (<http://www.in.gov/idem/4223.htm>), or to initiate the IDEM air permitting process, please contact the Office of Air Quality Permit Reviewer of the Day at (317) 233-0178 or OAMPROD atdem.state.in.us.

LAND QUALITY

In order to maintain compliance with all applicable laws regarding contamination and/or proper waste disposal, IDEM recommends that:

1. If the site is found to contain any areas used to dispose of solid or hazardous waste, you need to contact the Office of Land Quality (OLQ) at 317-308-3103.
2. All solid wastes generated by the project, or removed from the project site, need to be taken to a properly permitted solid waste processing or disposal facility. For more information, visit <http://www.in.gov/idem/4998.htm> (<http://www.in.gov/idem/4998.htm>).
3. If any contaminated soils are discovered during this project, they may be subject to disposal as hazardous waste. Please contact the OLQ at 317-308-3103 to obtain information on proper disposal procedures.
4. If PCBs are found at this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding management of any PCB wastes from this site.
5. If there are any asbestos disposal issues related to this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding the management of asbestos wastes (Asbestos removal is addressed above, under Air Quality).
6. If the project involves the installation or removal of an underground storage tank, or involves contamination from an underground storage tank, you must contact the IDEM Underground Storage Tank program at 317/308-3039. See: <http://www.in.gov/idem/4999.htm> (<http://www.in.gov/idem/4999.htm>).

FINAL REMARKS

Should you need to obtain any environmental permits in association with this proposed project, please be mindful that IC 13-15-8 requires that you notify all adjoining property owners and/or occupants within ten days your submittal of each permit application. However, if you are seeking multiple permits, you can still meet the notification requirement with a single notice if all required permit applications are submitted with the same ten day period.

Should the scope of the proposed project be expanded to the extent that a National Environmental Policy Act Environmental Assessment (EA) or Environmental Impact Statement (EIS) is required, IDEM will actively participate in any early interagency coordination review of the project.

Meanwhile, please note that this letter does not constitute a permit, license, endorsement or any other form of approval on the part of the Indiana Department of Environmental Management regarding any project for which a copy of this letter is used. Also note that is it the responsibility of the project engineer or consultant using this letter to ensure that the most current draft of this document, which is located at <http://www.in.gov/idem/5284.htm> (<http://www.in.gov/idem/5284.htm>), is used.

Signature(s) of the Applicant


I acknowledge that the following proposed roadway project will be financed in part, or in whole, by public monies.

Project Description

Section A/B begins at the I-465/I-65 interchange and ends approximately 0.3 mile west of the I-465/US 31 interchange. The proposed work for Section A/B includes building auxiliary lanes on I-465 eastbound and westbound with retaining walls, reconfiguring the eastbound I-465 to northbound US 31 exit ramp, extending the southbound US 31 to eastbound I-465 merge area, and extending the entrance lane from southbound US 31 to eastbound I-465. The proposed work for Section A/B also includes the replacement of the Madison Avenue, Keystone Avenue, and Carson Avenue bridges. Section C begins just west of the Mann Road interchange and ends at the I-465/I-70 interchange. The proposed work for Section C includes added travel lanes along I-465, full depth pavement replacement at the shoulders, and replacement of the Mooresville Road Bypass bridge. All work will occur within existing right-of-way. Less than one acre of temporary right-of-way maybe be required. During construction, traffic will be maintained along I-465 with shoulder and lane closures. All ramps within the interchanges will primarily remain open during construction. Local roads will experience closures while the Madison Avenue, Keystone Avenue, Carson Avenue, and Mooresville Road Bypass bridges are replaced, and detours will be provided.

With my signature, I do hereby affirm that I have read the letter from the Indiana Department of Environment that appears directly above. In addition, I understand that in order to complete that project in which I am interested, with a minimum of impact to the environment, I must consider all the issues addressed in the aforementioned letter, and further, that I must obtain any required permits.

Date: 8/11/19

Signature of the INDOT
Project Engineer or Other Responsible Agent 

Date: 9/11/19

Signature of the
For Hire Consultant 



TO: *Eric Jagger
Parsons*

DATE: *July 1st, 2019*

FROM: *Colin O'Sullivan
City of Indianapolis - DPW*

SUBJECT: *Environmental Early Coordination for Des Nos 1802075, I-465
Reconfiguration Marion County, Indiana*

Mr. Jagger,

This letter summarizes stormwater comments for the Environmental Early Coordination for the project referenced above.

1. The project must comply with the City of Indianapolis Storm Water Design and Construction Manual including Chapter 700 Stormwater Quality and Chapter 600 Erosion and Sediment Control.
2. Projects within the 100-year floodplain must submit plan information to the Department of Business and Neighborhood Services for a FLD permit. If this project is within a 100-year floodplain, please refer to design memo no. 2017.11 on the City's website (<https://www.indy.gov/activity/indy-dpw-design-memos>).

There are two DPW projects in early phase, one adjacent to Sections A/B and the other adjacent to Section C. INDOT should coordinate with DPW to manage potential for increased stormwater runoff into these areas. The current project manager for both projects is David Haas (David.Hass@indy.gov).

Should you have any questions or require additional information, please contact me at 317-327-2304 or by email at Colin.OSullivan@indy.gov.

Sincerely,

Colin O'Sullivan, EIT



↩ Reply ∨ 🗑 Delete 🚫 Junk 🚫 Block ...

[EXTERNAL] RE: I-465 Reconfiguration Meeting Summary

🕒 You replied on Wed 7/24/2019 3:43 PM

CJ Courtade, Julian <JCourtade@indot.IN.gov>
Wed 7/24/2019 2:58 PM
Port, Juliet ∨



Juliet,

I reviewed over the ECL and determined that you need to file for a tall structure permit with our office because of the close proximity of Indianapolis International Airport. Please coordinate with James Kinder regarding this project.

James Kinder
jkinder@indot.IN.gov
317-232-1485

Thanks,

Julian L. Courtade
Chief Airport Inspector
INDOT, Office of Aviation
IGCN Room N955
100 North Senate Avenue
Indianapolis, IN 46204
Office: (317) 232-1477
Email: jcourtade@indot.in.gov



[\[facebook.com\]](https://www.facebook.com)



[\[twitter.com\]](https://twitter.com)



[\[youtube.com\]](https://www.youtube.com)



[\[in.gov\]](https://www.in.gov)



[\[in.gov\]](https://www.in.gov)



[\[in.gov\]](https://www.in.gov)

From: Port, Juliet [mailto:Juliet.Port@parsons.com]

Sent: Tuesday, July 23, 2019 5:22 PM

To: Courtade, Julian <JCourtade@indot.IN.gov>; amcgee@cirta.us; Dietrick, Andrew <ADietrick@indot.IN.gov>; Beucler, Cody <Cody.Beucler@parsons.com>; Langley, Bryan <BLangley@dhs.IN.gov>; Shattuck, Brian <bshattuck@indot.IN.gov>; ClientExperience@myips.org; contact@perrytownship-in.gov; Daniel Parker <daniel.parker@indy.gov>; Deanna Medsker <deannaNWPNA@gmail.com>; Peters, Dennis <Dennis.peters@indy.gov>; Emily Mack <emily.mack@indy.gov>; Greg Hall <ghall@hhcorp.org>; Higginbotham, Jennifer L. <Jen.Higginbotham@IndyMPO.org>; Hinkle, Meghan <MHinkle@indot.IN.gov>; indianacentrallittleleague@gmail.com; ISP Internet E-mail <isp@isp.IN.gov>; Jagger, Eric <Eric.Jagger@parsons.com>; jared.evans@indy.gov; Jason Rhoades <jrhoades@HNTB.com>; jasonhollidayccc20@gmail.com; jeffersonshreve@comcast.net; jhollowell@roncalli.org; jklaas@ind.com; john.wessler@indy.gov; jstuehrenberg@indygo.net; Carmanygeorge, Karstin M <KCarmanyGeorge2@indot.IN.gov>; Kent, Timothy <Timothy.Kent@parsons.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:

August 02, 2019

Consultation Code: 03E12000-2019-SLI-1179

Event Code: 03E12000-2019-E-06445

Project Name: Des. 1802075 I-465 Reconfiguration

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: 03E12000-2019-SLI-1179

Event Code: 03E12000-2019-E-06445

Project Name: Des. 1802075 I-465 Reconfiguration

Project Type: TRANSPORTATION

Project Description: The Indiana Department of Transportation (INDOT), in cooperation with the Federal Highway Administration (FHWA), proposes an added travel lanes project on I-465 in Marion County, Indiana, also known as the “I-465 Reconfiguration” project. The project consists of two sections: Section A/B and Section C.

Section A/B begins approximately 0.30 mile west of the I-465/United States (US) 31 interchange and ends at the I-465/I-65 interchange. The proposed work for Section A/B includes building auxiliary lanes on I-465 eastbound and westbound with retaining walls, reconfiguring the eastbound I-465 to northbound US 31 exit ramp, extending the southbound US 31 to eastbound I-465 merge area, and extending the entrance lane from southbound US 31 to eastbound I-465. The proposed work for Section A/B also includes the replacement of the Madison Avenue, Keystone Avenue, and Carson Avenue bridges.

Section C begins at the south end of the I-465/I-70 interchange and ends just west of the interchange with Mann Road. The proposed work for Section C includes added travel lanes along I-465, full depth pavement replacement at the shoulders, and replacement of the Mooresville Road Bypass bridge.

All work will occur within existing right-of-way. Based on coordination with the USFWS Bloomington, IN Field Office, the trees within and near Section A/B are considered "suitable summer habitat" due to the presence of Lick Creek. However, within right-of-way along in Section C, the trees are urban trees and not considered "suitable summer habitat".

The total amount of “suitable summer habitat” proposed for clearing (Section A/B) is 18.05 acres. The total amount of urban trees proposed for clearing (Section C) is 10.61 acres. All trees proposed for clearing exist within 0 to 100 feet from an existing roadway. The primary tree species observed within the project area were sugar maple (*Acer saccharum*), green ash (*Fraxinus pennsylvanica*), eastern cottonwood (*Populus deltoides*), black walnut (*Juglans nigra*), honey-locust (*Gleditsia*

triacanthos), sandbar willow (*Salix interior*), American elm (*Ulmus Americana*), and eastern red cedar (*Juniperus virginiana*). All clearing will occur during the inactive season. The contractor will likely use temporary lighting during construction. Existing lighting will be upgraded where necessary.

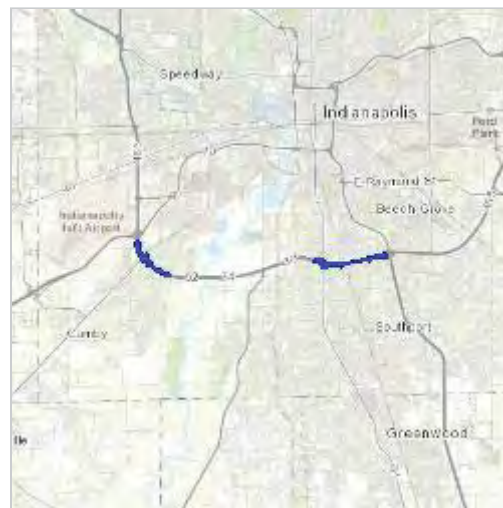
The contractor may begin work as early as the winter of 2021. Work may occur year-round through 2024. Tree trimming/clearing will be limited to the inactive season.

This project involves 16 existing bridges and 8 existing culverts (see Bridge Table). All structures have been inspected for evidence of bats. No evidence was found under or within any structure. A review of the USFWS GIS database for Indiana bat and Northern long-eared bat roosting, hibernacula and capture sites was conducted for Des. 1802075 on February 24, 2019. There are no documented sites within a half mile of the project.

During construction, traffic will be maintained along I-465 with shoulder and lane closures. All ramps within the interchanges will primarily remain open during construction. Local roads will experience closures while the Madison Avenue, Keystone Avenue, Carson Avenue, and Mooresville Road Bypass bridges are replaced, and detours will be provided.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.70090731500005N86.26024858971147W>



Counties: Marion, 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: <ul style="list-style-type: none"> ▪ 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.

Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and Federal Transit Administration (FTA)

Range-wide Programmatic Consultation for
Indiana Bat and Northern Long-eared Bat

Project Submittal Form

Updated June 2019

The use of the Assisted Determination Key in the U.S. Fish and Wildlife Service (Service) Information for Planning and Conservation (IPaC) System is strongly recommended for submitting project-level information to the Service for use of the range-wide programmatic consultation covering actions that may affect the Indiana bat and/or northern long-eared bat (NLEB). However, if not using the key, transportation agencies must provide this submittal form (or a comparable Service approved form) with project-level information to the Service. The completed form should be submitted to the appropriate Service Field Office prior to project commencement. For more information, see the Standard Operating Procedure for Site Specific Project(s) Submission in the User's Guide (Section 3).

By submitting this form, the transportation agency ensures that each component of the proposed project(s) adheres to the criteria and conditions of the range-wide programmatic consultation, as outlined in the biological assessment (BA) and biological opinion (BO). Upon submittal of this form, the appropriate Service Field Office may review the project-specific information provided and request additional information. For projects that may affect, but are not likely to adversely affect (NLAA) the Indiana bat and/or NLEB, if the applying transportation agency is not contacted by the Service with any questions or concerns within 14 calendar days of form submittal, it may proceed under the range-wide programmatic consultation and assume concurrence of the NLAA determination made by the Service in the BO. For projects that may affect, and are likely to adversely affect (LAA) the Indiana bat and/or the NLEB, the appropriate Service Field Office will respond¹ within 30 calendar days of receiving a complete project-level submission, which includes, but may not be limited to this completed form.

Further instructions on completing the submittal form can be found by hovering your cursor over each text box.

1. Date: 8/2/2019

2. Lead agency: FHWA

*This refers to the **Federal governmental** lead action agency initiating consultation; select **FHWA, FRA or FTA** as appropriate.*

3. Requesting agency: INDOT

This refers to the transportation agency completing the form (it may or may not be the same as the Lead Agency).

- Name: Meghan Hinkle

¹ Service Field Offices should use the response letter template for projects that may affect, and are likely to adversely affect the Indiana bat and/or NLEB.

- Title: Environmental Manager 2
- Phone: 317-232-1490
- Email: mhinkle@indot.in.gov

4. Consultation code:² 03E12000-2019-SLI-1179

5. Project name(s): Des. 1802075 I-465 Reconfiguration

6. Project description:

Please attach additional documentation or explanatory text if necessary.

See attached.

7. Project location (county, state): Marion County, Indiana

If not delineated in IPaC, attach shape files.

8. For species other than Indiana bat and NLEB (from IPaC official species list): **No other species listed.**

No effect – project(s) are inside the range, but no suitable habitat (see additional information attached).

May affect – see additional information provided for those species (see attached or forthcoming).

Please confirm and identify how each component of the proposed project(s) adheres to the criteria of the BO by completing the following (see User Guide Section 2.0):

² Available through IPaC System Official Species List: <https://ecos.fws.gov/ipac/>

NO EFFECT

9. For Indiana bat/NLEB, if applicable, select your no effect determination:

- No effect – project(s) are outside the species' range.
- No effect – project(s) are inside the species range with no suitable summer habitat within the project action area; project(s) must also be greater than 0.5 miles from any hibernaculum unless meeting exceptions listed below.
- No effect – project(s) do not involve any construction activities³ (e.g., bridge/ abandoned structure assessments, surveys, planning and technical studies, property inspections, and property sales).
- No effect – project(s) do not cause any stressors to the bat species, including as described in the BA/BO (i.e., do not involve habitat removal, tree removal/ trimming, bridge or structure activities, temporary or permanent lighting, or use of percussives (e.g., lining roadways, unlighted signage, rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.)).
- No effect - project(s) within 0.5 mile of hibernacula that are limited to the maintenance of the surrounding landscape at existing facilities (e.g., rest areas, stormwater detention basins) located outside suitable summer habitat – no new ground disturbance.⁴
- No effect – project(s) are within 300 feet from the existing road/rail surface surface (must also be greater than 0.5 miles of a hibernacula) that include percussives or other activities that increase noise above existing traffic/background levels:
- within areas that contain suitable habitat (**documented or undocumented**),
 - conducted during the inactive season, and
 - does not involve tree removal/trimming or bridge/structure work.
- No effect – project(s) includes removal, replacement, or maintenance of bridge(s) and/or structure(s) without any signs of bats (bridge/structure assessment documents no sign of bat use (bats, guano, etc.)) and does not impact suitable summer habitat within the project action area.

Proceed with this form to identify how other components of the proposed project adhere to the criteria of the BO.

³ Construction refers to activities involving ground disturbance, percussive noise, and/or lighting.

⁴ Ground disturbance is defined as any activity that compacts or disturbs the ground. Ground disturbance can be caused by the use of hand tools (shovels, pick axe, posthole digger, etc.), heavy equipment (excavators, backhoes, bulldozers, trenching and earthmoving equipment, etc.), and heavy trucks (large four wheel drive trucks, dump trucks and tractor trailers, etc.). Note that ground disturbance can be a component of other actions (e.g., bulldozing trees). Contact the local Service Field Office, as needed, to assist in determining if and how ground disturbance may affect bat hibernacula.

MAY AFFECT, NOT LIKELY TO ADVERSELY EFFECT – W/O AMMS

10. For Indiana bat/NLEB, if applicable, select your may affect, NLAA determination (without implementation of AMMs):

- NLAA – project(s) are inside the species range and within suitable bat habitat, but **negative** bat presence/absence (P/A) surveys; must also be greater than 0.5 miles from any hibernaculum.
- NLAA – project(s) are within 300 feet of the existing road/rail surface (must also be greater than 0.5 miles of a hibernacula) that include percussives or other activities that increase noise above existing traffic/background levels:
 - o within areas that contain **undocumented** habitat
 - o conducted during the **active season**
 - o does not involve tree removal/trimming or bridge/structure work.
- NLAA – project(s) are limited to slash pile burning (must also be greater than 0.5 miles from any hibernaculum).
- NLAA – project(s) are limited to wetland or stream protection activities associated with compensatory wetland/stream mitigation that do not clear suitable habitat (must also be greater than 0.5 miles from any hibernaculum).
- NLAA – project(s) within 0.5 mile of hibernacula that are limited to the maintenance of the surrounding landscape at existing facilities (e.g., rest areas, stormwater detention basins) located within suitable summer habitat – no new ground disturbance or tree removal/trimming.

Proceed with this form to identify how other components of the proposed project adhere to the criteria of the BO.

MAY EFFECT, NOT LIKELY TO ADVERSELY AFFECT – WITH AMMS

11. For Indiana bat/NLEB, if applicable, document your may affect, NLAA determination (**with implementation of AMMs**) by completing the following section; use #13 to document AMMs).

Affected Resource/Habitat Type:

a. Trees

- Verify that the project is within 100 feet of existing road/rail surfaces.
- Verify that all tree removal/trimming occurs greater than 0.5 mile from any hibernaculum.

- Verify that all trees to be removed/trimmed are clearly demarcated.
- Verify that no documented Indiana bat and/or NLEB roosts and/or surrounding summer habitat within 0.25 mile of documented roosts will be impacted.
- Verify that all tree removal/trimming will occur outside the active season (i.e., will occur in winter):⁵
- Or**
- Verify that tree removal/trimming will include 10 or fewer trees⁶ per project during the active season, and visual emergence survey⁷ observed no bats. Acres of trees 0-100 feet of existing road/rail surface proposed for removal/trimming: 28.66
- Verify that all applicable lighting minimization measures will be implemented.

b. Bridge/Structure Work

Projects Proposed work: See attached

Timing of work: 2021-2024

Signs of bat activity on/in bridge/structure? Yes: No:

- Verify that work will be conducted outside the active season, or if during the active season, verify that no roosting bats will be harmed or disturbed in any way:⁸
- Verify that work will maintain suitable roosting habitat.⁹
- Verify that all applicable lighting minimization measures will be implemented.

Proceed with this form to identify how other components of the proposed project adhere to the criteria of the BO.

MAY AFFECT, LIKELY TO ADVERSELY AFFECT

12. For Indiana bat/NLEB, if applicable, document your may affect, LAA determination by completing the following section (use #13 to document AMMs).

⁵ Coordinate with the local Service Field Office for appropriate dates.

⁶ Areas containing more than 10 trees will be assessed by the local Service Field Office on a case-by-case basis with the project proponent.

⁷ Refer to <http://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html>

⁸ See page 12 of the User Guide for a description of activities that are NLAA roosting bats during the active season.

⁹ This only applies when assessment documents signs of bat use of when bat use is assumed.

Affected Resource/Habitat Type:

a. Trees

Project Location:

0-100 feet from edge of existing road/rail surface

100-300 feet from edge of existing road/rail surface

Verify that all tree removal/trimming occurs greater than 0.5 mile from any hibernaculum

Timing of tree removal/trimming:

Verify that no documented Indiana bat roosts or surrounding summer habitat within 0.25 mile of documented roosts will be impacted between May 1 and July 31.

Verify that no documented NLEB roosts or surrounding summer habitat within 150 feet of documented roosts will be impacted between June 1 and July 31.

Acres of trees 0-100 feet of existing road/rail surface proposed for removal/trimming:

Acres of trees 100-300 feet of existing road/rail surface proposed for removal/trimming:

Verify that all applicable lighting minimization measures will be implemented.

b. Bridge/Structure Work Projects

Proposed work:

Timing of work:

Verify no signs of a maternity colony.

Verify that work will maintain suitable roosting habitat.¹⁰

Verify that all applicable lighting minimization measures will be implemented.

13. For Indiana bat/NLEB, if applicable to the action type, the following AMMs will be implemented¹¹ unless P/A surveys and/or bridge/structure assessments document that

¹⁰This only applies when assessment documents signs of bat use or when bat use is assumed.

¹¹See AMMs Fact Sheet (Appendix C) for more information on AMMs.

the species are not likely to be present:

General AMM 1 (required for all projects)

Tree Removal AMM 1

Tree Removal AMM 2 (required for NLAA)

Tree Removal AMM 3 (required for all projects)

Tree Removal AMM 4 (required for NLAA)

Tree Removal AMM 5 (required for LAA)

Tree Removal AMM 6 (required for LAA)

Tree Removal AMM 7 (required for LAA)

Bridge AMM 1

Bridge AMM 2 (required for NLAA during active season) **Bridge AMMs**

Bridge AMM 3 (required for NLAA during active season) **not applicable.**

Bridge AMM 4 (required for all projects)

Structure AMM 1 (required for all projects for Indiana bat and required for NLAA for NLEB)

Structure AMM 2 (required for NLAA for both bat species) or

Structure AMM 3 (required for NLAA for both bat species)

Structure AMM 4 (required for all projects for Indiana bat and required for NLAA for NLEB)

Lighting AMM 1 (required for all projects during the active season)

Lighting AMM 2 (required for all projects)

Hibernacula AMM 1 (required for all projects) **Not applicable to project.
Not included in AMMs.**

14. For Indiana bat, if applicable, compensatory mitigation measures will also be required to offset adverse effects on the species (see Section 2.10 of the BA). Please verify the mechanism in which compensatory mitigation will be implemented and that sufficient information is provided to the Service.

Range-wide In-Lieu Fee Program, The Conservation Fund

State, Regional, Recovery Unit-Specific In-Lieu Fee
Program Name:

Conservation Bank

Name:

Location:

Local Conservation Site(s)

Name:

Location:

Description:

Avoidance And Minimization Measures (AMMs)

This determination key result includes the commitment to implement the following Avoidance and Minimization Measures (AMMs): **These AMMs will be included in the CE document to stay consistent with the**

IPaC determination.

GENERAL AMM 1

Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs.

LIGHTING AMM 1

Direct temporary lighting away from suitable habitat during the active season.

LIGHTING AMM 2

When installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable.

TREE REMOVAL AMM 1

Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal.

TREE REMOVAL AMM 2

Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed.

TREE REMOVAL AMM 3

Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

TREE REMOVAL AMM 4

Do not remove documented Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or documented foraging habitat any time of year.

I-465 Reconfiguration Project Description

The Indiana Department of Transportation (INDOT), in cooperation with the Federal Highway Administration (FHWA), proposes an added travel lanes project on I-465 in Marion County, Indiana, also known as the "I-465 Reconfiguration" project. The project consists of two sections: Section A/B and Section C.

Section A/B begins approximately 0.30 mile west of the I-465/United States (US) 31 interchange and ends at the I-465/I-65 interchange. The proposed work for Section A/B includes building auxiliary lanes on I-465 eastbound and westbound with retaining walls, reconfiguring the eastbound I-465 to northbound US 31 exit ramp, extending the southbound US 31 to eastbound I-465 merge area, and extending the entrance lane from southbound US 31 to eastbound I-465. The proposed work for Section A/B also includes the replacement of the Madison Avenue, Keystone Avenue, and Carson Avenue bridges.

Section C begins at the south end of the I-465/I-70 interchange and ends just west of the interchange with Mann Road. The proposed work for Section C includes added travel lanes along I-465, full depth pavement replacement at the shoulders, and replacement of the Mooresville Road Bypass bridge.

All work will occur within existing right-of-way. Based on coordination with the USFWS Bloomington, IN Field Office, the trees within and near Section A/B are considered "suitable summer habitat" due to the presence of Lick Creek. However, within right-of-way in Section C, the trees are urban trees and not considered "suitable summer habitat".

The total amount of "suitable summer habitat" proposed for clearing (Section A/B) is 18.05 acres. The total amount of urban trees proposed for clearing (Section C) is 10.61 acres. All trees proposed for clearing exist within 0 to 100 feet from an existing roadway. The primary tree species observed within the project area were sugar maple (*Acer saccharum*), green ash (*Fraxinus pennsylvanica*), eastern cottonwood (*Populus deltoides*), black walnut (*Juglans nigra*), honey-locust (*Gleditsia triacanthos*), sandbar willow (*Salix interior*), American elm (*Ulmus Americana*), and eastern red cedar (*Juniperus virginiana*). All clearing will occur during the inactive season. The contractor will likely use temporary lighting during construction. Existing lighting will be upgraded where necessary.

The contractor may begin work as early as the winter of 2021. Work may occur year-round through 2024. Tree trimming/clearing will be limited to the inactive season.

This project involves 16 existing bridges and 8 existing culverts (see Bridge Table). All structures have been inspected for evidence of bats. No evidence was found under or within any structure. A review of the USFWS GIS database for Indiana bat and Northern long-eared bat roosting, hibernacula and capture sites was conducted for Des. 1802075 on February 24, 2019. There are no documented sites within a half mile of the project.

During construction, traffic will be maintained along I-465 with shoulder and lane closures. All ramps within the interchanges will primarily remain open during construction. Local roads will experience closures while the Madison Avenue, Keystone Avenue, Carson Avenue, and Mooresville Road Bypass bridges are replaced, and detours will be provided.

Table 1. I-465 Reconfiguration Culverts

No.	Structure No.	Location	Waterbody	Parsons Inspection Date	Evidence of bats?	Est'm Cover (ft)	Existing Structure	Length	Work Type	Des. No.
1	CV 067-049-104.52	SR67 immed south of I465 EB entrance ramp	Dollar Hide Creek	7/29/2019	No	3	11.5' x 6' Slabtop	140	Repair - Extend host pipe and line	1802075
2	CV I465-049-08.44L	located near bottom of ramp from I-465SB to SR 67	UNT 1 to Dollar Hide Creek	3/28/2019	No	1	6' x 3.75' RCP	130	Repair - Extend pipe	1802075
3	CV I465-049-08.45	0.341 mi. west of Mooresville Rd.	UNT 1 to Dollar Hide Creek	3/28/2019	No	10	4.5' x 4.5' CMP	255	Repair - Extend pipe	1901612
4	CV I465-049-08.38	0.265 mi. west of Mooresville Rd.	UNT 1 to Dollar Hide Creek	3/28/2019	No	2	4' x 4' CMP	120	Repair - Extend pipe	1802075
5	CV I465-049-02.05	Below mainline WB and ramp from I-465WB to NB US31	Unknown?	3/28/2019	No	5	5.5' x 5.5' CMP	160	Existing structure remain in place	1901612
6	CV I465-049-01.97	Below EB lanes @ toe of on-ramp; 0.310 mi. west of Madison Ave.	UNT 14 to Lick Creek	3/28/2019	No	10	5' x 5' CMP	160	Repair - Extend pipe	1901612
7	CV I465-049-01.90	Located below WBL only, 0.239 mi. west of Madison Ave.	UNT 11 to Lick Creek	3/28/2019	No	5	5' x 5' CMP	280	Repair - Extend pipe	1901612
8	CV I465-049-01.47	0.785 mi. west of Keystone Ave.	UNT 7 to Lick Creek	3/28/2019	No	4	6' x 4' CMP	280	Existing structure remain in place. No hydraulic evaluation	1901612

UNT = unnamed tributary; CMP = corrugated metal pipe; RCEP = reinforced concrete elliptical pipe; SSPA = structural steel plate arch; RCP= reinforced concrete pipe; RC box = reinforced concrete box; CSPAs= corrugated steel pipe arch

Table 2. I-465 Reconfiguration Bridges

Bridge No.	Structure No.	Date Inspected for Bats	Evidence of Bats?	Des. No	Location/Crossing	Scope of Work
1	I465-155-09161	8/20/2018	No	1802075	West Hanna Avenue over I-465 northbound/southbound	Resurfacing/stripping under bridge only
2	I465-156-02152 JBNB	3/18/2019	No	1802075	I-465 northbound over IS railroad, SR 67	Deck Replacement
3	I465-156-02152 BSBL	8/20/2018	No	1802075	I-465 southbound over IS railroad, SR 67	Deck Replacement
4	I465-157-04721 B	8/14/2018	No	1900750	Mooresville Road over I-465	Bridge Replacement
5	(I465)31-49-04450 B	7/25/2018	No	1802075	US 31 southbound ramp over I-465 westbound, Lick Creek	Currently no work is proposed
6	031-49-04448 B	7/25/2018	No	1900744	US 31 over I-465 eastbound/westbound, Lick Creek	New cut wall under bridge
7	(I465)31-49-04449 B	7/25/2018	No	1802075	US 31 northbound ramp over I-465 eastbound, Lick Creek	Resurfacing/stripping under bridge only
8	I465-163-04447 BEBL	7/25/2018	No	1802075	I-465 eastbound over Lick Creek	Currently no work is proposed
9	(I465)431-49-04445 B	7/25/2018	No	1900757	Madison Avenue over I-465 eastbound/westbound, Lick Creek	Replacement
10	I465-164-02245	7/24/2018	No	1802075	Louisville and IN railroad over I-465 eastbound/westbound	Resurfacing/stripping under bridge only
11	I465-164-04444 BWBL	7/24/2018	No	1900749	I-465 westbound over Lick Creek	Widening bridge
12	I465-164-04444 CEBL	7/24/2018	No	1900748	I-465 eastbound over Lick Creek	Widening bridge
13	I465-164-04798 A	7/24/2018	No	1701345	Keystone Avenue over I-465	Replacement
14	CV I465-049-00.30	3/28/2019	No	1901612	I-465; 0.031 mi. west of Carson Avenue over McFarland Creek	Rehabilitation and extend
15	I465-165-04442 B	7/24/2018	No	1900758	Carson Avenue over I-465, Lick Creek	Replacement
16	CV I465-049-00.27 L	3/28/2019	No	1901612	Located below south slope of Carson Avenue, 0.025 mi. west of Carson Avenue over McFarland Creek	Repair/Replacement

From: [Hinkle, Meghan](#)
To: [Veldkamp, Keaton](#)
Cc: [Miller, Daniel J](#); [LaBlonde, John](#); [Port, Juliet](#); [Shattuck, Brian](#); [Miller, Brandon](#); [Ronald Bales](#)
Subject: [EXTERNAL] RE: Des. 1802075 I-465 Reconfiguration Draft Bat Submittal
Date: Wednesday, August 07, 2019 7:19:20 AM
Attachments: [image001.png](#)
[image002.png](#)

Good Morning Everyone,

USFWS has reviewed this projects submittal form, and they concur with the determination. Please attach this submittal form in the appendix of the CE and include a discussion in the remarks box (Threatened, Endangered, Rare section) why scoping sheets were completed in place of IPaC.

Let me know if you need some help with the language.

Thanks,

Meghan Hinkle
Major Projects / LPA Review Liaison
Environmental Services Division
Indiana Department of Transportation
100 N Senate Ave N642-ES
Indianapolis, IN 46204-2216
317-232-1490
Email: MHinkle@indot.IN.gov



[\[in.gov\]](#)

From: Veldkamp, Keaton [mailto:Keaton.Veldkamp@parsons.com]
Sent: Monday, August 05, 2019 11:21 AM
To: Hinkle, Meghan <MHinkle@indot.IN.gov>
Cc: Miller, Daniel J <Daniel.J.Miller@parsons.com>; LaBlonde, John <John.LaBlonde@parsons.com>; Port, Juliet <Juliet.Port@parsons.com>; Shattuck, Brian <bshattuck@indot.IN.gov>; Miller, Brandon <BraMiller1@indot.IN.gov>
Subject: RE: Des. 1802075 I-465 Reconfiguration Draft Bat Submittal

****** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ******

Hello,

I have addressed your comments and attached the updated form.

Thanks,

January 29, 2019

Subject: Initial Notice of Proposed Improvement Project Des. No. 1802075

Dear Utility Partner;

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 Design Build project, Des. No. 1802075, on I-465 in Marion County, Indiana.

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: I-465 Reconfiguration Design Build
- (2) Geographical limits: From I-70 to Mooresville Bypass Road and from US 31 Interchange to the I-65 Interchange
- (3) General description of work: Added Auxiliary Lanes and Interchange Modification
- (4) Date approved work plan will be needed: February 1, 2020
- (5) Ready for contracts date: April 1, 2020
- (6) Name of designer and contact information: Parsons Transportation, Kenny Franklin
- (7) Major or minor project: Major/Design Build

In accordance with 105 IAC 13-3-1(d), within 30 days 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; 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.

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 Kenny Franklin, 101 West Ohio St, Suite 2121, Indianapolis, IN 46204, 317-616-4670, 317-590-8763, kenny.franklin@parsons.com. Thank you for your prompt attention to these matters.

Sincerely;

Kenny Franklin
Utility Coordinator

Cc: File
Holliston Huhn



Port, Juliet

From: Utility Coordination <utilitycoordination@citizensenergygroup.com>
Sent: Friday, February 22, 2019 6:36 AM
To: Franklin, Kenny
Cc: Kosegi, Jeremy; Masbaum, Bob; Miller, Rich A.; Nagy, Joseph; Ritter, Scott; Rundle, Gordon; Vogler, Mark
Subject: I-465 Reconfiguration Design Build DES 1802075
Attachments: I-465 Reconfiguration Design Build - UC Response template.pdf; DES 1802075 I-465 Reconfig East CEG Water and Sanitary.pdf; DES 1802075 I-465 Reconfig West CEG Water and Sanitary.pdf; Des 1802075 I-465 Reconfiguration 2-21-2019.docx; Gas I-465 from I-70 to Mooresville By-Pass 2.zip

Attachments
intentionally omitted.

Kenny: Attached are the documents for the referenced project.

Kindly

CEG Utility Coordination



Appendix D

Section 106 of the National Historic Preservation Act

	<u>Page(s)</u>
Minor Projects PA Project Assessment Form	D-1

Minor Projects PA Project Assessment Form

Date: 8/29/19

Project Designation Number: 1802075 et. al.

Route Number: I-465

Project Description: I-465 Added Travel Lanes Project

The Indiana Department of Transportation (INDOT) proposes an added travel lanes project on Interstate 465 (I-465) in Marion County, Indiana. The project consists of two sections: Section A/B and Section C.

Section A/B begins approximately 0.3 mile west of the I-465/United States (US) 31 interchange and ends at the I-465/I-65 interchange. The proposed work for Section A/B includes building auxiliary lanes on eastbound and westbound I-465 with retaining walls, reconfiguring the eastbound I-465 to the northbound US 31 exit ramp, extending the southbound US 31 to eastbound I-465 merge area, and extending the entrance lane from southbound US 31 to eastbound I-465. The proposed work for Section A/B also includes the replacement of the Madison Avenue, Keystone Avenue, and Carson Avenue bridges. Section A/B addresses current safety and capacity issues between the I-465/US 31 interchange and terminates at the I-465/I-65 interchange.

Section C begins at the south end of the I-465/I-70 interchange and ends just west of the interchange with Mann Road. The proposed work for Section C includes added travel lanes along I-465, full depth pavement replacement at the shoulders, and replacement of the Mooresville Road Bypass bridge. The added travel lanes will address existing safety and capacity issues along I-465.

All work will occur within existing right-of-way. Retaining and noise walls are anticipated; however, there are no areas where combined walls will exceed 30 feet. Section C has no retaining walls, and there are no noise walls over 20 feet. For Section A/B, there are no noise walls over 20 feet, and the tallest retaining walls are between 5 and 7 feet.

