FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./County:	**I-69 Section 6 – Indian Creek Landlocked Environmental Mitigation Site, Morgan County**
Designation Number:	**1801389**
Project Description/Termini:	**I-69 Section 6 Indian Creek Landlocked Mitigation Site Approximately 130.3 acres located on the north side of Burton Lane, less than one mile south of Martinsville**

After completing this form, I conclude that this project qualifies for the following type of Categorical Exclusion (FHWA must review/approve if Level 4 CE):

	Categorical Exclusion, Level 2 – The proposed action meets the criteria for Categorical Exclusion Manual Level 2 - table 1, CE Level Thresholds. Required Signatories: ESM (Environmental Scoping Manager)
	Categorical Exclusion, Level 3 – The proposed action meets the criteria for Categorical Exclusion Manual Level 3 - table 1, CE Level Thresholds. Required Signatories: ESM, ES (Environmental Services Division)
X	**Categorical Exclusion, Level 4** – The proposed action meets the criteria for Categorical Exclusion Manual Level 4 - table 1, CE Level Thresholds. Required Signatories: ESM, ES, FHWA
	Environmental Assessment (EA) – EAs require a separate FONSI. Additional research and documentation is necessary to determine the effects on the environment. Required Signatories: ES, FHWA

Note: For documents prepared by or for Environmental Services Division, it is not necessary for the ESM of the district in which the project is located to release for public involvement or sign for approval.

Approval _____ _____ _____ _____
ESM Signature Date ES Signature Date

_____ _____
FHWA Signature Date

Release for Public Involvement

N/A _____ REB 3/23/2020
ESM Initials Date ES Initials Date

Certification of Public Involvement _____ _____
Office of Public Involvement Date

Note: Do not approve until after Section 106 public involvement and all other environmental requirements have been satisfied.

INDOT ES/District Env.
Reviewer Signature: _____ Date: _____

Name and Organization of CE/EA Preparer: Holly Hume – Lochmueller Group, Inc.

Part I - PUBLIC INVOLVEMENT

Every Federal action requires some level of public involvement, providing for early and continuous opportunities throughout the project development process. **The level of public involvement should be commensurate with the proposed action.**

	Yes	No
Does the project have a historic bridge processed under the Historic Bridges PA*?		X
If No, then:		
Opportunity for a Public Hearing Required?	X	

**A public hearing is required for all historic bridges processed under the Historic Bridges Programmatic Agreement between INDOT, FHWA, SHPO, and the ACHP.*

Discuss what public involvement activities (legal notices, letters to affected property owners and residents (i.e. notice of entry), meetings, special purpose meetings, newspaper articles, etc.) have occurred for this project.

Remarks: Notice of Entry letters were not distributed. All parcels within the project area north of Indian Creek are owned by the Indiana Department of Transportation (INDOT). Coordination with the property owners of the remaining parcels south of Indian Creek concerning property entry for various survey work occurred via email on March 28 and July 2, 2019 (Appendix G, pages 1-2). The remaining parcels are in the process of being acquired by INDOT. An early acquisition MAP 21 CE (Des No. 0300382) was approved for the project on March 6, 2018.

The project will meet the minimum requirements described in the current *Indiana Department of Transportation (INDOT) Public Involvement Manual* which requires the project sponsor to offer the public an opportunity to submit comment and/or request a public hearing. Therefore, a legal notice will appear in a local publication contingent upon the release of this document for public involvement. This document will be revised after the public involvement requirements are fulfilled.

Public Controversy on Environmental Grounds	Yes	No
Will the project involve substantial controversy concerning community and/or natural resource impacts?		X

Remarks: At this time, there is no substantial public controversy concerning impacts to the community or to natural resources.

Part II - General Project Identification, Description, and Design Information

Sponsor of the Project: INDOT INDOT District: Seymour
Local Name of the Facility: I-69 Section 6 Indian Creek Landlocked Mitigation Site

Funding Source (*mark all that apply*): Federal [X] State [X] Local [ ] Other* [ ]

*If other is selected, please indentify the funding source: _____

PURPOSE AND NEED:

Describe the transportation problem that the project will address. The solution to the traffic problem should NOT be discussed in this section. (Refer to the CE Manual, Section IV.B.2. Purpose and Need)

The need for this project stems from permit required mitigation for unavoidable impacts to streams (Section 401 Water Quality Certification from the Indiana Department of Environmental Management (IDEM) and the Section 404 Permit(s) from the US Army Corps of Engineers (USACE)), wetlands (Section 401 Water Quality Certification from IDEM and the Section 404 Permit(s) from the USACE), floodways (Construction in Floodway (CIF) Permit from the Indiana Department of Natural Resources (IDNR)), and forests (Section 7 consultation with the US Fish and Wildlife Service (USFWS)) occurring from the construction of Design Contract 2 (Des. No. 0500431), Design Contract 3 (Des. No. 1801697), Design Contract 4 (Des. No. 0500432), and Design Contract 5 (Des. No. 0500430) of Section 6 of the I-69 project from Martinsville to Indianapolis (Des. No. 0300382); hereafter referred to as "Design Contracts 2-5". This project will not provide all necessary mitigation. Additional mitigation sites have been developed and/or the in-lieu fee mitigation program may be used to offset the additional impacts to streams, wetlands, forests, and floodway habitats incurred by I-69 Section 6.

The primary purpose of the project is to mitigate for a portion of the unavoidable impacts to streams, wetlands, floodways, and forests caused by the construction of Design Contracts 2-5, Section 6 of I-69. A total of 2.03 acres of wetland mitigation credits, 64.4 acres of forest mitigation credits, and 4,004 linear feet of stream mitigation credits established at this mitigation site will be added to other approved sites to comply with permitting regulations.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Morgan Municipality: Washington Township

Limits of Proposed Work: The proposed 130.3-acre project area stretches approximately 1.26 miles along the north side of Burton Lane, less than one mile south of Martinsville.

Total Work Length: N/A Mile(s) Total Work Area: 130.3 Acre(s)

	Yes[1]	No
Is an Interchange Modification Study / Interchange Justification Study (IMS/IJS) required?		X
If yes, when did the FHWA grant a conditional approval for this project?	Date:	

[1]*If an IMS or IJS is required; a copy of the approved CE/EA document must be submitted to the FHWA with a request for final approval of the IMS/IJS.*

In the remarks box below, describe existing conditions, provide in detail the scope of work for the project, including the preferred alternative. Include a discussion of logical termini. Discuss any major issues for the project and how the project will improve safety or roadway deficiencies if these are issues.

The Federal Highway Administration (FHWA) and INDOT propose to proceed with a federal-aid project to develop the Indian Creek Landlocked Mitigation Site located between SR 37 and Burton Lane, less than one mile south of the City of Martinsville in Morgan County, Indiana (Appendix B, page 1). Specifically, the project is located in Township 11 North, Range 1 East, Sections 8, 17, and 18 in Washington Township as depicted on the Martinsville USGS Quadrangle (Appendix B, page 2).

Within the 130.3-acre project area, existing conditions include 58.4 acres of forest, approximately 53.6 acres of fields in agricultural row crop production, 2.0 acres of existing wetlands, 8.0 acres of existing lake, 0.9 acre of former commercial building and parking lot area, 4.2 acres of former mulch processing facility, and 3.2 acres of utility easement. The former commercial building and parking lot area, and the former mulch processing area, will be seeded with a native seed mix and planted with native tree and shrub species. A review of the National Wetland Inventory (NWI) maps revealed the presence of nine mapped wetlands within the project area (Appendix F, page 1). A lake, approximately 8-acres in size, is present in the northeast portion of the site. The existing lake will provide approximately 3.3 acres of open water wetland preservation credits. A perennial stream (Indian Creek) traverses the site,

flowing generally from northeast to southwest. An ephemeral stream, an unnamed tributary (UNT) to Indian Creek, flows from east to west in the central portion of the site. Approximately 20 feet of a second ephemeral stream flows in the southwestern portion of the site. Mitigation credits at this site are not being sought at a 1:1 ratio; therefore, existing forest, wetland, and stream amounts are not equal to the amount of credits discussed in the Purpose and Need section of this document.

Invasive species present within the riparian corridors include Japanese hops (*Humulus japonicus*), honeysuckle (*Lonicera sp.*), reed canary grass (*Phalaris arundinacea*), multiflora rose (*Rosa multiflora)*, winter creeper (*Euonymus fortunei*), and cattail (*Typha sp.*). Multiple locations along Indian Creek are severely eroded and scoured. The Indian Creek Landlocked Mitigation Site is within the southern portion of the Upper White River USGS 8-digit watershed (05120201). The majority of the mitigation site is located within the floodway of Indian Creek (Appendix F, page 2). Existing elevations on the property range from approximately 585 feet within the lower agricultural fields to approximately 600 feet along Burton Lane, with the exception of a few small pockets of lower elevation within the existing wooded areas. The nearest airport is McDaniel's Field, a small private airfield located approximately 0.4 mile from the site. Site aerial maps and photographs are available in Appendix B, pages 3-10.

The Indian Creek Landlocked Mitigation Site is proposed to include the development or restoration of approximately 50.5 acres of non-wetland forest (including 22.3 acres of riparian habitat and 28.2 acres of bottomland forest) and 1.7 acres of emergent wetland within the existing agricultural fields. The remaining 78.2 acres of existing forests, lake (to be used as open water wetland preservation credits), sensitive areas, bank stabilization, berm, and former mulch processing area, are proposed to be treated for invasive species and preserved. A total of 9,750 linear feet of stream stabilization and/or enhancement will occur.

Enhancements to the existing streams will include planting of native seed mixtures, trees, and shrubs to develop or expand upon the existing forested riparian corridors. Invasive species will be treated throughout the riparian corridors. Bank stabilization in the form of toe protection, bank grading, seeding, erosion control blanket installation, and live staking will occur within the eroded areas of Indian Creek.

Wetland restoration will include disabling any remaining field tile actively draining wetland restoration areas and the construction of a shallow water retention berm (0.02 acre) to increase and prolong ponding. These measures will provide water quality benefits in the form of increased groundwater recharge, runoff filtration, and flood control.

Multiple construction entrances directly off of SR 37/I-69 to the north and Burton Lane to the south, will be installed to prevent equipment from tracking soil material onto the roadways. "INDOT Mitigation Site-Do Not Disturb" signs will be placed along the property boundaries. Construction is proposed to begin in summer 2020 and be completed in 2021.

Please refer to Appendix B for maps depicting the project area (Appendix B, pages 1-5), photographs of the project area (Appendix B, pages 6-10), and preliminary design plans (Appendix B, pages 11-21).

A maintenance of traffic (MOT) plan is not necessary. Construction access will be from multiple entrances directly off of SR 37/I-69 to the north and Burton Lane to the south of the property. No closures or lane restrictions will occur on SR 37/I-69 or Burton Lane as a result of this project as no roadway work is included in this project. No public roads are located within the project area and none are expected to be impacted by the mitigation site.

The proposed project will require the acquisition of approximately 130.3 acres of permanent right-of-way (Appendix B, page 3). All parcels within the project area north of Indian Creek, approximately 106 acres, have already been secured and are now owned by INDOT. INDOT is in the process of acquiring the remaining 24 acres south of Indian Creek. No relocations will be required.

The preferred alternative will satisfy the purpose and need of the project by providing a total of 2.03 acres of wetland mitigation credits, 64.4 acres of forest mitigation credits, and 4,004 linear feet of stream mitigation credits needed to fulfill permit requirements for I-69, Design Contracts 2-5 impacts. These credits will satisfy a portion of the stream (19%), wetland (24%), forest (13%), and floodway (total floodway mitigation needs will be finalized during the permitting process) mitigation that meets the Section 401 Water Quality Certifications from IDEM and the Section 404 permit requirements from USACE, the CIF permit(s) from IDNR, and Section 7 consultation with the USFWS.

OTHER ALTERNATIVES CONSIDERED:

Describe all discarded alternatives, including the Do-Nothing Alternative and an explanation of why each discarded alternative was not selected.

No Build Alternative: This alternative involved not developing the Indian Creek Landlocked Mitigation Site. While this alternative eliminates costs and any environmental impacts, it will not meet the project objectives of providing a portion of the permit required stream, wetland, forest, and floodway mitigation for I-69, Design Contracts 2-5. Therefore, this alternative was discarded from further consideration.

The Do Nothing Alternative is not feasible, prudent or practicable because (*Mark all that apply*):

It would not correct existing capacity deficiencies;	
It would not correct existing safety hazards;	
It would not correct the existing roadway geometric deficiencies;	
It would not correct existing deteriorated conditions and maintenance problems; or	
It would result in serious impacts to the motoring public and general welfare of the economy.	
Other (Describe): This alternative will not assist in the fulfillment of the mitigation requirements for the I-69 Section 6 project.	X

ROADWAY CHARACTER:

SR 37/I-69 is adjacent to the Indian Creek Mitigation Site. No changes to this roadway are occurring as a result of this project. Roadway changes will occur as part of the upgrade to interstate standards as part of the overall I-69 Section 6 project (Des No. 0300382).

Roadway Name: I-69/SR 37
Functional Classification: Interstate/Principal Arterial
Current ADT: N/A VPD (20--) Design Year ADT: N/A VPD (20--)
Design Hour Volume (DHV): N/A Truck Percentage (%) N/A
Designed Speed (mph): N/A Legal Speed (mph): N/A

	Existing		Proposed	
Number of Lanes:	4		4	
Type of Lanes:	N/A		N/A	
Pavement Width:	23	ft.	23	ft.
Shoulder Width:	4-11	ft.	4-11	ft.
Median Width:	43	ft.	43	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting:	X	Urban		Suburban		Rural
Topography:	X	Level		Rolling		Hilly

Roadway Name: Burton Lane
Functional Classification: Local
Current ADT: N/A VPD (20--) Design Year ADT: N/A VPD (20--)
Design Hour Volume (DHV): N/A Truck Percentage (%) N/A
Designed Speed (mph): N/A Legal Speed (mph): N/A

County Morgan Route I-69 Section 6 Des. No. 1801389

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	N/A		N/A	
Pavement Width:	17-18	ft.	17-18	ft.
Shoulder Width:	N/A	ft.	N/A	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting:	X	Urban		Suburban		Rural
Topography:	X	Level		Rolling		Hilly

If the proposed action has multiple roadways, this section should be filled out for each roadway.

DESIGN CRITERIA FOR BRIDGES:

Structure/NBI Number(s): N/A Sufficiency Rating: N/A
(Rating, Source of Information)

	Existing		Proposed	
Bridge Type:	N/A		N/A	
Number of Spans:	N/A		N/A	
Weight Restrictions:	N/A	ton	N/A	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	N/A	ft.	N/A	ft.
Outside to Outside Width:	N/A	ft.	N/A	ft.
Shoulder Width:	N/A	ft.	N/A	ft.
Length of Channel Work:			N/A	ft.

Describe bridges and structures; provide specific location information for small structures.
Remarks: No bridges or small structures are located within the project area.

	Yes	No	N/A
Will the structure be rehabilitated or replaced as part of the project?			X

If the proposed action has multiple bridges or small structures, this section should be filled out for each structure.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

	Yes	No
Is a temporary bridge proposed?		X
Is a temporary roadway proposed?		X
Will the project involve the use of a detour or require a ramp closure? (describe in remarks)		X
Provisions will be made for access by local traffic and so posted.		X
Provisions will be made for through-traffic dependent businesses.		X
Provisions will be made to accommodate any local special events or festivals.		X
Will the proposed MOT substantially change the environmental consequences of the action?		X
Is there substantial controversy associated with the proposed method for MOT?		X

County Morgan Route I-69 Section 6 Des. No. 1801389

Remarks: A MOT plan is not necessary for this mitigation site project. Construction access will be from multiple entrances directly off of SR 37/I-69 to the north and Burton Lane to the south of the property. No closures or lane restrictions will occur on SR 37/I-69 or Burton Lane as a result of this project as no roadway work is included in this project. No public roads are located within the project area and none are expected to be impacted by the mitigation site; however, road construction associated with the upgrade of adjacent SR 37 to interstate standards will occur concurrently with construction of the mitigation site. Should it be deemed necessary due to the status of the SR 37/I-69 roadway construction during final design of the Indian Creek Landlocked Mitigation Site, signage warning of trucks entering the roadway may be posted along SR 37/I-69.

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: $ 150,000 (2019) Right-of-Way: $ 1,545,022 (2019/2020) Construction: $ 1,000,000 (2020)

NOTE: The mitigation site costs above are included as part of the overall I-69 Section 6 costs in the STIP/TIP

Anticipated Start Date of Construction: Summer FY 2020

Date project incorporated into STIP July 2, 2019 (as part of I-69 Section 6, Des No. 0300382) (Appendix H, page 1)

	Yes	No
Is the project in an MPO Area?		X

If yes,

Name of MPO _____

Location of Project in TIP _____

Date of incorporation by reference into the STIP _____

RIGHT OF WAY:

	Amount (acres)	
Land Use Impacts	Permanent	Temporary
Residential	0	0
Commercial: Former building and parking lot area	0.9	0
Commercial: Former mulch processing facility	4.2	0
Agricultural	53.6	0
Forest	58.4	0
Wetlands	2.0	0
Other: Lake (to be used for open water wetland preservation)	8.0	0
Other: Utility easement	3.2	0
TOTAL	130.3	0

Describe both Permanent and Temporary right-of-way and describe their current use. Typical and Maximum right-of-way widths (existing and proposed) should also be discussed. Any advance acquisition or reacquisition, either known or suspected, and there impacts on the environmental analysis should be discussed.

Remarks: The project requires approximately 130.3 acres of permanent ROW of lake, utility easement, wetland, forest, agricultural, and commercial land. All parcels within the project area north of Indian Creek are owned by the Indiana Department of

Transportation (INDOT). The remaining parcels are in the process of being acquired by INDOT. An early acquisition MAP 21 CE (Des No. 0300382) was approved for the project on March 6, 2018. The project does not require any temporary ROW.

If the scope of work or permanent or temporary ROW amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately.

Part III – Identification and Evaluation of Impacts of the Proposed Action

SECTION A – ECOLOGICAL RESOURCES

	Presence	Impacts	
		Yes	No
Streams, Rivers, Watercourses & Jurisdictional Ditches	X	X	
Federal Wild and Scenic Rivers			
State Natural, Scenic or Recreational Rivers			
Nationwide Rivers Inventory (NRI) listed			
Outstanding Rivers List for Indiana			
Navigable Waterways	X	X	

Remarks:

Based on a desktop review, a site visit on July 9, 2019 by Lochmueller Group, Inc., the aerial map of the project area (Appendix B, page 3), the USGS topographic map (Appendix B, page 2), and the water resources map in the Red Flag Investigation (RFI) report (Appendix E, page 9), there are 13 stream segments located within the 0.5 mile search radius. There are seven stream segments, three associated with Indian Creek and four associated with two UNTs to Indian Creek, are located within the project area. Indian Creek is listed as navigable waterway within the project area. The RFI recommended a Waters of the US Report be completed; however, in lieu of a Waters of the US Report, stream assessments were completed as part of the Mitigation and Monitoring Plan. Indian Creek and the two UNTs are listed as impaired for *E. coli*. Workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.

A total of 9,750 feet of impacts to Indian Creek and UNT1 are anticipated as a result of ephemeral and perennial stream enhancement activities, and perennial stream restoration activities. A description of each stream and any anticipated impacts is below.

Indian Creek

Nearly 8,000 feet of Indian Creek is located within the mitigation site boundary. A QHEI assessment was conducted for this stream on January 9, 2019 resulting in a score of 61.5, which indicates fair to good stream conditions (Appendix F, pages 3-5). Multiple locations along Indian Creek are severely eroded and scoured. Stream restoration activities (1,430 feet) along Indian Creek will include stone toe protection, bank grading, native seeding, and live staking. The Indian Creek riparian areas will be enhanced with native seeding and planting of hard-mast tree species to provide additional habitat diversity. Approximately 1.2 acres adjacent to the bank stabilization areas will require scattered tree clearing for access to the stream bank for installation of stone toe protection (Appendix B, page 4). The contractor will be required to mark trees for review prior to clearing. Cleared areas will be replanted and enhanced with supplemental plantings and invasive species treatments. All necessary erosion and sediment control measures will be implemented. The proposed activities will require an IDNR CIF Permit and an IDEM Rule 5 permit. Impacts to Indian Creek are expected to be temporary during construction and result in a positive increase in functionality and stability once construction is completed.