The needs for this project are due to insufficient capacity along I-465 and safety issues that result in a high rate of crashes. Safety issues include substandard interchange ramp lengths that do not meet current Indiana Design Manual 2013 (revised 2019) standards. Within Section A/B there are back-ups and accidents at the I-465 to northbound US 31 ramp, the southbound US 31 to I-465 ramp, and the southbound US 31 to eastbound I-465 entrance lane. Within Section C, there are back-ups and accidents where the eastbound I-70 to eastbound I-465 entrance lane drops, at the eastbound I-465 to State Road (SR) 67 entrance ramp, at the westbound I-465 to eastbound I-70 ramp, and at the westbound I-465 to SR 67 on-ramp.

The purpose of the I-465 Reconfiguration Project is to improve overall traffic operation within these sections of I-465 by increasing capacity, increasing ramp lengths to meet current standards, and to improve safety.

Feature crossed (if applicable):

Township: Decatur and Perry

City/County: Indianapolis, IN

Information reviewed (please check all that apply):

Last revised 1-2-07

General project location map USGS map Aerial photograph
 Written description of project area General project area photos
 Previously completed archaeology reports Interim Report
 Previously completed historic property reports
 Soil survey data Bridge inspection information

Other (please specify): SHAARD; SHAARD GIS; Online street-view imagery; INDOT BIAS: Project information packet submitted by ASC Group, Inc., dated July 30, 2019 (see attached)

Cox, Cameron
 2007 Archaeological Records Check, Interchange Modification , I-465 at SR 37 (South Junction) INDOT Des. No. 9802810, Project No. IM-465-4, Marion County, Indiana. Report on file, INDOT Cultural Resources Office, Indianapolis, In.

Stilwell, Larry N.
 2011 An Archaeological Field Reconnaissance of the Proposed I-65 and I-465 Interchange Modification (Des. No. 0902297) in Indianapolis, Marion County, Indiana. Report on file, INDOT Cultural Resources Office, Indianapolis, In.

Whalen, Christina
 2001 Archaeological Records Check, I-465 Improvements, Marion County Indiana. Report on file, INDOT Cultural Resources Office, Indianapolis, In.

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

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

A-2. All work within interchanges and within medians of divided highways in previously disturbed soils.

B-2. Installation of new lighting, signals, signage and other traffic control devices 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.

- 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.

- B-4. Installation of new safety appurtenances, including but not limited to, guardrails, barriers, glare screens, and crash attenuators, 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.

- B-9. Installation, replacement, repair, lining, or extension of culverts and other drainage structures under the conditions listed below [***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)

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

- i. Work does not involve installation of a new culvert and other drainage structure, and there are no impacts to unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, under one of the following conditions (*Condition a, Condition b, or Condition c must be satisfied*):
 - a. The structure exhibits no wood, stone, or brick structures or parts therein; *OR*
 - b. The structure exhibits only modern wood, stone, or brick structures or parts therein; *OR*
 - c. The structure exhibits non-modern wood, stone, or brick structures or parts therein and the following conditions are met (*BOTH Condition 1 AND Condition 2 must be met*):
 1. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*
 2. The structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. Under this condition, a qualified professional (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) must prepare an analysis and justification that the structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. This documentation must be reviewed and approved by INDOT Cultural Resources Office.
- ii. Work involves the installation of a new culvert and other drainage structures *AND/OR* there may be impacts to unusual features, including historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, under the following conditions (*BOTH Condition a and Condition b must be satisfied*):
 - a. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*
 - b. The subject structure exhibits one of the characteristics described below (*Condition 1, Condition 2 or Condition 3 must be satisfied*).
 1. The structure exhibits no wood, stone, or brick structures or parts therein; *OR*
 2. The structure exhibits only modern wood, stone, or brick structures or parts therein; *OR*
 3. The structure exhibits non-modern wood, stone, or brick structures or parts therein but lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. Under this condition, a qualified professional (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) must prepare an analysis and justification that the structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. This documentation must be reviewed and approved by INDOT Cultural Resources Office.

- B-12. Replacement, widening, or raising the elevation of the superstructure on existing bridges, and bridge replacement projects (when both the superstructure and substructure are removed), 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)

The conditions listed below must be met (***BOTH Condition i and 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; AND
- ii. With regard to the subject bridge, at least one of the conditions listed below is satisfied (*AT LEAST one of the conditions a, b or c, must be fulfilled*):
 - a. The latest Historic Bridge Inventory identified the bridge as non-historic (see <http://www.in.gov/indot/2531.htm>);
 - b. The bridge was built after 1945, and is a common type as defined in Section V. of the Program Comment Issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges issued by the Advisory Council on Historic Preservation on November 2, 2012 for so long as that Program Comment remains in effect AND the considerations listed in Section IV of the Program Comment do not apply;
 - c. The bridge is part of the Interstate system and was determined not eligible for the National Register under the Section 106 Exemption Regarding Effects to the Interstate Highway System adopted by the Advisory Council on Historic Preservation on March 10, 2005, for so long as that Exemption remains in effect.

- B-16. Installation of MSE walls, retaining walls and noise barriers (including earth berms, ground mounted noise walls and structure mounted noise walls) not exceeding 30' in height within the Interstate r/w 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:

With regard to above-ground resources, an INDOT Cultural Resources historian who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 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 Marion County. No listed resources are located near the project area.

The *Decatur, Perry, and Franklin Townships, Marion County Interim Report* (1992; Decatur Township Scattered Sites Maps 2, 6, and 7, and Perry Township Scattered Sites Maps 8, 9, and 10) 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 (IHBBCM). The SHAARD and IHBBCM information was checked against the Interim Report hard copy maps.

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.

IHSSI #097-392-85243 (Railroad bridge, rated "notable") is located near the project area. It is located approximately 45 feet from the right-of-way line at its closest point and approximately 160 feet from the project's construction limits at their closest point. Dense vegetation screens the view from the bridge to the project area. No direct impacts will occur to the bridge.

In addition, IHSSI #097-392-85243 has been severely altered, thus reducing its integrity. On one side of the bridge, the original stone has been completely covered with concrete or removed and replaced with concrete. On the other side of the bridge, the uppermost portion of the bridge is also concrete, which either replaced or covered the original stone. With these alterations, the bridge lacks sufficient integrity to be considered eligible for the National Register.

IHSSI #097-392-85266 (Cedar Hill Farm, rated "notable") is also located near the project area. At its closest point, the right-of-way line is approximately 60 feet from the property boundary of IHSSI #097-392-85266. Dense vegetation screens the view from the property to the project area.

A qualified professional historian from ASC Group, Inc. prepared an analysis of the National Register-eligibility of IHSSI #097-392-85266. The historian conducted a field survey and research regarding the property. The historian found no documentary evidence that IHSSI #097-392-85266 is associated with any particular event of historical importance. Additionally, the field survey found that IHSSI #097-392-85266 has been altered by a rear addition, installation of both a front and a rear porch, some replacement windows, and other changes. Furthermore, the lack of any original barns or other outbuildings as well as the loss of surrounding farmland to urban development and interstate construction

have significantly reduced the ability of the property to convey any association with agricultural history. As a result of a lack of both significance and integrity, the ASC historian recommended that IHSSI #097-392-85266 is not eligible for listing in the National Register. INDOT-CRO concurs with this recommendation. The full analysis of IHSSI #097-392-85266, including photographs, is attached to this form.

The following IHSSI properties are located adjacent to the project area:

IHSSI # 097-041-85268, Gatto House, rated “contributing”

IHSSI # 097-041-85267, house, rated “contributing”

IHSSI # 097-066-80071, house, rated “contributing”

Other above-ground resources adjacent to the project area consist of the following:

- Mid- to late twentieth-century houses. Common types, predominately American Small House, Ranch and Split-level.
- Mid- to late twentieth-century apartment buildings. Common types. No distinguishing features.
- Late twentieth-century mobile homes.
- Early twentieth-century houses. Common types, predominately Bungalows.
- Late twentieth-century religious buildings.
- Late twentieth-century commercial and industrial buildings.

None of the resources adjacent to the project area possess the significance and integrity necessary to be considered eligible for the National Register.

The INDOT-CRO historian also investigated the potential for the existence of mid-twentieth-century residential historic districts adjacent to the project area. However, the historian found that the residential neighborhoods adjacent to the project area consisted of common types of houses that possessed a dearth of distinguishing features. Additionally, the neighborhoods displayed common designs and lacked any unusual layouts, landscaping, or other community features that would make them historically significant within their local context. Given the ubiquity of mid-twentieth-century residential neighborhoods, particularly within the local context of Marion County, INDOT-CRO determined that there are no historic districts adjacent to the project area.

With regard to the bridge replacements that will occur as part of this project, all of the bridges are part of the Interstate Highway System (Interstate System), and the vast majority of the 46,700-mile Interstate System is exempt from consideration as a historic resource under requirements of Section 106 of the National Historic Preservation Act and Section 4(f) of the Department of Transportation Act per the *Section 106 Exemption Regarding Historic Preservation Review Process for Effects to the Interstate Highway System* adopted by the Advisory Council on Historic Preservation on March 10, 2005 and Section 6007 of the SAFETEA-LU act (August 10, 2005), respectively. Elements of the Interstate System that are exceptional in some way or meet a national level of significance under the criteria for the National Register of Historic Places are excluded from these respective exemptions. However, based on consultation between FHWA, INDOT, SHPO and other stakeholders, no elements or sections of the Interstate System in Indiana were determined to be "nationally significant."

With regard to the small structure replacement, all of the small structures are common, modern types (7 corrugated metal pipes, 1 reinforced concrete pipe, and a concrete slabtop culvert). None possess wood, stone, or brick parts. There is no evidence to suggest that any of these structures possess historical or engineering significance.

Please see attachments for details on the bridges and small structures to be replaced (including structure numbers).

Based on the available information, as summarized above, no above-ground concerns exist.

Last revised 1-2-07

With regard to archaeological resources, all proposed activities will occur in the disturbed right-of-way of I-465 which consists of the 6-8 lane divided highway, concrete or ditched median, roadside ditches, grade separations, exit and entrance ramps, fill and/or cut soils, and utility easements. The majority of soils in the project area are classified as disturbed varieties such as Urban Land, Udorthents, and Gravel Pits. Portions of the project area have been subject to archaeological survey (Stillwell 2011) or a records check which did not recommend further work due previous disturbances (Whalen 2001; Cox 2007). According to SHAARD GIS, there are four archaeological sites in the project area; one isolated find that is not eligible for listing on the NRHP and now likely destroyed by I-465 and three that were confirmed to be destroyed by I-465 by archaeologists conducting work for I-69 Section 6. Since all project activities are confined to previously disturbed soils, there are no archaeological concerns.

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

INDOT Cultural Resources staff reviewer(s): Anthony Ross and Shaun Miller

****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.*



Photograph 1. View of the project area along I-465 from the Hanna Avenue bridge, looking south-southeast. The adjacent land use includes vacant land and commercial properties.



Photograph 2. View of the project area along I-465 from the W. Mooresville Road Bypass bridge, looking northwest. The adjacent land use is mostly residential with some commercial properties at the interchange with SR 67/Kentucky Avenue.



Photograph 3. View of mid-twentieth century residences along Tincher Road east of the W. Mooresville Road Bypass, looking southeast.



Photograph 4. View looking northwest of mid-1970s residences on Gambel Road in the Cloverleaf Village subdivision along the north side of I-465 east of the W. Mooresville Road Bypass.



Photograph 5. View looking east of utility lines and residential properties along Thompson Road east of Mann Road and south of I-465.



Photograph 6. View of the project area along I-465 from west of US 31/East Street, looking north. The adjacent land use includes commercial, modern residential, and mid-1960s multi-family residential.



Photograph 7. View of the project area along the I-465 EB off-ramp to US 31/East Street NB, looking northeast. The US 31/East Street NB on-ramps to I-465 are higher in elevation than the area proposed for improvements.



Photograph 8. View of the project area along I-465 from the Madison Avenue bridge, looking east-northeast. The adjacent land use is primarily residential, especially mobile home parks.



Photograph 9. View of the southern approach to the Madison Avenue bridge, looking south-southeast. The adjacent buildings are early and mid-twentieth century residences.



Photograph 10. View looking southwest along Little Piney Drive in the Village of North Acre mobile home park north of I-465 between Madison and Keystone avenues.



Photograph 11. View of the project area along I-465 from the Keystone Avenue bridge, looking east-northeast. The adjacent land use is predominantly mid-twentieth century single-family residences south of the interstate and modern multi-family residences north of the interstate.



Photograph 12. View of the northern approach to the Keystone Avenue bridge, looking north. West of the road is the Indiana Central Little League sports fields, and east of the road is the modern Fox Club Apartments complex.



Photograph 13. View of typical residences along Redfern Drive west of Keystone Avenue in the Rosedale Hills subdivision south of I-465, looking southwest. I-465 runs along the rear of these properties.



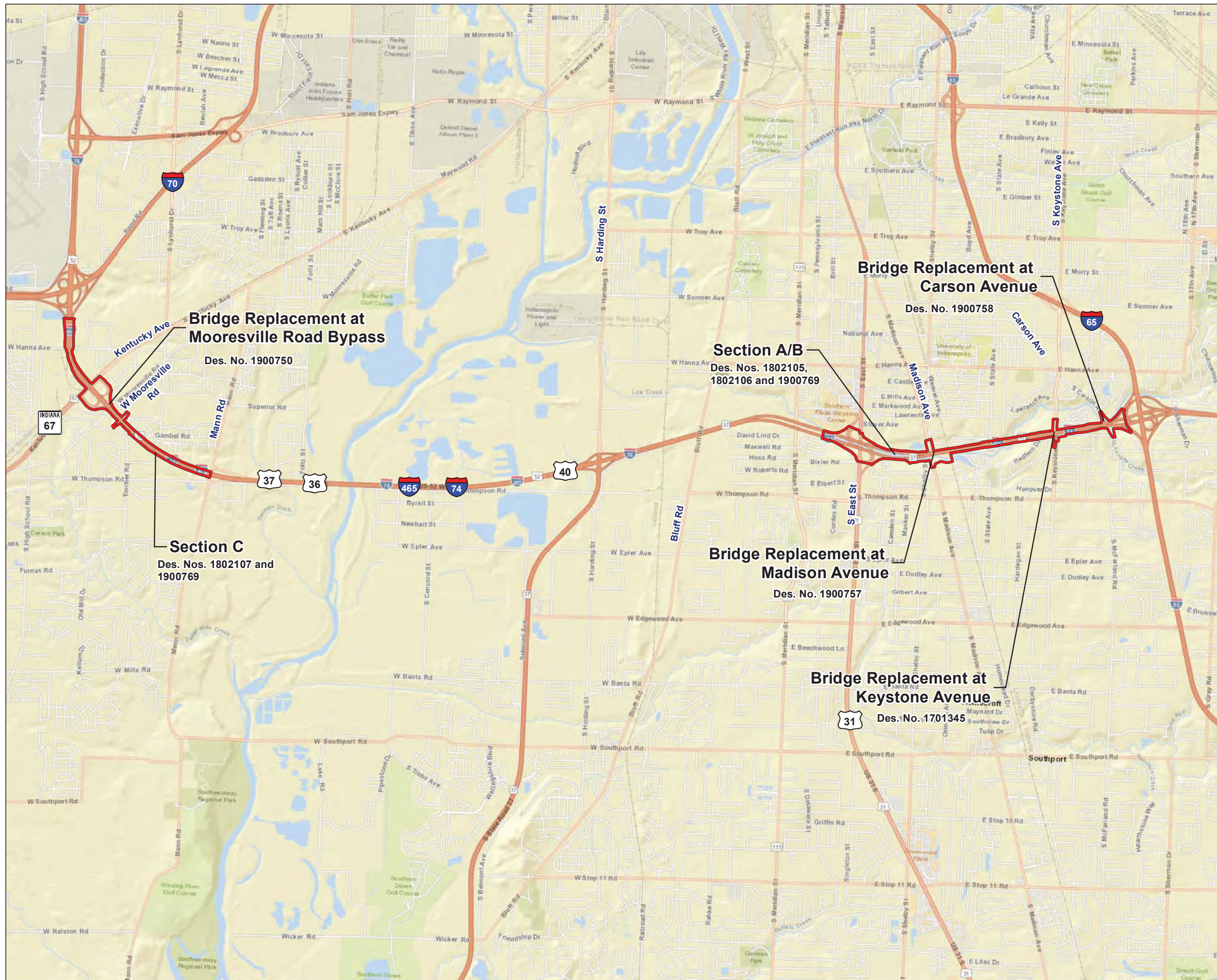
Photograph 14. View looking east-northeast along Redfern Drive east of Keystone Avenue and south of I-465 and showing utility lines and vegetation between the interstate and adjacent mid-twentieth century residences.



Photograph 15. View of the project area along I-465 from the Carson Avenue bridge, looking west-southwest. The adjacent land use includes vacant wooded land, utility lines, and early twentieth century through modern residences.

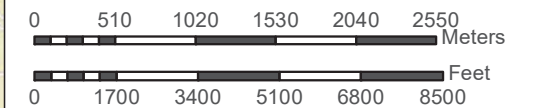


Photograph 16. View of the southern approach to the Carson Avenue bridge, looking southeast from Redfern Drive. The land use south of Redfern Drive is predominantly early to mid-twentieth century residences.



Study Area

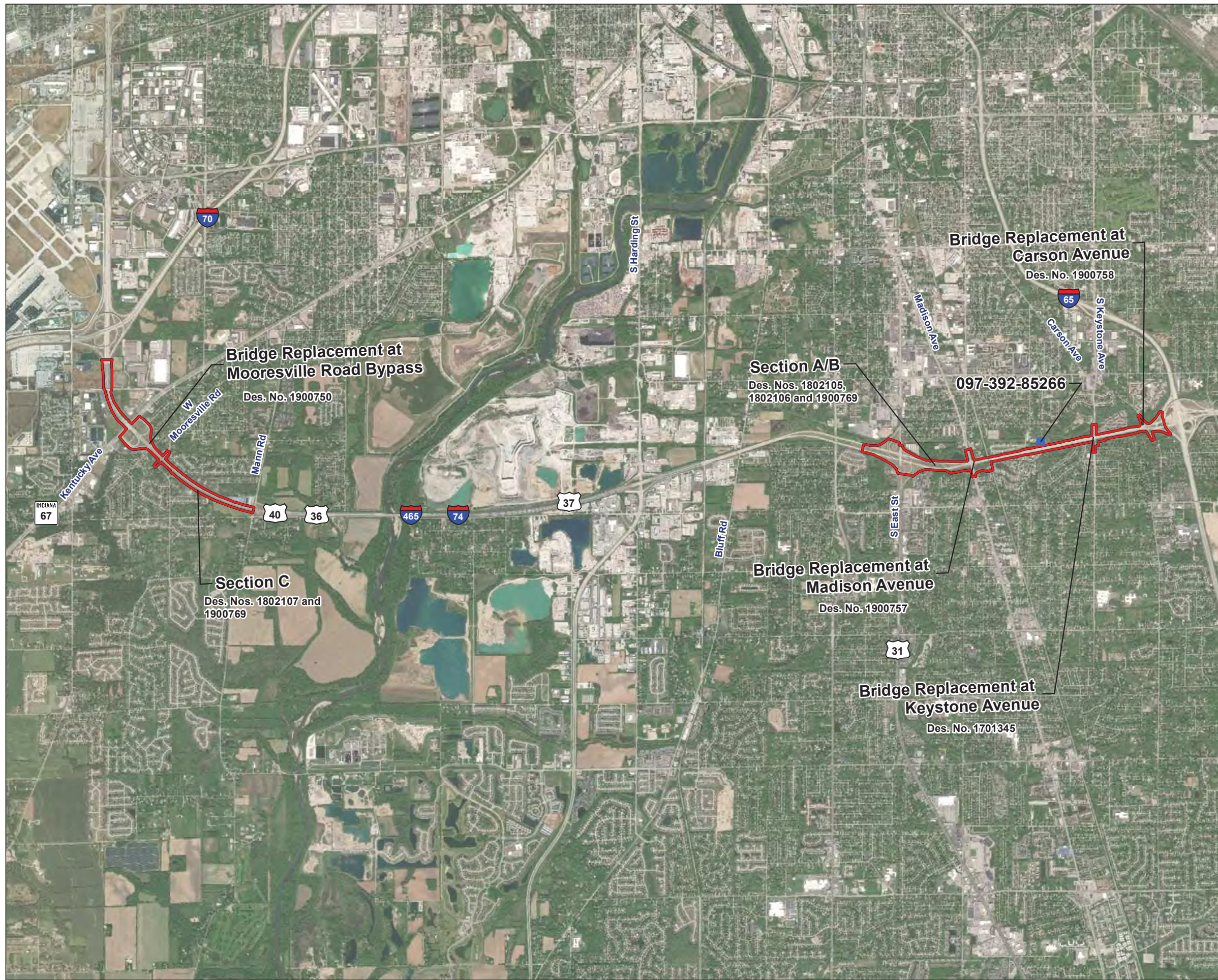
Base: ESRI 2019



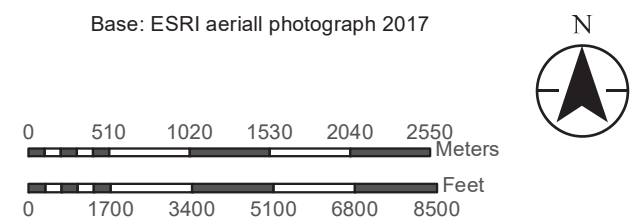
General Location Map

Portion of the ESRI World Street Map showing the vicinity of the I-465 Reconfiguration Project (Des. No. 1802075).

Created by TMD, JVT; last saved: 7/8/2019 1:13:46 PM



- Study Area
- IHSSI site



Aerial Photograph Map

Aerial photograph showing the project area of the I-465 Reconfiguration Project (Des. No. 1802075) and location of IHSSI No. 097-392-85266, Cedar Hill Farm, 4398 Asbury Street,

I-465 Reconfiguration

Decatur and Perry Townships, Marion County, Indiana

Des. No. 1802075

July 30, 2019

Attachment to MPPA Submission Form - Bridge and Small Structure Information

Des. No	Structure No.	NBI No.	Structure Type	Location/Crossing	Listing in Bridge Inventory
	I465-155-09161		2-span prestressed concrete continuous with tee beam bridge	West Hanna Avenue over I-465 northbound/southbound	there is an entry for I465-155-04646B, NBI 50970, West Hanna Ave over I-465, pg. 705, not eligible
	I465-156-02152 JBND		5-span steel continuous bridge	I-465 northbound over IS railroad, SR 67	No
	I465-156-02152 BSBL		5-span steel continuous bridge	I-465 southbound over IS railroad, SR 67	No
1900750	I465-157-04721 B	51000	4-span concrete continuous bridge	Mooresville Road over I-465	pg. 705, not eligible
	(I465)31-49-04450 B		5-span steel bridge	US 31 southbound ramp over I-465 westbound, Lick Creek	No
1900744	031-49-04448 B	9440	7-span steel continuous bridge	US 31 over I-465 eastbound/westbound, Lick Creek	pg. 701, not eligible
	(I465)31-49-04449 B		5-span steel bridge	US 31 northbound ramp over I-465 eastbound, Lick Creek	No
	I465-163-04447 BEBL		3-span steel continuous bridge	I-465 eastbound over Lick Creek	No
1900757	(I465)431-49-04445 B	32565	6-span steel continuous bridge	Madison Avenue over I-465 eastbound/westbound, Lick Creek	pg. 703, not eligible
	I465-164-02245		2-span steel girder bridge	Louisville and IN railroad over I-465 eastbound/westbound	No
1900749	I465-164-04444 BWBL		3-span prestressed concrete continuous bridge	I-465 westbound over Lick Creek	No
1900748	I465-164-04444 CEBL		3-span prestressed concrete continuous bridge	I-465 eastbound over Lick Creek	No
1701345	I465-164-04798 A	51210	4-span concrete continuous bridge	Keystone Avenue over I-465	pg. 706, not eligible
1900758	I465-165-04442 B	51220	1-span steel continuous bridge	Carson Avenue over I-465, Lick Creek	pg. 706, not eligible
1901612	CV I465-049-00.30		17.5' x 9' 3 Sided Culvert	I-465; 0.031 mi. west of Carson Avenue over McFarland Creek	No
1901612	CV I465-049-00.27 L		6.5' x 6.5' CMP	Located below south slope of Carson Avenue, 0.025 mi. west of Carson Avenue over McFarland Creek	No
	CV 067-049-104.52		11.5' x 6' Slabtop	Unknown stream, under Kentucky Avenue south of I-465	No
	CV I465-049-08.44L		6' x 3.75' RCP	UNT 1 to Dollar Hide Creek	No
1901612	CV I465-049-08.45		4.5' x 4.5' CMP	UNT 1 to Dollar Hide Creek	No
	CV I465-049-08.38		4' x 4' CMP	UNT 1 to Dollar Hide Creek	No
1901612	CV I465-049-02.05		5.5' x 5.5' CMP	Unknown stream, under I-465 east of US 31 in the interchange	No
1901612	CV I465-049-01.97		5' x 5' CMP	UNT 14 to Lick Creek	No
1901612	CV I465-049-01.90		5' x 5' CMP	UNT 11 to Lick Creek	No
1901612	CV I465-049-01.47		6' x 4' CMP	UNT 7 to Lick Creek	No

UNT = unnamed tributary; CMP = corrugated metal pipe; RCEP = reinforced concrete elliptical pipe; SSPA = structural steel plate arch; RCP= reinforced concrete pipe; RC box = reinforced concrete box; CSPAs= corrugated

I-465 Reconfiguration Project
Des. No. 1802075
MPPA Attachment
July 30, 2019

IHSSI No. 097-392-85266
Cedar Hill Farm
4398 Asbury Street
(street number listed as 4318 in Interim Report)

National Register of Historic Places Determination of Eligibility

Description: This one and one-half story frame house, built ca. 1870, has elements that are suggestive of both the Gothic and Italianate styles, but overall the detail is restrained. (The date given for the house's construction in the Interim Report was ca. 1860; however, based on the house's Italianate design elements, the date has been revised to ca. 1870.) The house has a cruciform plan, which has been somewhat modified by later additions. Three of the four gable ends feature a 2/2 double hung sash windows in arched openings; placement of these windows is reminiscent of the Gothic Revival style, although the round arch is not typical. Windows on the main floor are 2/2 double hung sash in rectangular openings; these windows feature wood surrounds with pediment-like lintels. The structure retains its original wood clapboard siding and is separated from the foundation by a wood water table; the foundation of the original structure is brick. Decorative scrolled brackets, most likely applied rather than functional, are located in deep eaves at the peak of the gable and at each gable end on all four elevations.

The front (east) elevation features a front porch with a gabled-roof and a concrete porch floor on a decorative concrete block foundation. The overall design and the use of decorative concrete block suggest that the porch was added in the early twentieth century, probably in the 1920s when spacious covered front porches were popularized by Bungalows and American Four Squares common to the decade. The main entrance on this elevation features a door centered on the projecting front bay that is flanked by sidelights; the design of the wood and glass paneled door and the sidelights with Craftsman detail together suggest that the entrance dates from the same period as the porch.

A shed-roofed addition has been built in the ell between the north and west elevations; this addition also has a decorative concrete block foundation and may date from the same period as the front porch. However, this addition is contained within the ell and does not detract from the overall character.

The west elevation includes an oversized double hung sash window of the type popular in the early twentieth century; there is also a small square fixed window above the rear door and adjoining the ell. The south elevation is differentiated by the installation of a door in the place of the round arched window; this door leads to a second-story porch. It is unlikely this is original.

A modern two-story garage located west of and behind the house was designed to emulate some of the characteristics of the main house, including a round arched window in the gable end above the paired garage doors. Three outbuildings remain on the site, including a small log building (likely not original), a small shack with vertical unpainted siding and a tin roof, and a smaller structure of similar description, which is leaning away from its foundation. No other outbuildings remain extant on the site.

History/Development: This house was built ca. 1860–1870 and is a remnant of a nineteenth century farmstead in what would have been rural Marion County. The house's unusual and elaborate cruciform plan is atypical for farmhouses of the period, and could suggest that the owner at the time of the house's construction was relatively well-to-do. The Interim Report identifies the property as Cedar Hill Farm; no

ASC Group, Inc.
9376 Castlegate Drive
Indianapolis, Indiana 46256
Page 1

historic or contemporary information could be found regarding a Cedar Hill Farm in Marion County, Indiana.

NRHP Evaluation: IHSSI No. 097-392-85266 was evaluated for significance under NRHP Criteria A, B, and C, using guidelines set forth in the NRHP Bulletin “How to Apply the National Register Criteria for Evaluation.”

IHSSI No. 097-392-85266 is a small remnant of a nineteenth century farmstead in rural Marion County. The property is not known to be associated with events that have made a significant contribution to the broad patterns of United States history. Therefore, IHSSI No. 097-392-85266 is not eligible under Criterion A.

IHSSI No. 097-392-85266 is not known to be associated with the lives of significant persons in our past. As a result, IHSSI No. 097-392-85266 is not eligible under Criterion B.

IHSSI No. 097-392-85266 is an unusual example of a farmhouse from the 1860s–1870s due to its cruciform plan. The plan, however, has been altered by an addition built in the northeast ell; other alterations, including a gabled-roof front porch and a rear second-story porch, detract from the overall character and integrity of design of the building. Otherwise, the building retains its original clapboard siding, Italianate pedimented window surrounds, and arched window openings in each gable end. Although many of the windows are original 2/2, there have been some later window openings with fixed windows. The building’s setting has also been compromised by the loss of any original barns or other outbuildings, other than modest sheds. As a result, IHSSI No. 097-392-85266 is not eligible under Criterion C.

The property was not evaluated under Criterion D as part of this assessment.



Photograph 1. View of the front (east) and side (north) elevations of 4398 Asbury Street (IHSSI No. 097-392-85266), looking southwest.



Photograph 2. View of the north side elevation of 4398 Asbury Street (IHSSI No. 097-392-85266), showing the later addition, looking southeast.



Photograph 3. View of the rear (west) elevation of 4398 Asbury Street (IHSSI No. 097-392-85266), looking northeast.



Photograph 4. View of the side (south) elevation of 4398 Asbury Street (IHSSI No. 097-392-85266), looking northwest.



Photograph 5. View of the newer detached garage located west of 4398 Asbury Street (IHSSI No. 097-392-85266), looking southeast. Note the log building at the southwest corner.



Photograph 6. View along the driveway of 4398 Asbury Street looking toward the house and I-465, looking south-southwest.



Photograph 7. View of I-465 from the south end of 4398 Asbury Street, looking southeast.



Photograph 8. View of I-465 from the southwest corner of the property, looking southeast.



Photograph 9. View of a shed located southwest of the house (age uncertain), looking southwest.



Photograph 10. View of the second shed located southwest of the house (age uncertain), looking northwest.



Photograph 11. View of the log structure, probably dating from the mid-twentieth century, looking northwest.

Appendix E

Red Flag Investigation and Hazardous Materials

	<u>Page(s)</u>
Section A/B Red Flag Investigation	E-1
Section C Red Flag Investigation.....	E-17



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: May 9, 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: Juliet Port, LPG
Parsons
101 W Ohio Street, Suite 2121
Indianapolis, IN 46204
Juliet.port@parsons.com

Re: RED FLAG INVESTIGATION
DES 1802075, State Project
I-465 Reconfiguration, Section A/B
Indianapolis, Marion County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The Indiana Department of Transportation (INDOT) proposes a reconfiguration project on I-465 in Marion County, Indiana. Specifically, the project is located in the Maywood and Beech Grove Quadrangles, Section 36 of Township 15 North, Range 3 East, and Sections 31 and 32 of Township 15 North, Range 4 East (39.415850 N, 86.75180 W). Section A/B begins approximately 0.30 mile west of the I-465/US 31 interchange and ends at the I-465/I-65 interchange. The proposed work for Section A/B includes building auxiliary lanes on I-465 eastbound and westbound with retaining walls, reconfiguring I-465 eastbound to US 31 northbound exit ramp, extending the US 31 southbound to I-465 eastbound merge area, and extending the entrance lane from US 31 to eastbound I-465. The proposed work for Section A/B also includes the replacement of the Madison Avenue, Keystone Avenue, and Carson Avenue bridges (see Table 1).

Bridge and/or Culvert Project: Yes No Structures # I465-165-04442 B, CV I465-049-00.27 L, CV I465-049-00.30, I465-164-04798 A, I465-164-04444 CEBL, I465-164-04444 BWBL, I465-164-02245, (I465)431-49-04445 B, I465-163-04447 BEBL, (I465)31-49-04449 B, 031-49-04448 B, (I465)31-49-04450 B, CV I465-049-01.47, CV I465-049-01.90, CV I465-049-01.97, CV I465-049-02.05

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 <2 acres Permanent # Acres <1 acre Not Applicable

Type of excavation: Excavations are expected for the bridge replacements (up to 10 feet below grade) and potential noise walls (4 to 10 feet below grade).

www.in.gov/dot/
An Equal Opportunity Employer

Maintenance of traffic: Traffic will be maintained along I-465 with shoulder and lane closures. Local roads will experience closures while the Madison Avenue, Keystone Avenue, and Carson Avenue bridges are replaced, and detours will be provided.

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

State Project: LPA:

Any other factors influencing recommendations: Please expedite review by May 1, 2019.

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	10*	Recreational Facilities	3***
Airports ¹	N/A	Pipelines	2
Cemeteries	N/A	Railroads	1
Hospitals	N/A	Trails	N/A
Schools	2**	Managed Lands	1

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

*Includes five unmapped facilities, Indianapolis Christian Fellowship, Lifeway Church, Southside Church of Nazarene, Bethany Lutheran Church, and First Separate Baptist.

**Includes one unmapped facility, University of Indianapolis.

***Includes one unmapped facility, Indiana Central Little League park.

Religious Facilities: Ten (10) religious facilities are located within the 0.5 mile search radius, including five (5) unmapped facilities. The nearest facility, Rosedale Hills United Methodist, is adjacent to the project area. Coordination with all religious facilities that may be impacted by the proposed road closures will occur.

Schools: Two (2) schools are located within the 0.5 mile search radius. The nearest facility, Raymond F. Brandes Elementary School, is located 0.38 mile north of the project area at the northwest corner of Keystone Avenue and I-465. Coordination with any schools impacted by the proposed road closures will occur.

Recreational Facilities: Three (3) recreational facilities are located within the 0.5 mile search radius. The nearest recreational facility, Indiana Central Little League park, is adjacent to the project area. Coordination with Indiana Central Little League, Indy Parks, and all recreational facilities that may be impacted by the proposed road closures will occur.

Pipelines: Two (2) pipeline segments are located within the 0.5 mile search radius. The two (2) pipelines cross the project area. Coordination with INDOT Utilities and Railroads should occur.

Railroads: One (1) railroad is located within the 0.5 mile search radius. One (1) railroad segment, owned and operated by the Louisville & Indiana Railroad Company, crosses the project area. Coordination with INDOT Utilities and Railroads should occur.

Managed Lands: One (1) managed land is located within the 0.5 mile search radius. The nearest managed land, Southside Park, is 0.33 mile north of the project area. Coordination with Indy Parks will occur.

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	17
Canal Structures – Historic	N/A	Lakes	12
NPS NRI Listed	N/A	Floodplain - DFIRM	72
NWI-Lines	8	Cave Entrance Density	N/A
IDEM 303d Listed Streams and Lakes (Impaired)	N/A	Sinkhole Areas	N/A
Rivers and Streams	20	Sinking-Stream Basins	N/A

NWI-Lines: Eight (8) NWI-lines are located within the 0.5 mile search radius. Three (3) NWI-lines are located within the project area. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting (EWPO) will occur.

Rivers and Streams: Twenty (20) stream segments are located within the 0.5 mile search radius. Two (2) streams are located within the project area. A Waters of the US Report will be prepared and coordination with INDOT ES EWPO will occur.

NWI-Wetlands: Seventeen (17) wetlands are located within the 0.5 mile search radius. Three (3) wetlands are located adjacent to the project area. A Waters of the US Report will be prepared and coordination with INDOT ES EWPO occur.

Lakes: Twelve (12) lakes are located within the 0.5 mile search radius. Two (2) lakes are adjacent to the project area. A Waters of the US Report will be prepared and coordination with INDOT ES EWPO will occur.

Floodplains: 72 floodplain polygons are located within the 0.5 mile search radius. The project area is located within three of the floodplain polygons. Coordination with INDOT ES EWPO will occur.

URBANIZED AREA BOUNDARY SUMMARY

Urbanized Area Boundary (UAB): This project lies within the Indianapolis UAB. Post construction Storm Water Quality Best Management Practices (BMPs) may need to be considered. An early coordination letter with topographic and aerial maps showing the project area should be sent to the municipal separate storm sewer system (MS4) coordinator at 1200 Madison Avenue, Suite 200, Indianapolis, Indiana 46225.