UNT1

UNT1 (S-IC2-H) is an ephemeral stream located in the south-central portion of the property. An HHEI assessment was conducted for this stream on January 8, 2019, resulting in a score of 36, which indicates poor stream condition (Appendix

F, pages 6-8). Stream enhancement activities will be performed on the entire 1,976-foot length of the stream located within the project area. Ephemeral stream enhancement to stream S-IC2-H will include invasive species treatments within the narrow riparian corridor present along the ephemeral stream, as well as, expansion of the riparian corridors on both sides of the stream. Impacts to the ephemeral stream S-IC2-H are expected to result in an improved condition of the stream.

UNT2
UNT2 is an ephemeral stream located in the southwestern portion of the site. Only a very small portion (less than 20 feet) is located within the project area. No stream assessment was completed because no impacts to this stream are expected.

Early coordination letters were sent to the USFWS, IDNR Division of Fish and Wildlife (DFW), and the USACE on September 12, 2019. The USACE did not respond to the early coordination letter. The USFWS responded on September 16, 2019 with recommendations to avoid or minimize impacts to fish and wildlife resources (Appendix C, pages 20-22). These recommendations included avoiding work within the inundated part of the stream channel during fish spawning season, restricting below low-water work, restricting channel work and vegetation clearing, extending riprap below low-water elevation, and implementing temporary erosion and siltation devices. All applicable USFWS recommendations are included in the Environmental Commitments section of this CE document.

The IDNR DFW responded on October 10, 2019 with recommendations to avoid or minimize impacts to fish, wildlife, and botanical resources (Appendix C, pages 29-30). These recommendations included minimizing and containing within the project area all inchannel disturbance and vegetation clearing, avoiding work in the waterway from April 1 through June 30, and using minimum 6-inch graded riprap extended below the normal water level. All applicable IDNR DFW recommendations are included in the Environmental Commitments section of this CE document.

An automated letter was generated from the IDEM website on September 12, 2019 (Appendix C, pages 6-14). Applicable recommendations from the Proposed Roadway Letter include coordinating with appropriate agencies with regards to stream impacts, limiting stream disturbance, and minimizing fugitive dust emissions and storm water runoff impacts.

Other Surface Waters	**Presence**	**Impacts**	
		Yes	**No**
Reservoirs			
Lakes	X		X
Farm Ponds			
Detention Basins			
Storm Water Management Facilities			
Other:			

Remarks:

Based on a desktop review, a site visit on July 9, 2019 by Lochmueller Group, Inc., the aerial map of the project area (Appendix B, page 3), and the water resources map in the RFI report (Appendix E, page 9), there are nine other surface waters within the 0.5 mile search radius. Although the RFI states that there are two lakes present within or adjacent to the project area, field investigation only identified one lake located in the northeast portion of the project area. Only preservation is planned in the vicinity of the lake; therefore, no impacts are expected.

The RFI recommended a Waters of the U.S. Report be completed, but upon further field review and completion of the Mitigation and Monitoring Plan, it was determined that the existing lake within the project area is located entirely inside areas to be preserved and will have no impacts. Therefore, a Waters of the US Report was not necessary.

The USACE did not respond to the early coordination letter. The USFWS responded on September 16, 2019 with recommendations to avoid or minimize impacts to fish and wildlife resources (Appendix C, pages 20-22). No recommendations were made regarding lakes or open water. All applicable USFWS recommendations are included in the Environmental Commitments section of this CE document.

The IDNR DFW responded on October 10, 2019 with recommendations to avoid or minimize impacts to fish, wildlife, and botanical resources (Appendix C, pages 29-30). No recommendations were made regarding lakes or open water. All

applicable IDNR DFW recommendations are included in the Environmental Commitments section of this CE document.

An automated letter was generated from the IDEM website on September 12, 2019 (Appendix C, pages 6-14). Applicable recommendations from the Proposed Roadway Letter include coordinating with appropriate agencies with regards to surface water impacts, minimizing fugitive dust emissions, and storm water runoff impacts.

	Presence	Impacts	
		Yes	No
Wetlands	X	X	

Total wetland area: 2.03* acre(s) Total wetland area impacted: 0.57** acre(s)

*NWI wetlands are not included in total wetland area. Total wetland area includes only delineated wetlands.
**NWI 8 and Delineated Wetland 1 overlap; therefore, impacted acres for each wetland do not sum to the total wetland area impacted.

(If a determination has not been made for non-isolated/isolated wetlands, fill in the total wetland area impacted above.)

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments
NWI 1	PubGx	13.67	0	The entirety of this wetland is located within a preservation area of the site. No impact is expected.
NWI 2	PFO1A	2.79	0	The entirety of this wetland is located within a preservation area of the site. No impact is expected.
NWI 3	PFO1A	5.95	0	While this area is depicted as wetland on the NWI map (Appendix F, page 1), the area failed to meet wetland soil and/or hydrology criteria; therefore, no wetland impacts are anticipated.
NWI 4	PSS1/EM1C	3.04	0	While this area is depicted as wetland on the NWI map (Appendix F, page 1), only a portion of the area met all wetland criteria. The eastern boundary of the portion that met all wetland criteria was delineated, while the remainder was estimated based on topography and visual assessment because of its location in a preservation area of the site. The wetland area is shown as Delineated Wetland 3 on the Wetland Map (Appendix F, page 9).
NWI 5	PEM1C	1.51	0	The entirety of this wetland is located within a preservation area of the site. No impact is expected.
NWI 6	PFO1A	7.96	0	While this area is depicted as wetland on the NWI map (Appendix F, page 1), a data point (DP1) taken within the tree clearing area failed to meet wetland soil criteria. The remainder of NWI 6 is in a preservation area of the site; therefore, no wetland impacts are expected (Appendix F, page 9).
NWI 7	PFO1A	4.11	0	While this area is depicted as wetland on the NWI map (Appendix F, page 1), a data point (DP6) verified that soils did not meet wetland criteria. Therefore, no wetland impacts are expected.

NWI 8	PEM1A	0.45	0.41	Soils in this area did not meet wetland criteria; however, a portion of the area lies within Delineated Wetland 1 and the entirety of the area is located within Wetland Restoration Area 1. Activities including tile exploration and removal, native seeding and planting, and invasive species treatments are proposed to restore this wetland community. A shallow water retention berm will be constructed to provide increased and prolonged ponding opportunities with minimal grading.
NWI 9	PEM1A	0.17	0	While this area is depicted as wetland on the NWI map (Appendix F, page 1), the area did not meet wetland soil or hydrology criteria; therefore, no wetland impacts are expected.
NWI 10	PEM1A	2.19	0	While this area is depicted as wetland on the NWI map (Appendix F, page 1), the entirety of the area is located within the former mulch processing facility. The area has very minimal vegetation and the depth of the mulch varies from one to three feet. The area does not meet any wetland criteria; therefore, no wetland impacts are expected.
Delineated Wetland 1	PEM1A	0.43	0.43	This wetland was delineated subsequent to the Mitigation Plan field work. This wetland is located within NWI 8 and Wetland Restoration Area 1. This area will receive restoration and enhancement measures. See discussion in Remarks box below for details.
Delineated Wetland 2	Non-wetland	0.30	0.02	This wetland was delineated subsequent to the Mitigation Plan field work. The entirety of this wetland is located within a preservation area of the site. However, access to Indian Creek for bank stabilization measures will require heavy equipment to cross this wetland. A 0.02-acre area will be impacted for access to the bank stabilization areas. The remainder of the wetland, as well as the preservation areas surrounding it, will be marked as "Do Not Disturb" on the plans. Additional coordination with IDEM and USACE will be completed to determine if any additional mitigation for the impacts will be required. This is included as a firm commitment in the Environmental Commitments section of this CE document.
Delineated Wetland 3	PSS1/EM1C	1.25	0	The majority of this wetland lies within NWI 4. Only the eastern boundary of this wetland was delineated, the remainder of the boundary was estimated based on topography and visual assessment. 0.01 acre of this wetland is located within a bank stabilization area that will require tree clearing for access to the stream bank; however, this area will be marked as "Do Not Disturb" on the plans and will be avoided. No tree clearing will occur within the wetland. This is included as a firm commitment in the Environmental Commitments section of this CE document.
Delineated Wetland 4	Non-wetland	0.05	0	This wetland was delineated subsequent to the Mitigation Plan field work during a site visit on February 3, 2020. The entirety of this wetland is located within a preservation area of the site; therefore, no wetland impacts are expected.

Wetlands (*Mark all that apply*)	**Documentation**	**ES Approval Dates**
Wetland Determination		
Wetland Delineation		
Based on a review of the National USACE Isolated Waters Determination		
Mitigation Plan	**X**	**October 15, 2019**

Improvements that will not result in any wetland impacts are not practicable because such avoidance would result in (Mark all that apply and explain):

Substantial adverse impacts to adjacent homes, business or other improved properties;	
Substantially increased project costs;	
Unique engineering, traffic, maintenance, or safety problems;	
Substantial adverse social, economic, or environmental impacts, or	
The project not meeting the identified needs.	X

Measures to avoid, minimize, and mitigate wetland impacts need to be discussed in the remarks box.

Remarks:

Based on a review of the NWI online mapper (https://www.fws.gov/wetlands/data/Mapper.html), site visits on January 9, 2019, January 27, 2020 and February 3, 2020 by Lochmueller Group, Inc., the October 1, 2019 Mitigation Plan, the topographic map (Appendix B, page 2), and the RFI report (Appendix E, page 9), there are 27 wetlands located within the 0.5 mile search radius. There are ten wetlands located within or adjacent to the project area. The Mitigation Plan indicated the presence of four wetlands at the site.

In total, up to 0.57 acre of impacts are anticipated as a result of this project. A discussion of impacts to each affected wetland is below.

Delineated Wetland 1

Delineated Wetland 1 (0.43 acre) is almost entirely located within Wetland Restoration Area 1 (Appendix F, page 9). Emergent wetland restoration is proposed for Wetland Restoration Area 1. Activities proposed to restore the wetland community include tile exploration and removal, native seeding and planting, invasive species treatments, and construction of a shallow water retention berm to provide increased and prolonged ponding opportunities with minimal grading. Total impacts to Delineated Wetland 1 are anticipated to be 0.43 acre including 0.42 acre of impacts for wetland restoration activities and an additional 0.01 acre of impacts due to reforestation activities.