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	N/A	Mineral Resources	N/A
Mines – Surface	N/A	Mines – Underground	N/A

Explanation: No mining and mineral exploration resources were identified within the 0.5 mile search radius.

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	3	Open Dump Waste Sites	N/A
RCRA Corrective Action Sites	N/A	Restricted Waste Sites	N/A
State Cleanup Sites	3	Waste Transfer Stations	N/A
Septage Waste Sites	N/A	Tire Waste Sites	N/A
Underground Storage Tank (UST) Sites	6	Confined Feeding Operations (CFO)	N/A
Voluntary Remediation Program	2	Brownfields	N/A
Construction Demolition Waste	N/A	Institutional Controls	4
Solid Waste Landfill	1	NPDES Facilities	3
Infectious/Medical Waste Sites	N/A	NPDES Pipe Locations	2
Leaking Underground Storage (LUST) Sites	25	Notice of Contamination Sites	N/A

Explanation:

RCRA Generator/TSD: Three (3) RCRA generators are located within the 0.5 mile search radius. The nearest RCRA generator, Goodyear Auto Service Center (Agency Identification (AID) 16372, 437 East Hanna Avenue), is located 0.30 mile north of the project area. This automotive facility is a conditionally exempt generator of hazardous of waste (VFC Document 38998478). No impact is expected.

State Cleanup: State Cleanup Sites: Three (3) state cleanup sites are located within the 0.5 mile search radius. MAC Realty (aka Betty Mackenzie, AID 21563, 4157 S East Street) is located 0.10 mile north of the project area. This former service station was granted No Further Action status in 2010 (VFC Document 62889461). No impact is expected.

UST Sites: Six (6) UST sites are located within the 0.5 mile search radius. G A Food Mart (formerly Huebner Auto Service, Facility Identification Number (FID) 9566, 4253 Madison Avenue) is located 0.27 mile north of the project area. This facility has three registered USTs with no reported releases (Virtual File Cabinet (VFC) Document 80218135). No impact is expected.

VRP: Two (2) voluntary remediation program sites are located within the 0.5 mile search radius. Former Shoney’s Inc. (AID 6010404, 5010 S. East Street) is located 0.20 mile south of the project area. In 2011, this facility was granted a Certificate of Completion from IDEM for the presence of residual soil and groundwater petroleum contamination. An environmental restrictive covenant (ERC, a type of Institutional Control) was placed on the property’s deed. No impact is expected.

Solid Waste Landfill: One (1) solid waste landfill site is located within the 0.5 mile search radius. El Lago Apartment Inert Fill (Carson Road) is located 0.07 mile north of the project area. No file for this facility was found in the VFC. No impact is expected.

LUST Sites: Twenty-five (25) LUST sites are located within the 0.5 mile search radius. Marathon GT Foodmart (aka Indianapolis B1 Rite, FID 23634, 4225 South East Street) is a filling station located 0.13 mile north of the project area. This facility was issued an Agreed Order in August of 2018 for a variety of paperwork violations (VFC Document 82600648). A release from USTs was reported in 1991; however, no follow-up documentation is available. No excavations are proposed near this facility. No impact is expected.

Institutional Controls: Four (4) listings for institutional controls are located within the 0.5 mile search radius. Gas Station Former (aka Marathon GT Foodmart, AID 23634, 4225 S East Street) is located 0.13 mile north of the project area. This

facility was discussed above under LUST. A previous release of petroleum was closed pursuant to RISC in 2008 with an ERC (VFC Document 65563290). No impact is expected.

NPDES Facilities: Three (3) NPDES facilities are located within the 0.5 mile search radius. The nearest facility is mapped adjacent to the project area. No impact is expected.

NPDES Pipe Locations: Two (2) NPDES pipes are located within the 0.5 mile search radius. One (1) pipeline, operated by Citizens Gas & Coke Utility, crosses through the project area. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Marion 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 indicate the presence of ETR species within the 0.5 mile search radius.

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 project area is located in an urban area that contains forested corridors along streams. The inspection reports for the ten (10) bridges and four (4) culverts within the project area were checked (see Tables 1 and 2). Most of the bridge inspection reports state that no evidence of bats was seen or heard in (or on) the bridges (Table 1). The culvert inspection reports contain no information about whether bats are present or absent in the culverts (Table 2). Additional investigation to confirm the presence of absence of bats in (or on) the bridges and culverts will be necessary. The range-wide programmatic consultation for the Indiana bat and northern long-eared bat will be completed according to "Using the USFWS's Information for Planning and Consultation (IPaC) for INDOT Projects".

An inquiry using USFWS's 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:

Religious Facilities: The nearest facility, Rosedale Hills United Methodist, is adjacent to the project area. Coordination with all religious facilities that may be impacted by the proposed road closures will occur.

Schools: The nearest facility, Raymond F. Brandes Elementary School, is located 0.38 north of the project area. Coordination with any schools impacted by the proposed road closures will occur.

Recreational Facilities: The nearest recreational facility, Indiana Central Little League park, is adjacent to the project area. Coordination with Indiana Central Little League, Indy Parks, and all recreational facilities that may be impacted by the proposed road closures will occur.

Pipelines: Two (2) pipelines cross the project area. Coordination with INDOT Utilities and Railroads will occur.

Railroads: One (1) railroad segment crosses the project area. Coordination with INDOT Utilities and Railroads will occur.

Managed Lands: The nearest managed land is 0.33 mile north of the project area. Coordination with Indy Parks will occur.

WATER RESOURCES: The presence of the following water resources will require the preparation of a Waters of the US Report and coordination with INDOT ES Ecology and Waterway Permitting:

Three (3) NWI-lines are located within the project area.

Two (2) streams are located within the project area.

Three (3) wetlands are located adjacent to the project area.

Two (2) lakes are adjacent to the project area.

The project area is located within three floodplain polygons.

URBANIZED AREA BOUNDARY: This project lies within the Indianapolis UAB. Post construction Storm Water Quality BMPs may need to be considered. An early coordination letter with topographic and aerial maps showing the project area should be sent to the MS4 coordinator at 1200 Madison Avenue, Suite 200, Indianapolis, Indiana 46225.

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: N/A

ECOLOGICAL INFORMATION: Coordination with USFWS and IDNR will occur. Additional investigation to confirm the presence or absence of bats in (or on) the bridges and culverts will be necessary. The range-wide programmatic consultation for the Indiana bat and the northern long-eared bat will be completed according to the "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

INDOT Environmental Services concurrence: Nicole Fohey-Breting (Signature)
May 14, 2019

Prepared by:
Juliet Port, LPG
Senior Environmental Planner
Parsons

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: YES

MINING/MINERAL EXPLORATION: N/A

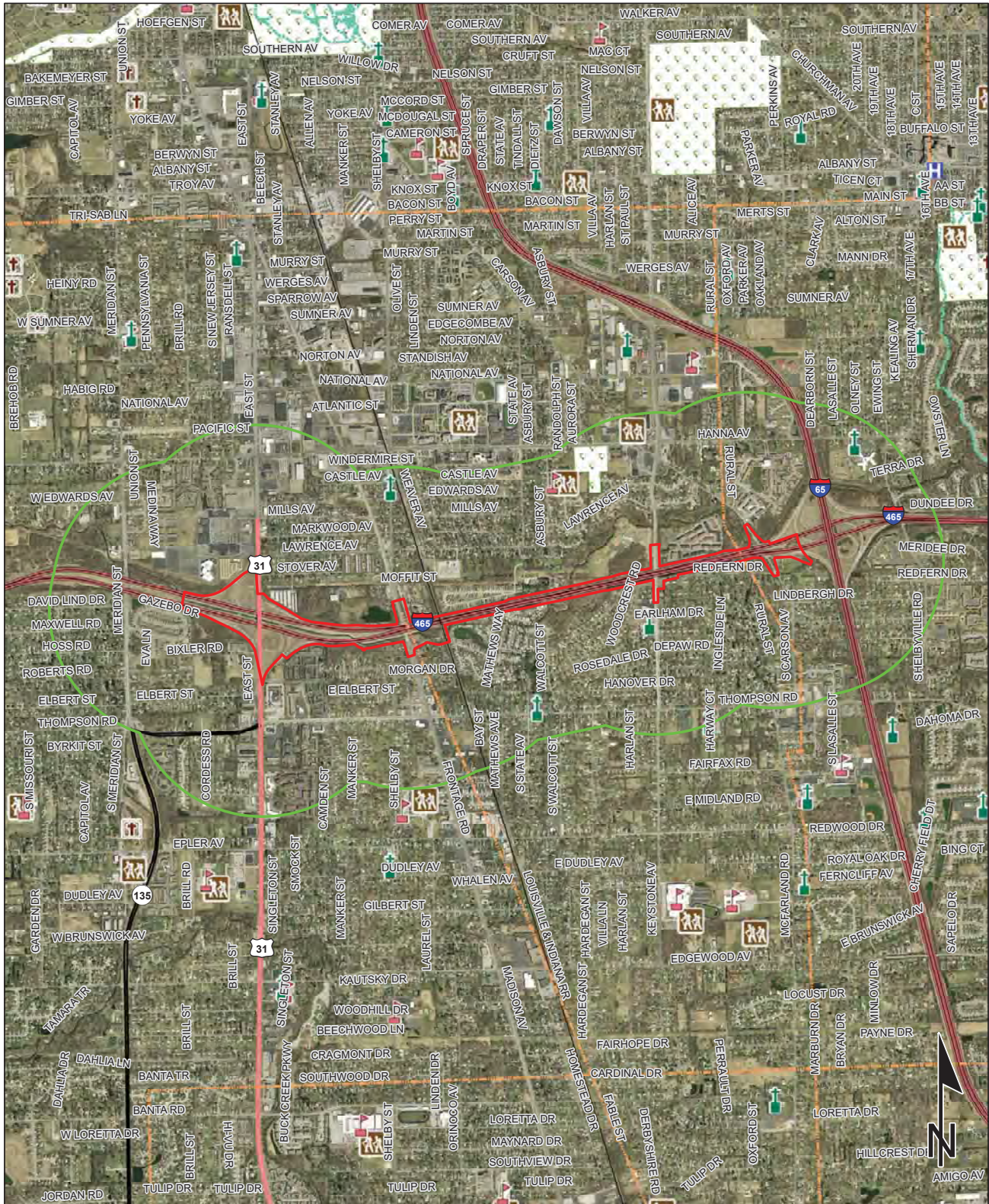
Site location map
intentionally omitted.
See Appendix B-1.

Table 1. I-465 Reconfiguration Section A/B Bridges					
Bridge No.	Structure No.	Date Inspected	Evidence of Bats?	Location/Crossing	Scope of Work
1	I465-165-04442 B	7/24/2018	No	I-465 over Carson Avenue	Replacement
2	I465-164-04798 A	7/24/2018	No	Keystone Avenue over I-465	Replacement
3	I465-164-04444 CEBL	7/24/2018	No	I-465 eastbound over Lick Creek (east)	Widening bridge
4	I465-164-04444 BWBL	7/24/2018	No	I-465 westbound over Lick Creek	Widening bridge
5	I465-164-02245	7/24/2018	No	Louisville & IN railroad over I-465	Resurfacing/stripping under bridge only
6	(I465)431-49-04445 B	7/25/2018	No	Madison Avenue over I-465 & Lick Creek	Replacement
7	I465-163-04447 BEBL	7/25/2018	No	I-465 eastbound over Lick Creek (west)	Currently no work is proposed
8	(I465)31-49-04449 B	7/25/2018	No	US 31 northbound to I-465 westbound over I-465 eastbound & Lick Creek	Resurfacing/stripping under bridge only
9	031-49-04448 B	7/25/2018	No	US 31 over I-465 & Lick Creek	New cut wall under bridge
10	(I465)31-49-04450 B	7/25/2018	No	US 31 southbound to I-465 eastbound over I-465 westbound & Lick Creek	Currently no work is proposed

Table 2. I-465 Reconfiguration Section A/B Culverts

Culvert No.	Structure No.	Date Inspected	Evidence of Bats?	Location/Crossing	Scope of Work
1	CV I465-049-01.47	2/5/2016	Unknown	I-465 over UNT; 0.785 mile west of Keystone Ave.	TBD
2	CV I465-049-01.90	2/5/2016	Unknown	I-465 over UNT; Below westbound lanes only, 0.239 mile west of Madison Ave.	TBD
3	CV I465-049-01.97	2/5/2016	Unknown	I-465 over UNT; Below eastbound lanes at toe of on-ramp, 0.310 mile west of Madison Ave.	TBD
4	CV I465-049-02.05	11/8/2017	Unknown	I-465 over UNT; Below mainline westbound and ramp from I-465 westbound to northbound US 31	TBD

Red Flag Investigation - Infrastructure Section A/B of I-465 Reconfiguration Des. 1802075 Marion County, Indiana



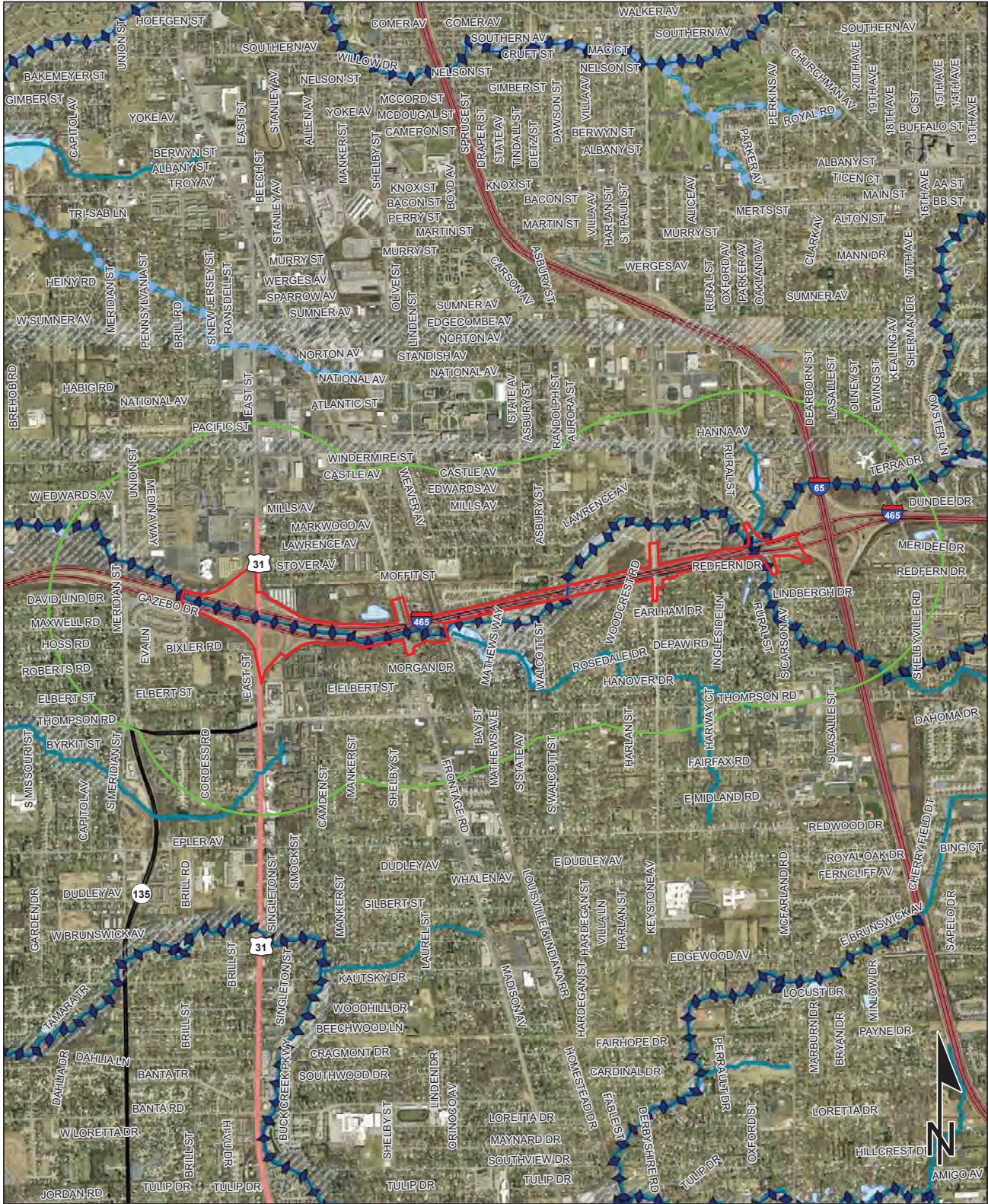
Sources: 0.45 0.225 0 0.45 Miles
Non Orthophotography
 Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
 Map Projection: UTM Zone 16 N Map Datum: NAD83
 This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Red Flag Investigation - Water Resources

Section A/B of I-465 Reconfiguration

Des. 1802075

Marion County, Indiana



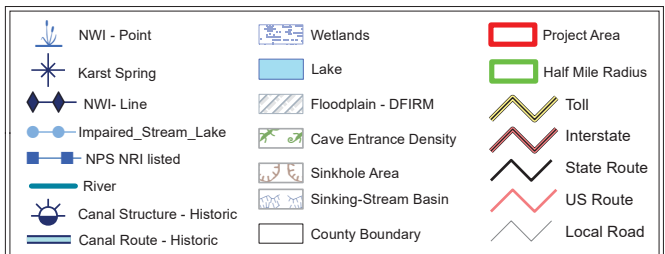
Sources: 0.45 0.225 0 0.45 Miles

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

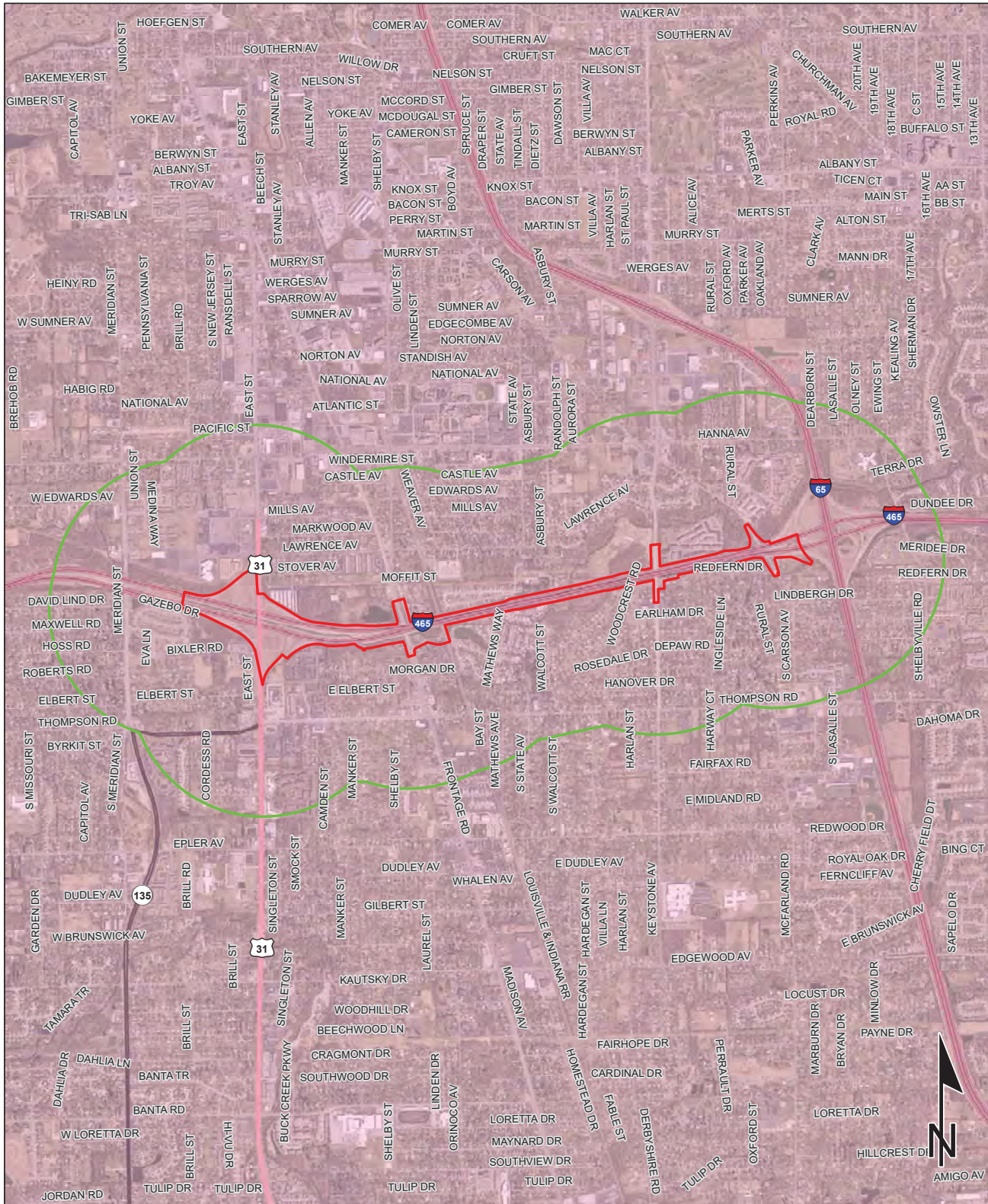
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

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.

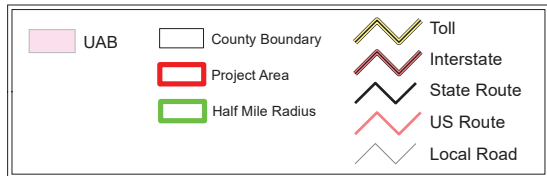


Red Flag Investigation - Urbanized Area Boundary Section A/B of I-465 Reconfiguration Des. 1802075 Marion County, Indiana

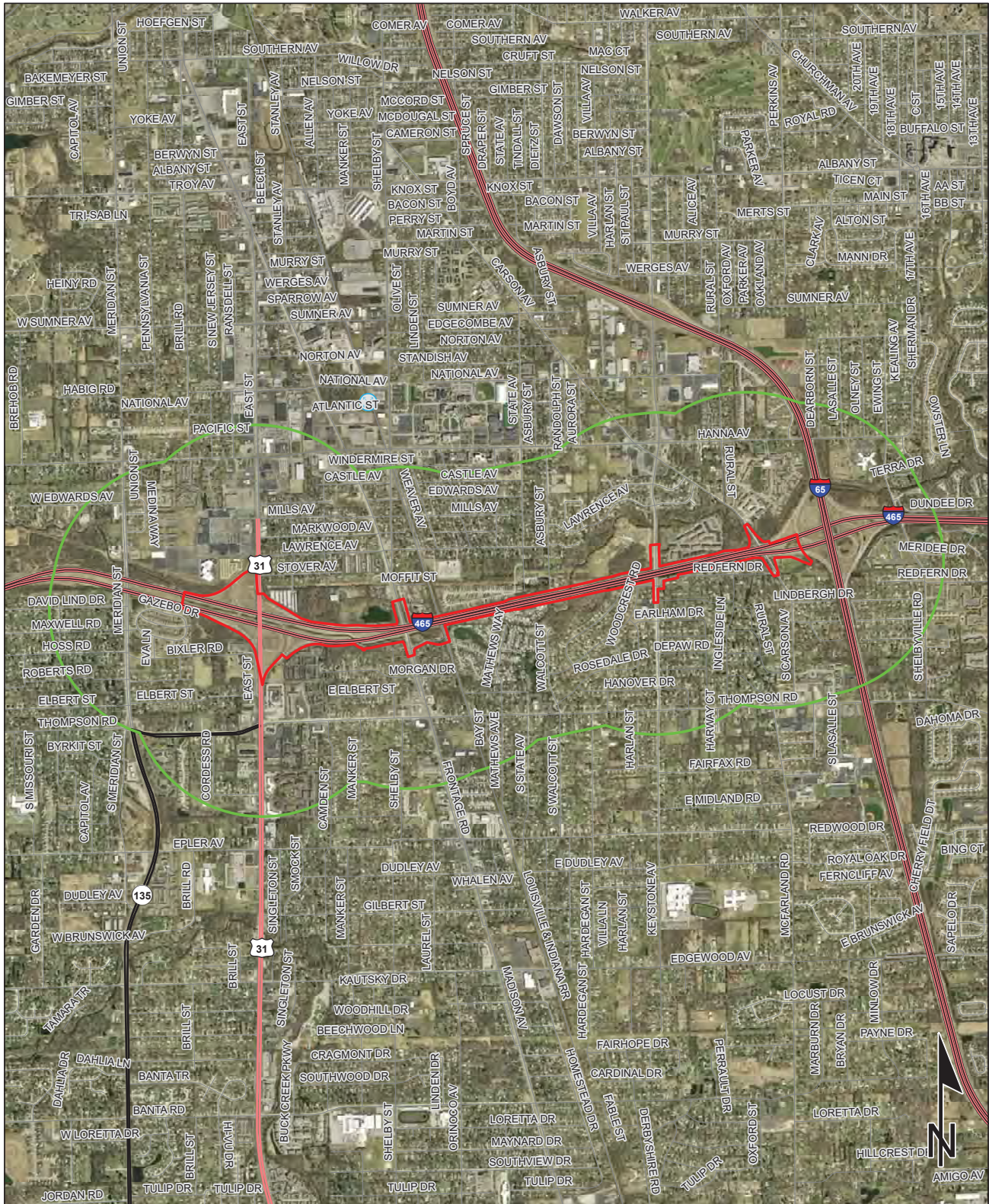


Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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



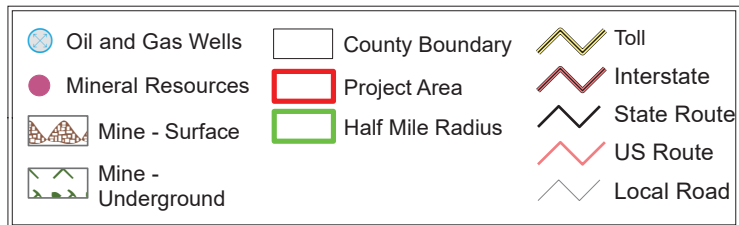
Red Flag Investigation - Mining/Mineral Exploration Section A/B of I-465 Reconfiguration Des. 1802075 Marion County, Indiana



0.45 0.225 0 0.45 Miles

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.

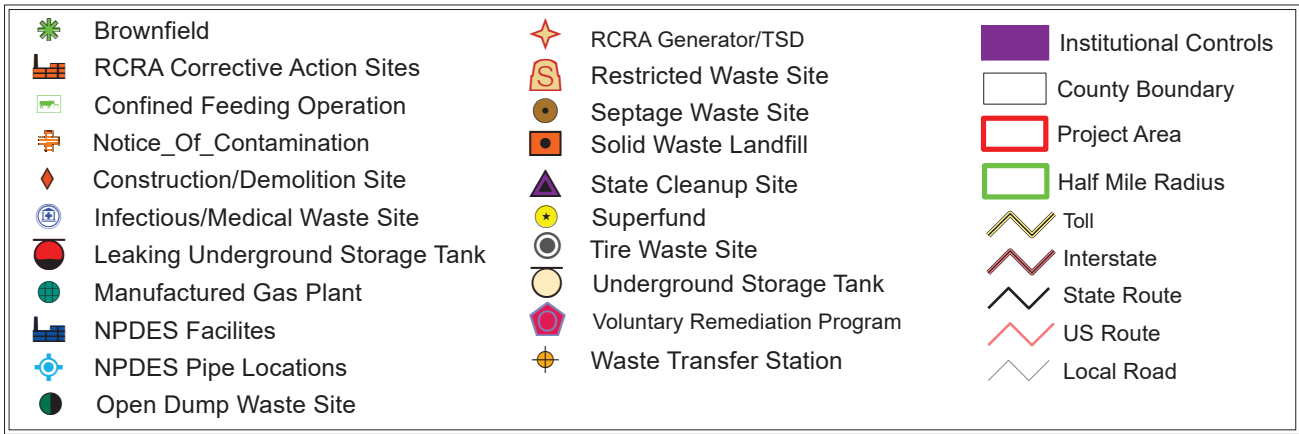
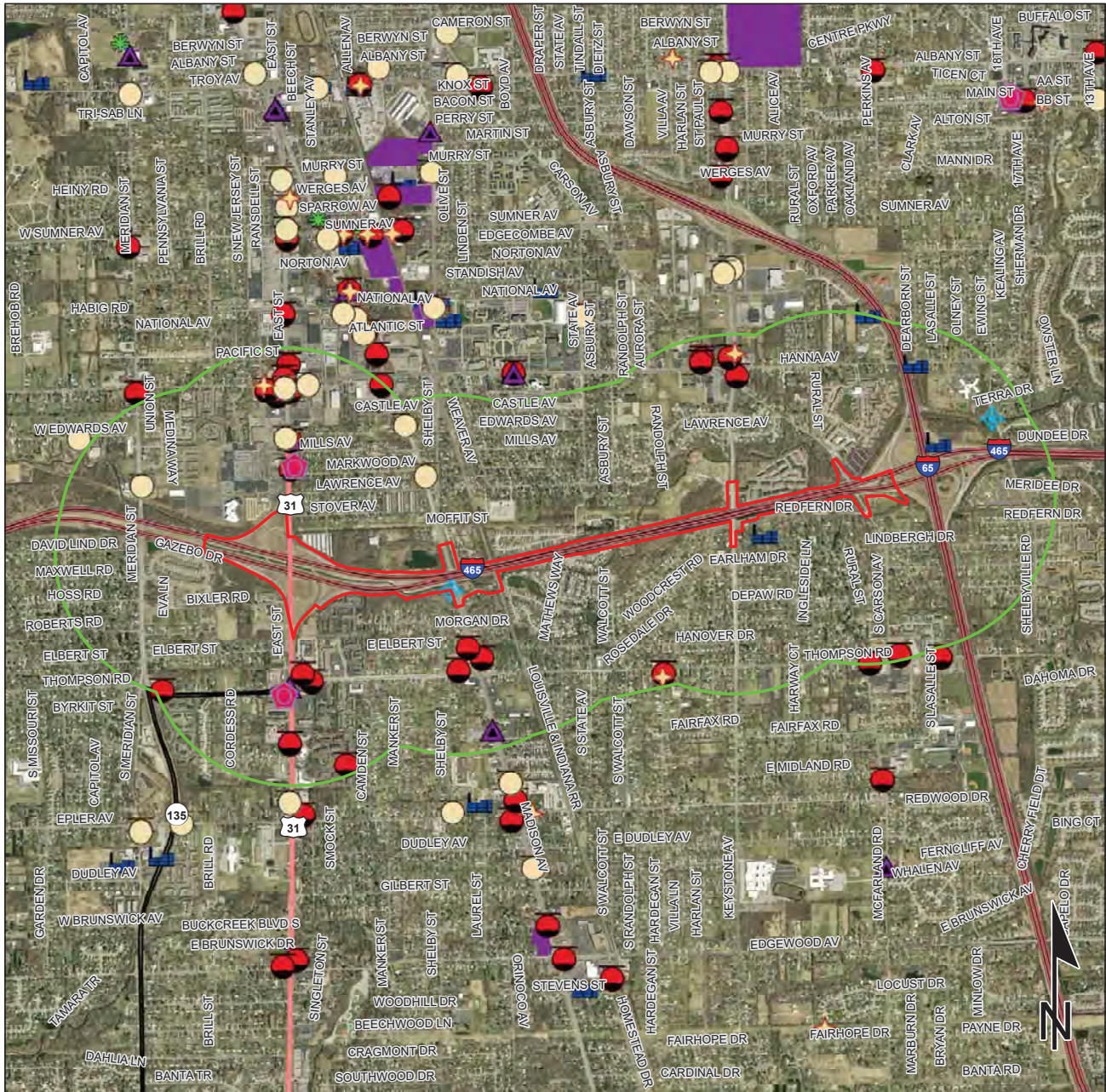


Red Flag Investigation - Hazardous Material Concerns

Section A/B of I-465 Reconfiguration

Des. 1802075

Marion County, Indiana



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

County: Marion

Species Name	Common Name	FED	STATE	GRANK	SRANK
Mollusk: Bivalvia (Mussels)					
Cyprogenia stegaria	Eastern Fanshell Pearlymussel	LE	SE	G1Q	S1
Epioblasma obliquata perobliqua	White catspaw	LE	SE	G1T1	SX
Epioblasma torulosa rangiana	Northern Riffleshell	LE	SE	G2T2	S1
Epioblasma triquetra	Snuffbox	LE	SE	G3	S1
Fusconaia subrotunda	Longsolid	C	SE	G3	SX
Lampsilis fasciola	Wavyrayed Lampmussel		SSC	G5	S3
Obovaria subrotunda	Round Hickorynut	C	SE	G4	S1
Plethobasus cicatricosus	White Wartyback	LE	SE	G1	SX
Plethobasus cooperianus	Orangefoot Pimpleback	LE	SE	G1	SX
Plethobasus cyphus	Sheepnose	LE	SE	G3	S1
Pleurobema clava	Clubshell	LE	SE	G1G2	S1
Pleurobema plenum	Rough Pigtoe	LE	SE	G1	S1
Pleurobema pyramidatum	Pyramid Pigtoe		SE	G2G3	SX
Ptychobranhus fasciolaris	Kidneyshell		SSC	G4G5	S2
Quadrula cylindrica cylindrica	Rabbitsfoot	LT	SE	G3G4T3	S1
Toxolasma lividus	Purple Lilliput	C	SSC	G3Q	S2
Venustaconcha ellipsiformis	Ellipse		SSC	G4	S2
Villosa lienosa	Little Spectaclecase		SSC	G5	S3
Insect: Hymenoptera					
Bombus affinis	Rusty-patched Bumble Bee	LE	SE	G1	S1
Insect: Lepidoptera (Butterflies & Moths)					
Hyperaeschra georgica	A Prominent Moth			G5	S2
Insect: Neuroptera					
Sisyra sp. 1	Indiana Spongilla Fly		ST	GNR	S2
Fish					
Percina evides	Gilt Darter		SE	G4	S1
Amphibian					
Lithobates pipiens	Northern Leopard Frog		SSC	G5	S2
Necturus maculosus	Common mudpuppy		SSC	G5	S2
Reptile					
Clemmys guttata	Spotted Turtle	C	SE	G5	S2
Clonophis kirtlandii	Kirtland's Snake	C	SE	G2	S2
Emydoidea blandingii	Blanding's Turtle	C	SE	G4	S2
Thamnophis butleri	Butler's Garter Snake		SE	G4	S1
Bird					
Aimophila aestivalis	Bachman's Sparrow			G3	SXB
Ardea alba	Great Egret		SSC	G5	S1B
Bartramia longicauda	Upland Sandpiper		SE	G5	S3B

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: Marion

Species Name	Common Name	FED	STATE	GRANK	SRANK	
Botaurus lentiginosus	American Bittern		SE	G5	S2B	
Buteo lineatus	Red-shouldered Hawk		SSC	G5	S3	
Buteo platypterus	Broad-winged Hawk		SSC	G5	S3B	
Certhia americana	Brown Creeper			G5	S2B	
Chordeiles minor	Common Nighthawk		SSC	G5	S4B	
Falco peregrinus	Peregrine Falcon		SSC	G4	S2B	
Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2	
Helmitheros vermivorus	Worm-eating Warbler		SSC	G5	S3B	
Ixobrychus exilis	Least Bittern		SE	G5	S3B	
Lanius ludovicianus	Loggerhead Shrike		SE	G4	S3B	
Mniotilta varia	Black-and-white Warbler		SSC	G5	S1S2B	
Nycticorax nycticorax	Black-crowned Night-heron		SE	G5	S1B	
Pandion haliaetus	Osprey		SE	G5	S1B	
Rallus elegans	King Rail		SE	G4	S1B	
Setophaga cerulea	Cerulean Warbler		SE	G4	S3B	
Sitta canadensis	Red-breasted Nuthatch			G5	S1B	
Wilsonia citrina	Hooded Warbler		SSC	G5	S3B	
Mammal						
Lasiurus borealis	Eastern Red Bat			SSC	G3G4	S4
Myotis lucifugus	Little Brown Bat	C		SSC	G3	S2
Myotis septentrionalis	Northern Long Eared Bat	LT		SSC	G1G2	S2S3
Myotis sodalis	Indiana Bat or Social Myotis	LE		SE	G2	S1
Taxidea taxus	American Badger			SSC	G5	S2
Vascular Plant						
Chelone obliqua var. speciosa	Rose Turtlehead			WL	G4T3	S3
Crataegus grandis	Grand Hawthorn		SE	G3G5Q	S1	
Deschampsia cespitosa	Tufted Hairgrass		SR	G5	S2	
Hydrastis canadensis	Golden Seal			WL	G3G4	S3
Juglans cinerea	Butternut			WL	G4	S3
Melanthium virginicum	Virginia Bunchflower		SE	G5	S1	
Panax quinquefolius	American Ginseng			WL	G3G4	S3
Poa wolfii	Wolf Bluegrass		SR	G4	S2	
Rubus odoratus	Purple Flowering Raspberry		ST	G5	S2	
Trifolium stoloniferum	Running Buffalo Clover	LE		SE	G3	S1
High Quality Natural Community						
Forest - flatwoods central till plain	Central Till Plain Flatwoods			SG	G3	S2
Forest - floodplain mesic	Mesic Floodplain Forest			SG	G3?	S1
Forest - floodplain wet	Wet Floodplain Forest			SG	G3?	S3
Forest - floodplain wet-mesic	Wet-mesic Floodplain Forest			SG	G3?	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: Marion

Species Name	Common Name	FED	STATE	GRANK	SRANK
Forest - upland dry-mesic Central Till Plain	Central Till Plain Dry-mesic Upland Forest			GNR	S2
Forest - upland mesic Central Till Plain	Central Till Plain Mesic Upland Forest			GNR	S3
Wetland - fen	Fen		SG	G3	S3
Wetland - marsh	Marsh		SG	GU	S4

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 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: May 9, 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: Juliet Port, LPG
Parsons
101 W Ohio Street, Suite 2121
Indianapolis, IN 46204
Juliet.port@parsons.com

Re: RED FLAG INVESTIGATION
DES 1802075, State Project
Section C of I-465 Reconfiguration
Marion County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The Indiana Department of Transportation (INDOT) proposes adding an auxiliary lane in each direction along I-465 in Marion County, Indiana. Specifically, the project is located in the Bridgeport Quadrangle, Sections 25 and 36 of Township 15 North, Range 2 East (39.702432 N, 86.262005 W). Section C begins at the south end of the I-465/I-70 interchange and ends just west of the interchange with Mann Road. The proposed work for Section C includes added auxiliary lanes along I-465, full depth pavement replacement at the shoulders, and replacement of the Mooresville Road Bypass bridge.