NWI 8

NWI 8 (0.45 acre) is almost entirely located wetland within Wetland Restoration Area 1 (Appendix F, page 9). Emergent wetland restoration is proposed for Wetland Restoration Area 1. Total impacts to NWI 8 are anticipated to be 0.41 acre including 0.36 acre of impacts resulting from wetland restoration activities and an additional 0.05 acre of impacts resulting from reforestation activities.

Please note that Delineated Wetland 1 and NWI 8 overlap; therefore, the sum of the total acreage of impacts to each wetland is greater than the total acreage of overall impacts in the vicinity of Delineated Wetland 1, NWI 8, and Wetland Restoration Area 1. Total impacts to the overlapping area of Delineated Wetland 1 and NWI 8 anticipated to be 0.49 acre.

Delineated Wetland 2

Delineated Wetland 2 is a 0.30-acre wetland approximately 150 feet southwest of the former mulch processing area (Appendix F, page 9). The entirety of this wetland is located within a preservation area of the site. However, access to Indian Creek for bank stabilization measures may require heavy equipment in the vicinity of this wetland. Every effort will be made to avoid impacts to this wetland; however, should it be determined upon final design that impacts to this wetland are unavoidable due to the need for access to the river bank stabilization areas, additional coordination with the appropriate agencies will be completed to determine if any additional mitigation for the impacts will be required. This is included as a firm commitment in the Environmental Commitments section of this CE document.

The RFI recommended a Waters of the US Report be completed, but it was not prepared due to the completion of a mitigation plan.

See Appendix F, page 9 for the Wetland Map and pages 10-39 for the Wetland Determination Data Forms.

The USFWS responded on September 16, 2019 with recommendations to avoid or minimize impacts to fish and wildlife resources (Appendix C, pages 20-22). No recommendations regarding wetlands were made. All applicable USFWS recommendations are included in the Environmental Commitments section of this CE document.

The IDNR DFW responded on October 10, 2019 with recommendations to avoid or minimize impacts to fish, wildlife,

and botanical resources (Appendix C, pages 29-30). No recommendations regarding wetlands were made. All applicable IDNR DFW recommendations are included in the Environmental Commitments section of this CE document.
An automated letter was generated from the IDEM website on September 12, 2019 (Appendix C, pages 6-14). Applicable recommendations from the Proposed Roadway Letter include coordinating with appropriate agencies with regards to wetland impacts, minimizing fugitive dust emissions, and storm water runoff impacts.

	Presence			Impacts		
				Yes		No
Terrestrial Habitat		X		X		
Unique or High Quality Habitat						

Use the remarks box to identify each type of habitat and the acres impacted (i.e. forested, grassland, farmland, lawn, etc).

Remarks:

Based on a desktop review, a site visit on July 9, 2019 by Lochmueller Group, Inc., and the aerial map of the project area (Appendix B, page 3), there are approximately 59.7 acres of existing forests/wooded riparian habitat and 54.3 acres of farmland habitat within the project area. Existing forests in the project area are largely comprised of silver maple (*Acer saccharinum*), hackberry (*Celtis occidentalis*), sycamore (*Platanus occidentalis*), black walnut (*Juglans nigra*), cottonwood (*Populus deltoids*), mulberry (*Morus sp.*), boxelder (*Acer negundo*), green ash (*Fraxinus pennsylvanica*), and elm (*Ulmus sp.*). The existing forest is suitable summer habitat for the federally listed Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*). The farmland is in agricultural row crop production. Invasive species of concern known to be present on the site include Japanese hops (*Humulus japonicus*), honeysuckle (*Lonicera sp.*), reed canary grass (*Phalaris arundinacea*), multiflora rose (*Rosa multiflora),* winter creeper (*Euonymus fortunei*), and cattail (*Typha sp.*).

Non-wetland reforestation is proposed on 50.5 acres of agricultural land, consisting of 28.2 acres of bottomland reforestation and 22.3 acres of riparian reforestation. The wooded riparian areas will be expanded and enhanced via reforestation and invasive species treatments. Existing forests will be preserved. Scattered clearing of trees within a combined total of approximately 1.2 acres adjacent to the bank stabilization areas will be necessary to gain access to Indian Creek for bank stabilization measures (Appendix B, page 4). The contractor will be required to mark all trees proposed for clearing prior to cutting. INDOT or their designated representative will review the proposed tree clearing with the contractor to ensure clearing has been minimized to the maximum extent possible. An emphasis will be made to avoid clearing of larger trees, as well as, trees with cracks, crevices, or shaggy bark that would provide high potential as a suitable bat roost tree. Areas of cleared trees are proposed to receive supplemental tree plantings. There is no practicable alternative to the proposed tree clearing, cleared areas will be replanted, and the proposed action includes all practicable measures to minimize harm to habitats which may result from such activities. Remaining terrestrial areas will be preserved as successional habitat including the former mulch processing area, sensitive environmental areas, and a constructed berm.

The USFWS responded on September 16, 2019 with recommendations to minimize or avoid impacts to fish and wildlife resources (Appendix C, pages 20-22). These recommendations included revegetating all disturbed soil areas using native trees and shrubs in the riparian zone wherever feasible, posting DO NOT DISTURB signs at the construction zone boundaries, tree cutting date restrictions, and avoiding clearing trees and understory vegetation outside the boundaries. All applicable USFWS recommendations are included in the Environmental Commitments section of this CE document.

The IDNR DFW responded on October 10, 2019 with recommendations to avoid or minimize impacts to fish, wildlife, and botanical resources (Appendix C, pages 29-30). These recommendations included refraining from cutting any trees suitable for bat roosting or any deciduous canopy trees from April 1 to September 30, minimizing tree clearing for site access and construction, limiting the width of any temporary access roads to 20 feet or less, implementing appropriate erosion and sediment control measures, and revegetating all disturbed areas. All applicable IDNR DFW recommendations are included in the Environmental Commitments section of this CE document.

If there are high incidences of animal movements observed in the project area, or if bridges and other areas appear to be the sole corridor for animal movement, consideration of utilizing wildlife crossings should be taken.

Karst	**Yes**	**No**
Is the proposed project located within or adjacent to the potential Karst Area of Indiana?		X
Are karst features located within or adjacent to the footprint of the proposed project?		X
If yes, will the project impact any of these karst features?		

Use the remarks box to identify any karst features within the project area. (Karst investigation must comply with the Karst MOU, dated October 13, 1993)

Remarks: Based on a desktop review, the project is located outside the designated karst region of Indiana as outlined in the October 13, 1993 Memorandum of Understanding (MOU). According to the topo map of the project area (Appendix B, page 2), and the RFI report (Appendix E, page 9), there are no karst features identified within or adjacent to the project area. In the early coordination response, the Indiana Geological Survey (IGS) did not indicate that karst features exist in the project area (Appendix C, pages 16-18). The IGS response did indicate that the project area is within a floodway and has a high liquefaction potential. Mineral resources identified in the IGS response included moderate potential for the presence of bedrock resources and high potential for the presence of sand and gravel resources within the project area. The response from IGS was communicated with the designer on September 12, 2019. No impacts are expected.

Threatened or Endangered Species	**Presence**	**Impacts**	
		Yes	**No**
Within the known range of any federal species	X	X	
Any critical habitat identified within project area			
Federal species found in project area (based upon informal consultation)			
State species found in project area (based upon consultation with IDNR)	X	X	

	Yes	**No**
Is Section 7 formal consultation required for this action?		X

Remarks: Based on a desktop review and the RFI report (Appendix E, pages 1-14), completed by Lochmueller Group, Inc. on July 16, 2019, the IDNR Morgan County Endangered, Threatened and Rare (ETR) Species List has been checked and is included in Appendix E, pages 12-14. The highlighted species on the list reflect the federal and state identified ETR species located within the county. According to the IDNR DFW early coordination response letter dated October 10, 2019 (Appendix C, pages 29-30), the American badger (*Taxidea taxus*), a state species of special concern, and the following bat species have been documented within 0.5 mile of the project area: state endangered little brown bat (*Myotis lucifugus)*, state endangered evening bat (*Nycticeius humeralis*), state endangered tri-colored bat (*Perimyotis subflavis*), and state species of special concern eastern red bat (*Lasiurus borealis*). The response stated that impacts to the American badger or its preferred habitat are unlikely as a result of this project. The response also gave recommendations to address potential impacts to bats in the proposed project area. These recommendations included refraining from cutting any trees suitable for roosting (greater than 5 inches diameter at breast height (dbh), living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 to September 30 to minimize impacts to the bark roosting species, as well as avoiding cutting of deciduous canopy trees during the same period (April 1 through September 30) to minimize impacts to foliage roosting species. These measures are included as firm commitments in the Environmental Commitments section of this CE document.

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, pages 23-28). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional species were found within or adjacent to the project area other than the Indiana bat or northern long-eared bat.

Based on the tree clearing occurring greater than 300 feet from the road/rail surface, this project does not qualify for the *Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB).* Standard coordination with the USFWS was initiated on September 12, 2019. In a response letter dated September 16, 2019, the USFWS concurred with a "May Affect – Not Likely to Adversely Affect" determination for the federally listed Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) given the firm commitment that all tree removal would be avoided from April 1 to September 30. On December 4, 2019 further coordination with INDOT occurred to determine whether the coordination with USFWS was sufficient. INDOT determined that the previous coordination with

USFWS was sufficient. The AMM given by USFWS, avoid tree clearing during the period April 1 to September 30, is included in the Environmental Commitments section of this CE document.

This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act, as amended. If new information on endangered species at this site becomes available, or if the project plans are changed, USFWS will be contacted for consultation.

SECTION B – OTHER RESOURCES

	Presence	Impacts	
Drinking Water Resources		Yes	No
Wellhead Protection Area			
Public Water System(s)	X		X
Residential Well(s)	X		X
Source Water Protection Area(s)			
Sole Source Aquifer (SSA)			

If a SSA is present, answer the following:

	Yes	No
Is the Project in the St. Joseph Aquifer System?		
Is the FHWA/EPA SSA MOU Applicable?		
Initial Groundwater Assessment Required?		
Detailed Groundwater Assessment Required?		

Remarks:

The project is located in Morgan County, which is not located within the area of the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in the state of Indiana. Therefore, the FHWA/EPA Sole Source Aquifer Memorandum of Understanding (MOU) is not applicable to this project. Therefore a detailed groundwater assessment is not needed and no impacts are expected.