Bridge and/or Culvert Project: Yes No Structures # CV I465-049-08.45, I465-155-09161, I465-156-02152 JBNB, I465-156-02152 BSBL, I465-157-04721 B

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: Excavations are expected for the bridge replacement (up to 10 feet below grade) and potential noise walls (4 to 10 feet below grade).

Maintenance of traffic: Traffic will be maintained along I-465 with shoulder and lane closures. Mooresville Road Bypass will be closed while the bridge is replaced, and a detour will be provided.

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

State Project: LPA:

Any other factors influencing recommendations: Please expedite review by May 1, 2019.

www.in.gov/dot/
An Equal Opportunity Employer

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	1
Airports ¹	1	Pipelines	2
Cemeteries	1	Railroads	1
Hospitals	N/A	Trails	N/A
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.

*Includes one unmapped facility, Southwest Church of Nazarene.

Religious Facilities: Three (3) religious facilities are located within the 0.5 mile search radius. The nearest facility, unmapped Southwest Church of Nazarene, is located adjacent to I-465. Coordination with all religious facilities that may be impacted by the proposed road closure will occur.

Cemeteries: One (1) cemetery (with two symbols) is located within the 0.5 mile search radius. The nearest cemetery is located 0.2 mile southeast from the project area. No impact is expected.

Airports: One (1) public airport is located within the 0.5 mile search radius. The Indianapolis International Airport is located 0.25 mile northwest of the project area. Therefore, early coordination with INDOT Aviation will occur.

Recreational Facilities: One (1) recreational facility is mapped within the 0.5 mile search radius. Valley Mills Driving Range is mapped approximately 0.30 mile southwest of the project area; however, based on a desktop review it appears to be closed. Coordination with all recreational facilities that may be impacted by the proposed road closure will occur.

Pipelines: Two (2) pipeline segments are located within the 0.5 mile search radius. One (1) pipeline segment, owned by Citizens Gas and Coke Utility, crosses the project area. Coordination with INDOT Utilities and Railroads will occur.

Railroads: One (1) railroad segment is located within the 0.5 mile search radius. This railroad segment is located within the project area. Coordination with INDOT Utilities and Railroads will occur.

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	30
Canal Structures – Historic	N/A	Lakes	19
NPS NRI Listed	N/A	Floodplain - DFIRM	20
NWI-Lines	4	Cave Entrance Density	N/A
IDEM 303d Listed Streams and Lakes (Impaired)	2	Sinkhole Areas	N/A
Rivers and Streams	18	Sinking-Stream Basins	N/A

NWI-lines: Four (4) NWI-line segments are located within the 0.5 mile search radius. None of the NWI-line segments are located within the project area. A Waters of the US Report will be prepared and coordination with INDOT Environmental Services (ES) Ecology and Waterway Permitting Office (EWPO) will occur.

IDEM 303d Listed Streams and Lakes: Two (2) 303d Listed Stream segments are located within the 0.5 mile search radius. The nearest 303d Listed Stream is located approximately 0.03 mile southwest of the project area. No impact is expected.

Rivers and Streams: Eighteen (18) stream segments are located within the 0.5 mile search radius. The nearest stream segment is located approximately 0.03 mile southwest of the project area. A Waters of the US Report will be prepared and coordination with INDOT ES EWPO will occur.

NWI-Wetlands: Thirty (30) NWI-wetlands are located within the 0.5 mile search radius. The nearest NWI-wetland is located approximately 0.01 mile northwest of the project area. A Waters of the US Report will be prepared and coordination with INDOT ES EWPO will occur.

Lakes: Nineteen (19) lakes are located within the 0.5 mile search radius. The nearest lake is located approximately 0.01 mile northwest of the project area. No impact expected.

Floodplain: Twenty (20) floodplain polygons are located within the 0.5 mile search radius. None of the floodplain polygons are located within the project area. The nearest floodplain polygon is located approximately 0.02 mile southwest of the project area. No impact is expected.

URBANIZED AREA BOUNDARY SUMMARY

Urbanized Area Boundary (UAB): This project lies within the Indianapolis UAB. Post construction Storm Water Quality Best Management Practices (BMPs) may need to be considered. An early coordination letter with topographic and aerial maps showing the project area should be sent to the municipal separate storm sewer system (MS4) coordinator at 1200 Madison Avenue, Suite 200, Indianapolis, Indiana 46225.

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	2	Mineral Resources	N/A
Mines – Surface	N/A	Mines – Underground	N/A

Petroleum Wells: Two (2) petroleum wells are located within the 0.5 mile search radius. The petroleum wells are located approximately 0.28 mile northeast 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	2	Open Dump Waste Sites	N/A
RCRA Corrective Action Sites	N/A	Restricted Waste Sites	N/A
State Cleanup Sites	1	Waste Transfer Stations	N/A

Septage Waste Sites	N/A	Tire Waste Sites	N/A
Underground Storage Tank (UST) Sites	2	Confined Feeding Operations (CFO)	N/A
Voluntary Remediation Program	N/A	Brownfields	N/A
Construction Demolition Waste	N/A	Institutional Controls	2
Solid Waste Landfill	N/A	NPDES Facilities	6
Infectious/Medical Waste Sites	N/A	NPDES Pipe Locations	1
Leaking Underground Storage (LUST) Sites	7	Notice of Contamination Sites	N/A

RCRA Generator/TSD: Two (2) RCRA generators are located within the 0.5 mile search radius. The nearest RCRA generator, International Aerospace Tubes (Currently Australian Gold LLC, 4760 Kentucky Avenue, Agency Identification (AID) 10617) is located approximately 0.15 mile southwest of project area. No impact is expected.

State Cleanup Sites: One (1) state cleanup site is located within the 0.5 mile search radius. Indy Railway Service Corporation (6111 W Hanna Avenue, AID 16083) is located adjacent to the west of the project area. This inactive facility was used to recondition rail cars and has a history of enforcement actions related to improper waste storage practices and releases (Virtual File Cabinet (VFC) Document 66479856). Based on a 2012 Site Investigation Report (VFC Document 64907849), no evidence of significant soil or groundwater contamination was encountered. No impact is expected.

UST Sites: Two (2) UST sites are located within the 0.5 mile search radius. One (1) UST is located 0.11 mile east of the project area, Gleaners Food Bank (formerly Penske Truck Leasing Company, 3737 Waldemere Avenue, Facility Identification Number (FID) 25620). The facility has one 20,000 diesel UST that contains diesel fuel. No impact is expected.

LUST Sites: Seven (7) LUST sites are located within the 0.5 mile search radius. The nearest site is located 0.10 mile southwest of the project area. Marathon Unit 2209 (4715 Kentucky Avenue, FID 5436) was granted No Further Action status in May 2001 (VFC Document 20770483). No impact is expected.

Institutional Controls: Two (2) listings for institutional controls are located within the 0.5 mile search radius. The listings are for the same facility, Former Swifty Station 238 located 0.2 mile southwest of the project area (4725 Kentucky Avenue, FID 17090). An environmental restrictive covenant (ERC) was placed on the property in 2009 for residual petroleum contamination from a 1988 release (VFC Document 53083167). No impact is expected.

NPDES Facilities: Six (6) NPDES facilities are located within the 0.5 mile search radius. The nearest facility, Indy Transport, is mapped adjacent to the east of the project area. No impact is expected.

NPDES Pipe Locations: One (1) NPDES pipe is located within the 0.5 mile search radius. The pipe is located approximately 0.35 mile northeast of the project area. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

[ETR List intentionally omitted to avoid duplication. See Appendix E-13.](#)

The Marion 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 indicate the presence of ETR species within the 0.5 mile search radius. Coordination with the United States Fish and Wildlife Service (USFWS) and Indiana Department of Natural Resources (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 project area is located in an urban area that contains forested areas (there is a small forested block adjacent to the northeast). The inspection reports for the four (4) bridges and one (1) culvert within the project area

*www.in.gov/dot/
An Equal Opportunity Employer*

were checked (see Tables 1 and 2). Most of the bridge inspection reports state that no evidence of bats was seen or heard in (or on) the bridges (Table 1). The culvert inspection reports contain no information about whether bats are present or absent in the culvert (Table 2). Additional investigation to confirm the presence of absence of bats in (or on) the bridges and culvert will be necessary. The range-wide programmatic consultation for the Indiana bat and northern long-eared bat will be completed according to "Using the USFWS's Information for Planning and Consultation (IPaC) for INDOT Projects".

An inquiry using USFWS's 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:

Airports: The Indianapolis International Airport is located 0.25 mile northwest of the project area. Coordination with INDOT Aviation will occur.

Schools: Coordination with all schools that may be impacted by the proposed road closure will occur.

Recreational Facilities: Valley Mills Driving Range is mapped 0.3 mile southwest of the project area. Coordination with recreational facilities that may be impacted by the proposed road closure will occur.

Pipelines: One (1) pipeline segment, owned by Citizens Gas and Coke Utility, crosses the project area. Coordination with INDOT Utilities and Railroads will occur.

Railroad: One (1) railroad segment is located within the project area. Coordination with INDOT Utilities and Railroads will occur.

WATER RESOURCES: The presence of the following water resources will require the preparation of a Waters of the US Report and coordination with INDOT ES EWPO:

NWI-lines: Four (4) NWI-line segments are located within the 0.5 mile search radius.

Rivers and Streams: Eighteen (18) stream segments are located within the 0.5 mile search radius.

NWI-Wetlands: Thirty (30) NWI-wetlands are located within the 0.5 mile search radius.

URBANIZED AREA BOUNDARY: This project lies within the Indianapolis UAB. Post construction Storm Water Quality BMPs may need to be considered. An early coordination letter with topographic and aerial maps showing the project area should be sent to the MS4 coordinator at 1200 Madison Avenue, Suite 200, Indianapolis, Indiana 46225.

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: N/A

ECOLOGICAL INFORMATION: Coordination with USFWS and IDNR will occur. Additional investigation to confirm the presence of absence of bats in (or on) the bridges and culvert will be necessary. The range-wide programmatic

consultation for the Indiana bat and the northern long-eared bat will be completed according to the “Using the USFWS’s IPaC System for Listed Bat Consultation for INDOT Projects”.

INDOT Environmental Services concurrence: Nicole Fokey-Breting (Signature)

May 14, 2019

Prepared by:
Juliet Port, LPG
Senior Environmental Planner
Parsons

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

Site Location map intentionally omitted. See Appendix B-1.

INFRASTRUCTURE: YES

WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: YES

MINING/MINERAL EXPLORATION: YES

HAZMAT CONCERNS: YES

Table 1. I-465 Reconfiguration Bridges					
Bridge No.	Structure No.	Date Inspected	Evidence of Bats?	Location/Crossing	Scope of Work
1	I465-155-09161	8/20/2018	No	West Hanna Avenue over I-465 northbound/southbound	Resurfacing/stripping under bridge only
2	I465-156-02152 JBNB	8/20/2018	Unknown	I-465 northbound over IS railroad, SR 67	Deck replacement
3	I465-156-02152 BSBL	8/20/2018	No	I-465 southbound over IS railroad, SR 67	Deck replacement
4	I465-157-04721 B	8/14/2018	No	Mooresville Road over I-465	Bridge replacement

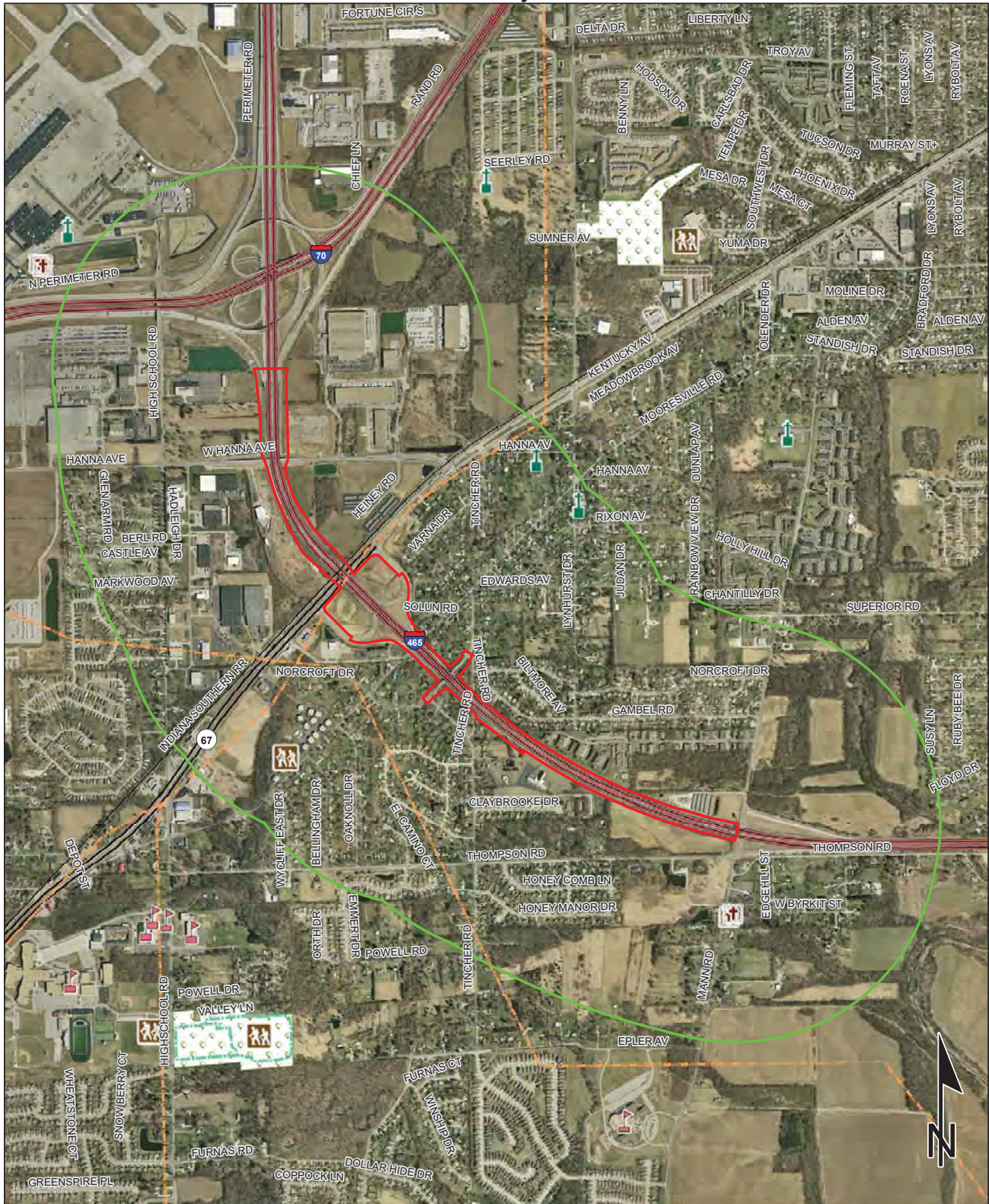
Table 2. I-465 Reconfiguration Culverts					
Culvert No.	Structure No.	Date Inspected	Evidence of Bats?	Location/Crossing	Scope of Work
1	CV I465-049-08.45	3/8/2016	Unknown	0.341 mi. west of Mooresville Rd.	Replacement or Extension

Red Flag Investigation - Infrastructure

I-465 Reconfiguration

Des. 1802075, R-41787, 1802105, 1802106, 1802107

Marion County, Indiana



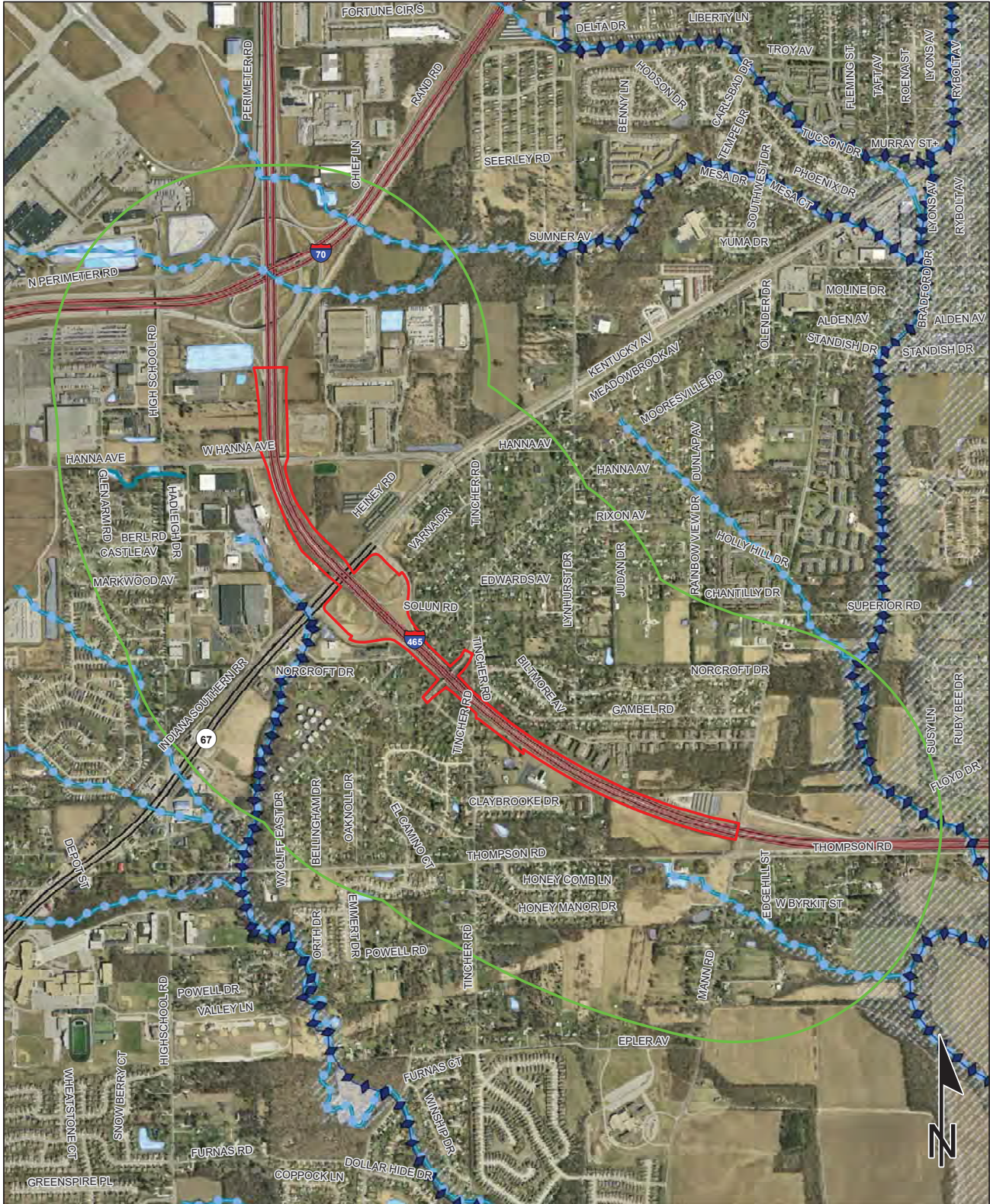
Sources: 0.3 0.15 0 0.3 Miles
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83
This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Red Flag Investigation - Water Resources

I-465 Reconfiguration

Des. 1802075, R-41787, 1802105, 1802106, 1802107

Marion County, Indiana



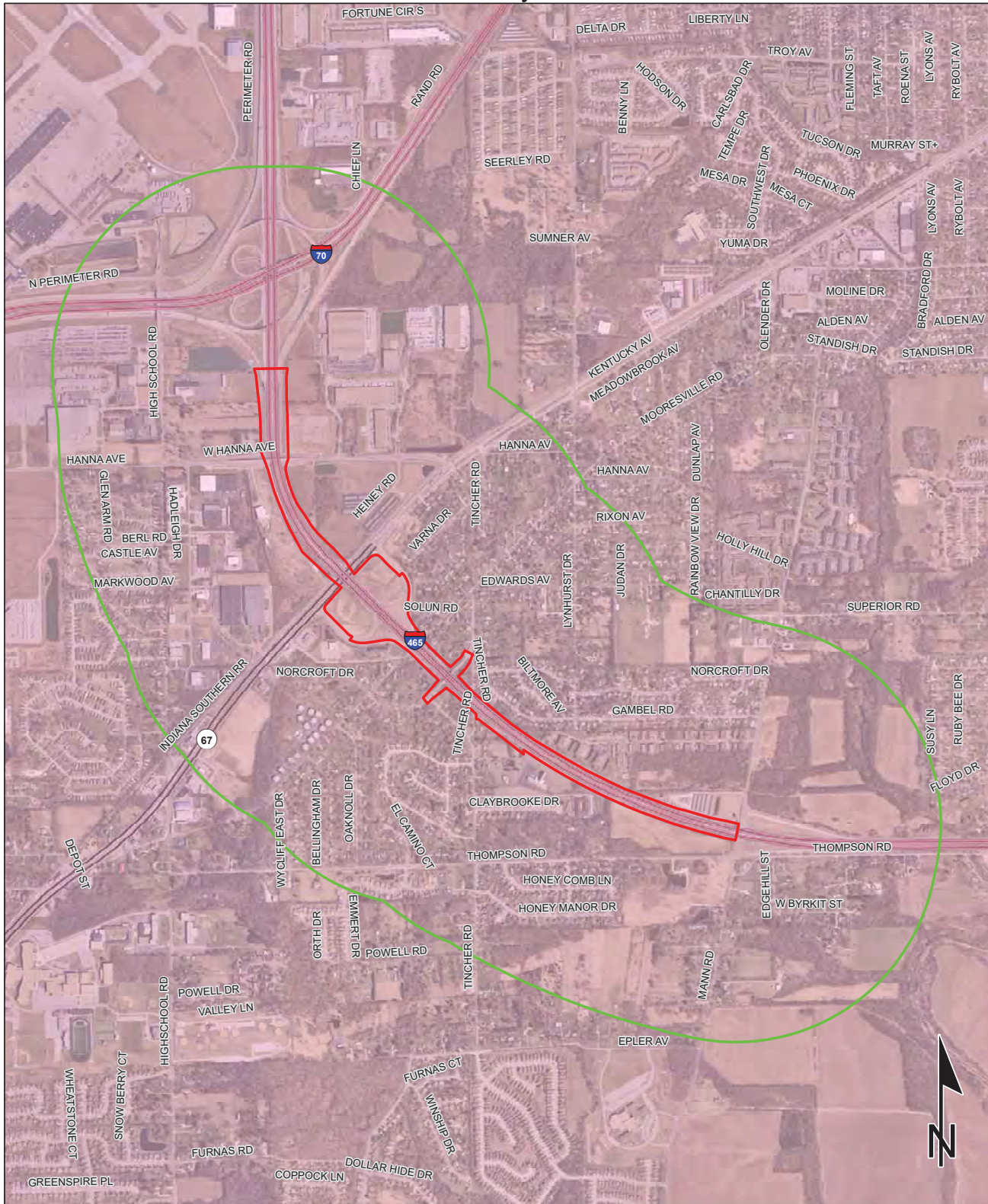
Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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



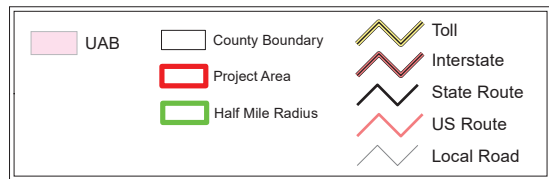
NWI - Point	Wetlands	Project Area
Karst Spring	Lake	Half Mile Radius
NWI - Line	Floodplain - DFIRM	Toll
Impaired_Stream_Lake	Cave Entrance Density	Interstate
NPS NRI listed	Sinkhole Area	State Route
River	Sinking-Stream Basin	US Route
Canal Structure - Historic	County Boundary	Local Road
Canal Route - Historic		

Red Flag Investigation - Urbanized Area Boundary I-465 Reconfiguration Des. 1802075, R-41787, 1802105, 1802106, 1802107 Marion 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.

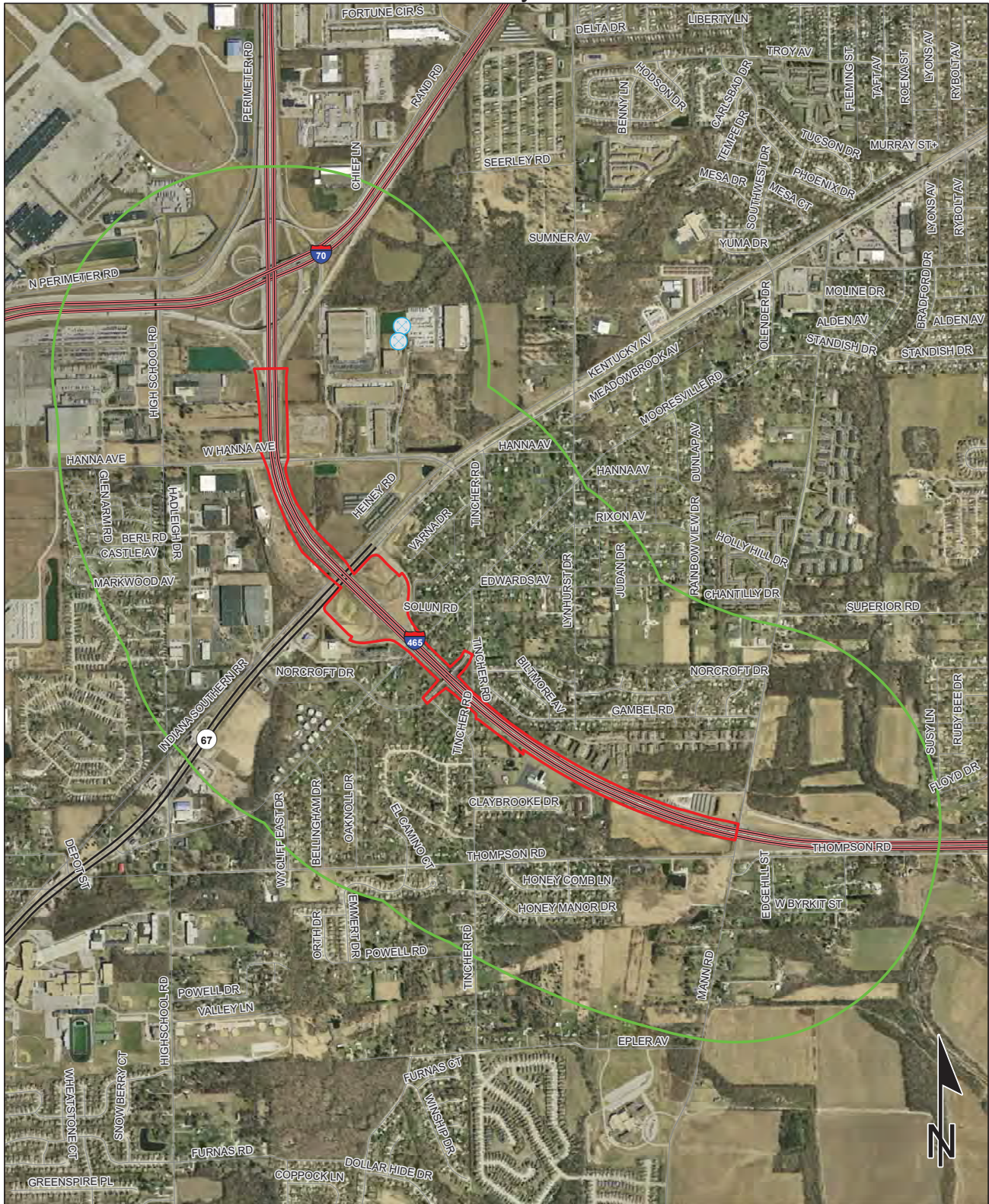


Red Flag Investigation - Mining/Mineral Exploration

I-465 Reconfiguration

Des. 1802075, R-41787, 1802105, 1802106, 1802107

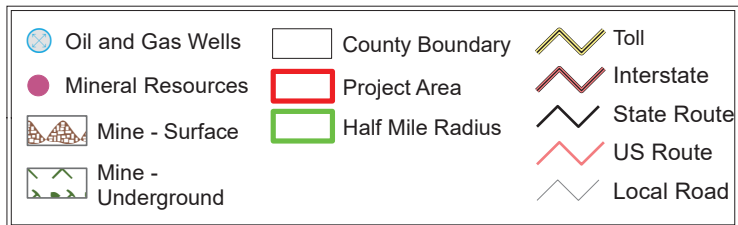
Marion County, Indiana



Sources:
 0.3 0.15 0 0.3 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.

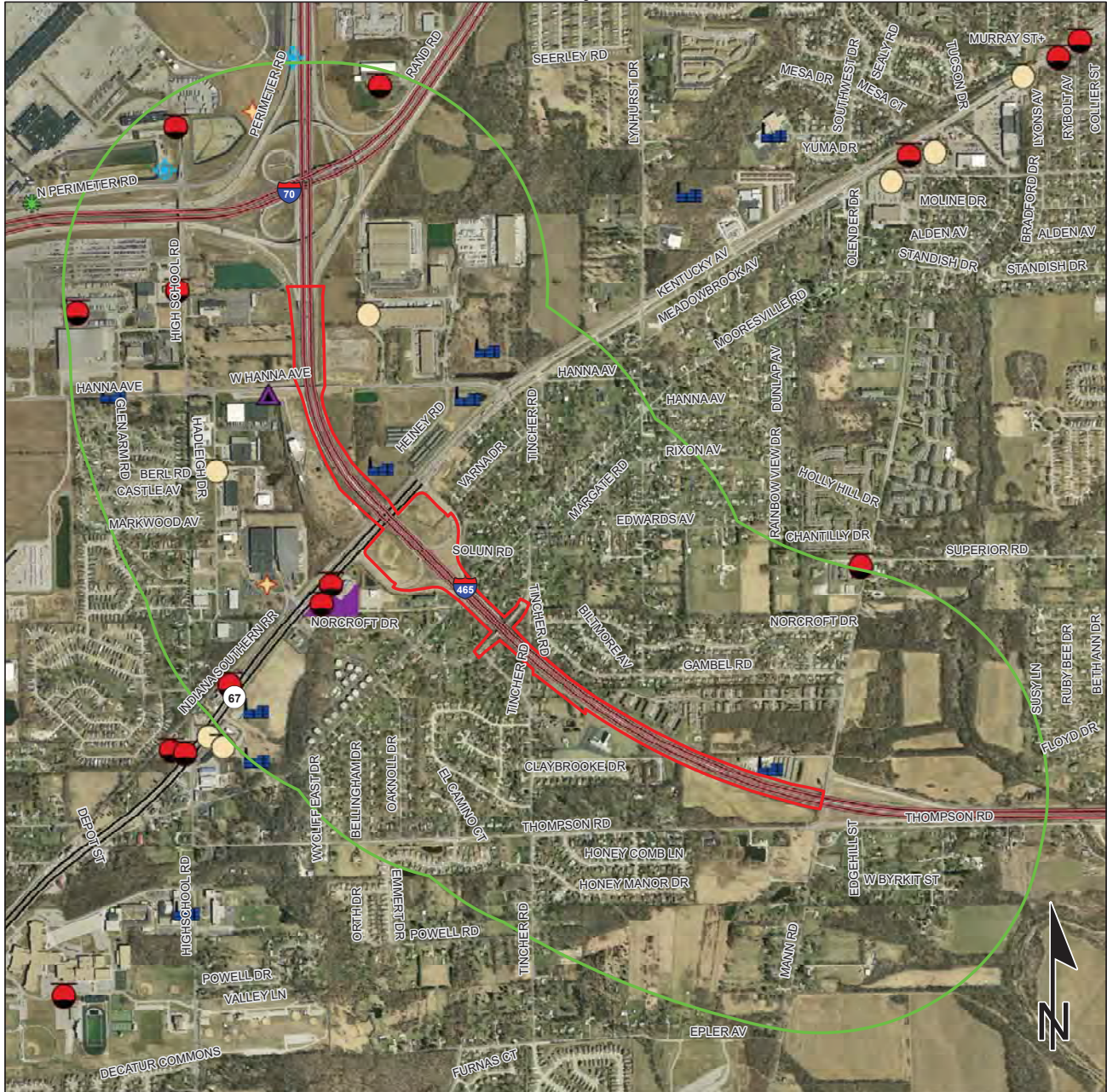


Red Flag Investigation - Hazardous Material Concerns

I-465 Reconfiguration

Des. 1802075, R-41787, 1802105, 1802106, 1802107

Marion 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 Facilities		Voluntary Remediation Program		Local Road
	NPDES Pipe Locations		Waste Transfer Station		
	Open Dump Waste Site				

0.3 0.15 0 0.3
Miles

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

Appendix F

Water Resources

	<u>Page(s)</u>
Waters of the U.S. Report (Excerpts).....	F-1

Waters of the U.S. Report

Excerpts

I-465 Reconfiguration

Marion County, Indiana

Designation Number 1802075



Prepared for the Indiana Department of Transportation

September 25, 2019



Table of Contents

Waters of the U.S. Report

I. Project Information.....	1
Fieldwork Dates.....	1
Contributors.....	1
Project Location.....	1
Project Description.....	1
II. Office Evaluation.....	2
Methodology.....	2
Aerial Photography.....	2
USGS Mapping.....	2
NWI and Floodplain Mapping.....	2
Mapped Soil Units.....	2
Historic Drainage.....	2
LiDAR and NHD Mapping.....	3
Watershed.....	3
III. Field Reconnaissance.....	3
Methodology.....	3
Streams.....	3
Wetlands.....	14
Non-Jurisdictional Features.....	38
IV. Conclusions.....	40
V. References.....	40
VI. Acknowledgements.....	41
Appendix A: Summary Tables.....	A1-9
Table 1: Mapped Soil Units within the Study Area.....	A1
Table 2: I-465 Reconfiguration Stream Summary Table.....	A2-3
Table 3: I-465 Reconfiguration Wetland Summary Table.....	A4-5
Table 4: Data Point Summary Table.....	A6-9
Appendix B: Mapping.....	B1-164
Project Location Map.....	B1
Sheet Index Map.....	B2
NWI, Waters and Floodplain Maps.....	B3-40
USGS Topographic Index Map.....	B41
USGS Topographic Maps.....	B42-44
NRCS Soils Maps.....	B45-82
Historic Drainage Index Map.....	B83
Historic Drainage Maps.....	B84-88
LiDAR Hillshade Maps.....	B89-126
Field-Identified Resources Maps.....	B127-164
Appendix C: Project Area Photographs.....	C1-273
Photo Orientation Maps.....	C1-38

PARSONS

Project Area Photographs C39-273
Appendix D: Wetland Determination Data FormsD1-236
Appendix E: QHEI/HHEI Forms..... E1-62
Appendix F: Approved Jurisdictional Determination FormF1-8

WATERS OF THE U.S. REPORT

I-465 Reconfiguration

Marion County, Indiana

INDOT Designation (Des.) Number 1802075

Prepared By: Gregory R. Moushon, Senior Environmental Planner

September 25, 2019

I: Project Information

Fieldwork Dates:

Fieldwork for this report was conducted on May 8-10, 13-16, 20-24, 28-30, and August 23, 2019. A field review was conducted with representatives from the United States Army Corps of Engineers (USACE), the Indiana Department of Environmental Management (IDEM), and the Indiana Department of Transportation (INDOT) Ecology and Waterway Permitting Office (EWPO) on August 15, 2019.