In an early coordination letter dated October 8, 2019, IDEM stated the project is not located within a wellhead protection area (Appendix C, page 15). No impacts are expected.

The Indiana Department of Natural Resources Water Well Record Database website (https://www.in.gov/dnr/water/3595.htm) was accessed on December 6, 2019 by Lochmueller Group, Inc. The nearest well is located within the southern portion of the project area. The feature will not be affected because it is located in an area where only reforestation will occur. Therefore, no impacts are expected. Should it be determined during the ROW phase that this well is affected, a cost to cure will likely be included in the appraisal to restore the well.

Based on a desktop review of the INDOT MS4 website (https://entapps.indot.in.gov/MS4/) by Lochmueller Group, Inc. on December 6, 2019, and the RFI report, this project is located in an Urban Area Boundary (UAB) location. An early coordination letter was sent on September 12, 2019 to the Morgan County MS4 coordinator. The MS4 coordinator did not respond within the 30-day time frame. The proposed scope of work for the project is limited to development or restoration of non-wetland forest and emergent wetland, and stream bank stabilization activities along Indian Creek. The anticipated functional gains of the proposed mitigation site include, but are not limited to, storm water retention, erosion control, and water filtration. These functional gains meet many of the objectives of the Morgan County Stormwater Management Ordinance. No adverse impact is expected.

Based on a desktop review, a site visit on July 9, 2019 by Lochmueller Group, Inc., and the aerial map of the project area (Appendix B, page 3), this project is located where there is a public water system. The public water system will not be affected because any public water system infrastructure located within the project area will be avoided. No planting or excavation will occur within utility easements. This recommendation is included in the Environmental Commitments section of this CE document. Utility coordination is ongoing.

	Presence	Impacts	
Flood Plains		Yes	No
Longitudinal Encroachment	X	X	
Transverse Encroachment	X	X	
Project located within a regulated floodplain	X	X	
Homes located in floodplain within 1000' up/downstream from project	X		X

Discuss impacts according to classification system described in the "Procedural Manual for Preparing Environmental Studies".

Remarks: Based on a desktop review of The Indiana Department of Natural Resources Indiana Floodway Information Portal Website (http://dnrmaps.dnr.in.gov/appsphp/fdms/) by Lochmueller Group, Inc. on December 6, 2019, and the RFI report, this project is located in a regulatory floodplain as determined from the approved IDNR floodplain maps (Appendix F, page 1). An early coordination letter was sent on September 12, 2019, to the local Floodplain Administrator. The floodplain administrator did not respond within the 30-day time frame. For both longitudinal encroachment and transverse encroachment of the floodplains, this project qualifies as a Category 3 per the current INDOT CE Manual, which states "The modifications to drainage structures included in this project will result in an insubstantial change in their capacity to carry flood water. This change could cause a minimal increase in flood heights and flood limits. These minimal increases will not result in any substantial adverse impacts on the natural and beneficial floodplain values; they will not result in substantial change in flood risks or damage; and they do not have substantial potential for interruption or termination of emergency service or emergency routes; therefore, it has been determined that this encroachment is not substantial."

	Presence		Impacts	
Farmland			Yes	No
Agricultural Lands		X	X	
Prime Farmland (per NRCS)		X	X	

Total Points (from Section VII of CPA-106/AD-1006* **133**

**If 160 or greater, see CE Manual for guidance.*

See CE Manual for guidance to determine which NRCS form is appropriate for your project.

Remarks: Based on a desktop review, a site visit on July 9, 2019 by Lochmueller Group, Inc., and the aerial map of the project area (Appendix B, page 3), the project will convert 109.5 acres of prime and unique farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on September 12, 2019 to Natural Resources Conservation Services (NRCS). Coordination with NRCS resulted in a score of 133 on the AD-1006 Form (Appendix C, pages 31-32). NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

SECTION C – CULTURAL RESOURCES

	Category	Type	INDOT Approval Dates	N/A
Minor Projects PA Clearance	B	13	3/30/2019; 2/13/2020 (revised)	

Results of Research	Eligible and/or Listed Resource Present
Archaeology	X
NRHP Buildings/Site(s)	
NRHP District(s)	
NRHP Bridge(s)	

Project Effect

No Historic Properties Affected ☐ No Adverse Effect ☐ Adverse Effect ☐

Documentation (mark all that apply)	**Documentation Prepared**	**ES/FHWA Approval Date(s)**	**SHPO Approval Date(s)**
Historic Properties Short Report			
Historic Property Report			
Archaeological Records Check/ Review			
Archaeological Phase Ia Survey Report	X	9/30/2019; 2/13/2020 (revised)	N/A
Archaeological Phase Ic Survey Report	X	9/30/2019	N/A
Archaeological Phase II Investigation Report			
Archaeological Phase III Data Recovery			
APE, Eligibility and Effect Determination			
800.11 Documentation			

		MOA Signature Dates (List all signatories)
Memorandum of Agreement (MOA)		

Describe all efforts to document cultural resources, including a detailed summary of the Section 106 process, using the categories outlined in the remarks box. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please indicate the publication date, name of paper(s) and the comment period deadline. Likewise include any further Section 106 work which must be completed at a later date, such as mitigation or deep trenching.

Remarks:

On March 30, 2019 the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category B, Type 13 under the Minor Projects Programmatic Agreement (MPPA) (Appendix D, pages 1-4). A revised MPPA form and Phase Ia Survey Report addendum were approved on February 13, 2020. An archaeological survey was required. Category B, Type 13 work includes construction and maintenance of environmental mitigation sites, including, but not limited to wetland and stream, forested floodway, and bat habitat. Clearance of this project under the MPPA is dependent upon the avoidance of all project-related activities within fifty feet of site 12Mg621 (Appendix D, page 11).

A Phase Ia Archaeology Survey report was prepared by Gray & Pape on August 8, 2019 (Appendix D, pages 5-7). One previously undocumented archaeological site (12MG621) was identified within the project area. Site 12MG621 was recommended as potentially eligible for the National Register of Historic Places (NRHP). Avoidance or Phase II testing was recommended for the area. An email dated September 30, 2019 from INDOT CRO indicated approval of the Phase Ia report (Appendix D, page 11). On October 8, 2019 the Phase 1a archaeological report was submitted to IDNR DHPA for their records only. An Archaeological Short Report was prepared as an addendum to the Phase Ia report on February 12, 2020 and approved on February 13, 2020 (Appendix D, pages 12-15). The addendum stated that no archeological sites were found during the additional field work and no further work was recommended. The project qualified as a Minor Project under the MPPA; therefore, no formal review was required.

A Phase Ic Archaeology Survey report was prepared by Gray & Pape on August 6, 2019 (Appendix D, pages 8-10). No buried archaeological sites were identified during subsurface investigations. No further archaeological investigations were recommended. An email from INDOT CRO dated September 30, 2019 indicated approval of the Phase Ic archaeological report (Appendix D, page 11). On October 8, 2019, the Phase Ic archaeological report was submitted to IDNR DHPA for their records only. The project qualified as a Minor Project under the MPPA; therefore, no formal review was required.

Site 12MG621 will be delineated with a 50-foot buffer and labeled “Avoidance Area – Do Not Disturb” on design plans. Special provisions will include no soil disturbance in this area. The area will be marked in the field with 4”x4” wooden posts to avoid accidental disturbance. Applicable recommendations regarding the protection of cultural resources can be found in the Environmental Commitments section of this CE document. No further consultation is required. This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

SECTION D – SECTION 4(f) RESOURCES/ SECTION 6(f) RESOURCES

Section 4(f) Involvement (mark all that apply)

	Presence	Use	
Parks & Other Recreational Land		Yes	No
Publicly owned park			
Publicly owned recreation area			
Other (school, state/national forest, bikeway, etc.)			

	Evaluations Prepared	FHWA Approval date
Programmatic Section 4(f)*		
"De minimis" Impact*		
Individual Section 4(f)		

	Presence	Use	
Wildlife & Waterfowl Refuges		Yes	No
National Wildlife Refuge			
National Natural Landmark			
State Wildlife Area			
State Nature Preserve			

	Evaluations Prepared	FHWA Approval date
Programmatic Section 4(f)*		
"De minimis" Impact*		
Individual Section 4(f)		

	Presence	Use	
Historic Properties		Yes	No
Sites eligible and/or listed on the NRHP	X		X

	Evaluations Prepared	FHWA Approval date
Programmatic Section 4(f)*		
"De minimis" Impact*		
Individual Section 4(f)		

**FHWA approval of the environmental document also serves as approval of any Section 4f Programmatic and/or De minimis evaluation(s) discussed below.*

Discuss Programmatic Section 4(f) and "de minimis" Section 4(f) impacts in the remarks box below. Individual Section 4(f) documentation must be separate Draft and Final documents. For further discussions on Programmatic, "de minimis" and Individual Section 4(f) evaluations please refer to the "Procedural Manual for the Preparation of Environmental Studies". Discuss proposed alternatives that satisfy the requirements of Section 4(f).

Remarks: Section 4(f) of the U.S. Department of Transportation Act of 1966 prohibits the use of certain public and historic lands for federally funded transportation facilities unless there is no feasible and prudent alternative. The law applies to significant publicly owned parks, recreational areas, wildlife/waterfowl refuges, and NRHP eligible or listed historical properties regardless of ownership. Lands subject to this law are considered Section 4(f) resources.

Based on a desktop review, a site visit on July 9, 2019 by Lochmueller Group, Inc., the aerial map of the project area (Appendix B, page 3), the RFI report (Appendix E, page 8), archaeology investigations (Appendix D, pages 5-10 and 12-14), and the Minor Projects PA Clearance (Appendix D, page 1-4); there is one 4(f) resource located within the project area. Potentially NRHP-eligible archaeological site 12MG621 is located within the project area (Appendix D, page 5-7). Site 12MG621 will be delineated with a 50-foot buffer and labeled "Avoidance Area – Do Not Disturb" on design plans. Special provisions will include no soil disturbance in this area. The area will be marked in the field with 4"x4" wooden posts to avoid accidental disturbance. The project will not use this resource because the area will be avoided and will not alter the environment in such a way as to constitute constructive use of this resource. Therefore, no use is expected.

Section 6(f) Involvement	**Presence**	**Use**	
		Yes	**No**
Section 6(f) Property			

Discuss proposed alternatives that satisfy the requirements of Section 6(f). Discuss any Section 6(f) involvement.

Remarks: The U.S. Land and Water Conservation Fund Act of 1965 established the Land and Water Conservation Fund (LWCF), which was created to preserve, develop, and assure accessibility to outdoor recreation resources. Section 6(f) of this Act prohibits conversion of lands purchased with LWCF monies to a non-recreation use.

A review of 6(f) properties on the LWCF website at https://www.lwcfcoalition.com/tools revealed a total of four properties in Morgan County (Appendix I, page 1). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources as a result of this project.

SECTION E – Air Quality

Air Quality

Conformity Status of the Project	**Yes**	**No**
Is the project in an air quality non-attainment or maintenance area?	X	
If YES, then:		
Is the project in the most current MPO TIP?	N/A	
Is the project exempt from conformity?	X	
If the project is NOT exempt from conformity, then:		
Is the project in the Transportation Plan (TP)?		
Is a hot spot analysis required (CO/PM)?		

Level of MSAT Analysis required?

Level 1a [X] Level 1b [ ] Level 2 [ ] Level 3 [ ] Level 4 [ ] Level 5 [ ]

Remarks: The Fiscal Year (FY) 2020-2024 Statewide Transportation Improvement Program (STIP) is listed based on the lead DES number in the contract. The lead DES number for this contract is 0300382. All costs of I-69 Section 6 mitigation sites are included under *INDOT Programs and Special Projects: I-69 Section 6* in the FY 2020-2024 STIP (Appendix H, page 1).

This project is located in Morgan County, which is currently a maintenance area for 8-hour ozone (entire county) and 1-hour sulfur dioxide (Clay and Washington Townships only) according to the EPA Green Book website

(https://www.epa.gov/green-book). This project has been identified as being exempt from air quality analysis in accordance with 40 CFR Part 93.126 and this project is not a project of air quality concern (40 CFR Part 93.123). Therefore, the project will have no significant impact on air quality.

This project is of a type qualifying as a categorical exclusion (Group 1) under 23 CFR 771.117(c), or exempt under the Clean Air Act conformity rule under 40 CFR 93.126, and as such, a Mobile Source Air Toxics analysis is not required.

SECTION F - NOISE

Noise

	Yes	No
Is a noise analysis required in accordance with FHWA regulations and INDOT's traffic noise policy?		X

	No	Yes/ Date
ES Review of Noise Analysis		

Remarks: This is a Type III project. In accordance with 23 CFR 772 and the current *INDOT Traffic Noise Analysis Procedure*, this action does not require a formal noise analysis.

SECTION G – COMMUNITY IMPACTS

Regional, Community & Neighborhood Factors	Yes	No
Will the proposed action comply with the local/regional development patterns for the area?	X	
Will the proposed action result in substantial impacts to community cohesion?		X
Will the proposed action result in substantial impacts to local tax base or property values?		X
Will construction activities impact community events (festivals, fairs, etc.)?		X
Does the community have an approved transition plan?	X	
If No, are steps being made to advance the community's transition plan?		
Does the project comply with the transition plan? (explain in the remarks box)	N/A	

Remarks: No community impacts are expected to occur as the project will only consist of the preservation, enhancement, and development of forest, streams, and wetlands (Appendix B, page 4). Morgan County has an approved Americans with Disabilities Act (ADA) transition plan. However, due to the type of project (environmental mitigation), ADA compliancy is not applicable.

Indirect and Cumulative Impacts	Yes	No
Will the proposed action result in substantial indirect or cumulative impacts?		X

Remarks: Indirect impacts are effects which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate. Cumulative impacts affect the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions.

The development of this land is for the preservation, enhancement, and development of forests, wetlands, and streams for the purpose of mitigation. It is not anticipated that substantial indirect or cumulative impacts will occur as a result of the

project. The construction activities will remain within the boundaries as shown in the attached maps (Appendix B, pages 1-4).

Public Facilities & Services

	Yes	No
Will the proposed action result in substantial impacts on health and educational facilities, public and private utilities, emergency services, religious institutions, airports, public transportation or pedestrian and bicycle facilities? *Discuss how the maintenance of traffic will affect public facilities and services.*		X

Remarks:

Based on a desktop review, a site visit on July 9, 2019 by Lochmueller Group, Inc., the aerial map of the project area (Appendix B, page 3), and the RFI report (Appendix E, page 8) there are three religious facilities, four pipeline segments, and one small private airport, McDaniels Field, within 0.5 mile of the project area. Two of the pipeline segments, associated with Indiana Gas Co. Inc., are within or adjacent to the project area. A 16-inch gas transmission line runs through the middle of the project site. The buried transmission line will remain in place and is not in conflict with the proposed work. An existing electric transmission line (South Central Indiana REMC) and proposed water line are also present within the project area. No work will be performed within the utility easements. Utility coordination is ongoing. Access to all properties will be maintained during construction. Therefore, no impacts are expected.

INDOT Utilities and Railroads, McDaniels Field, Morgan County Commissioners, Morgan County Highway Department, Morgan County surveyor, Morgan County Plan Commission, Morgan County Council, Washington Township Trustee, Morgan County Sheriff, and Morgan County EMA did not respond to early coordination.

It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access.

Environmental Justice (EJ) (Presidential EO 12898)

	Yes	No
During the development of the project were EJ issues identified?		X
Does the project require an EJ analysis?	X	
If YES, then:		
Are any EJ populations located within the project area?		X
Will the project result in adversely high or disproportionate impacts to EJ populations?		X

Remarks:

Under FHWA Order 6640.23A, FHWA and the project sponsor, as recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current INDOT Categorical Exclusion Manual, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent ROW. This project will require 130.3 acres of permanent ROW. Therefore, an EJ analysis is required.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exist and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city, or town and is called the community of comparison (COC). In this project, the COC is Morgan County. The community that overlaps the project limits is called the affected community (AC). In this project, the AC is Census Tract 5107.01. An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the 2013-2017 American Community Survey 5-Year Estimates was obtained from the U.S. Census Bureau website (https://factfinder.census.gov/) on December 9, 2019 by Lochmueller Group, Inc. The data collected for minority and low-income populations within the AC are summarized in the below table.

Table: Minority and Low-Income Data (2013-2017 American Community Survey 5-Year Estimates)		
	COC - Morgan County	AC - Census Tract 5107.01, Morgan County, Indiana
MINORITY		
Percent Minority	3.68%	3.03%
125% of COC	4.60%	AC < 125% COC
EJ Population of Concern?		No
LOW-INCOME		
Percent low-income	11.84%	12.98%
125% of COC	14.80%	AC < 125% COC
EJ Population of Concern?		No

The AC, Census Tract 5107.01, has a percent minority of 3.03% which is below 50% and is below the 125% COC threshold. Therefore, the AC does not contain minority populations of EJ concern.
The AC, Census Tract 5107.01, has a percent low-income of 12.98% which is below 50% and is below the 125% COC threshold. Therefore, the AC does not contain low-income populations of EJ concern.

The census data sheets, map, and calculations can be found in Appendix I, pages 2-6. No further environmental justice analysis is warranted.

Relocation of People, Businesses or Farms

	Yes	No
Will the proposed action result in the relocation of people, businesses or farms?		X
Is a Business Information Survey (BIS) required?		X
Is a Conceptual Stage Relocation Study (CSRS) required?		X
Has utility relocation coordination been initiated for this project?		X

Number of relocations: Residences: 0 Businesses: 0 Farms: 0 Other: 0

If a BIS or CSRS is required, discuss the results in the remarks box.

Remarks: No relocations of people, businesses, or farms will take place as a result of this project. Existing utilities on the property include a 16-inch gas line and an electric transmission line. INDOT Utilities and Railroad did not respond to early coordination. A 12-inch water line is proposed to run north-south through the southern portion of the project area. No plantings will occur within utility easements and no utilities will be relocated as a part of this project. Utility coordination is ongoing.

SECTION H – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)	**Documentation**
Red Flag Investigation	X
Phase I Environmental Site Assessment (Phase I ESA)	
Phase II Environmental Site Assessment (Phase II ESA)	
Design/Specifications for Remediation required?	

	No	Yes/ Date
ES Review of Investigations		7/16/2019

Include a summary of findings for each investigation.

Remarks: Based on a review of GIS and available public records, an RFI was completed on July 16, 2019 by Lochmueller Group, Inc. (Appendix E, page 1-14). One Resource Conservation and Recovery Act (RCRA) generator/ treatment, storage, and disposal (TSD) site, four underground storage tanks (USTs), three leaking underground storage tanks (LUSTs), two National Pollutant Discharge Elimination System (NPDES) facilities, and four NPDES pipe locations are located within the 0.5 mile search radius. None of these sites are located within the project area and no hazmat sites were identified in or within 0.5 mile of the project area that will impact the project. The nearest RCRA Generator/TSD is 0.25 mile from the project area. The nearest UST site is 0.22 mile from the project area. The nearest LUST site is 0.18 mile from the project area. The nearest NPDES facility is 0.22 mile from the project area. The nearest NPDES pipe location is 0.24 mile from the project area. No impacts are expected because of distance or a No Further Action determination by IDEM. Further investigation for hazardous material concerns is not required at this time.

SECTION I – PERMITS CHECKLIST

Permits (mark all that apply)	**Likely Required**
Army Corps of Engineers (404/Section10 Permit)	
Individual Permit (IP)	X
Nationwide Permit (NWP)	
Regional General Permit (RGP)	
Pre-Construction Notification (PCN)	
Other	
Wetland Mitigation required	
Stream Mitigation required	
IDEM	
Section 401 WQC	X
Isolated Wetlands determination	
Rule 5	X
Other	
Wetland Mitigation required	
Stream Mitigation required	
IDNR	
Construction in a Floodway	X
Navigable Waterway Permit	
Lake Preservation Permit	
Other	
Mitigation Required	
US Coast Guard Section 9 Bridge Permit	
Others (Please discuss in the remarks box below)	

Remarks: A USACE 404/IP permit and IDEM 401 WQC permit are required for stream activities within the project area. An IDNR Construction in a Floodway permit will be required for the stream bank stabilization and water retention berm construction proposed within the floodway of Indian Creek. A Rule 5 permit from IDEM will be required due to anticipated soil disturbance totaling greater than 1 acre.

Applicable recommendations provided by IDNR and IDEM are included in the Environmental Commitments section of this document. If permits are found to be necessary, the conditions of the permit will be requirements of the project and will supersede these recommendations.