Contributors:

Daniel J. Miller, Environmental Services Manager
Alexander Lee, Senior Environmental Planner
Tom Plattner, Senior Environmental Planner
Wade Kimmon, GIS Specialist
Eric Jagger, Associate Environmental Planner
Keaton Veldkamp, Associate Environmental Planner

Project Location:

Section A/B: Maywood and Beech Grove Quadrangles
Sections 31 and 32 of Township 15 North, Range 4 East, Center Township
Section 36 of Township 15 North, Range 3 East, Wayne Township
Interstate 465 (I-465) Mile Marker 0.2 to 2.5
Marion County, Indiana
Latitude/Longitude: 39.699745 North and 86.130223 West

Section C: Bridgeport and Maywood Quadrangles
Section 31 of Township 15 North, Range 3 East, Wayne Township
Sections 25 and 36 of Township 15 North, Range 2 East, Wayne Township
I-465 Mile Marker 7.4 to 9.1
Marion County, Indiana
Latitude/Longitude: 39.699323 North and 86.257783 West

Project Description:

INDOT, in cooperation with the Federal Highway Administration (FHWA), proposes an added travel lanes project on I-465 in Marion County, Indiana, also known as the “I-465 Reconfiguration” project. The project consists of two sections: Section A/B and Section C. A Project Location Map is attached (Appendix B1).

Section A/B begins approximately 0.30 mile west of the I-465/United States (US) 31 interchange and ends at the I-465/I-65 interchange. The proposed work for Section A/B includes building auxiliary lanes on I-465 eastbound and westbound with retaining walls, reconfiguring the eastbound I-465 to northbound US 31 exit ramp, extending the southbound US 31 to eastbound I-465 merge area, and extending the entrance lane from southbound US 31 to eastbound I-465. The proposed work for Section A/B also includes the replacement of the Madison Avenue, Keystone Avenue, and Carson Avenue bridges.

Section C begins at the south end of the I-465/I-70 interchange and ends just west of the interchange with Mann Road. The proposed work for Section C includes added travel lanes along I-465, full depth pavement replacement at the shoulders, and replacement of the Mooresville Road Bypass bridge.

All work will occur within existing right-of-way. Less than one acre of temporary right-of-way may be required.

During construction, traffic will be maintained along I-465 with shoulder and lane closures. All ramps within the interchanges will primarily remain open during construction. Local roads will experience closures while the Madison Avenue, Keystone Avenue, Carson Avenue, and Mooresville Road Bypass bridges are replaced, and detours will be provided.

II: Office Evaluation

Methodology:

The study area was based on the design alternatives evaluated for the National Environmental Policy Act (NEPA) document. The study area was approximately 206.8 acres in size.

A desktop review of the study area was conducted to identify potential waterways (streams, wetlands, ponds, etc.). This included a review of historic and recent aerial photography for any areas with a water signature or a sharp change in vegetation. Any such areas were flagged for follow-up field reconnaissance. National Wetlands Inventory (NWI) mapping, floodplain mapping, United States Geological Survey (USGS) topographic mapping, mapped soil units, historic drainage mapping, and LiDAR data were also reviewed. Any noted items were flagged for follow-up field reconnaissance.

Aerial Photography:

During review of current and historical aerial photography, several areas were identified within the study area that displayed potential wetland signatures associated with water ponding, darkened soils, and/or shifts in vegetation. Several potential streams were noted within or adjacent to the study area. A few stormwater retention ponds were noted adjacent to the study area. Each flagged area was investigated during field reconnaissance.

USGS Mapping:

During review of USGS 7.5-minute series topographic mapping (Appendix B41 to B44), two perennial (solid blue-line streams) were noted within the study area. These corresponded to McFarland Creek and Lick Creek. Lick Creek passes through three separate portions of the study area.

NWI and Floodplain Mapping:

During review of NWI mapping (Appendix B3 to B40), no wetland polygons or wetland lines were noted within the study area. Three NWI-mapped streams, McFarland Creek, Lick Creek, and an unnamed tributary (UNT) to Lick Creek, were noted within the study area. An additional NWI-mapped stream (Dollar Hide Creek) was noted adjacent to the study area. Seven NWI-mapped wetland polygons were located within approximately 100 feet of the study area.

Mapped Soil Units:

Based on the Soil Survey Geographic (SSURGO) Database for Marion County, Indiana, the study area is comprised of hydric, predominantly hydric, not hydric and predominantly non-hydric soil types. The sixteen mapped soil units within the study area are shown in Table 1: Mapped Soil Units with the Study Area (Appendix A1). Soil mapping is attached for reference (Appendix B45 to B82).

Historic Drainage:

The Marion County Soil Survey (USDA, 1978) was reviewed for historic drainage features within the study area. Five features were observed within the study area. Lick Creek, McFarland Creek, Dollar Hide Creek, and two UNTs to Lick Creek, were noted within the study area (Appendix B83 to B88).

LiDAR and NHD Mapping:

The National Hydrography Dataset (NHD) was mapped on a Light Detection and Ranging (LiDAR) hillshade background (Appendix B89 to B126). Potential drainage features were identified within the study area. These areas were investigated during the field reconnaissance.

Watershed:

The study area is located within two hydrologic unit code 12-digit (HUC 12) watersheds: Lick Creek (051202011203) and Dollar Hide Creek-White River (051202011205).

III: Field Reconnaissance

Methodology:

Parsons conducted field investigations on May 8-10, 13-16, 20-24, 28-30, and August 23, 2019 to determine the presence of waterways, including streams, wetlands, lakes, and ponds, within the study area. The entire study area was reviewed for resources via a walking survey. All areas flagged during desktop review were investigated and documented. Resource mapping showing all identified features is attached for reference (Appendix B127 to B164).

The ordinary high-water mark (OHWM) of each stream was determined using a measuring tape. A hand-held GPS unit (Trimble Geo 7 Series) was used to collect the location of each identified stream. The upstream drainage area for each stream was calculated using *StreamStats Version 4.3.0* (USGS, 2019), if available. Qualitative assessments of stream quality were done within the study area, while quantitative assessments often extended outside of the study area. Quantitative assessments (Appendix E1 to E62) were conducted based on each stream’s drainage area using the guidelines for either the headwater habitat evaluation index (HHEI) (Ohio EPA, 2012) or qualitative habitat evaluation index (QHEI) (Ohio EPA, 2006).

Vegetation, soil, and hydrology data were collected using the methods described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* (USACE, 2010). Wetland indicator statuses for plants were obtained from the National Wetland Plant List (Lichvar, 2016). Data forms for each wetland are included in this report for reference (Appendix D1 to D234). A hand-held GPS unit (Trimble Geo 7 Series) was used to collect the boundary of each identified wetland, as well as all data points. The area for each wetland and its length (measured along its centerline) were calculated. A qualitative assessment of each wetland’s quality was conducted, which included grading them (poor, average, or excellent) based on ecological function, size, species diversity, invasive species prevalence, and amount of disturbance.

Photographs were taken throughout the study area. This included photographs of each feature identified within the study area (Appendix C39 to C272). Photograph orientation maps are included for additional reference (Appendix C1 to C38).

Streams:

Field investigations resulted in the identification of twenty-nine likely jurisdictional streams totaling 27,135 linear feet within the study area, of which 19 are in Section A/B and 10 are in Section C. These features are summarized in the I-465 Reconfiguration Stream Summary Table (Appendix A2 to A3). No other features exhibiting an OHWM were observed within the study area.

McFarland Creek

McFarland Creek is located approximately 1,000 feet west of Carson Avenue. This stream originates south of I-465 and flows north under I-465 into Lick Creek (Appendix B127, 129, and 130). McFarland Creek exhibited a 12-foot wide by 14-inch deep OHWM. Approximately 349 linear feet of this stream lies within the study area. USGS StreamStats lists its upstream drainage area as approximately 2.0 square miles.

McFarland Creek is contained within a natural channel and a 3-sided box culvert in INDOT’s maintained right-of-way. It has a wide wooded riparian corridor along either bank. Its banks are dominated by *Lonicera maackii* (Amur honeysuckle, UPL). Little bank erosion was observed. Its adjacent land-uses are interstate highway and forest. Pools and riffles were observed.

Its substrate consisted of cobble, gravel, sand, and silt. Based on these observations, McFarland Creek was classified as an average-quality stream. This was supported by a QHEI score of 50.

McFarland Creek is shown on USGS 7.5-minute series topographic mapping as a perennial stream (solid blue-line) (Appendix B3). This was confirmed based on field observations. It is hydrologically connected to Lick Creek. Lick Creek is a tributary to the West Fork of the White River, which is a tributary to the Wabash River (a traditionally navigable waterway). Based on this connectivity and the presence of an OHWM, McFarland Creek is likely a water of the U.S.

McFarland Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 1 to McFarland Creek

Unnamed Tributary 1 (UNT 1) to McFarland Creek is located south of I-465 eastbound and the I-65 on-ramp, approximately 475 feet west of I-65. This stream originates east of the study area in a roadside ditch and flows west under Carson Avenue into McFarland Creek (Appendix B127). UNT 1 to McFarland Creek exhibited a 4.9-foot wide by 10-inch deep OHWM. Approximately 943 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 1 to McFarland Creek is contained within a roadside ditch in INDOT's maintained right-of-way. It does not have a wooded riparian corridor along either bank. Its banks are dominated by *Phalaris arundinacea* (reed canary grass, FACW) and *Schedonorus arundinaceus* (tall false rye grass, FACU). No bank erosion was observed. Its adjacent land-uses are residential properties and interstate highway. No pools or riffles were observed. Its substrate was entirely artificial. Based on these observations, UNT 1 to McFarland Creek was classified as a poor-quality stream. This was supported by an HHEI score of 32.

UNT 1 to McFarland Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B3). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to McFarland Creek, which is connected to Lick Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 1 to McFarland Creek is likely a water of the U.S.

UNT 1 to McFarland Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 2 to McFarland Creek

UNT 2 to McFarland Creek is located south of I-465 eastbound and approximately 100 feet west of Carson Avenue. This stream originates south of the study area on a residential property, where it flows northwest into UNT 1 to McFarland Creek (Appendix B127). UNT 2 to McFarland Creek exhibited a 1.6-foot wide by 8-inch deep OHWM. Approximately 58 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 2 to McFarland Creek is contained within a natural channel in INDOT's maintained right-of-way. It has a narrow riparian corridor along either bank. Its banks are dominated by *Impatiens capensis* (spotted touch-me-not, FACW) and *Solidago altissima* (tall goldenrod, FACU). No bank erosion was observed. Its adjacent land-uses are residential property and interstate highway. No pools or riffles were observed. Its substrate consisted of sand, silt, and clay. Based on these observations, UNT 2 to McFarland Creek was classified as a poor-quality stream. This was supported by an HHEI score of 21.

UNT 2 to McFarland Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B3). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to UNT 1 to McFarland Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 2 to McFarland Creek is likely a water of the U.S.

UNT 2 to McFarland Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 3 to McFarland Creek

UNT 3 to McFarland Creek is located under the I-65 on-ramp in the I-465/I-65 interchange. It is entirely encapsulated within the study area. This stream originates from a roadside ditch outside of the study area in the I-465/I-65 interchange and flows southwest into UNT 1 to McFarland Creek (Appendix B127). UNT 3 to McFarland Creek exhibited a 7-foot wide by 20-inch deep OHWM. Approximately 182 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 3 to McFarland Creek is contained within a culvert underneath the I-65 on-ramp in INDOT’s maintained right-of-way. Upstream of the study area, it does not have a wooded riparian corridor along either bank. No bank erosion was observed. Its adjacent land-use is interstate highway. No pools or riffles were observed. Its substrate was entirely artificial. Based on these observations, UNT 3 to McFarland Creek was classified as a poor-quality stream. This was supported by an HHEI score of 27.

UNT 3 to McFarland Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B3). Based on field observations, this stream is likely intermittent in nature. It is hydrologically connected to UNT 1 to McFarland Creek, which flows into McFarland Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 3 to McFarland Creek is likely a water of the U.S.

UNT 3 to McFarland Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register’s listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 4 to McFarland Creek

UNT 4 to McFarland Creek is located south of I-465 eastbound and approximately 100 feet west of Carson Avenue. This stream originates from a roadside ditch in Wetland 10 and flows east into McFarland Creek (Appendix B130). UNT 4 to McFarland Creek exhibited a 2-foot wide by 5-inch deep OHWM. Approximately 188 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 4 to McFarland Creek is contained within a roadside ditch in INDOT’s maintained right-of-way. It has a wide wooded riparian corridor along its south bank. Its banks are dominated by *Lonicera maackii* (Amur honeysuckle, UPL), *Typha sp.* (cattail, OBL), *Impatiens capensis* (spotted touch-me-not, FACW), and *Schedonorus arundinaceus* (tall false rye grass, FACU). No bank erosion was observed. Its adjacent land-uses are forest and interstate highway. No pools or riffles were observed. Its substrate consisted of cobble, gravel, sand, and silt. Based on these observations, UNT 4 to McFarland Creek was classified as a poor-quality stream. This was supported by an HHEI score of 27.

UNT 4 to McFarland Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B3). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to McFarland Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 4 to McFarland Creek is likely a water of the U.S.

UNT 4 to McFarland Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register’s listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

Lick Creek

Lick Creek traverses east to west through the study area. This stream originates northeast of the study area and flows west, crossing the study area at three separate locations: Carson Avenue, approximately 3,200 feet east of Madison Avenue to approximately 1,700 west of Keystone Avenue, and approximately 740 feet east of Madison Avenue to 420 feet west of the East Street interchange (Appendix B128, 129, 135, 138, 139, 141, 142, 145, 147, and 148). Lick Creek exhibited, on average, a 32-foot wide by 31-inch deep OHWM taken from its three crossings. Approximately 7,127 linear feet of this stream lies within the study area. USGS StreamStats lists its upstream drainage area as approximately 21.1 square miles.

Lick Creek is contained within INDOT’s maintained right-of-way. Between Madison Avenue and the western terminus of Section A/B (East Street interchange), it is concrete-lined or articulated-block lined. Its substrate consisted of boulders, cobble, gravel, sand, and silt. Numerous sand and gravel bars, vegetated with hydrophytic vegetation, were observed along these concrete or articulated-block banks. These sand and gravel bars are located within the bed and banks of Lick Creek

and therefore considered a wetland feature of Lick Creek. Lick Creek has a wide wooded riparian corridor along either bank around Carson Avenue and becomes more urbanized as it flows toward the East Street interchange. Little bank erosion was observed. Its adjacent land-uses are forest, residential properties, and interstate highway. Pools and riffles were observed throughout the stream. Based on these observations, Lick Creek was classified as an average-quality stream. This was supported by an average QHEI score of 53 (three QHEIs were conducted, and the overall average has been included).

Lick Creek is shown on USGS 7.5-minute series topographic mapping as a perennial stream (solid blue-line) (Appendix B3-4). This was confirmed based on field observations. Lick Creek is a tributary to the West Fork of the White River, a likely a water of the U.S. Based on this connectivity and the presence of an OHWM, Lick Creek is likely a water of the U.S.

Lick Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 1 to Lick Creek

UNT 1 to Lick Creek is located on the west side of the I-465/I-65 interchange. This stream originates from Wetland 6 and flows northwest into a pipe culvert under I-465 westbound. It then passes through an infield, then flows under the I-465 on-ramp, and into Lick Creek (Appendix B128). UNT 1 to Lick Creek exhibited a 7-foot wide by 6-inch deep OHWM. Approximately 328 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 1 to Lick Creek is contained within the infield in INDOT's maintained right-of-way. It has a narrow wooded riparian corridor along either bank where unencapsulated. Its banks are dominated by *Lonicera maackii* (Amur honeysuckle, UPL). No bank erosion was observed. Its adjacent land-use is interstate highway. Pools were observed but no riffles were observed. The stream's substrate consisted of cobble, gravel, and sand. Based on these observations, UNT 1 to Lick Creek was classified as an average-quality stream. This was supported by an HHEI score of 69.

UNT 1 to Lick Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B3). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to Lick Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 1 to Lick Creek is likely a water of the U.S.

UNT 1 to Lick Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 2 to Lick Creek

UNT 2 to Lick Creek is located under Carson Avenue, approximately 370 feet north of Lick Creek. This stream originates from a retention pond in a nearby residential housing area and flows southwest into Lick Creek (Appendix B129). UNT 2 to Lick Creek exhibited a 6-foot wide by 6-inch deep OHWM. Approximately 97 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 2 to Lick Creek is primarily contained within an 8-foot pipe culvert in INDOT's right-of-way. It has a wide wooded riparian corridor along either bank upstream and downstream of the study area. Its banks are dominated by *Lonicera maackii* (Amur honeysuckle, UPL), *Acer negundo* (ash-leaf maple, FAC), and *Gleditsia triacanthos* (honey locust, FACU). No bank erosion was observed. Its adjacent land-use is forest. No pools or riffles were observed. Its substrate consisted of cobble, gravel, sand, and silt. Based on these observations, UNT 2 to Lick Creek was classified as a poor-quality stream. This was supported by an HHEI score of 38.

UNT 2 to Lick Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B3). Based on field observations, this stream is likely intermittent in nature. It is hydrologically connected to Lick Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 2 to Lick Creek is likely a water of the U.S.

UNT 2 to Lick Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 3 to Lick Creek

This feature was originally delineated as UNT 3 to Lick Creek. Per the August 15, 2019 field check, representatives from USACE and IDEM determined this feature did not exhibit an OHWM or wetland characteristics, and therefore was determined to be a non-jurisdictional roadside ditch (RSD). Therefore, this feature has been renamed RSD 1 and is included in the “Non-Jurisdictional Features” section of this report.

UNT 4 to Lick Creek

UNT 4 to Lick Creek is located in a roadside ditch north of I-465 westbound. This stream originates in a roadside ditch approximately 950 feet west of Keystone Avenue and flows southwest into Lick Creek as it crosses under I-465 (Appendix B134-135). UNT 4 to Lick Creek exhibited a 9-foot wide by 6-inch deep OHWM. Approximately 740 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 4 to Lick Creek is contained within a roadside ditch in INDOT’s maintained right-of-way. It has a wooded riparian corridor along either bank. No bank erosion was observed. Its adjacent land-uses are interstate highway and forest. No pools or riffles were observed. Its substrate consisted of sand and silt. Drift debris lines and evidence of flow and scour were observed. Based on these observations, UNT 4 to Lick Creek was classified as a poor-quality stream. This was supported by an HHEI score of 38.

UNT 4 to Lick Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B3). Based on field observations, this stream is likely intermittent in nature. It is hydrologically connected to Lick Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 4 to Lick Creek is likely a water of the U.S.

UNT 4 to Lick Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register’s listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 5 to Lick Creek

UNT 5 to Lick Creek is located in a roadside ditch north of I-465 westbound. This stream originates from Wetland 20 and flows west into Lick Creek as it flows under I-465 (Appendix B135). UNT 5 to Lick Creek exhibited an 8-foot wide by 8-inch deep OHWM. Approximately 393 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 5 to Lick Creek is contained within a roadside ditch in INDOT’s maintained right-of-way. It has a moderately wide wooded riparian corridor along its north bank and a narrow grassy corridor along its south bank. No bank erosion was observed. Its adjacent land-use is interstate highway. No pools or riffles were observed. Its substrate consisted of cobble, gravel, sand, and silt. Based on these observations, UNT 5 to Lick Creek was classified as an average-quality stream. This was supported by an HHEI score of 44.

UNT 5 to Lick Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B3). Based on field observations, this stream is likely intermittent in nature. It is hydrologically connected to Lick Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 5 to Lick Creek is likely a water of the U.S.

UNT 5 to Lick Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register’s listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 6 to Lick Creek

UNT 6 to Lick Creek is located south of I-465 eastbound. This stream originates from a roadside ditch approximately 1,000 feet west of Keystone Avenue and flows southwest through Wetland 18 and into Lick Creek (Appendix B134-135). UNT 6 to Lick Creek exhibited a 6-foot wide by 6-inch deep OHWM. Approximately 709 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 6 to Lick Creek is contained within a roadside ditch in INDOT’s maintained right-of-way. It has a wide wooded riparian corridor along its south bank. Its north bank is dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU). No bank erosion was observed. Its adjacent land-uses are forest and interstate highway. No pools or riffles were observed.

Its substrate consisted of cobble, sand, and silt. Based on these observations, UNT 6 to Lick Creek was classified as a poor-quality stream. This was supported by an HHEI score of 38.

UNT 6 to Lick Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B3). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to Lick Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 6 to Lick Creek is likely a water of the U.S.

UNT 6 to Lick Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register’s listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 7 to Lick Creek

UNT 7 to Lick Creek crosses under I-465 and is approximately 950 feet east of Madison Avenue. This stream originates north of the study area and flows south through a culvert under I-465 (Appendix B137-138). UNT 7 to Lick Creek exhibited a 6-foot wide by 7-inch deep OHWM. Approximately 201 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 7 to Lick Creek is mostly encapsulated within the study area. It does not have a wooded riparian corridor along either bank. Its banks are dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU). No bank erosion was observed. Its adjacent land-use is interstate highway. No pools or riffles were observed. Its substrate consisted of cobble, silt, sand, and artificial material. Based on these observations, UNT 7 to Lick Creek was classified as a poor-quality stream. This was supported by an HHEI score of 33.

UNT 7 to Lick Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B3). Based on field observations, this stream is likely intermittent in nature. It is hydrologically connected to Lick Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 7 to Lick Creek is likely a water of the U.S.

UNT 7 to Lick Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register’s listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 8 to Lick Creek

UNT 8 to Lick Creek originates in a roadside ditch north of I-465, approximately 1,000 feet west of Madison Avenue. It flows west into UNT 7 to Lick Creek (Appendix B137). UNT 8 to Lick Creek exhibited a 1.3-foot wide by 6-inch deep OHWM. Approximately 760 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 8 to Lick Creek is contained within a roadside ditch in INDOT’s maintained right-of-way. It has a narrow wooded riparian corridor along its north bank. The south bank is dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU). No bank erosion was observed. Its adjacent land-uses are residential and interstate highway. No pools or riffles were observed. Its substrate consisted of gravel, sand, and silt. Based on these observations, UNT 8 to Lick Creek was classified as a poor-quality stream. This was supported by an HHEI score of 17.

UNT 8 to Lick Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B3). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to UNT 7 to Lick Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 8 to Lick Creek is likely a water of the U.S.

UNT 8 to Lick Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register’s listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 9 to Lick Creek

UNT 9 to Lick Creek is located south of I-465 and approximately 55 feet west of Madison Avenue. This stream originates from a culvert alongside Madison Avenue and flows northwest in a concrete lined roadside ditch into Lick Creek (Appendix B139). UNT 9 to Lick Creek exhibited a 1-foot wide by 1-inch deep OHWM. Approximately 125 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 9 to Lick Creek is contained within a concrete lined roadside ditch in INDOT’s right-of-way. It has a moderately wide wooded riparian corridor along either bank. Its banks are dominated by *Lonicera maackii* (Amur honeysuckle, UPL). No bank erosion was observed. Its adjacent land-uses are residential properties and interstate highway. No pools or riffles were observed. Its substrate was entirely artificial. Water was flowing during the field review. In addition, concrete staining and algae growth were observed, supporting the presence of an OHWM. Based on these observations, UNT 9 to Lick Creek was classified as a poor-quality stream. This was supported by an HHEI score of 27.

UNT 9 to Lick Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B3). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to Lick Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 9 to Lick Creek is likely a water of the U.S.

UNT 9 to Lick Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register’s listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 10 to Lick Creek

UNT 10 to Lick Creek is located south of I-465 eastbound and approximately 260 feet west of Madison Avenue. This stream originates from outside of the study area and flows north into Lick Creek (Appendix B139). UNT 10 to Lick Creek exhibited a 1.4-foot wide by 7-inch deep OHWM. Approximately 67 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 10 to Lick Creek is partially contained within a culvert in INDOT’s right-of-way. It outfalls the culvert via a 52-inch diameter flap gate onto a concrete pad with headwalls. It then flows over gabion baskets towards Lick Creek. It has a moderately wide wooded riparian corridor along either bank. Its banks are dominated by *Lonicera maackii* (Amur honeysuckle, UPL). No bank erosion was observed. Its adjacent land-use is forest. Small pools were observed in gabion baskets at the stream’s outfall. Its substrate was entirely artificial (concrete and gabion baskets). Based on these observations, UNT 10 to Lick Creek was classified as an average-quality stream. This was supported by an HHEI score of 62.

UNT 10 to Lick Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B3). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to Lick Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 10 to Lick Creek is likely a water of the U.S.

UNT 10 to Lick Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register’s listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 11 to Lick Creek

UNT 11 to Lick Creek is located approximately 50 feet west of Madison Avenue and north of I-465 westbound. This stream originates from a culvert under Madison Avenue and flows west in a roadside ditch before crossing under I-465 and emptying into Lick Creek (Appendix B140-141). No OHWM was observed at the culvert inlet on the east side of Madison Avenue. UNT 11 to Lick Creek exhibited a 4-foot wide by 16-inch deep OHWM. Approximately 1,320 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 11 to Lick Creek is contained within a roadside ditch in INDOT’s maintained right-of-way. It has a wide wooded riparian corridor along its north bank. Its south bank is dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU). No bank erosion was observed. Its adjacent land-uses are forest and interstate highway. No pools or riffles were observed. Its substrate consisted of cobble, gravel, and sand. Based on these observations, UNT 11 to Lick Creek was classified as an average-quality stream. This was supported by an HHEI score of 43.

UNT 11 to Lick Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B3). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to Lick Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 11 to Lick Creek is likely a water of the U.S.

UNT 11 to Lick Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register’s listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 12 to Lick Creek

UNT 12 to Lick Creek is located approximately 70 feet west of Madison Avenue and north of I-465 westbound. This stream originates from a culvert outlet with a flap gate west of Madison Avenue and flows into UNT 11 to Lick Creek (Appendix B140). UNT 12 to Lick Creek is downstream from an impounded basin on an adjacent property to the north. UNT 12 to Lick Creek exhibited a 2.2-foot wide by 11-inch deep OHWM. Approximately 60 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 12 to Lick Creek is contained within a natural ditch in INDOT’s right-of-way. It has a wide wooded riparian corridor along its banks. Its banks are dominated by *Lonicera maackii* (Amur honeysuckle, UPL). No bank erosion was observed. Its adjacent land-uses are forest and interstate highway. No pools or riffles were observed. Its substrate consisted of gravel, sand, and silt. Based on these observations, UNT 12 to Lick Creek was classified as a poor-quality stream. This was supported by an HHEI score of 33.

UNT 12 to Lick Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B3). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to UNT 11, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 12 to Lick Creek is likely a water of the U.S.

UNT 12 to Lick Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register’s listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 13 to Lick Creek

UNT 13 to Lick Creek is located south of I-465 eastbound and approximately 860 feet west of Madison Avenue. This stream originates from outside the study area and flows north into Lick Creek (Appendix B141). UNT 13 to Lick Creek exhibited a 1.4-foot wide by 3-inch deep OHWM. Approximately 93 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 13 to Lick Creek is entirely encapsulated within the study area until it reaches Lick Creek. No bank erosion was observed. Its adjacent land-use is forest. No pools or riffles were observed. Its substrate was entirely artificial. Based on these observations, UNT 13 to Lick Creek was classified as a poor-quality stream. This was supported by an HHEI score of 12.

UNT 13 to Lick Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B3). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to Lick Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 13 to Lick Creek is likely a water of the U.S.

UNT 13 to Lick Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register’s listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 14 to Lick Creek

UNT 14 to Lick Creek originates outside the study area in the roadside ditch south of I-465 approximately 1,250 feet east of US 31 and flows north under I-465 before emptying into Lick Creek (Appendix B142). UNT 14 to Lick Creek exhibited a 2.3-foot wide by 3-inch deep OHWM. Approximately 156 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 14 to Lick Creek is entirely encapsulated within the study area until it reaches Lick Creek. No bank erosion was observed. Its adjacent land-use is interstate highway. No pools or riffles were observed. Its substrate was entirely artificial. Based on these observations, UNT 14 to Lick Creek was classified as a poor-quality stream. This was supported by an HHEI score of 12.

UNT 14 to Lick Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B3). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to Lick Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 14 to Lick Creek is likely a water of the U.S.

UNT 14 to Lick Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 15 to Lick Creek

This feature was originally delineated as UNT 15 to Lick Creek. Per the August 15, 2019 field check, representatives from USACE and IDEM determined this feature to be a non-jurisdictional roadside ditch (RSD). Therefore, this feature has been renamed RSD 2 and is included in the "Non-Jurisdictional Features" section of this report.

UNT 1 to State Ditch

UNT 1 to State Ditch is located south of I-465 and west of Mann Road. This stream originates from Wetland 37 and flows southeast along I-465 out of the study area (Appendix B149-156). UNT 1 to State Ditch exhibited a 1.8-foot wide by 9.3-inch deep OHWM. Approximately 5,152 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 1 to State Ditch is contained within the roadside ditch in INDOT's maintained right-of-way. It has a narrow riparian corridor along either bank. Its banks are dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU). No bank erosion was observed. Its adjacent land-uses are residential properties and interstate highway. No pools or riffles were observed. Its substrate consisted of gravel, sand, silt, and artificial material. Based on these observations, UNT 1 to State Ditch was classified as a poor-quality stream. This was supported by an HHEI score of 28.

UNT 1 to State Ditch is not shown on USGS 7.5-minute series topographic mapping (Appendix B5). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to State Ditch. State Ditch is a tributary to the West Fork of the White River, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 1 to State Ditch is likely a water of the U.S.

UNT 1 to State Ditch is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 2 to State Ditch

UNT 2 to State Ditch is located north of I-465 and west of Mann Road. This stream originates approximately 50 feet north of the I-465/Kentucky Avenue interchange and flows southeast alongside I-465 until it exits the study area at Mann Rd (Appendix B149-156). UNT 2 to State Ditch exhibited a 3.3-foot wide by 12-inch deep OHWM. Approximately 5,161 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 2 to State Ditch is contained within a roadside ditch in INDOT's maintained right-of-way. It does not have a wooded riparian corridor along its bank. Its banks are dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU). No bank erosion was observed. Its adjacent land-uses are residential properties and interstate highway. No pools or riffles were observed. Its substrate was entirely artificial. Based on these observations, UNT 2 to State Ditch was classified as a poor-quality stream. This was supported by an HHEI score of 27.

UNT 2 to State Ditch is not shown on USGS 7.5-minute series topographic mapping (Appendix B5). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to State Ditch, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 2 to State Ditch is likely a water of the U.S.

UNT 2 to State Ditch is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 3 to State Ditch

UNT 3 to State Ditch is located south of I-465 and west of Mooresville Bypass Road. This stream originates from outside of the study area and flows northeast in a roadside ditch into UNT 1 to State Ditch (Appendix B154). UNT 3 to State Ditch exhibited a 5.5-foot wide by 7-inch deep OHWM. Approximately 350 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 3 to State Ditch is contained within a roadside ditch in INDOT’s right-of-way. It has a narrow wooded riparian corridor along both banks. Its banks are dominated by *Lonicera maackii* (Amur honeysuckle, UPL). No bank erosion was observed. Its adjacent land-use is interstate highway. No pools or riffles were observed. Its substrate consisted entirely of silt. Based on these observations, UNT 3 to State Ditch was classified as a poor-quality stream. This was supported by an HHEI score of 27.

UNT 3 to State Ditch is not shown on USGS 7.5-minute series topographic mapping (Appendix B5). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to UNT 1 to State Ditch, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 3 to State Ditch is likely a water of the U.S.

UNT 3 to State Ditch is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register’s listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 4 to State Ditch

UNT 4 to State Ditch is located north of I-465 westbound and east of Mooresville Bypass Road. This stream originates from a roadside ditch alongside Mooresville Bypass Road and flows southwest into UNT 2 to State Ditch (Appendix B154-155). UNT 4 to State Ditch exhibited a 6-foot wide by 6-inch deep OHWM. Approximately 363 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 4 to State Ditch is contained within a roadside ditch in INDOT’s right-of-way. It has a wide wooded riparian corridor along its east bank and a moderately wide corridor on its west bank. Its banks are dominated by *Lonicera maackii* (Amur honeysuckle, UPL). No bank erosion was observed. Its adjacent land-use is interstate highway. No pools or riffles were observed. Its substrate consisted entirely of silt. Based on these observations, UNT 4 to State Ditch was classified as a poor-quality stream. This was supported by an HHEI score of 27.

UNT 4 to State Ditch is not shown on USGS 7.5-minute series topographic mapping (Appendix B5). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to UNT 2 to State Ditch, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 4 to State Ditch is likely a water of the U.S.

UNT 4 to State Ditch is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register’s listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 5 to State Ditch

UNT 5 to State Ditch is located north of I-465 westbound and west of Mooresville Bypass Road. This stream originates from a roadside ditch alongside Mooresville Bypass Road and flows southwest into UNT 2 to State Ditch (Appendix B154-155). UNT 5 to State Ditch exhibited a 4-foot wide by 7-inch deep OHWM. Approximately 338 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 5 to State Ditch is contained within a roadside ditch in INDOT’s right-of-way. It has a moderately wide wooded riparian corridor along either bank. Its banks are dominated by *Lonicera maackii* (Amur honeysuckle, UPL). No bank erosion was observed. Its adjacent land-uses are residential properties and interstate highway. No pools or riffles were observed. Its substrate consisted of gravel, sand, silt, and woody debris. Based on these observations, UNT 5 to State Ditch was classified as a poor-quality stream. This was supported by an HHEI score of 33.

UNT 5 to State Ditch is not shown on USGS 7.5-minute series topographic mapping (Appendix B5). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to UNT 2 to State Ditch, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 5 to State Ditch is likely a water of the U.S.

UNT 5 to State Ditch is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register’s listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 1 to Dollar Hide Creek

UNT 1 to Dollar Hide Creek originates north of the I-465/Kentucky Avenue interchange and then flows through the interchange. This stream originates from a culvert flowing through a residential area outside of the study area. It flows

southwest through Wetlands 39 and 40 in the interchange infields (no OHWM was observed in the wetlands), before discharging into Dollar Hide Creek outside of the study area (Appendix B157 and 159). UNT 1 to Dollar Hide Creek exhibited a 4.2-foot wide by 6-inch deep OHWM. Approximately 1,112 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 1 to Dollar Hide Creek is contained within several roadside ditches in INDOT's maintained right-of-way. It does not have a wooded riparian corridor within the study area. Its banks are dominated by *Typha sp.* (cattail, OBL). No bank erosion was observed. Its adjacent land-uses are residential properties and interstate highway. No pools or riffles were observed. Its substrate consisted of sand and silt. Based on these observations, UNT 1 to Dollar Hide Creek was classified as a poor-quality stream. This was supported by an HHEI score of 31.

UNT 1 to Dollar Hide Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B5). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to Dollar Hide Creek. Dollar Hide Creek is a tributary to the West Fork of the White River, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 1 to Dollar Hide Creek is likely a water of the U.S.

UNT 1 to Dollar Hide Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 2 to Dollar Hide Creek

UNT 2 to Dollar Hide Creek is located north of the I-465/Kentucky interchange. This stream originates from outside of the study area and flows southeast into UNT 1 to Dollar Hide Creek (Appendix B157). UNT 2 to Dollar Hide Creek exhibited a 6.5-foot wide by 9-inch deep OHWM. Approximately 223 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 2 to Dollar Hide Creek is contained within a roadside ditch in INDOT's maintained right-of-way. It has a narrow wooded riparian corridor along either bank. Its banks are dominated by *Lonicera maackii* (Amur honeysuckle, UPL) and *Schedonorus arundinaceus* (tall false rye grass, FACU). No bank erosion was observed. Its adjacent land-uses are residential properties and interstate highway. No pools or riffles were observed. Its substrate consisted of sand and silt. Based on these observations, UNT 2 to Dollar Hide Creek was classified as a poor-quality stream. This was supported by an HHEI score of 31.

UNT 2 to Dollar Hide Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B5). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to UNT 1 to Dollar Hide Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 2 to Dollar Hide Creek is likely a water of the U.S.

UNT 2 to Dollar Hide Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 3 to Dollar Hide Creek

UNT 3 to Dollar Hide Creek crosses under I-465 and approximately 520 feet northwest of Kentucky Avenue. This stream originates from a culvert outside of the study area. It flows southwest under I-465, out of the study area, and into Dollar Hide Creek (Appendix B160). UNT 3 to Dollar Hide Creek exhibited a 4-foot wide by 5-inch deep OHWM. Approximately 315 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 3 to Dollar Hide Creek is mostly encapsulated within INDOT's right-of-way. It has a narrow wooded riparian corridor along either bank. Its banks are dominated by *Lonicera maackii* (Amur honeysuckle, UPL). No bank erosion was observed. Its adjacent land-uses are a commercial property and interstate highway. No pools or riffles were observed. Its substrate consisted of silt and artificial material. Based on these observations, UNT 3 to Dollar Hide Creek was classified as a poor-quality stream. This was supported by an HHEI score of 28.

UNT 3 to Dollar Hide Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B5). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to Dollar Hide Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 3 to Dollar Hide Creek is likely a water of the U.S.

UNT 3 to Dollar Hide Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register’s listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 4 to Dollar Hide Creek

UNT 4 to Dollar Hide Creek is located north of I-465, and approximately 400 feet northwest of Kentucky Avenue. It originates within a roadside ditch and flows northwest into UNT 3 to Dollar Hide Creek (Appendix B160). UNT 4 to Dollar Hide Creek exhibited a 3-foot wide by 3-inch deep OHWM. Approximately 110 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 4 to Dollar Hide Creek is contained within the roadside ditch in INDOT’s right-of-way. It has a narrow wooded riparian corridor along either bank. Its banks are dominated by *Lonicera maackii* (Amur honeysuckle, UPL). No bank erosion was observed. Its adjacent land-uses are a commercial property and interstate highway. No pools or riffles were observed. Its substrate consisted of gravel, sand, and silt. Based on these observations, UNT 4 to Dollar Hide Creek was classified as a poor-quality stream. This was supported by an HHEI score of 32.

UNT 4 to Dollar Hide Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B5). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to UNT 3 to Dollar Hide Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 4 to Dollar Hide Creek is likely a water of the U.S.

UNT 4 to Dollar Hide Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register’s listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 5 to Dollar Hide Creek

UNT 5 to Dollar Hide Creek is located north of I-465 westbound, approximately 510 feet northwest of Kentucky Avenue. This stream originates from Wetland 45 and flows southeast into UNT 3 to Dollar Hide Creek (Appendix B160-161). UNT 5 to Dollar Hide Creek exhibited a 3.8-foot wide by 4-inch deep OHWM. Approximately 115 linear feet of this stream lies within the study area. Because this stream is not shown in USGS Streamstats, its upstream drainage area is assumed to be less than one square mile.

UNT 5 to Dollar Hide Creek is contained within a roadside ditch in INDOT’s right-of-way. It has a narrow wooded riparian corridor along either bank. Its banks are dominated by *Lonicera maackii* (Amur honeysuckle, UPL). No bank erosion was observed. Its adjacent land-uses are a commercial property and interstate highway. No pools or riffles were observed. Its substrate consisted of gravel, sand, and silt. Based on these observations, UNT 5 to Dollar Hide Creek was classified as a poor-quality stream. This was supported by an HHEI score of 35.

UNT 5 to Dollar Hide Creek is not shown on USGS 7.5-minute series topographic mapping (Appendix B5). Based on field observations, this stream is likely ephemeral in nature. It is hydrologically connected to UNT 3 to Dollar Hide Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 5 to Dollar Hide Creek is likely a water of the U.S.

UNT 5 to Dollar Hide Creek is not a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register’s listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

Wetlands:

Sampling locations were determined by the presence or absence of hydrophytic vegetation and hydrology indicators. Forty-eight total wetlands were identified within the study area totaling 3.536 acres (11,026 linear feet). Twenty-seven wetlands are likely waters of the U.S. (2.443 acre and 6,379 feet). Twenty-one wetlands are likely waters of the State (1.093 acre and 4,647 feet). The Wetland Summary Table 3 (Appendix A4 to A5) summarizes the data collected on these features. A Data Point Summary Table 4 (Appendix A6 to A9) summarizing each data point is also provided.

Wetland 1

The area associated with Data Point 1 IN (DP-1-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 30%) and *Juncus tenuis* (lesser poverty rush, FAC, 20%).

This point met the hydrophytic vegetation criterion because it passed the Dominance Test and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Three primary indicators (Surface Water [A1], Water-Stained Leaves [B9], and Oxidized Rhizospheres on Living Roots [C3]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-1-IN, this area was identified as Wetland 1.

Data Point 1 OUT (DP-1-OUT) was taken up-slope and northwest of DP-1-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 25%), *Securigera varia* (crownvetch, UPL, 25%), and *Poa pratensis* (Kentucky blue grass, FAC, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil or wetland hydrology indicators were observed. Since none of the three wetland criteria were met at DP-1-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 1, which was determined based on changes in vegetation and topography.

Wetland 1 is an emergent wetland that is approximately 0.016 acre (57 linear feet) in size. It is partially located within the roadside ditch within the interstate infield along the south side of I-465 approximately 535 feet west of I-65 (Appendix B127). Wetland 1 had low species diversity and is located within INDOT’s maintained right-of-way. Therefore, it was classified as a poor-quality wetland. Wetland 1 is was not entirely contained within the roadside ditch and is connected to McFarland Creek via UNT 3 to McFarland Creek and UNT 1 to McFarland Creek. This wetland is likely a water of the U.S. due to this connectivity.

Wetland 2

The area associated with Data Point 2 IN (DP-2-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 100%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. One primary indicator (Oxidized Rhizospheres on Living Roots [C3]) and one secondary indicator (FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-2-IN, this area was identified as Wetland 2.

Data Point 2 OUT (DP-2-OUT) was taken northeast of DP-2-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 30%), *Bromus arvensis* (field brome, FACU, 20%), *Cirsium arvense* (Canadian thistle, FACU, 20%), and *Poa pratensis* (Kentucky blue grass, FAC, 20%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. No wetland hydrology indicators were observed. Since only one of the three wetland criteria were met at DP-2-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 2, which was determined based on changes in vegetation.

Wetland 2 is an emergent wetland that is approximately 0.001 acre (8 linear feet) in size. It is located at an underdrain outlet along the south side of I-465 approximately 365 feet east of Carson Avenue (Appendix B127). Wetland 2 was dominated by cattails and is located within INDOT’s maintained right-of-way. Therefore, it was classified as a poor-quality wetland. While Wetland 2 is located on the roadside embankment, it is connected to McFarland Creek via UNT 1 to McFarland Creek. This wetland is likely a water of the U.S. due to this connectivity.

Wetland 3

The area associated with Data Point 3 IN (DP-3-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Phalaris arundinacea* (reed canary grass, FACW, 70%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Redox Dark Surface (F6) indicator. Four primary indicators (Surface Water [A1], Saturation [A3], Algal Mat or Crust [B4], and Oxidized Rhizospheres on Living Roots [C3]) and one secondary indicator (FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-3-IN, this area was identified as Wetland 3.

Data Point 3 OUT (DP-3-OUT) was taken southwest of DP-3-IN. The herbaceous stratum was dominated by *Dipsacus fullonum* (Fuller's teasel, FACU, 40%), *Solidago altissima* (tall goldenrod, FACU, 20%), and *Ambrosia artemisiifolia* (annual ragweed, FACU, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil or wetland hydrology indicators were observed. Since none of the three wetland criteria were met at DP-3-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 3, which was determined based on changes in vegetation.

Wetland 3 is an emergent wetland that is approximately 0.001 acre (12 linear feet) in size. It is located at an underdrain outlet along the south side of I-465 approximately 110 feet east of Carson Avenue (Appendix B127). Wetland 3 was dominated by reed canary grass and is located within INDOT's maintained right-of-way. Therefore, it was classified as a poor-quality wetland. While Wetland 3 is located on the roadside embankment, it is connected to McFarland Creek via UNT 1 to McFarland Creek. This wetland is likely a water of the U.S. due to this connectivity.

Wetland 4

The area associated with Data Point 4 IN (DP-4-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 20%) and *Poa pratensis* (Kentucky blue grass, FAC, 15%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Three primary indicators (Surface Water [A1], Water-Stained Leaves [B9], and Oxidized Rhizospheres on Living Roots [C3]) and one second indicator (FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-4-IN, this area was identified as Wetland 4.

Data Point 4 OUT (DP-4-OUT) was taken adjacent to DP-4-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 50%), *Poa pratensis* (Kentucky blue grass, FAC, 26%), and *Cirsium arvense* (Canadian thistle, FACU, 25%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No wetland hydrology indicators were observed. Since none of the three wetland criteria were met at DP-4-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 4, which was determined based on changes in vegetation and topography.

Wetland 4 is an emergent wetland that is approximately 0.014 acre (94 linear feet) in size. It is located within the center median along I-465, approximately 300 feet west of I-65 (Appendix B127). Wetland 4 was dominated by cattails and is located within INDOT's maintained right-of-way. Because of this, it was classified as a poor-quality wetland. The soils at this location were mapped as predominately non-hydric (1-32%). Wetland 4 is entirely located within the roadside ditch in the center median of I-465. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 4 would likely be classified as a Class I wetland under the jurisdiction of IDEM. Therefore, it is potentially an "exempt isolated wetland" under 327 IAC 17-1-3(7).

Wetland 5

The area associated with Data Point 5 IN (DP-5-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Carex lurida* (shallow sedge, OBL, 20%) and *Carex pennsylvanica* (Pennsylvania sedge, UPL, 15%). This point met the hydrophytic vegetation criterion because it passed the Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Redox Dark Surface (F6) indicator. Two primary indicators (Drift deposits [B3] and Water-Stained Leaves [B9]) and one secondary indicator (Geomorphic Position [D2]) of hydrology were observed. Since all three wetland criteria were met at DP-5-IN, this area was identified as Wetland 5.

Data Point 5 OUT (DP-5-OUT) was taken east of DP-5-IN. The tree stratum was dominated by *Fraxinus pennsylvanica* (green ash, FACW, 5%). The sapling/shrub stratum was dominated by *Lonicera maackii* (Amur honeysuckle, UPL, 20%). The herbaceous stratum was dominated by *Poa pratensis* (Kentucky blue grass, FAC, 63%) and *Schedonorus arundinaceus* (tall false rye grass, FACU, 30%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. Only one secondary hydrology indicator (Geomorphic Position [D2]) was observed. Since none of the three wetland criteria were met at DP-5-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 5, which was determined based on changes in vegetation and topography.

Wetland 5 is an emergent wetland that is approximately 0.009 acre (45 linear feet) in size. It is located within the center median along I-465, approximately 210 feet west of I-65 (Appendix B127). Wetland 5 exhibited bare ground and is located within INDOT’s maintained right-of-way. Because of this, it was classified as a poor-quality wetland. The soils at this location were mapped as predominately non-hydric (1-32%). Wetland 5 is located entirely within the roadside ditch in the center median of I-465. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 5 would likely be classified as a Class I wetland under the jurisdiction of IDEM. Therefore, it is potentially an “exempt isolated wetland” under 327 IAC 17-1-3(7).

Wetland 6

The area associated with Data Point 6 IN (DP-6-IN) was evaluated because it exhibited hydrophytic vegetation. The sapling/shrub stratum was present but not at sufficient coverage for any species to be considered dominant. The herbaceous stratum was dominated by *Phalaris arundinacea* (reed canary grass, FACW, 50%) and *Typha sp.* (cattail, OBL, 50%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and the Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Redox Dark Surface (F6) indicator. One primary indicator (Water-Stained Leaves [B9]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-6-IN, this area was identified as Wetland 6.

Data Point 6 OUT (DP-6-OUT) was taken upslope from DP-6-IN. The sapling/shrub stratum at this location was dominated by *Fraxinus pennsylvanica* (green ash, FACW, 2%), *Elaeagnus umbellata* (autumn olive, UPL, 2%), and *Lonicera maackii* (Amur honeysuckle, UPL, 2%). The herbaceous stratum was dominated by *Cirsium arvense* (Canadian thistle, FACU, 70%) and *Securigera varia* (crownvetch, UPL, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No wetland hydrology indicators were observed. Since none of the three wetland criteria were met at DP-6-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 6, which was determined based on changes in vegetation and topography.

Wetland 6 is an emergent wetland that is approximately 0.007 acre (51 linear feet) in size. It is located within the roadside ditch within the center median along I-465 approximately 670 feet west of I-65 (Appendix B128). Wetland 6 is dominated by reed canary grass and cattails and is located within INDOT’s maintained right-of-way. Because of this, it was classified as a poor-quality wetland. The soils at this location were mapped as predominately non-hydric (1-32%). Wetland 6 is entirely contained within the roadside ditch, which was excavated in dry land, drains only dry land, and only has ephemeral flow. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 6 would likely be classified as a Class I wetland under the jurisdiction of the IDEM. Therefore, it is potentially an “exempt isolated wetland” under 327 IAC 17-1-3(7).

Wetland 7

The area associated with Data Point 7 IN (DP-7-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 80%). This point met the hydrophytic vegetation criterion because it passed the Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Hydrogen Sulfide (A4) and Depleted Matrix (F3) indicators. Four primary indicators (Surface Water [A1], High Water Table [A2], Saturation [A3], and Hydrogen Sulfide Odor [C1]) of hydrology were observed. Since all three wetland criteria were met at DP-7-IN, this area was identified as Wetland 7.

Data Point 7 OUT (DP-4-OUT) was taken adjacent of DP-7-IN. The sapling/shrub stratum was dominated by *Lonicera maackii* (Amur honeysuckle, UPL, 10%). The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 40%), *Solidago altissima* (tall goldenrod, FACU, 25%), and *Poa pratensis* (Kentucky blue grass, FAC, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No wetland hydrology indicators were observed. Since none of the three wetland criteria were met at DP-7-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 7, which was determined based on changes in vegetation.

Wetland 7 is an emergent wetland that is approximately 0.004 acre (28 linear feet) in size. It is located at an underdrain outlet along the north side of I-465 approximately 1,060 feet west of I-65 (Appendix B128). Wetland 7 was dominated by cattails and is located within INDOT’s maintained right-of-way. Therefore, it was classified as a poor-quality wetland. While Wetland 7 is located on the roadside embankment, it is connected to Lick Creek (outside of the study area boundary). This wetland is likely a water of the U.S. due to this connectivity.

Wetland 8

The area associated with Data Point 8 IN (DP-8-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 75%). This point met the hydrophytic vegetation criterion because it passed the Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Hydrogen Sulfide (A4) and Depleted Matrix (F3) indicators. Three primary indicators (Surface Water [A1], Saturation [A3], and Hydrogen Sulfide Odor [C1]) of hydrology were observed. Since all three wetland criteria were met at DP-8-IN, this area was identified as Wetland 8.

Data Point 8 OUT (DP-8-OUT) was taken adjacent to DP-8-IN. The sapling/shrub stratum was dominated by *Lonicera maackii* (Amur honeysuckle, UPL, 10%). The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 50%), *Solidago altissima* (tall goldenrod, FACU, 25%), and *Poa pratensis* (Kentucky blue grass, FAC, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No wetland hydrology indicators were observed. Since none of the three wetland criteria were met at DP-8-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 8, which was determined based on changes in vegetation.

Wetland 8 is an emergent wetland that is approximately 0.003 acre (15 linear feet) in size. It is located at an underdrain outlet along the north side of I-465 approximately 1,145 feet west of I-65 (Appendix B128). Wetland 8 was dominated by cattails and is located within INDOT’s maintained right-of-way. Therefore, it was classified as a poor-quality wetland. While Wetland 8 is located on the roadside embankment, it is connected to Lick Creek (outside of the study area boundary). This wetland is likely a water of the U.S. due to this connectivity.

Wetland 9

The area associated with Data Point 9 IN (DP-9-IN) was evaluated because it exhibited hydrophytic vegetation. The tree stratum was dominated by *Populus deltoides* (eastern cottonwood, FAC, 20%) and *Fraxinus pennsylvanica* (green ash, FACW, 10%). The sapling/shrub stratum was dominated by *Fraxinus pennsylvanica* (20%). The herbaceous stratum was dominated by *Equisetum arvense* (field horsetail, FAC, 35%), *Toxicodendron radicans* (eastern poison ivy, FAC, 25%), and *Lonicera japonica* (Japanese honeysuckle, FACU, 20%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11), Depleted Matrix (F3), and Redox Dark Surface (F6) indicators. Three primary indicators (High Water Table [A2], Saturation [A3] and Water-Stained Leaves [B9]) of hydrology were observed. Since all three wetland criteria were met at DP-9-IN, this area was identified as Wetland 9.

Data Point 9 OUT (DP-9-OUT) was taken upslope of DP-9-IN. The sapling/shrub stratum was dominated by *Lonicera maackii* (Amur honeysuckle, UPL, 70%). The herbaceous stratum was dominated by *Lonicera maackii* (5%), *Lonicera japonica* (Japanese honeysuckle, FACU, 5%), *Equisetum arvense* (field horsetail, FAC, 5%), and *Fraxinus pennsylvanica* (green ash, FACW, 2%). This point did not meet the hydrophytic vegetation criterion. Two primary indicators (Drift Deposits [B3] and Water-Stained Leaves [B9]) of hydrology were observed. No hydric soil indicators were observed. Since only one of the three wetland criteria were met at DP-9-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 9, which was determined based on changes in vegetation and topography.

Wetland 9 is a forested wetland that is approximately 0.022 acre (67 linear feet) in size. It is located within the roadside ditch along the north side of I-465 approximately 235 feet southwest of Carson Avenue (Appendix B129). Wetland 9 has a low species diversity. Therefore, it was classified as an average-quality wetland. Wetland 9 is not entirely contained within a roadside ditch and continues off-site. It is likely connected to Lick Creek (outside of the study area boundary). This wetland is likely a water of the U.S. due to this connectivity.

Wetland 10

The area associated with Data Point 10 IN (DP-10-IN) was evaluated because it exhibited hydrophytic vegetation. The sapling/shrub stratum was present but not at sufficient coverage for any species to be considered dominant. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 68%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Hydrogen Sulfide (A4), Depleted Below Dark Surface (A11), and Depleted Matrix (F3) indicators. Six primary indicators (Surface Water [A1], High Water Table [A2], Saturation [A3], Drift Deposits [B3], Water-Stained Leaves [B9], and Hydrogen Sulfide Odor [C1]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-10-IN, this area was identified as Wetland 10.

Data Point 10 OUT (DP-10-OUT) was taken upslope and south of DP-10-IN. The tree stratum was dominated by *Acer saccharinum* (silver maple, FACW, 5%). The sapling/shrub stratum was dominated by *Lonicera maackii* (Amur honeysuckle, UPL, 10%) and *Carya cordiformis* (bitter-nut hickory, FACU, 5%). The herbaceous stratum was dominated by *Toxicodendron radicans* (eastern poison ivy, FAC, 30%), *Impatiens capensis* (spotted touch-me-not, FACW, 30%), and *Sanicula canadensis* (Canadian black-snakeroot, FACU, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No wetland hydrology indicators were observed. Since none of the three wetland criteria were met at DP-10-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 10, which was determined based on changes in vegetation and topography.

Wetland 10 is an emergent wetland that is approximately 0.055 acre (153linear feet) in size. It is located within the roadside ditch along the south side of I-465 approximately 140 feet southwest of Carson Avenue (Appendix B130). Wetland 10 was dominated by cattails and is located within INDOT’s maintained right-of-way. Therefore, it was classified as a poor-quality wetland. Wetland 10 is not entirely contained within a roadside ditch and expands well beyond the fringe and up the adjacent side slopes. It is likely connected to McFarland Creek via UNT 4 to McFarland Creek, which passes through this wetland. This wetland is likely a water of the U.S. due to this connectivity.

Wetland 11

The area associated with Data Point 11 IN (DP-11-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 75%) and *Juncus tenuis* (lesser poverty rush, FAC, 20%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. Four primary indicators (Surface Water [A1], High Water Table [A2], Saturation [A3], and Oxidized Rhizospheres on Living Roots [C3]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-11-IN, this area was identified as Wetland 11.

Data Point 11 OUT (DP-11-OUT) was taken in the roadside ditch southwest of DP-11-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 60%) and *Poa pratensis* (Kentucky blue grass, FAC, 40%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. Four primary indicators (Surface Water [A1], High Water Table [A2], Saturation [A3], and Water-Stained Leaves [B9]) and one secondary indicator (Geomorphic Position [D2]) of hydrology were observed. Since only two of the three wetland criteria were met at DP-11-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 11, which was determined based on changes in vegetation.

Data Point 11A OUT (DP-11A-OUT) was taken in the roadside ditch northeast of DP-11-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 50%), *Poa pratensis* (Kentucky blue grass, FAC, 20%), and *Cirsium arvense* (Canadian thistle, FACU, 20%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Only one indicator (Geomorphic Position [D2]) of hydrology was observed. Since only one of the three wetland criteria were met at DP-11A-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 11, which was determined based on changes in vegetation.

Wetland 11 is an emergent wetland that is approximately 0.319 acre (1,683 linear feet) in size. It is located within the roadside ditch along the south side of I-465 approximately 50 feet east of Keystone Avenue (Appendix B130-132). Wetland 11 was dominated by cattails and is located within INDOT’s maintained right-of-way. Therefore, it was classified as a poor-quality wetland. Wetland 11 is not entirely contained within a roadside ditch and expands up the adjacent side slope. Due to its close proximity and likely connection to UNT 4 to McFarland Creek, this wetland is likely a water of the U.S.

Wetland 12

The area associated with Data Point 12 IN (DP-12-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 5%), *Schedonorus arundinaceus* (tall false rye grass, FACU, 5%), and *Leersia virginica* (white grass, FACW, 5%). This point met the hydrophytic vegetation criterion because it passed the Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) and Redox Dark Surface (F6) indicators. Four primary indicators (Surface Water [A1], High Water Table [A2], Saturation [A3], and Water-Stained Leaves [B9]) and three secondary indicators (Crayfish Burrows [C8], Geomorphic Position [D2], and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-12-IN, this area was identified as Wetland 12.

Data Point 12 OUT (DP-12-OUT) was taken within the roadside ditch northeast of DP-12-IN. This location was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 100%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Redox Dark Surface (F6) indicator. Three primary indicators (Surface Water [A1], High Water Table [A2], and Saturation [A3]) and one secondary indicator (Geomorphic Position [D2]) of hydrology were observed. Since one of the three wetland criteria was not met at DP-12-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 12, which was determined based on changes in vegetation.

Wetland 12 is an emergent wetland that is approximately 0.008 acre (74 linear feet) in size. It is located within the roadside ditch along the north side of I-465 approximately 200 feet northeast of Keystone Avenue (Appendix B132). A short distance of non-hydrophytic vegetation and loss of surface hydrology indicators were observed within the grassy roadside between Wetland 12 and Wetland 13. Wetland 12 has low species diversity and is located within INDOT’s maintained right-of-way. Therefore, it was classified as a poor-quality wetland. The soils at this location were mapped as predominately non-hydric (1-32%). Wetland 12 is entirely contained within the roadside ditch, which was excavated in dry land, drains only dry land, and only has ephemeral flow. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 12 would likely be classified as a Class I wetland under the jurisdiction of the IDEM. Therefore, it is potentially an “exempt isolated wetland” under 327 IAC 17-1-3(7).

Wetland 13

The area associated with Data Point 13 IN (DP-13-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 30%), *Typha sp.* (cattail, OBL 15%), *Juncus effusus* (lamp rush, OBL, 65%), and *Carex vulpinoidea* (common fox sedge, FACW, 2%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Three primary indicators (Surface Water [A1], High Water Table [A2], and Saturation [A3]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-13-IN, this area was identified as Wetland 13.

Data Point 13 OUT (DP-13-OUT) was taken southwest of DP-13-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 89%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Three primary indicators (Surface Water [A1], High Water Table [A2], and Saturation [A3]) and two secondary indicators (Crayfish Burrows [C8] and Geomorphic Position [D2]) of hydrology were observed. Since only two of the three wetland criteria were met at DP-13-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 13, which was determined based on changes in vegetation.

Wetland 13 is an emergent wetland that is approximately 0.006 acre (36 linear feet) in size. It is located within the roadside ditch along the north side of I-465 approximately 170 feet northeast of Keystone Avenue (Appendix B132). A short distance of non-hydrophytic vegetation and loss of surface hydrology indicators were observed within the grassy roadside between Wetland 13 and Wetland 12. Wetland 13 is dominated by cattails and is located within INDOT’s maintained right-of-way. Therefore, it was classified as a poor-quality wetland. The soils at this location were mapped as predominately non-hydric (1-32%). Wetland 13 is entirely contained within the roadside ditch, which was excavated in dry land, drains only dry land, and only has ephemeral flow. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 13 would likely be classified as a Class I wetland under the jurisdiction of the IDEM. Therefore, it is potentially an “exempt isolated wetland” under 327 IAC 17-1-3(7).

Wetland 14

The area associated with Data Point 14 IN (DP-14-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 20%) and *Juncus tenuis* (lesser poverty rush, FAC, 10%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11), Depleted Matrix (F3), and Redox Dark Surface (F6) indicators. Four primary indicators (Surface Water [A1], High Water Table [A2], Saturation [A3], and Water-Stained Leaves [B9]) and three secondary indicators (Crayfish Burrows [C8], Geomorphic Position [D2], and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-14-IN, this area was identified as Wetland 14.

Data Point 14 OUT (DP-14-OUT) was taken southwest of DP-14-IN. This location was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 95%) in the herbaceous stratum. This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11), Depleted Matrix (F3), and Redox Dark Surface (F6) indicator. One primary indicator (Surface Water [A1]) and one secondary indicator (Geomorphic Position [D2]) of hydrology were observed. Since only two of the three wetland criteria were met at DP-14-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 14, which was determined based on changes in vegetation.

Wetland 14 is an emergent wetland that is approximately 0.092 acre (531 linear feet) in size. It is partially located within the roadside ditch along the north side of I-465 approximately 50 feet southwest of Keystone Avenue (Appendix B133-134). Wetland 14 has a low species diversity and is located within INDOT’s maintained right-of-way. Therefore, it was classified as a poor-quality wetland. The soils at this location were mapped as not hydric (0%). Wetland 14 is not entirely contained within the roadside ditch, however is not hydrologically connected to another likely water of the U.S. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 14 would likely be classified as a Class I wetland under the jurisdiction of the IDEM. Therefore, it is potentially an “exempt isolated wetland” under 327 IAC 17-1-3(7).

Wetland 15

The area associated with Data Point 15 IN (DP-15-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 50%) and *Juncus effusus* (lamp rush, OBL, 20%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Hydrogen Sulfide (A4) and Redox Dark Surface (F6) indicators. Five primary indicators (Surface Water [A1], Algal Mat or Crust [B4], Water-Stained Leaves [B9], Hydrogen Sulfide Odor [C1], and Oxidized Rhizospheres on Living Roots [C3]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-15-IN, this area was identified as Wetland 15.

Data Point 15 OUT (DP-15-OUT) was taken in the roadside ditch southwest of DP-15-IN. The herbaceous stratum was dominated by *Bromus arvensis* (field brome, FACU, 80%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. Only one secondary indicator (Geomorphic Position [D2]) of hydrology was observed.. Since none of the three wetland criteria were met at DP-15-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 15, which was determined based on changes in vegetation.

Wetland 15 is an emergent wetland that is approximately 0.073 acre (298 linear feet) in size. It is located within the roadside ditch along the south side of I-465 approximately 40 feet southwest of Keystone Avenue (Appendix B134). Wetland 15 was dominated by cattails and is located within INDOT's maintained right-of-way. Therefore, it was classified as a poor-quality wetland. Wetland 15 is not entirely contained within the roadside ditch, however is not hydrologically connected to another likely water of the U.S. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 15 would likely be classified as a Class I wetland under the jurisdiction of the IDEM. Therefore, it is potentially an "exempt isolated wetland" under 327 IAC 17-1-3(7).

Wetland 16

The area associated with Data Point 16 IN (DP-16-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Carex sp.* (unidentified Carex, NI, 30%), *Typha sp.* (cattail, OBL, 10%), and *Schedonorus arundinaceus* (tall false rye grass, FACU, 10%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11), Depleted Matrix (F3), and Redox Dark Surface (F6) indicators. Three primary indicators (Surface Water [A1], Saturation [A3], and Water-Stained Leaves [B9]) and two secondary indicators (Crawfish Burrows [C8] and Geomorphic Position [D2]) of hydrology were observed. Since all three wetland criteria were met at DP-16-IN, this area was identified as Wetland 16.

Data Point 16 OUT (DP-10-OUT) was taken within the roadside ditch and southwest of DP-16-IN. This location was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 80%) in the herbaceous stratum. This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11), Depleted Matrix (F3), and Redox Dark Surface (F6) indicators. Two primary indicators (Surface Water [A1] and Water-Stained Leaves [B9]) and one secondary indicator (Geomorphic Position [D2]) of hydrology were observed. Since only two of the three wetland criteria were met at DP-16-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 16, which was determined based on changes in vegetation.

Wetland 16 is an emergent wetland that is approximately 0.004 acre (56 linear feet) in size. It is located within the roadside ditch along the north side of I-465 approximately 1,400 feet southwest of Keystone Avenue (Appendix B134). Wetland 16 has low species diversity and is located within INDOT's maintained right-of-way. Therefore, it was classified as a poor-quality wetland. The soils at this location were mapped as not hydric (0%). Wetland 16 is entirely contained within the roadside ditch, which was excavated in dry land, drains only dry land, and only has ephemeral flow. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 16 would likely be classified as a Class I wetland under the jurisdiction of IDEM. Therefore, it is potentially an "exempt isolated wetland" under 327 IAC 17-1-3(7).

Wetland 17

The area associated with Data Point 17 IN (DP-17-IN) was evaluated because it exhibited hydrophytic vegetation. The sapling/shrub stratum is dominated by *Salix interior* (sandbar willow, FACW, 30%). The herbaceous stratum was dominated by *Solidago altissima* (tall goldenrod, FACU, 30%), *Carex lurida* (shallow sedge, OBL, 15%), and *Cyperus esculentus* (chufa, FACW, 15%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Redox Dark Surface (F6) indicator. One primary indicator (Water-Stained Leaves [B9]) and one secondary indicator (FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-17-IN, this area was identified as Wetland 17.

Data Point 17 OUT (DP-17-OUT) was taken northeast of DP-17-IN. The tree stratum was dominated by *Platanus occidentalis* (American sycamore, FACW, 5%), *Fraxinus pennsylvanica* (green ash, FACW, 2%), *Aesculus glabra* (Ohio buckeye, FAC, 2%), and *Ulmus rubra* (slippery elm, FAC, 2%). The sapling/shrub stratum was dominated by *Lonicera maackii* (Amur honeysuckle, UPL, 10%). The herbaceous stratum was dominated by *Solidago altissima* (tall goldenrod, FACU, 82%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test. No hydric soil indicators were observed. No wetland hydrology indicators were observed. Since only one of the three wetland criteria were met at DP-17-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 17, which was determined based on changes in vegetation (honeysuckle) and soils.

Wetland 17 is a scrub/shrub wetland that is approximately 0.044 acre (95 linear feet) in size. It is located at an underdrain outlet along the roadside slope on the north side of I-465 approximately 2,435 feet southwest of Keystone Avenue (Appendix B135). Wetland 17 had average species diversity and is located within INDOT’s maintained right-of-way. Therefore, it was classified as an average-quality wetland. Wetland 17 expands well beyond the fringe and extends off-site. It is likely connected to Lick Creek via UNT 4 to Lick Creek, which passes through this wetland. This wetland is a likely water of the U.S. due to this connectivity.

Wetland 18

The area associated with Data Point 18 IN (DP-18-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 50%), *Phalaris arundinacea* (reed canary grass, FACW, 30%), and *Cirsium arvense* (Canadian thistle, FACU, 20%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Hydrogen Sulfide (A4), Depleted Below Dark Surface (A11), and Depleted Matrix (F3) indicators. Four primary indicators (High Water Table [A2], Saturation [A3], Water-Stained Leaves [B9], and Hydrogen Sulfide Odor [C1]) and one secondary indicator (FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-18-IN, this area was identified as Wetland 18.

Data Point 18 OUT (DP-18-OUT) was taken southwest of DP-18-IN. The tree stratum was dominated by *Populus deltoides* (eastern cottonwood, FAC, 5%). The sapling/shrub stratum was dominated by *Lonicera maackii* (Amur honeysuckle, UPL, 50%). The herbaceous stratum was dominated by *Lonicera japonica* (Japanese honeysuckle, FACU, 20%) and *Equisetum arvense* (field horsetail, FAC, 10%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No wetland hydrology indicators were observed. Since none of the three wetland criteria were met at DP-18-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 18, which was determined based on changes in vegetation.

Wetland 18 is an emergent wetland that is approximately 0.066 acre (164 linear feet) in size. It is located along the south side of I-465 approximately 1,355 feet southwest of Keystone Avenue (Appendix B135). Wetland 18 was dominated by cattails and reed canary grass and is located within INDOT’s maintained right-of-way. Therefore, it was classified as a poor-quality wetland. Wetland 18 is partially contained within the roadside ditch, and expands well beyond the fringe and up the adjacent side slope. It is Wetland 18 has UNT 6 to Lick Creek flowing through it. It is likely connected to Lick Creek via UNT 6 to Lick Creek, which passes through this wetland. This wetland is a likely water of the U.S. due to this connectivity.

Wetland 19

The area associated with Data Point 19 IN (DP-19-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Phalaris arundinacea* (reed canary grass, FACW, 50%), *Impatiens capensis* (spotted touch-me-not, FACW, 20%), and *Persicaria muculosa* (spotted lady’s-thumb, FACW, 20%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Redox Dark Surface (F6) indicators. One primary indicator (Surface Water [A1]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-19-IN, this area was identified as Wetland 19.

Data Point 19 OUT (DP-19-OUT) was taken in the roadside ditch southwest of DP-19-IN. The sapling/shrub stratum was present but not at sufficient coverage for any species to be considered dominant. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 20%), *Poa pratensis* (Kentucky blue grass, FAC, 20%), and *Solidago altissima* (tall goldenrod, FACU, 20%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. Only one secondary indicator (Geomorphic Position [D2]) of hydrology was observed. Since only one of the three wetland criteria were met at DP-19-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 19, which was determined based on changes in vegetation.

Wetland 19 is an emergent wetland that is approximately 0.004 acre (37 linear feet) in size. It is located within the roadside ditch along the south side of I-465 approximately 1,950 feet southwest of Keystone Avenue (Appendix B135). Wetland 19 has low species diversity and is located within INDOT’s maintained right-of-way. Wetland 19 is entirely contained within the roadside ditch, which was excavated in dry land, drains only dry land, and only has ephemeral flow. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 19 would likely be classified as a Class I wetland under the jurisdiction of IDEM. Therefore, it is potentially an “exempt isolated wetland” under 327 IAC 17-1-3(7).

Wetland 20

The area associated with Data Point 20 IN (DP-20-IN) was evaluated because it exhibited hydrophytic vegetation. The sapling/shrub stratum was dominated by *Salix interior* (sandbar willow, FACW, 25%). The herbaceous stratum was dominated by *Salix interior* (20%), *Typha sp.* (cattail, OBL, 20%), *Impatiens capensis* (spotted touch-me-not, FACW, 20%), and *Phalaris arundinacea* (reed canary grass, FACW, 20%). The woody vine stratum was present but not at sufficient coverage for any species to be considered dominant. This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. Five primary indicators (Surface Water [A1], High Water Table [A2], Saturation [A3], Algal Mat or Crust [B4], and Water-Stained Leaves [B9]) and three secondary indicators (Crayfish Burrows [C8], Geomorphic Position [D2], and FAC-Neutral Test [D5]) of hydrology were observed. The soil profile met the hydric soil criterion as it was determined to meet the criteria for Problematic Hydric Soil due to a restrictive layer present within four inches. This prevented full examination of the soil profile. Since all three wetland criteria were met at DP-20-IN, this area was identified as Wetland 20.

Data Point 20 OUT (DP-20-OUT) was taken upslope of DP-20-IN. The sapling/shrub stratum was dominated by *Acer negundo* (ash-leaf maple, FAC, 10%) and *Lonicera maackii* (Amur honeysuckle, UPL, 10%). The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 50%) and *Poa pratensis* (Kentucky blue grass, FAC, 20%). The woody vine stratum was present but not at sufficient coverage for any species to be considered dominant. This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No wetland hydrology indicators were observed. Since none of the three wetland criteria were met at DP-20-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 20, which was determined based on changes in vegetation and topography.

Wetland 20 is a scrub/shrub wetland that is approximately 0.084 acre (176 linear feet) in size. It is located within the roadside ditch along the north side of I-465 approximately 3,950 feet southwest of Keystone Avenue (Appendix B135). Wetland 20 has low species diversity and is located within INDOT’s maintained right-of-way. Therefore, it was classified as an average-quality wetland. Wetland 20 is not entirely contained within the roadside ditch and expands well beyond the fringe. It is likely connected to Lick Creek via UNT 5 to Lick Creek, which passes through this wetland. This wetland is likely water of the U.S. due to its downstream connectivity to streams.

Wetland 21

The area associated with Data Point 21 IN (DP-21-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 55%) and *Carex vulpinoidea* (common fox sedge, FACW, 20%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. Five primary indicators (Surface Water [A1], High Water Table [A2], Saturation [A3], Water-Stained Leaves [B9], and Oxidized Rhizospheres on Living Roots [C3]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-21-IN, this area was identified as Wetland 21.