It is the responsibility of the project sponsor to identify and obtain all required permits.

SECTION J- ENVIRONMENTAL COMMITMENTS

The following information should be provided below: List all commitments, name of agency/organization requesting the commitment(s), and indicating which are firm and which are for further consideration. The commitments should be numbered.

Remarks:

Firm:

1. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD)
2. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
3. As described in the Mitigation and Monitoring Plan, the contractor will mark all trees proposed for clearing prior to cutting. INDOT or their designated representative will review the proposed tree clearing with the contractor to ensure clearing has been minimized to them maximum extent possible. An emphasis will be made to avoid clearing of larger trees, as well as, trees with cracks, crevices, or shaggy bark that would provide the highest potential as suitable bat roost trees. (INDOT ESD)
4. Workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. (INDOT Site Assessment and Management (INDOT SAM))
5. Avoid work within 50 feet of archaeological site 12Mg621. The site will be delineated with a 50-foot buffer and labeled "Avoidance Area – Do Not Disturb" on design plans. Special provisions will include no soil disturbance in the area. In the field, the area will be marked with 4"x4" wood posts to avoid accidental disturbance. (INDOT CRO)
6. Within Delineated Wetland 2, the area to be used for access to the Indian Creek stream bank for bank stabilization activities will be clearly marked on the plans. The surrounding wetland and preservation areas will be marked "Do Not Disturb" on the plans. Additional coordination with IDEM and USACE will be completed to determine if any additional mitigation for the impacts will be required. (Lochmueller Group, Inc.)
7. 0.01 acre of Delineated Wetland 3 is located within a bank stabilization area that will require tree clearing for access to the stream bank. This area will be marked as "Do Not Disturb" on the plans and will be avoided. No tree clearing will occur within the wetland. (Lochmueller Group, Inc.)
8. No planting or excavation will occur within utility easement; the area will be marked "Do Not Disturb" on the plans. (Lochmueller Group, Inc.)
9. Tree clearing must be avoided between April 1 – September 30. (USFWS)
10. To minimize impacts to the bark roosting species, including Indiana bat and northern long-eared bat, do not cut any trees suitable for 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. (IDNR-DFW)
11. To minimize impacts to foliage roosting species (such as the tri-colored bat), avoid the cutting of deciduous canopy tress as well from April 1 through September 30 to the extent possible. (IDNR DFW)

For Further Consideration:

12. Avoid all work within the inundated part of the stream channel (in perennial and larger intermittent streams) during fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment should be operated below Ordinary High Water Mark during this time unless the machinery is within the caissons or on the cofferdams. (USFWS)
13. Restrict below low-water work to placement of piers, pilings and/or footings, shaping of the spill around the bridge abutments, and placement of riprap. (USFWS)
14. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat. (USFWS)
15. Implement temporary erosion control devices such as placement of riprap check dams in drainage ways and ditches, installation of silt fences, covering exposed areas with erosion control materials, and grading slopes to retain runoff in basins. (USFWS)
16. Re-vegetate all disturbed soil areas immediately upon project completion, using native trees and shrubs in the riparian zone wherever feasible. (USFWS)

17. Post DO NOT DISTURB signs at the construction zone boundaries. (USFWS)
18. Minimize tree clearing for site access and construction and limit the width of any temporary access roads to 20' or less to facilitate closure of the forest canopy over the cleared access lane. (IDNR DFW)
19. Live stakes and/or other vegetation planted (woody and herbaceous) should consist of locally-native species only. (IDNR DFW)
20. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR DFW)
21. Plant native hardwood trees along the top of the bank and right-of-way to replace the vegetation destroyed during construction. (IDNR DFW)
22. Post "Do Not Mow or Spray" signs along the right-of-way. (IDNR DFW)

SECTION K- EARLY COORDINATION

Please list the date coordination was sent and all agencies that were contacted as a part of the development of this Environmental Study. Also, include the date of their response or indicate that no response was received. INDOT and FHWA are automatically considered early coordination participants and should only be listed if a response is received.

Remarks: Early coordination with the regulatory agencies was completed on September 12, 2019 (Appendix C). If no response was received, it was assumed the agency did not feel the project will result in substantial impacts. The following agencies/individuals were contacted during the coordination phase.

	Agency	Date of Response(s)
1.	USACE, Louisville District	--------
2.	USFWS, Bloomington Field Office	9/16/2019
3.	USDA, NRCS	10/14/2019
4.	National Park Service, Midwest Regional Office	--------
5.	U.S. Department of Housing and Urban Development	--------
6.	IDNR, Division of Fish and Wildlife	10/10/2019
7.	Indiana Geological Survey	9/12/2019
8.	INDOT, Office of Public Involvement	9/13/2019
9.	INDOT, Office of Utilities and Railroads	--------
10.	IDEM	9/12/2019
11.	IDEM, Groundwater Section	10/08/2019
12.	Morgan County MS4 Coordinator	--------
13.	Indianapolis MPO	--------
14.	Morgan County Board of Commissioners	--------
15.	McDaniel's Field Private Airport	--------
16.	Morgan County Highway Department	--------
17.	Morgan County Surveyor's Office	--------
18.	Morgan County Soil and Water Conservation District	--------
19.	Morgan County Council	--------
20.	Morgan County Planning and Zoning Office (Floodplain Administrator)	--------
21.	Washington Township Trustee	--------
22.	Morgan County Sheriff's Office	--------
23.	Morgan County EMA	--------

Designation (Des) No.: 1801389
I-69 Section 6 – Indian Creek Landlocked Mitigation Site
Morgan County, IN

Appendix A: INDOT Supporting Documents

Appendix B: Graphics

Appendix C: Early Coordination

Appendix D: Section 106

Appendix E: Red Flag

Appendix F: Water Resources

Appendix G: Public Involvement

Appendix H: Air Quality

Appendix I: Other

Categorical Exclusion

Appendix A

INDOT Supporting Documentation

Categorical Exclusion Level Thresholds

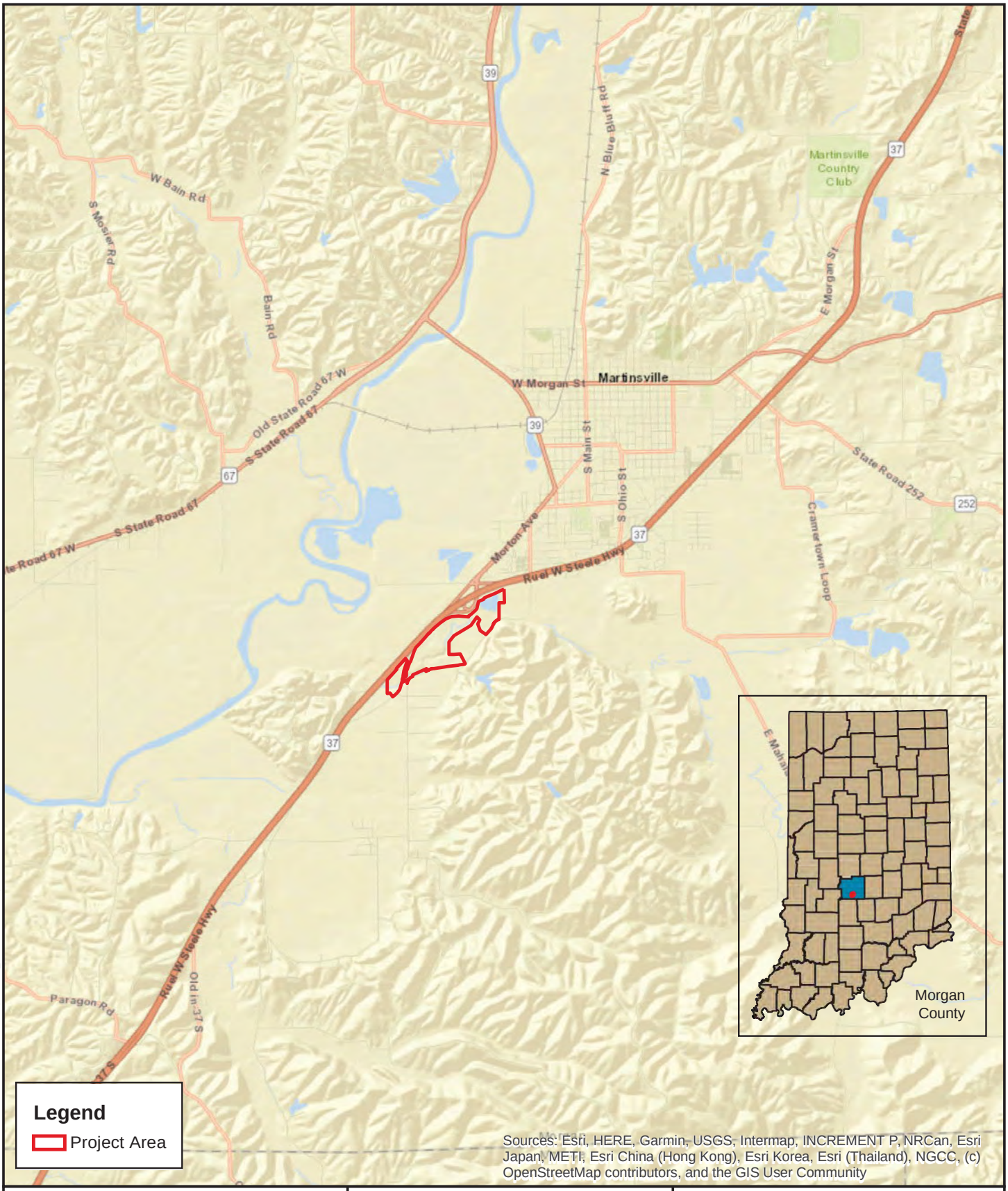
	PCE	Level 1	Level 2	Level 3	Level 4[1]
Section 106	Falls within guidelines of Minor Projects PA	"No Historic Properties Affected"	"No Adverse Effect"	-	"Adverse Effect" Or Historic Bridge involvement[2]
Stream Impacts	No construction in waterways or water bodies	< 300 linear feet of stream impacts	2' 300 linear feet of stream impacts	-	Individual 404 Permit
Wetland Impacts	No adverse impacts to wetlands	< 0.1 acre	-	< 1 acre	2' 1 acre
Right-of-way[3]	Property acquisition for preservation only or none	< 0.5 acre	2' 0.5 acre	-	-
Relocations	None	-	-	< 5	2' 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)	"No Effect", "Not likely to Adversely Affect" (Without AMMs[4] or with AMMs required for all projects[5])	"Not likely to Adversely Affect" (With any other AMMs)	-	"Likely to Adversely Affect"	Project does not fall under Species Specific Programmatic
Threatened/Endangered Species (Any other species)	Falls within guidelines of USFWS 2013 Interim Policy	"No Effect", ""Not likely to Adversely Affect"	-	-	"Likely to Adversely Affect"
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential[6]
Sole Source Aquifer	Detailed Assessment Not Required	-	-	-	Detailed Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Coastal Zone Consistency	Consistent	-	-	-	Not Consistent
National Wild and Scenic River	Not Present	-	-	-	Present
New Alignment	None	-	-	-	Any
Section 4(f) Impacts	None	-	-	-	Any
Section 6(f) Impacts	None	-	-	-	Any
Added Through Lane	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Coast Guard Permit	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes[7]
Approval Level • **District Env. Supervisor** • **Env. Services Division** • **FHWA**	Concurrence by INDOT District Environmental or Environmental Services	Yes	Yes	Yes Yes	Yes Yes Yes