Data Point 21 OUT (DP-21-OUT) was taken within the roadside ditch northeast of DP-21-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 91%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) and Redox Dark Surface (F6) indicators. Only one secondary indicator (Geomorphic Position [D2]) was observed. Since only one of the three wetland criteria were met at DP-21-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 21, which was determined based on changes in vegetation.

Data Point 21A OUT (DP-21A-OUT) was taken within the roadside ditch southwest of DP-21-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 63%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. No hydrology indicators were observed. Since only one of the three wetland criteria were met at DP-21A-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 21, which was determined based on changes in vegetation.

Wetland 21 is an emergent wetland that is approximately 0.238 acre (940 linear feet) in size. It is partially located within the roadside ditch along the north side of I-465 approximately 3,775 feet northeast of Madison Avenue (Appendix B136). Wetland 13 is dominated by cattails and is located within INDOT’s maintained right-of-way. Because of this, it was classified as a poor-quality wetland. The soils at this location were mapped both as predominately non-hydric (1-32%) and as not hydric (0%). Wetland 21 is not entirely contained within the roadside ditch, however is not hydrologically connected to another likely water of the U.S. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 21 would likely be classified as a Class I wetland under the jurisdiction of the IDEM. Therefore, it is potentially an “exempt isolated wetland” under 327 IAC 17-1-3(7).

Wetland 22

The area associated with Data Point 22 IN (DP-22-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 10%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. Two primary indicators (Surface Water [A1], and Water-Stained Leaves [B9]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-22-IN, this area was identified as Wetland 22.

Data Point 22 OUT (DP-22-OUT) was taken east of DP-22-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 90%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. No hydrology indicators were observed. Since only one of the three wetland criteria were met at DP-22-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 22, which was determined based on changes in vegetation.

Wetland 22 is an emergent wetland that is approximately 0.001 acre (12 linear feet) in size. It is located at an underdrain outlet along the south side of I-465 approximately 1,515 feet northeast of Madison Avenue (Appendix B137). Wetland 22 was dominated by cattails and is located within INDOT’s maintained right-of-way. Because of this, it was classified as a poor-quality wetland. The soils at this location were mapped as not hydric (0%). Wetland 22 is not entirely contained within the roadside ditch, however is not hydrologically connected to another likely water of the U.S. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 22 would likely be classified as a Class I wetland under the jurisdiction of the IDEM. Therefore, it is potentially an “exempt isolated wetland” under 327 IAC 17-1-3(7).

Wetland 23

The area associated with Data Point 23 IN (DP-23-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Juncus effusus* (lamp rush, OBL, 35%) and *Phalaris arundinacea* (reed canary grass, FACW, 35%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Redox Dark Surface (F6) indicator. Two primary indicators (Surface Water [A1] and Oxidized Rhizospheres on Living Roots [C3]) and one secondary indicator (FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-23-IN, this area was identified as Wetland 23.

Data Point 23 OUT (DP-23-OUT) was taken on the upslope of DP-23-IN. The herbaceous stratum was dominated by *Poa pratensis* (Kentucky blue grass, FAC, 40%), *Schedonorus arundinaceus* (tall false rye grass, FACU, 30%), and *Cirsium arvense* (Canadian thistle, FACU, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No hydrology indicators were observed. Since none of the three wetland criteria were met at

DP-23-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 23, which was determined based on changes in vegetation.

Wetland 23 is an emergent wetland that is approximately 0.027 acre (90 linear feet) in size. It is located on the hillslope along the south side of I-465 approximately 135 feet west of Madison Avenue (Appendix B139). Wetland 23 has low species diversity and is located within INDOT's maintained right-of-way. Therefore, it was classified as a poor-quality wetland. Wetland 23 is adjacent to Lick Creek, a likely water of the U.S. This wetland is likely a water of the U.S. due to this connectivity.

Wetland 24

The area associated with Data Point 24 IN (DP-24-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Phragmites australis* (common reed, FACW, 90%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Redox Dark Surface (F6) indicator. Two primary indicators (High Water Table [A2] and Saturation [A3]) and one secondary indicator (FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-24-IN, this area was identified as Wetland 24.

Data Point 24 OUT (DP-24-OUT) was taken on the hillslope west of DP-24-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 80%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Redox Dark Surface (F6) indicator. No hydrology indicators were observed. Since only one of the three wetland criteria were met at DP-24-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 24, which was determined based on changes in vegetation.

Wetland 24 is an emergent wetland that is approximately 0.006 acre (22 linear feet) in size. It is located on the hillslope along the south side of I-465 approximately 280 feet southwest of Madison Avenue (Appendix B141). Wetland 24 was dominated by common reed and is located within INDOT's maintained right-of-way. Therefore, it was classified as a poor-quality wetland. Wetland 24 is adjacent to Lick Creek, a likely water of the U.S. This wetland is likely a water of the U.S. due to this connectivity.

Wetland 25

The area associated with Data Point 25 IN (DP-25-IN) was evaluated because it exhibited hydrophytic vegetation. The sapling/shrub stratum was dominated by *Fraxinus pennsylvanica* (green ash, FACW, 20%) and *Cornus drummondii* (rough-leaf dogwood, FAC, 20%). The herbaceous stratum was dominated by *Phalaris arundinacea* (reed canary grass, FACW, 70%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. Three primary indicators (Surface Water [A1], Saturation [A3], and Oxidized Rhizospheres on Living Roots [C3]) and two secondary indicators (Crayfish Burrows [C8] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-25-IN, this area was identified as Wetland 25.

Data Point 25 OUT (DP-25-OUT) was taken west of DP-25-IN. The sapling/shrub stratum was dominated by *Cornus drummondii* (rough-leaf dogwood, FAC, 40%), and *Fraxinus pennsylvanica* (green ash, FACW, 10%). The herbaceous stratum was dominated by *Poa pratensis* (Kentucky blue grass, FAC, 50%) and *Toxicodendron radicans* (eastern poison ivy, FAC, 20%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test. No hydric soil indicators were observed. Only one secondary indicator (FAC-Neutral Test [D5]) of hydrology was observed. Since only one of the three wetland criteria were met at DP-25-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 25, which was determined based on changes in soils and hydrology.

Data Point 25A OUT (DP-25A-OUT) was taken east of DP-25-IN. The sapling/shrub stratum was dominated by *Lonicera maackii* (Amur honeysuckle, UPL, 20%). The herbaceous stratum was dominated by *Poa pratensis* (Kentucky blue grass, FAC, 25%), *Juncus effuses* (lamp rush, OBL, 25%), and *Schedonorus arundinaceus* (tall false rye grass, FACU, 20%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited

the Depleted Matrix (F3) indicator. No wetland hydrology indicators were observed. Since only one of the three wetland criteria were met at DP-25A-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 25, which was determined based on changes in vegetation.

Wetland 25 is a scrub/shrub wetland that is approximately 0.164 acre (497 linear feet) in size. It is located along the south bank of Lick Creek and along the south side of I-465 approximately 330 feet southwest of Madison Avenue (Appendix B141). Wetland 25 has moderate species diversity and is not located within the maintained portion of INDOT’s right-of-way. Because of this, it was classified as an average-quality wetland. Wetland 25 is adjacent to Lick Creek, a likely water of the U.S. This wetland is likely a water of the U.S. due to this connectivity.

Wetland 26

The area associated with Data Point 26-IN (DP-26-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Phalaris arundinacea* (reed canary grass, FACW, 33%), *Equisetum arvense* (field horsetail, FAC, 20%), and *Schedonorus arundinaceus* (tall false rye grass, FACU, 20%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Redox Dark Surface (F6) indicator. Four primary indicators (Surface Water [A1], High Water Table [A2], Saturation [A3], and Oxidized Rhizospheres on Living Roots [C3]) of hydrology were observed. Since all three wetland criteria were met at DP-26-IN, this area was identified as Wetland 26.

Data Point 26-OUT (DP-26-OUT) was taken adjacent to DP-26-IN. This herbaceous stratum was dominated by *Equisetum arvense* (field horsetail, FACW, 30%), *Solidago altissima* (tall goldenrod, FACU, 20%), and *Schedonorus arundinaceus* (tall false rye grass, FACU, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No hydrology indicators were observed. Since none of the three wetland criteria were met at DP-26-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 26, which was determined based on changes in vegetation.

Wetland 26 is an emergent wetland that is approximately 0.002 acre (15 linear feet) in size. It is located at an underdrain outlet along the north side of I-465 approximately 2,340 feet southwest of Madison Avenue (Appendix B141). Wetland 26 was dominated by reed canary grass and is located within INDOT’s maintained right-of-way. Therefore, it was classified as a poor-quality wetland. Wetland 26 is located on the roadside embankment. It is connected to UNT 11 to Lick Creek, a likely water of the U.S. This wetland is likely a water of the U.S. due to this connectivity.

Wetland 27

The area associated with Data Point 27 IN (DP-27-IN) was evaluated because it exhibited hydrophytic vegetation). The herbaceous stratum was dominated by *Juncus effusus* (lamp rush, OBL, 70%) and *Rumex crispus* (curly dock, FAC, 20%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11), Depleted Matrix (F3), and Redox Dark Surface (F6) indicators. Two primary indicators (Saturation [A3] and Oxidized Rhizospheres on Living Roots [C3]) and one secondary indicator (FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-27-IN, this area was identified as Wetland 27.

Data Point 27 OUT (DP-27-OUT) was taken upslope and east of DP-27-IN. The sapling/shrub stratum was dominated by *Morus rubra* (red mulberry, FACU, 2%), *Lonicera maackii* (Amur honeysuckle, UPL, 2%), and *Prunus serotina* (black cherry, FACU, 2%). The herbaceous stratum was dominated by *Poa pratensis* (Kentucky blue grass, FAC, 50%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No hydrology indicators were observed. Since none of the three wetland criteria were met at DP-27-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 27, which was determined based on changes in vegetation.

Wetland 27 is an emergent wetland that is approximately 0.003 acre (20 linear feet) in size. It is located at an underdrain outlet along the south side of I-465 approximately 665 feet east of East Street (Appendix B142). Wetland 27 has low species diversity and is located within INDOT’s maintained right-of-way. Because of this, it was classified as a poor-quality

wetland. Wetland 27 is located on the roadside embankment. Due to its connection to Lick Creek via a pipe culvert under eastbound I-465, this wetland is likely a water of the U.S.

Wetland 28

The area associated with Data Point 28 IN (DP-28-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 70%) and *Lythrum salicaria* (purple loosestrife, OBL, 20%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Two primary indicators (High Water Table [A2] and Saturation [A3]) and one secondary indicator (FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-28-IN, this area was identified as Wetland 28.

Data Point 28 OUT (DP-28-OUT) was taken east of DP-28-IN. The herbaceous stratum was dominated by *Poa pratensis* (Kentucky blue grass, FAC, 60%) and *Cirsium arvense* (Canadian thistle, FACU, 25%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No hydrology indicators were observed. Since none of the three wetland criteria were met at DP-28-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 28, which was determined based on changes in vegetation.

Wetland 28 is an emergent wetland that is approximately 0.003 acre (20 linear feet) in size. It is located at an underdrain outlet along the north side of eastbound I-465 approximately 745 feet east of East Street (Appendix B142). Wetland 28 was dominated by cattails and purple loosestrife and is located within INDOT’s maintained right-of-way. Therefore, it was classified as a poor-quality wetland. Wetland 28 is located on the roadside embankment and is connected to Lick Creek, a likely water of the U.S. This wetland is a likely water of the U.S. due to this connectivity.

Wetland 29

The area associated with Data Point 29 IN (DP-29-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Leersia virginica* (white grass, FACW, 40%) and *Schedonorus arundinaceus* (tall false rye grass, FACU, 20%). This point met the hydrophytic vegetation criterion because it passed the Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11), Depleted Matrix (F3), and Redox Dark Surface (F6) indicators. Three primary indicators (Surface Water [A1], Algal Mat or Crust [B4], and Oxidized Rhizospheres on Living Roots [C3]) and one secondary indicator (Geomorphic Position [D2]) of hydrology were observed. Since all three wetland criteria were met at DP-29-IN, this area was identified as Wetland 29.

Data Point 29 OUT (DP-29-OUT) was taken within the roadside ditch southwest of DP-29-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 61%) and *Poa pratensis* (Kentucky blue grass, FAC, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. Only one secondary indicator (Geomorphic Position [D2]) of hydrology was observed. Since none of the three wetland criteria were met at DP-29-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 29, which was determined based on changes in vegetation.

Wetland 29 is an emergent wetland that is approximately 0.008 acre (73 linear feet) in size. It is located within the roadside ditch along the north side of I-465 approximately 290 feet southeast of East Street (Appendix B145). Wetland 29 has low species diversity and is located within INDOT’s maintained right-of-way. Because of this, it was classified as a poor-quality wetland. The soils at this location were mapped as predominately non-hydric (1-32%). Wetland 29 is entirely contained within the roadside ditch, which was excavated in dry land, drains only dry land, and only has ephemeral flow. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 29 would likely be classified as a Class I wetland under the jurisdiction of IDEM. Therefore, it is potentially an “exempt isolated wetland” under 327 IAC 17-1-3(7).

Wetland 30

The area associated with Data Point 30 IN (DP-30-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Juncus effusus* (lamp rush, OBL, 98%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil

criterion because it exhibited the Depleted Matrix (F3) indicator. Two primary indicators (Surface Water [A1] and Saturation [A3]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-30-IN, this area was identified as Wetland 30.

Data Point 30 OUT (DP-30-OUT) was taken within the roadside ditch southeast of DP-30-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 40%), *Cirsium arvense* (Canadian thistle, FACU, 20%), and *Poa pratensis* (Kentucky blue grass, FAC, 20%) in the herbaceous stratum. This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. Only one secondary indicator (Geomorphic Position [D2]) of hydrology was observed. Since none of the three wetland criteria were met at DP-30-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 30, which was determined based on changes in vegetation.

Wetland 30 is an emergent wetland that is approximately 0.003 acre (23 linear feet) in size. It is located within the roadside ditch along the north side of I-465 approximately 190 feet northwest of East Street (Appendix B145). Wetland 30 has low species diversity and is located within INDOT’s maintained right-of-way. Because of this, it was classified as a poor-quality wetland. The soils at this location were mapped as predominately non-hydric (1-32%). Wetland 30 is entirely contained within the roadside ditch, which was excavated in dry land, drains only dry land, and only has ephemeral flow. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 30 would likely be classified as a Class I wetland under the jurisdiction of IDEM. Therefore, it is potentially an “exempt isolated wetland” under 327 IAC 17-1-3(7).

Wetland 31

The area associated with Data Point 31 IN (DP-31-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 100%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. Three primary indicators (Surface Water [A1], High Water Table [A2], and Saturation [A3]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-31-IN, this area was identified as Wetland 31.

Data Point 31 OUT (DP-31-OUT) was taken within the roadside ditch southwest of DP-31-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 60%) and *Poa pratensis* (Kentucky blue grass, FAC, 40%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. One primary indicator (Saturation [A3]) and one secondary indicator (Geomorphic Position [D2]) of hydrology were observed. Since only one of the three wetland criteria were met at DP-31-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 31, which was determined based on changes in vegetation.

Wetland 31 is an emergent wetland that is approximately 0.005 acre (30 linear feet) in size. It is located within the roadside ditch along the north side of I-465 within the East Street interchange approximately 315 feet west of East Street (Appendix B146). Wetland 31 is dominated by cattails and is located within INDOT’s maintained right-of-way. Because of this, it was classified as a poor-quality wetland. Wetland 31 is not entirely contained within a roadside ditch and expands up the adjacent side slope. Due to its likely connection to the potential stream located within the roadside ditch northwest of the I-465 and East Street interchange which is likely connect to Lick Creek, this wetland is likely water of the U.S.

Wetland 32

The area associated with Data Point 32 IN (DP-32-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 60%) and *Schedonorus arundinaceus* (tall false rye grass, FACU, 35%). This point met the hydrophytic vegetation criterion because it passed the Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Three primary indicators (Surface Water [A1], High Water Table [A2], and Saturation [A3]) and one secondary indicator (Geomorphic Position [D2]) of hydrology were observed. Since all three wetland criteria were met at DP-32-IN, this area was identified as Wetland 32.

Data Point 32 OUT (DP-32-OUT) was taken within the roadside ditch northwest of DP-32-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 60%) and *Poa pratensis* (Kentucky blue grass, FAC, 25%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. Three primary indicators (High Water Table [A2], Saturation [A3], and Water-Stained Leaves [B9]) and one secondary indicator (Geomorphic Position [D2]) of hydrology were observed. Since only one of the three wetland criteria were met at DP-32-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 32, which was determined based on changes in vegetation.

The area associated with Data Point 32A IN (DP-32A-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Leersia oryzoides* (rice cut grass, OBL, 50%) and *Echinochloa crus-galli* (large barnyard grass, FACW, 30%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Three primary indicators (Surface Water [A1], High Water Table [A2], and Saturation [A3]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-32A-IN, this area was identified as Wetland 32.

Data Point 32A OUT (DP-32A-OUT) was taken upslope and north of DP-32A-IN. The herbaceous stratum was dominated by *Panicum virgatum* (wand panic grass, FAC, 50%) and *Schedonorus arundinaceus* (tall false rye grass, FACU, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No indicators of hydrology were observed. Since none of the three wetland criteria were met at DP-32A-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 32, which was determined based on changes in vegetation.

Wetland 32 is an emergent wetland that is approximately 0.029 acre (220 linear feet) in size. It is located along the north side of I-465 approximately 580 feet west of East Street (Appendix B148). Wetland 32 has a low species diversity and is located within INDOT’s maintained right-of-way. Because of this, it was classified as a poor-quality wetland. The soils at this location were mapped as predominately non-hydric (1-32%). Wetland 32 is entirely contained within the roadside ditch, which was excavated in dry land, drains only dry land, and only has ephemeral flow. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 32 would likely be classified as a Class I wetland under the jurisdiction of IDEM. Therefore, it is potentially an “exempt isolated wetland” under 327 IAC 17-1-3(7).

Wetland 33

The area associated with Data Point 33 IN (DP-33-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 100%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. Two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-33-IN, this area was identified as Wetland 33.

Data Point 33 OUT (DP-33-OUT) was taken within the roadside ditch east of DP-33-IN. The herbaceous stratum was dominated by *Poa pratensis* (Kentucky blue grass, FAC, 35%), *Bromus arvensis* (field brome, FACU, 30%), and *Schedonorus arundinaceus* (tall false rye grass, FACU, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. Only one secondary indicator (Geomorphic Position [D2]) of hydrology was observed. Since none of the three wetland criteria were met at DP-33-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 33, which was determined based on changes in vegetation.

Wetland 33 is an emergent wetland that is approximately 0.015 acre (23 linear feet) in size. It is located along the north side of I-465 approximately 840 feet west of East Street (Appendix B147). Wetland 30 was dominated by cattails and is located within INDOT’s maintained right-of-way. Because of this, it was classified as a poor-quality wetland. The soils at this location were mapped as predominately non-hydric (1-32%). Wetland 33 is entirely contained within the roadside ditch, which was excavated in dry land, drains only dry land, and only has ephemeral flow. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 33 would likely be classified as a Class I wetland under the jurisdiction of IDEM. Therefore, it is potentially an “exempt isolated wetland” under 327 IAC 17-1-3(7).

Wetland 34

The area associated with Data Point 34 IN (DP-34-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Carex lurida* (shallow sedge, OBL, 25%), *Typha sp.* (cattail, OBL, 20%), and *Scirpus atrovirens* (dark-green bulrush, OBL, 20%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. Three primary indicators (High Water Table [A2], Saturation [A3], and Oxidized Rhizospheres on Living Roots [C3]) and one secondary indicator (FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-34-IN, this area was identified as Wetland 34.

Data Point 34 OUT (DP-34-OUT) was taken on the hillslope northwest of DP-34-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 25%), *Carex lurida* (shallow sedge, OBL, 20%), and *Lonicera japonica* (Japanese honeysuckle, FACU, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No indicators of hydrology were observed. Since none of the three wetland criteria were met at DP-34-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 34, which was determined based on changes in vegetation.

Wetland 34 is an emergent wetland that is approximately 0.023 acre (130 linear feet) in size. It is located along the north side of I-465 approximately 355 feet northwest of Mann Road (Appendix B150). Wetland 34 has low species diversity, is dominated by cattails, and is located within INDOT’s maintained right-of-way. Because of this, it was classified as a poor-quality wetland. Wetland 34 is connected to UNT 2 to State Ditch, a likely water of the U.S that passes through this wetland. This wetland is likely a water of the U.S. due to this connectivity.

Wetland 35

The area associated with Data Point 35 IN (DP-35-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 60%) and *Phalaris arundinacea* (reed canary grass, FACW, 30%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Redox Dark Surface (F6) indicator. Two primary indicators (Surface Water [A1] and Drift Deposits [B3]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-35-IN, this area was identified as Wetland 35.

Data Point 35 OUT (DP-35-OUT) was taken on the upslope and south of DP-35-IN. The herbaceous stratum was dominated by *Poa pratensis* (Kentucky blue grass, FAC, 75%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test. No hydric soil indicators were observed. Only one secondary indicator (Geomorphic Position [D2]) was observed. Since only one of the three wetland criteria were met at DP-35-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 35, which was determined based on changes in topography.

Wetland 35 is an emergent wetland that is approximately 0.045 acre (257 linear feet) in size. It is located along the south side of I-465 approximately 485 feet northwest of Mann Road (Appendix B150). Wetland 35 is not entirely contained within the roadside ditch and expands well beyond the fringe. Wetland 35 was dominated by cattails and is located within INDOT’s maintained right-of-way. Because of this, it was classified as a poor-quality wetland. Wetland 35 is connected to UNT 1 to State Ditch, a likely water of the U.S. that passes through this wetland. This wetland is likely a water of the U.S. due to this connectivity.

Wetland 36

The area associated with Data Point 36 IN (DP-36-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 100%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Hydrogen Sulfide (A4) and Redox Dark Surface (F6) indicators. Four primary indicators (Surface Water (A1), High Water Table [A2], Saturation [A3], and Hydrogen Sulfide Odor [C1]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-36-IN, this area was identified as Wetland 36.

Data Point 36 OUT (DP-36-OUT) was taken upslope and south of DP-36-IN. The sapling/shrub stratum was dominated by *Lonicera maackii* (Amur honeysuckle, UPL, 70%). The herbaceous stratum was dominated by *Lonicera maackii* (10%), *Carex sp.* (unidentified Carex., NI, 10%), and *Gleditsia triacanthos* (honey-locust, FACU, 5%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. Only one secondary indicator (Geomorphic Position [D2]) of hydrology was observed. Since none of the three wetland criteria were met at DP-36-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 36, which was determined based on changes in vegetation and topography.

Wetland 36 is an emergent wetland that is approximately 0.043 acre (319 linear feet) in size. It is located along the south side of I-465 approximately 45 feet northwest of Mooresville Road Bypass (Appendix B154-155). Wetland 36 is not entirely contained within the roadside ditch and expands well beyond the fringe. Wetland 36 was dominated by cattails and is located within INDOT’s maintained right-of-way. Because of this, it was classified as a poor-quality wetland. Wetland 36 is connected to UNT 1 to State Ditch, a likely water of the U.S. that passes through this wetland. This wetland is likely a water of the U.S. due to this connectivity.

Wetland 37

The area associated with Data Point 37 IN (DP-37-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Scirpus atrovirens* (dark-green bulrush, OBL, 70%) and *Schedonorus arundinaceus* (tall false rye grass, FACU, 20%). This point met the hydrophytic vegetation criterion because it passed the Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11), Depleted Matrix (F3), and Redox Dark Surface (F6) indicators. Three primary indicators (Surface Water [A1], High Water Table [A2], and Saturation [A3]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-37-IN, this area was identified as Wetland 37.

Data Point 37 OUT (DP-37-OUT) was taken within the roadside ditch northwest of DP-37-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 90%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. Two primary indicators (Surface Water [A1] and Saturation [A3]) and two secondary indicators (Crayfish Burrows [C8] and Geomorphic Position [D2]) of hydrology were observed. Since only two of the three wetland criteria were met at DP-37-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 37, which was determined based on changes in vegetation.

Wetland 37 is an emergent wetland that is approximately 0.023 acre (146 linear feet) in size. It is located along the southwest side of I-465 approximately 1,000 feet southeast of Kentucky Avenue (Appendix B156). Wetland 37 had low species diversity and is located within INDOT’s maintained right-of-way. Because of this, it was classified as a poor-quality wetland. The soils at this location were mapped as predominately non-hydric (1-32%). Wetland 37 is entirely contained within the roadside ditch, which was excavated in dry land, drains only dry land, and only has ephemeral flow. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 37 would likely be classified as a Class I wetland under the jurisdiction of IDEM. Therefore, it is potentially an “exempt isolated wetland” under 327 IAC 17-1-3(7).

Wetland 38

The area associated with Data Point 38 IN (DP-38-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 100%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) and Redox Dark Surface (F6) indicators. Four primary indicators (Surface Water [A1], High Water Table [A2], Saturation [A3], and Oxidized Rhizospheres on Living Roots [C3]) and three secondary indicators (Crayfish Burrows [C8], Geomorphic Position [D2], and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-38-IN, this area was identified as Wetland 38.

Data Point 38 OUT (DP-38-OUT) was taken upslope and north of DP-38-IN. The sapling/shrub stratum was dominated by *Fraxinus pennsylvanica* (green ash, FACW, 10%). The herbaceous stratum was dominated by *Schedonorus arundinaceus*

(tall false rye grass, FACU, 45%), *Solidago altissima* (tall goldenrod, FACU, 30%), and *Poa pratensis* (Kentucky blue grass, FAC, 20%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Redox Dark Surface (F6) indicator. No indicators of hydrology were observed. Since only one of the three wetland criteria were met at DP-38-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 38, which was determined based on changes in vegetation and topography.

The area associated with Data Point 38A IN (DP-38A-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 60%) and *Juncus tenuis* (lesser poverty rush, FAC, 30%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. Two primary indicators (Saturation [A3] and Algal Mat or Crust [B4]) and one secondary indicator (FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-38A-IN, this area was identified as Wetland 38.

Data Point 38A OUT (DP-38A-OUT) was taken southeast of DP-38A-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 80%) and *Poa pratensis* (Kentucky blue grass, FAC, 20%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. No indicators of hydrology were observed. Since only one of the three wetland criteria were met at DP-38A-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 38, which was determined based on changes in vegetation and topography.

Wetland 38 is an emergent wetland that is approximately 0.410 acre (470 linear feet) in size. It is located within the southwest infield of the I-465/Kentucky Avenue interchange (Appendix B156-157 and 159). Wetland 38 was dominated by cattails and is located within INDOT's maintained right-of-way. Because of this, it was classified as a poor-quality wetland. Wetland 38 is connected to UNT 1 to Dollar Hide Creek, a likely water of the U.S. This wetland is likely a water of the U.S. due to this connectivity.

Wetland 39

The area associated with Data Point 39 IN (DP-39-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 55%) and *Eleocharis acicularis* (needle spike-rush, OBL, 40%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11), Depleted Matrix (F3), and Redox Dark Surface (F6) indicators. Two primary indicators (Algal Mat or Crust [B4] and Oxidized Rhizospheres on Living Roots [C3]) and two secondary indicators (Crayfish Burrows [C8] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-39-IN, this area was identified as Wetland 39.

Data Point 39 OUT (DP-39-OUT) was taken upslope and northwest of DP-39-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 75%) and *Juncus tenuis* (lesser poverty rush, FAC, 25%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. One primary indicator (Oxidized Rhizospheres on Living Roots [C3]) of hydrology was observed. Since only two of the three wetland criteria were met at DP-39-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 39, which was determined based on changes in vegetation and topography.

Wetland 39 is an emergent wetland that is approximately 0.157 acre (361 linear feet) in size. It is located within the southwest infield of the I-465/Kentucky Avenue interchange (Appendix B157 and 159). Wetland 39 is not entirely contained within the roadside ditch and expands well beyond the fringe. Wetland 39 was dominated by cattails and is located within INDOT's maintained right-of-way. Because of this, it was classified as a poor-quality wetland. Wetland 39 is connected to UNT 1 to Dollar Hide Creek, a likely water of the U.S. that passes through this wetland. This wetland is likely a water of the U.S. due to this connectivity.

Wetland 40

The area associated with Data Point 40 IN (DP-40-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 100%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Hydrogen Sulfide (A4) and Redox Dark Surface (F6) indicators. Four primary indicators (Surface Water [A1], High Water Table [A2], Saturation [A3], and Hydrogen Sulfide Odor [C1]) and three secondary indicators (Crayfish Burrows [C8], Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-40-IN, this area was identified as Wetland 40.

Data Point 40 OUT (DP-40-OUT) was taken upslope and southeast of DP-40-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 60%) and *Securigera varia* (crownvetch, UPL, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No indicators of hydrology were observed. Since none of the three wetland criteria were met at DP-40-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 40, which was determined based on changes in vegetation and topography.

The area associated with Data Point 40A IN (DP-40A-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Juncus tenuis* (lesser poverty rush, FAC, 40%) and *Typha sp.* (cattail, OBL, 40%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11), Depleted Matrix (F3), and Redox Dark Surface (F6) indicators. Three primary indicators (Surface Water [A1], Saturation [A3], and Oxidized Rhizospheres on Living Roots [C3]) and two secondary indicators (Crayfish Burrows [C8] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-40A-IN, this area was identified as Wetland 40.

Data Point 40A OUT (DP-40A-OUT) was taken upslope and southeast of DP-40A-IN. The herbaceous stratum was dominated by *Apocynum cannabinum* (Indian hemp, FAC, 40%), *Poa pratensis* (Kentucky blue grass, FAC, 25%), and *Schedonorus arundinaceus* (tall false rye grass, FACU, 20%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test. No hydric soil indicators were observed. One primary indicator (Saturation [A3]) of hydrology was observed. Since only two of the three wetland criteria were met at DP-40A-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 40, which was determined based on changes in topography.

Wetland 40 is an emergent wetland that is approximately 0.461 acre (580 linear feet) in size. It is located within the northeast infield of the I-465/Kentucky Avenue interchange (Appendix B157-58). Wetland 40 was dominated by cattails and is located within INDOT’s maintained right-of-way. Because of this, it was classified as a poor-quality wetland. Wetland 40 is connected to UNT 1 to Dollar Hide Creek, a likely water of the U.S. that enters and exits this wetland. This wetland is likely a water of the U.S. due to this connectivity.

Wetland 41

The area associated with Data Point 41 IN (DP-41-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 60%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. Three primary indicators (Surface Water [A1], Saturation [A3], and Oxidized Rhizospheres on Living Roots [C3]) and three secondary indicators (Crayfish Burrows [C8], Geomorphic Position [D2], and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-41-IN, this area was identified as Wetland 41.

Data Point 41 OUT (DP-41-OUT) was taken within the roadside ditch northwest of DP-41-IN. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 88%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. Only one secondary indicator (Geomorphic Position [D2]) was observed. Since none of the three wetland criteria were met at DP-41-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 41, which was determined based on changes in vegetation.

Wetland 41 is an emergent wetland that is approximately 0.010 acre (75 linear feet) in size. It is located along the northeast side of I-465 off-ramp to Kentucky Avenue approximately 145 feet southeast of Kentucky Avenue (Appendix B158). Wetland 41 was dominated by cattails and is located within INDOT’s maintained right-of-way. Because of this, it was classified as a poor-quality wetland. The soils at this location were mapped as predominately non-hydric (1-32%). Wetland 41 is entirely contained within the roadside ditch, which was excavated in dry land, drains only dry land, and only has ephemeral flow. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 41 would likely be classified as a Class I wetland under the jurisdiction of IDEM. Therefore, it is potentially an “exempt isolated wetland” under 327 IAC 17-1-3(7).

Wetland 42

The area associated with Data Point 42 IN (DP-42-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 90%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Hydrogen Sulfide (A4) and Redox Dark Surface (F6) indicators. Four primary indicators (Surface Water [A1], High Water Table [A2], Saturation [A3], and Hydrogen Sulfide Odor [C1]) and one secondary indicator (FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-42-IN, this area was identified as Wetland 42.

Data Point 42 OUT (DP-42-OUT) was taken on the hillslope northwest of DP-42-IN. The sapling/shrub stratum was dominated by *Lonicera maackii* (Amur honeysuckle, UPL, 10%). The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 40%) and *Dipsacus fullonum* (Fuller’s teasel, FACU, 20). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No wetland hydrology indicators were observed. Since none of the three wetland criteria were met at DP-42-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 42, which was determined based on changes in vegetation.

Wetland 42 is an emergent wetland that is approximately 0.002 acre (17 linear feet) in size. It is located at an underdrain outlet along the southwest side of I-465 on-ramp from Kentucky Avenue approximately 275 feet southeast of Kentucky Avenue (Appendix B159). Wetland 42 was dominated by cattails and is located within INDOT’s maintained right-of-way. Therefore, it was classified as a poor-quality wetland. Due to its close proximity and connection to the floodplain of Dollar Hide Creek (southwest of study area), this wetland is likely a water of the U.S.

Wetland 43

The area associated with Data Point 43 IN (DP-43-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 85%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Two primary indicators (Surface Water [A1] and Algal Mat or Crust [B4]) and one secondary indicator (FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-43-IN, this area was identified as Wetland 43.

Data Point 43 OUT (DP-43-OUT) was taken on the hillslope northwest of DP-43-IN. The sapling/shrub stratum was dominated by *Malus sp.* (crabapple, NI, 5%). The herbaceous stratum was dominated by *Bromus arvensis* (field brome, FACU, 35%), *Solidago altissima* (tall goldenrod, FACU, 25%), *Schedonorus arundinaceus* (tall false rye grass, FACU, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No wetland hydrology indicators were observed. Since none of the three wetland criteria were met at DP-43-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 43, which was determined based on changes in vegetation.

Wetland 43 is an emergent wetland that is approximately 0.007 acre (42 linear feet) in size. It is located at an underdrain outlet along the southwest side of I-465 approximately 250 feet northwest of Kentucky Avenue (Appendix B160). Wetland 43 was dominated by cattails and is located within INDOT’s maintained right-of-way. Therefore, it was classified as a poor-quality wetland. Wetland 43 is entirely on the roadside embankment and is not hydrologically connected to another likely water of the U.S. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 43

would likely be classified as a Class I wetland under the jurisdiction of the IDEM. Therefore, it is potentially an “exempt isolated wetland” under 327 IAC 17-1-3(7).

Wetland 44

The area associated with Data Point 44 IN (DP-44-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 70%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Two primary indicators (Saturation [A3] and Oxidized Rhizospheres on Living Roots [C3]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-44-IN, this area was identified as Wetland 44.

Data Point 44 OUT (DP-44-OUT) was taken within the roadside ditch north of DP-44-IN. The herbaceous stratum was dominated by *Poa pratensis* (Kentucky blue grass, FAC, 30%), *Dipsacus fullonum* (Fuller’s teasel, FACU, 20%), *Solidago altissima* (tall goldenrod, FACU, 20%), and *Schedonorus arundinaceus* (tall false rye grass, FACU, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. Only one secondary indicator (Geomorphic Position [D2]) of hydrology was observed. Since none of the three wetland criteria were met at DP-44-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 44, which was determined based on changes in vegetation.

Wetland 44 is an emergent wetland that is approximately 0.049 acre (222 linear feet) in size. It is located along the west side of I-465 approximately 380 feet south of Hanna Avenue (Appendix B161). Wetland 44 was dominated by cattails and is located within INDOT’s maintained right-of-way. Therefore, it was classified as a poor-quality wetland. Wetland 44 is not entirely contained within a roadside ditch and extends west into the adjacent property. There is a pipe culvert within the northern end of Wetland 44 that extends off-site toward the northwest. Due to its likely connection to Dollar Hide Creek via the pipe culvert, this wetland is likely a water of the U.S.

Wetland 45

The area associated with Data Point 45 IN (DP-45-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 65%) and *Juncus effusus* (lamp rush, OBL, 20%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Three primary indicators (Surface Water [A1], Algal Mat or Crust [B4], and Oxidized Rhizospheres on Living Roots [C3]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-45-IN, this area was identified as Wetland 45.

Data Point 45 OUT (DP-45-OUT) was taken upslope and west of DP-45-IN. The herbaceous stratum was dominated by *Solidago altissima* (tall goldenrod, FACU, 50%) and *Dipsacus fullonum* (Fuller’s teasel, FACU, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No indicators of hydrology were observed. Since none of the three wetland criteria were met at DP-45-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 45, which was determined based on changes in vegetation and topography.

Wetland 45 is an emergent wetland that is approximately 0.032 acre (194 linear feet) in size. It is located along the northeast side of I-465 approximately 620 feet northwest of Kentucky Avenue (Appendix B161). Wetland 45 was dominated by cattails and is located within INDOT’s maintained right-of-way. Because of this, it was classified as a poor-quality wetland. The soils at this location were mapped as predominately non-hydric (1-32%). Wetland 45 is entirely contained within the roadside ditch, which was excavated in dry land, drains only dry land, and only has ephemeral flow. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 45 would likely be classified as a Class I wetland under the jurisdiction of IDEM. Therefore, it is potentially an “exempt isolated wetland” under 327 IAC 17-1-3(7).

Wetland 46

The area associated with Data Point 46 IN (DP-46-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 90%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Two primary indicators (High Water Table [A2] and Saturation [A3]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-46-IN, this area was identified as Wetland 46.

Data Point 46 OUT (DP-46-OUT) was taken upslope and south of DP-46-IN. The sapling/shrub stratum was dominated by *Lonicera maackii* (Amur honeysuckle, UPL, 10%). The herbaceous stratum was dominated by *Solidago altissima* (tall goldenrod, FACU, 70%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No indicators of hydrology were observed. Since none of the three wetland criteria were met at DP-46-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 46, which was determined based on changes in vegetation and topography.

Data Point 46A OUT (DP-46A-OUT) was taken north of DP-46-IN. The herbaceous stratum was dominated by *Securiga varia* (crownvetch, UPL, 25%), *Solidago altissima* (tall goldenrod, FACU, 20%), and *Schendonorus arundinaceus* (tall false rye grass, FACU, 15%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No indicators of hydrology were observed. Since none of the three wetland criteria were met at DP-46A-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 46, which was determined based on changes in vegetation and topography.

Wetland 46 is an emergent wetland that is approximately 0.158 acre (739 linear feet) in size. It is located along the east side of I-465 approximately 40 feet south of Hanna Avenue (Appendix B161-162). Wetland 46 was dominated by cattails and is located within INDOT’s maintained right-of-way. Because of this, it was classified as a poor-quality wetland. The soils at this location were mapped both as predominately non-hydric (1-32%) and predominantly hydric (66-99%). Wetland 46 is entirely contained within the roadside ditch, which was excavated in dry land, drains only dry land, and only has ephemeral flow. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 46 would likely be classified as a Class I wetland under the jurisdiction of IDEM. Therefore, it is potentially an “exempt isolated wetland” under 327 IAC 17-1-3(7).

Wetland 47

The area associated with Data Point 47 IN (DP-47-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 70%) and *Juncus effuses* (lamp rush, OBL, 30%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Hydrogen Sulfide (A4), Depleted Matrix (F3), and Redox Dark Surface (F6) indicators. Three primary indicators (Surface Water [A1], Saturation [A3], and Hydrogen Sulfide Odor [C1]) and three secondary indicators (Crayfish Burrows [C8], Geomorphic Position [D2], and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-47-IN, this area was identified as Wetland 47.

Data Point 47 OUT (DP-47-OUT) was taken upslope and south of DP-47-IN. The sapling/shrub stratum was dominated by *Lonicera maackii* (bush honeysuckle, UPL, 5%). The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 30%), *Securigera varia* (crownvetch, UPL, 30%), and *Solidago altissima* (tall goldenrod, FACU, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No wetland hydrology indicators were observed. Since none of the three wetland criteria were met at DP-47-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 47, which was determined based on changes in vegetation and topography.

Wetland 47 is an emergent wetland that is approximately 0.428 acre (1,145 linear feet) in size. It is located along the east side of I-465 approximately 45 feet north of Hanna Avenue (Appendix B162-164). Wetland 47 was dominated by cattails and is located within INDOT’s maintained right-of-way. Therefore, it was classified as a poor-quality wetland. Wetland 47

is partially contained within a roadside ditch and expands up the side slope. It also extends outside of the study area to the north and is likely connected to Seerley Creek. This wetland is likely a water of the U.S. due to this connectivity.

Wetland 48

The area associated with Data Point 48 IN (DP-48-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Typha sp.* (cattail, OBL, 80%). This point met the hydrophytic vegetation criterion because it passed the Rapid Test, Dominance Test, and Prevalence Index. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Two primary indicators (Saturation [A3] and Oxidized Rhizospheres on Living Roots [C3]) and three secondary indicators (Crayfish Burrows [C8], Geomorphic Position [D2], and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-48-IN, this area was identified as Wetland 48.

Data Point 48 OUT (DP-48-OUT) was taken upslope and west of DP-48-IN. The sapling/shrub stratum was dominated by *Malus sp.* (crabapple, NI, 5%). The herbaceous stratum was dominated by *Poa pratensis* (Kentucky blue grass, FAC, 40%) and *Solidago altissima* (tall goldenrod, FACU, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No indicators of hydrology were observed. Since none of the three wetland criteria were met at DP-48-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 48, which was determined based on changes in vegetation and topography.

Wetland 48 is an emergent wetland that is approximately 0.352 acre (1,084 linear feet) in size. It is located along the west side of I-465 approximately 110 feet north of Hanna Avenue (Appendix B162-164). Wetland 48 was dominated by cattails and is located within INDOT’s maintained right-of-way. Because of this, it was classified as a poor-quality wetland. The soils at this location were mapped as predominately non-hydric (1-32%). Wetland 48 is entirely contained within the roadside ditch, which was excavated in dry land, drains only dry land, and only has ephemeral flow. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland 48 would likely be classified as a Class I wetland under the jurisdiction of IDEM. Therefore, it is potentially an “exempt isolated wetland” under 327 IAC 17-1-3(7).

Non-Jurisdictional Features:

Additional Data Points

Several additional data points were investigated throughout the study area due to the presence of hydrophytic vegetation. The sample area surrounding these data points was further investigated to confirm or deny the presence of hydric soils and wetland hydrology. A summary of each data point is provided below.

Upland Data Point 1 (UPL-1) was dominated by *Phalaris arundinacea* (reed canary grass, FACW, 47%) and *Impatiens capensis* (spotted touch-me-not, FACW, 20%). This point met the hydrophytic vegetation criterion because it passes the Dominance Test. No hydric soil indicators were observed. No indicators of hydrology were observed. Since only one of the three wetland criteria were met at UPL-1, this area was determined to be upland (Appendix B127).

Upland Data Point 2 (UPL-2) was dominated by *Ceris canadensis* (redbud, FACU, 5%) and *Catalpa speciosa* (northern catalpa, FACU, 5%) in the tree stratum. The sapling/shrub stratum was dominated by *Lonicera maackii* (Amur honeysuckle, UPL, 20%) and *Cornus sp.* (dogwood, FAC, 10%). The herbaceous stratum was dominated by *Phalaris arundinacea* (reed canary grass, FACW, 68%) and *Lonicera japonica* (Japanese honeysuckle, FACU, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No indicators of hydrology were observed. Since none of the three wetland criteria were not met at UPL-2, this area was determined to be upland (Appendix B135).

Upland Data Point 3 (UPL-3) was dominated by *Fraxinus pennsylvanica* (green ash, FACW, 5%) in the tree stratum. The sapling/shrub stratum was dominated by *Lonicera maackii* (Amur honeysuckle, UPL, 20%). The herbaceous stratum was dominated by *Rumex crispus* (curly dock, FAC, 30%) and *Campsis radicans* (trumpet-creeper, FAC, 20%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test. No hydric soil indicators were observed. Two primary indicators (Drift Deposits [B3] and Water-Stained Leaves [B9]) of hydrology were observed. Since only two of the three wetland criteria were met at UPL-3, this area was determined to be upland (Appendix B137).

Upland Data Point 4 (UPL-4) was dominated by *Leersia oryzoides* (rice cut grass, OBL, 40%) and *Solidago altissima* (tall goldenrod, FACU, 20%) in the herbaceous stratum. This point met the hydrophytic vegetation criterion because it passed the Dominance Test. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3). No indicators of hydrology were observed. Since only two of the three wetland criteria were met at UPL-4, this area was determined to be upland (Appendix B139).

Upland Data Point 5 (UPL-5) was dominated by *Juglans nigra* (black walnut, FACU, 20%) in the tree stratum. The sapling/shrub stratum was dominated by *Lonicera maackii* (Amur honeysuckle, UPL, 10%) and *Acer negundo* (ash-leaf maple, FAC, 5%). The herbaceous stratum was dominated by *Carex lurida* (shallow sedge, OBL, 60%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. Two primary indicators (Drift Deposits [B3] and Water-Stained Leaves [B9]) and one secondary indicator (Geomorphic Position [D2]) of hydrology were observed. Since only two of the three wetland criteria were not met at UPL-5, this area was determined to be upland (Appendix B140). Upland Data Point 6 (UPL-6) was dominated by *Lonicera maackii* (Amur honeysuckle, UPL, 20%) and *Acer negundo* (ash-leaf maple, FAC, 5%) in the sapling/shrub stratum. The herbaceous stratum was dominated by *Phalaris arundinacea* (reed canary grass, FACW, 68%) and *Poa pratensis* (Kentucky blue grass, FAC, 20%). This point met the hydrophytic vegetation criterion because it passed the Dominance Test. No hydric soil indicators were observed. No indicators of hydrology were observed. Since only one of the three wetland criteria were not met at UPL-6, this area was determined to be upland (Appendix B141).

Upland Data Point 7 (UPL-7) was dominated by *Juncus effusus* (lamp rush, OBL, 60%) and *Poa pratensis* (Kentucky blue grass, FAC, 25%) in the herbaceous stratum. This point met the hydrophytic vegetation criterion because it passed the Dominance Test. No hydric soil indicators were observed. No indicators of hydrology were observed. Since only one of the three wetland criteria were met at UPL-7, this area was determined to be upland (Appendix B141).

Upland Data Point 8 (UPL-8) was dominated by *Juncus effusus* (lamp rush, OBL, 40%) and *Poa pratensis* (Kentucky blue grass, FAC, 25%) in the herbaceous stratum. This point met the hydrophytic vegetation criterion because it passed the Dominance Test. No hydric soil indicators were observed. No indicators of hydrology were observed. Since only one of the three wetland criteria were met at UPL-8, this area was determined to be upland (Appendix B142).

Upland Data Point 9 (UPL-9) was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 78%) and *Typha sp.* (cattail, OBL, 20%) in the herbaceous stratum. This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. Only one secondary indicator (Geomorphic Position [D2]) of hydrology was observed. Since none of the three wetland criteria were met at UPL-9, this area was determined to be upland (Appendix B145).

Upland Data Point 10 (UPL-10) was dominated by *Carex vulpinoidea* (fox sedge, FACW, 25%) and *Juncus effusus* (lamp rush, OBL, 15%) in the herbaceous stratum. This point met the hydrophytic vegetation criterion because it passed the Dominance Test. No hydric soil indicators were observed. Two primary indicators (Algal Mat or Crust [B4] and Water-Stained Leaves [B9]) of hydrology were observed. Since only two of the three wetland criteria were met at UPL-10, this area was determined to be upland (Appendix B145).

Upland Data Point 11 (UPL-11) was dominated by *Eupatorium perfoliatum* (common boneset, OBL, 20%) and *Poa pratensis* (Kentucky blue grass, FAC, 20%) in the herbaceous stratum. This point met the hydrophytic vegetation criterion because it passed the Dominance Test. No hydric soil indicators were observed. One primary indicator (Saturation [A3]) of hydrology was observed. Since only two of the three wetland criteria were met at UPL-11, this area was determined to be upland (Appendix B148).

Upland Data Point 12 (UPL-12) was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 50%) and *Typha sp.* (cattail, OBL, 25%) and *Solanum dulcamara* (climbing nightshade, FAC, 20%) in the herbaceous stratum. This point met the hydrophytic vegetation criterion because it passed the Dominance Test. No hydric soil indicators were observed. No indicators of hydrology were observed. Since only one of the three wetland criteria were met at UPL-12, this area was determined to be upland (Appendix B154).

Drainage Features

Roadside ditches (RSDs) were observed throughout the study area. All of these were reviewed for potential water resources. RSDs that lacked an OHWM and wetland characteristics were considered non-jurisdictional features.

During an August 15, 2019 field investigation, representatives from USACE and IDEM determined that two previously delineated streams (UNT 3 to Lick Creek and UNT 15 to Lick Creek) will be considered non-jurisdictional RSDs (RSDs 1 and 2).

RSD 1 is located north of I-465 westbound within INDOT’s maintained right-of-way and originates approximately 380 feet west of the I-465/I-65 interchange. Approximately 132 linear feet of this RSD lies within the study area. It was determined that this feature only collected runoff from the roadway and adjacent ditch and channels it eastward toward Wetland 9 (Appendix B130). It was determined that RSD 1 did not exhibit an OHWM or wetland characteristics, and therefore was determined to be a non-jurisdictional drainage feature.

RSD 2 is located within INDOT’s maintained right-of-way in the western infield of the US 31/I-465 interchange and flows into a grated culvert (Appendix B147). Approximately 111 linear feet of this RSD lies within the study area. It was determined that this feature only collected runoff from the roadway and adjacent ditch and channels it westward toward the grated culvert. This RSD did not exhibit an OHWM or wetland characteristics, and therefore was determined to be a non-jurisdictional drainage feature. A re-delineation of the area determined that RSD 2 was surrounded by Wetland 32, likely classified as a Class I wetland under the jurisdiction of the IDEM.

Seven erosional features (EF-1 through EF-7) were identified and mapped within the study area during the field investigations. All of these were reviewed for consideration as streams. They all lacked an OHWM and other stream characteristics.

IV: Conclusions

Based on the field review, the study area has features that are likely waters of the U.S and waters of the State. Twenty-nine likely jurisdictional streams totaling 27,135 linear feet were identified within the study area. Forty-eight total wetlands were identified within the study area totaling 3,536 (11,026 linear feet). Twenty-seven wetlands are likely waters of the U.S. (2.443 acre and 6,379 feet). Twenty-one wetlands are likely waters of the State (1.093 acre and 4,647 feet). No other likely waters of the U.S. or waters of the State were identified within the study area.

All jurisdictional waters of the U.S. are under the regulatory authority of USACE under Section 404 of the Clean Water Act. Every effort should be taken to avoid and minimize impacts to the resources outlined in this report. If impacts are necessary, then mitigation may be required. Impacts must be minimized before mitigation can be considered. 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 and IDEM. This report is our best judgement based on the guidelines set forth by the USACE.

An Approved Jurisdictional Determination Form is attached to the end of this report (Appendix F1 to F8).

V. References

Cowardin, L.M, V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. US Department of the Interior, Fish and Wildlife Service, Washington DC.

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List: 2016 Wetland Ratings*. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

United States Army Corps of Engineers. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)*. US Army Engineer Research and Development Center, Washington DC.

United States Army Corps of Engineers. 1987. Corps of Engineers

United States Department of Agriculture, Soil Conservation Service. 1978. Soil Survey of Marion County, Indiana.

United States Geological Service. March 2019. *StreamStats*, Version 4.3.0.

VI. Acknowledgements

This 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.



Gregory R. Moushon
Senior Environmental Planner
Parsons

Appendix A: Summary Tables

Table 1: Mapped Soil Units within the Study Area A1
Table 2: I-465 Reconfiguration Stream Summary Table A2-3
Table 3: I-465 Reconfiguration Wetland Summary Table..... A4-5
Table 4: Data Point Summary Table..... A6-9

Table 1: Mapped Soil Units within the Study Area

Abbreviation	Soil Name	Classification
Br	Brookston silty clay loam	Predominantly Hydric (66-99%)
CrA	Crosby silt loam	Predominantly non-hydric (1-32%)
Ge	Gessi silt loam	Not Hydric (0%)
MmA	Miami silt loam	Not Hydric (0%)
MmB2	Miami silt loam	Predominantly non-hydric (1-32%)
MmC2	Miami silt loam	Predominantly non-hydric (1-32%)
MxD2	Miami complex	Not Hydric (0%)
Sh	Shoals silt loam	Predominantly non-hydric (1-32%)
Sn	Sloan silt loam	Hydric (100%)
Ua	Udorthents, cut and filled	Predominantly non-hydric (1-32%)
Uc	Urban land-Crosby-Treaty complex	Predominantly non-hydric (1-32%)
UfA	Urban land-Fox complex	Not Hydric (0%)
Ug	Urban land-Genesee complex	Not Hydric (0%)
UmB	Urban land-Miami complex	Not Hydric (0%)
UmC	Urban land-Miami complex	Not Hydric (0%)
Uw	Urban land-Westland complex	Predominantly non-hydric (1-32%)

Table 2: I-465 Reconfiguration Stream Summary Table

Name	Photo Number(s)	Latitude	Longitude	OHWL Width* (feet)	OHWL Depth* (Inches)	USGS Blue-Line (Y/N)	Riffles/Pools (Y/N)	Length In Study Area (feet)	Stream Substrate	Stream Classification	Quality **	OHEI/HHEI Score	Sheet Number(s) ***	Likely Water of the US (Y/N)
McFarland Creek	53-59,160	39.702445	-86.113474	12.0	14	Y	Y/Y	349	Cobble, Gravel, Sand, Silt	Perennial	Average	50	1,3	Y
UNT 1 to McFarland Creek	1,3-4,6-9,18-19,25-27,29-31,35,37-40,42-44,	39.702215	-86.111316	4.9	10	N	N/N	943	Artificial	Ephemeral	Poor	32	1	Y
UNT 2 to McFarland Creek	36-37,	39.702144	-86.112147	1.6	8	N	N/N	58	Sand, Silt, Clay	Ephemeral	Poor	21	1	Y
UNT 3 to McFarland Creek	5-7,10-11,	39.70218	-86.110227	7.0	20	N	N/N	182	Artificial	Intermittent	Poor	27	1	Y
UNT 4 to McFarland Creek	160-161	39.702167	-86.113574	2.0	5	N	N/N	188	Cobble, Gravel, Sand, Silt	Ephemeral	Poor	27	4	Y
Lick Creek****	59,113-117,120,122,125,137,139,264-269,273,287,332-333,342-343,354-355,359,372-373,382-383,428-431,437-440,447-448,464-465,467-470,480-482,488-492,523-524,529,531,538-545,548-552,570,616-624,627-631,634-635	39.698207	-86.144834	32	31	Y	Y/Y	7,127	Boulders, Cobble, Gravel, Sand, Silt, Artificial	Perennial	Average	53****	2,3,4,9,12,13,15,16,19,21,22	Y
UNT 1 to Lick Creek	84-94	39.703419	-86.111187	7.0	6	N	N/Y	328	Cobble, Gravel, Sand	Ephemeral	Average	69	2	Y
UNT 2 to Lick Creek	127-132	39.703717	-86.113966	6.0	6	N	N/N	97	Cobble, Gravel, Sand, Silt	Intermittent	Poor	38	3	Y
UNT 3 to Lick Creek	Per the August 15, 2019 agency field check, this stream was determined to be a non-jurisdictional roadside ditch (RSD 1).													
UNT 4 to Lick Creek	231-234,269,272-273	39.700818	-86.125325	9.0	6	N	N/N	740	Sand, Silt	Intermittent	Poor	38	8,9	Y
UNT 5 to Lick Creek	278-281	39.700818	-86.125325	8.0	8	N	N/N	393	Cobble, Gravel, Sand, Silt	Intermittent	Average	44	9	Y
UNT 6 to Lick Creek	254-255,261-262	39.700237	-86.125477	6.0	6	N	N/N	709	Cobble, Sand, Silt	Ephemeral	Poor	38	8,9	Y
UNT 7 to Lick Creek	315-320	39.698961	-86.135022	6.0	7	N	N/N	201	Cobble, Sand, Silt, Artificial	Intermittent	Poor	33	11,12	Y
UNT 8 to Lick Creek	308-312,315,317-318	39.699397	-86.133737	1.3	6	N	N/N	760	Gravel, Sand, Silt	Ephemeral	Poor	17	11	Y
UNT 9 to Lick Creek	370-371	39.697722	-86.13858	1.0	1	N	N/N	125	Artificial	Ephemeral	Poor	27	13	Y
UNT 10 to Lick Creek	384-385	39.697674	-86.139361	1.4	7	N	N/Y	67	Artificial	Ephemeral	Average	62	13	Y
UNT 11 to Lick Creek	411,414-417,426-429	39.698545	-86.14115	4.0	16	N	N/N	1,320	Cobble, Gravel, Sand	Ephemeral	Average	43	14,15	Y

Table 2: I-465 Reconfiguration Stream Summary Table

Name	Photo Number(s)	Latitude	Longitude	OHWL Width* (feet)	OHWL Depth* (Inches)	USGS Blue-Line (Y/N)	Riffles/Pools (Y/N)	Length In Study Area (feet)	Stream Substrate	Stream Classification	Quality **	QHEI/HHEI Score	Sheet Number(s) ***	Likely Water of the US (Y/N)	
UNT 12 to Lick Creek	408-410	39.698605	-86.139072	2.2	11	N	N/N	60	Gravel, Sand, Silt	Ephemeral	Poor	33	14	Y	
UNT 13 to Lick Creek	459-461	39.697374	-86.141385	1.4	3	N	N/N	93	Artificial	Ephemeral	Poor	12	15	Y	
UNT 14 to Lick Creek	491-494	39.697872	-86.144246	2.3	3	N	N/N	156	Artificial	Ephemeral	Poor	12	16	Y	
UNT 15 to Lick Creek	Per the August 15, 2019 agency field check, this stream was determined to be a non-jurisdictional roadside ditch (RSD 2).														
UNT 1 to State Ditch	641-646,652-656,672-675,678-681,686-687,690-691,711-714,749	39.69479	-86.250913	1.8	9.3	N	N/N	5,152	Gravel, Sand, Silt, Artificial	Ephemeral	Poor	28	23,24,25,26,27,28,29	Y	
UNT 2 to State Ditch	637-639,657-659,664-671,676-677,682-685,688-689,694-696,703-704,743-746	39.695442	-86.251125	3.3	12	N	N/N	5,161	Artificial	Ephemeral	Poor	27	23,24,25,26,27,28,29,30	Y	
UNT 3 to State Ditch	721-724	39.697947	-86.25712	5.5	7	N	N/N	350	Silt	Ephemeral	Poor	27	23,24,25,26,27,28,29,30	Y	
UNT 4 to State Ditch	697-700,734	39.698741	-86.255609	6.0	6	N	N/N	363	Silt	Ephemeral	Poor	27	28,29	Y	
UNT 5 to State Ditch	701-702,737-742	39.698918	-86.255922	4.0	7	N	N/N	338	Gravel, Sand, Silt, Woody Debris	Ephemeral	Poor	33	28,29	Y	
UNT 1 to Dollar Hide Creek	797-802,816-818,839-843	39.702168	-86.258293	4.2	6	N	N/N	1,112	Sand, Silt	Ephemeral	Poor	31	31,33	Y	
UNT 2 to Dollar Hide Creek	829	39.702495	-86.258701	6.5	9	N	N/N	223	Sand, Silt	Ephemeral	Poor	31	31,32	Y	
UNT 3 to Dollar Hide Creek	867-873	39.703124	-86.262616	4.0	5	N	N/N	315	Silt, Artificial	Ephemeral	Poor	28	34	Y	
UNT 4 to Dollar Hide Creek	865-866	39.703269	-86.262091	3.0	3	N	N/N	110	Gravel, Sand, Silt	Ephemeral	Poor	32	34	Y	
UNT 5 to Dollar Hide Creek	876-877	39.703494	-86.262355	3.8	4	N	N/N	115	Gravel, Sand, Silt	Ephemeral	Poor	35	35	Y	
TOTAL									27,135						

* Average OHWM dimensions noted within the study area.

** Quality was based on visual observations within the study area.

*** Refers to the "Field-Identified Resources" maps attached to the Waters of the U.S. Report.

**** Average of three QHEI assessments completed.

Table 3: I-465 Reconfiguration Wetland Summary Table

Name	Photograph Number(s)	Latitude	Longitude	Cowardin Classification*	Waters of the U.S. Area (acre)	Waters of the State Area (acre)	Waters of the U.S. Length (feet)	Waters of the State Length (feet)	Quality	Sheet Number(s)**	Likely Water of the U.S. (Y/N)	Isolated Wetland Classification	Likely Exempt Isolated Wetland (Y/N)
Wetland 1	2,11-15,	39.702346	-86.110290	PEM	0.016	0.000	57	0	Poor	B127	Y	N/A	N
Wetland 2	20-24	39.702225	-86.111403	PEM	0.001	0.000	8	0	Poor	B127	Y	N/A	N
Wetland 3	31-35	39.702240	-86.112274	PEM	0.001	0.000	12	0	Poor	B127	Y	N/A	N
Wetland 4	65-69,71	39.702655	-86.111580	PEM	0.000	0.014	0	94	Poor	B127	N	Class I	Y
Wetland 5	72-76	39.702734	-86.111152	PEM	0.000	0.009	0	45	Poor	B127	N	Class I	Y
Wetland 6	78-86	39.702939	-86.110906	PEM	0.000	0.007	0	51	Poor	B128	N	Class I	Y
Wetland 7	101-105	39.703099	-86.112343	PEM	0.004	0.000	28	0	Poor	B128	Y	N/A	N
Wetland 8	106-110	39.702971	-86.112624	PEM	0.003	0.000	15	0	Poor	B128	Y	N/A	N
Wetland 9	143-148	39.702636	-86.114247	PFO	0.022	0.000	67	0	Average	B129	Y	N/A	N
Wetland 10	162-166	39.702173	-86.113628	PEM	0.055	0.000	153	0	Poor	B130	Y	N/A	N
Wetland 11	167-180	39.701583	-86.117658	PEM	0.319	0.000	1,683	0	Poor	B130,131,132	Y	N/A	N
Wetland 12	191-196	39.701664	-86.119658	PEM	0.000	0.008	0	74	Poor	B132	N	Class I	Y
Wetland 13	197-201	39.701597	-86.120110	PEM	0.000	0.006	0	36	Poor	B132	N	Class I	Y
Wetland 14	217-223	39.701357	-86.121660	PEM	0.000	0.092	0	531	Poor	B133,134	N	Class I	Y
Wetland 15	236-242	39.700973	-86.121376	PEM	0.000	0.073	0	298	Poor	B134	N	Class I	Y
Wetland 16	227-230	39.701079	-86.123287	PEM	0.000	0.004	0	56	Poor	B134	N	Class I	Y
Wetland 17	247-251	39.700858	-86.125147	PSS	0.044	0.000	95	0	Average	B135	Y	N/A	N
Wetland 18	256-260	39.700186	-86.125745	PEM	0.066	0.000	164	0	Poor	B135	Y	N/A	N
Wetland 19	289-293	39.699898	-86.127598	PEM	0.000	0.004	0	37	Poor	B135	N	Class I	Y
Wetland 20	282-286	39.700381	-86.127920	PSS	0.084	0.000	176	0	Average	B135	Y	N/A	N
Wetland 21	298-307	39.699958	-86.130180	PEM	0.000	0.238	0	940	Poor	B136	N	Class I	Y
Wetland 22	323-327	39.699070	-86.132984	PEM	0.000	0.001	0	12	Poor	B137	N	Class I	Y
Wetland 23	377-381	39.698009	-86.139168	PEM	0.027	0.000	90	0	Poor	B139	Y	N/A	N
Wetland 24	441-446	39.697955	-86.13957	PEM	0.006	0.000	22	0	Poor	B141	Y	N/A	N
Wetland 25	449-458	39.697516	-86.140517	PSS	0.164	0.000	497	0	Average	B141	Y	N/A	N
Wetland 26	422-425	39.698564	-86.142898	PEM	0.002	0.000	15	0	Poor	B141	Y	N/A	N
Wetland 27	496-505, 508,513	39.697862	-86.146350	PEM	0.003	0.000	20	0	Poor	B142	Y	N/A	N
Wetland 28	483-487	39.698306	-86.146071	PEM	0.003	0.000	20	0	Poor	B142	Y	N/A	N
Wetland 29	553-559,512	39.699236	-86.147556	PEM	0.000	0.008	0	73	Poor	B145	N	Class I	Y
Wetland 30	571-576	39.699722	-86.149642	PEM	0.000	0.003	0	23	Poor	B145	N	Class I	Y
Wetland 31	588-592	39.700506	-86.150078	PEM	0.005	0.000	30	0	Poor	B146	Y	N/A	N
Wetland 32	600,602-606, 931, 933-935	39.699922	-86.151045	PEM	0.000	0.029	0	220	Poor	B148	N	Class I	Y
Wetland 33	608-613, 615	39.700133	-86.151979	PEM	0.000	0.015	0	23	Poor	B147	N	Class I	Y
Wetland 34	659-663	39.693180	-86.244411	PEM	0.023	0.000	130	0	Poor	B150	Y	N/A	N
Wetland 35	647-651	39.692798	-86.244787	PEM	0.045	0.000	257	0	Poor	B150	Y	N/A	N
Wetland 36	727-733	39.698595	-86.257132	PEM	0.043	0.000	319	0	Poor	B154,155	Y	N/A	N
Wetland 37	750-756	39.699371	-86.258244	PEM	0.000	0.023	0	146	Poor	B156	N	Class I	Y
Wetland 38	771-785	39.700427	-86.260568	PEM	0.410	0.000	470	0	Poor	B156,157,159	Y	N/A	N
Wetland 39	786,838- 839,851-856	39.701172	-86.261586	PEM	0.157	0.000	361	0	Poor	B157,159	Y	N/A	N
Wetland 40	790-791,802- 815,830-831	39.701802	-86.259595	PEM	0.461	0.000	580	0	Poor	B157,158	Y	N/A	N
Wetland 41	823-827	39.702730	-86.259048	PEM	0.000	0.010	0	75	Poor	B158	N	Class I	Y
Wetland 42	768,844-848	39.700047	-86.261700	PEM	0.002	0.000	17	0	Poor	B159	Y	N/A	N
Wetland 43	859-863	39.702362	-86.262213	PEM	0.000	0.007	0	42	Poor	B160	N	Class I	Y
Wetland 44	898-905	39.704759	-86.264251	PEM	0.049	0.000	222	0	Poor	B161	Y	N/A	N
Wetland 45	881-884	39.703863	-86.262701	PEM	0.000	0.032	0	194	Poor	B161	N	Class I	Y
Wetland 46	885-897	39.704979	-86.263529	PEM	0.000	0.158	0	739	Poor	B161,162	N	Class I	Y
Wetland 47	909-918	39.707962	-86.263978	PEM	0.428	0.000	1,145	0	Poor	B162,163,164	Y	N/A	N

Table 3: I-465 Reconfiguration Wetland Summary Table

Name	Photograph Number(s)	Latitude	Longitude	Cowardin Classification*	Waters of the U.S. Area (acre)	Waters of the State Area (acre)	Waters of the U.S. Length (feet)	Waters of the State Length (feet)	Quality	Sheet Number(s)**	Likely Water of the U.S. (Y/N)	Isolated Wetland Classification	Likely Exempt Isolated Wetland (Y/N)
Wetland 48	919-923,925	39.707965	-86.264922	PEM	0.000	0.352	0	1,084	Poor	B162,163,164	N	Class I	Y
Totals:					2.443	1.093	6,379	4,647					

* *Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al., 1979)*

** *Refers to the "Field-Identified Resources" maps attached to the Waters of the U.S. Report.*

Table 4: Data Point Summary Table

Data Point Name	Hydrophytic Vegetation (Y/N)	Hydric Soils (Y/N)	Wetland Hydrology (Y/N)	Wetland (Y/N)
DP-1-IN	Y	Y	Y	Y
DP-1-OUT	N	N	N	N
DP-2-IN	Y	Y	Y	Y
DP-2-OUT	N	Y	N	N
DP-3-IN	Y	Y	Y	Y
DP-3-OUT	N	N	N	N
DP-4-IN	Y	Y	Y	Y
DP-4-OUT	N	N	N	N
DP-5-IN	Y	Y	Y	Y
DP-5-OUT	N	N	N	N
DP-6-IN	Y	Y	Y	Y
DP-6-OUT	N	N	N	N
DP-7-IN	Y	Y	Y	Y
DP-7-OUT	N	N	N	N
DP-8-IN	Y	Y	Y	Y
DP-8-OUT	N	N	N	N
DP-9-IN	Y	Y	Y	Y
DP-9-OUT	N	N	Y	N
DP-10-IN	Y	Y	Y	Y
DP-10-OUT	N	N	N	N
DP-11-IN	Y	Y	Y	Y
DP-11-OUT	N	Y	Y	N
DP-11A-OUT	N	Y	N	N
DP-12-IN	Y	Y	Y	Y
DP-12-OUT	N	Y	Y	N
DP-13-IN	Y	Y	Y	Y
DP-13-OUT	N	Y	Y	N
DP-14-IN	Y	Y	Y	Y
DP-14-OUT	N	Y	Y	N
DP-15-IN	Y	Y	Y	Y
DP-15-OUT	N	N	N	N
DP-16-IN	Y	Y	Y	Y
DP-16-OUT	N	Y	N	N
DP-17-IN	Y	Y	Y	Y
DP-17-OUT	Y	N	N	N
DP-18-IN	Y	Y	Y	Y
DP-18-OUT	N	N	N	N

Table 4: Data Point Summary Table

Data Point Name	Hydrophytic Vegetation (Y/N)	Hydric Soils (Y/N)	Wetland Hydrology (Y/N)	Wetland (Y/N)
DP-19-IN	Y	Y	Y	Y
DP-19-OUT	N	Y	N	N
DP-20-IN	Y	Y	Y	Y
DP-20-OUT	N	N	N	N
DP-21-IN	Y	Y	Y	Y
DP-21-OUT	N	Y	N	N
DP-21A-OUT	N	Y	N	N
DP-22-IN	Y	Y	Y	Y
DP-22-OUT	N	Y	N	N
DP-23-IN	Y	Y	Y	Y
DP-23-OUT	N	N	N	N
DP-24-IN	Y	Y	Y	Y
DP-24-OUT	N	Y	N	N
DP-25-IN	Y	Y	Y	Y
DP-25-OUT	Y	N	N	N
DP-25A-OUT	N	Y	N	N
DP-26-IN	Y	Y	Y	Y
DP-26-OUT	N	N	N	N
DP-27-IN	Y	Y	Y	Y
DP-27-OUT	N	N	N	N
DP-28-IN	Y	Y	Y	Y
DP-28-OUT	N	N	N	N
DP-29-IN	Y	Y	Y	Y
DP-29-OUT	N	N	N	N
DP-30-IN	Y	Y	Y	Y
DP-30-OUT	N	N	N	N
DP-31-IN	Y	Y	Y	Y
DP-31-OUT	N	N	Y	N
DP-32-IN	Y	Y	Y	Y
DP-32-OUT	N	N	Y	N
DP-32A-IN	Y	Y	Y	Y
DP-32A-OUT	N	N	N	N
DP-33-IN	Y	Y	Y	Y
DP-33-OUT	N	N	N	N
DP-34-IN	Y	Y	Y	Y
DP-34-OUT	N	N	N	N
DP-35-IN	Y	Y	Y	Y

Table 4: Data Point Summary Table

Data Point Name	Hydrophytic Vegetation (Y/N)	Hydric Soils (Y/N)	Wetland Hydrology (Y/N)	Wetland (Y/N)
DP-35-OUT	Y	N	N	N
DP-36-IN	Y	Y	Y	Y
DP-36-OUT	N	N	Y	N
DP-37-IN	Y	Y	Y	Y
DP-37-OUT	N	Y	Y	N
DP-38-IN	Y	Y	Y	Y
DP-38-OUT	N	Y	N	N
DP-38A-IN	Y	Y	Y	Y
DP-38A-OUT	N	Y	N	N
DP-39-IN	Y	Y	Y	Y
DP-39-OUT	N	Y	Y	N
DP-40-IN	Y	Y	Y	Y
DP-40-OUT	N	N	N	N
DP-40A-IN	Y	Y	Y	Y
DP-40A-OUT	Y	N	Y	N
DP-41-IN	Y	Y	Y	Y
DP-41-OUT	N	N	N	N
DP-42-IN	Y	Y	Y	Y
DP-42-OUT	N	N	N	N
DP-43-IN	Y	Y	Y	Y
DP-43-OUT	N	N	N	N
DP-44-IN	Y	Y	Y	Y
DP-44-OUT	N	N	N	N
DP-45-IN	Y	Y	Y	Y
DP-45-OUT	N	N	N	N
DP-46-IN	Y	Y	Y	Y
DP-46-OUT	N	N	N	N
DP-46A-OUT	N	N	N	N
DP-47-IN	Y	Y	Y	Y
DP-47-OUT	N	N	N	N
DP-48-IN	Y	Y	Y	Y
DP-48-OUT	N	N	N	N
DP-UPL-1	Y	N	N	N
DP-UPL-2	N	N	N	N
DP-UPL-3	N	N	Y	N
DP-UPL-4	Y	Y	N	N
DP-UPL-5	N	N	Y	N

Table 4: Data Point Summary Table

Data Point Name	Hydrophytic Vegetation (Y/N)	Hydric Soils (Y/N)	Wetland Hydrology (Y/N)	Wetland (Y/N)
DP-UPL-6	Y	N	N	N
DP-UPL-7	Y	N	N	N
DP-UPL-8	Y	N	N	N
DP-UPL-9	N	N	N	N
DP-UPL-10	Y	N	Y	N
DP-UPL-11	Y	N	N	N
DP-UPL-12	Y	N	N	N