[1]Coordinate with INDOT Environmental Services. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.
[2]Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.
[3]Permanent and/or temporary right-of-way.
[4]AMMs = Avoidance and Mitigation Measures.
[5]AMMs determined by the IPAC decision key to be needed that are listed in the USFWS *User's Guide for the Range-wide Programmatic Consultation for Indiana bat and Northern long-eared bat* as "required for all projects".
[6]Potential for causing a disproportionately high and adverse impact.
[7]Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.
*Substantial public or agency controversy may require a higher-level NEPA document.

Categorical Exclusion

Appendix B

Graphics



LOCHMUELLER GROUP
6200 Vogel Road
Evansville, IN 47715
Phone: (812) 479-6200
Fax: (812) 479-6262

General Location Map

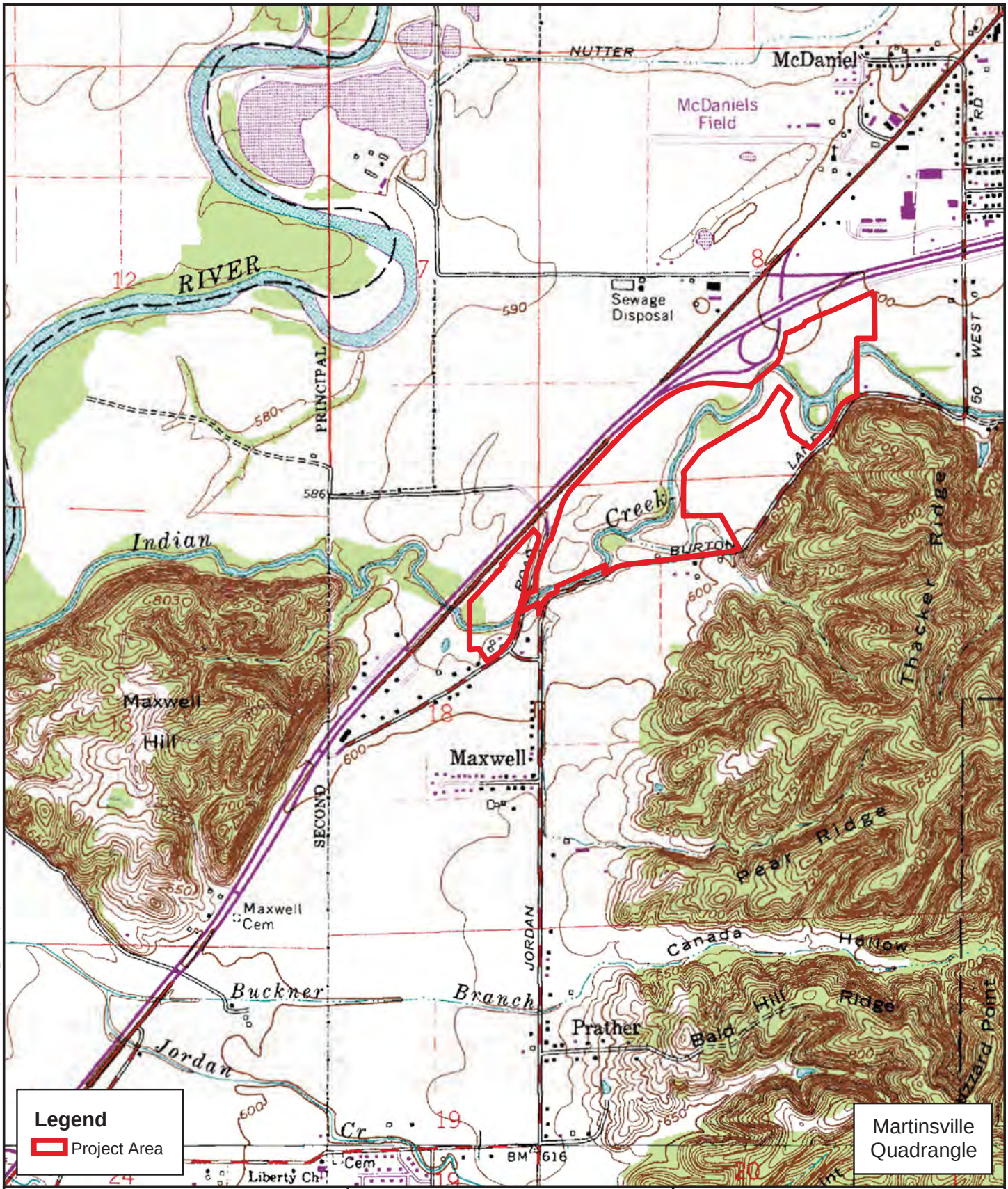
Des No. 1801389

0 0.5 1 Miles

County: Morgan
Township: Washington

Indian Creek Landlocked Mitigation Site
I-69 Section 6
Created:12/3/2019, H. Hume

S:\ENVIR\PROJ\03-0001\Mitigation Efforts\Section 6\Indian Creek Landlocked Site\Maps\GIS\CE_GeneralLocationMap.mxd



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6200 Vogel Road
Evansville, IN 47715
Phone: (812) 479-6200
Fax: (812) 479-6262

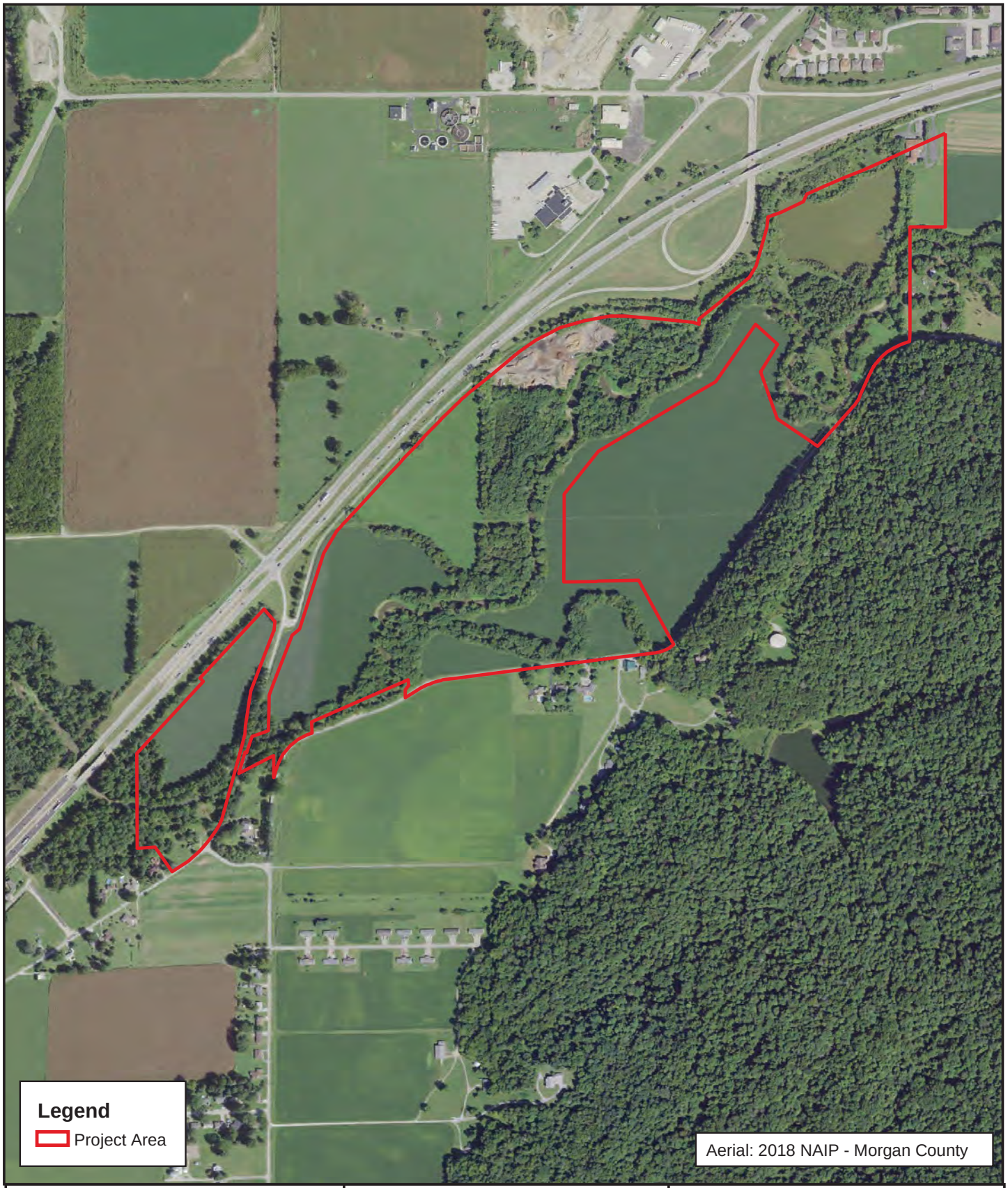
USGS Topographic Map

Des No. 1801389

0 0.25 0.5 Miles

County: Morgan
Township: Washington

Indian Creek Landlocked Mitigation Site
I-69 Section 6
Created:12/3/2019, H. Hume



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LOCHMUELLER GROUP
6200 Vogel Road
Evansville, IN 47715
Phone: (812) 479-6200
Fax: (812) 479-6262

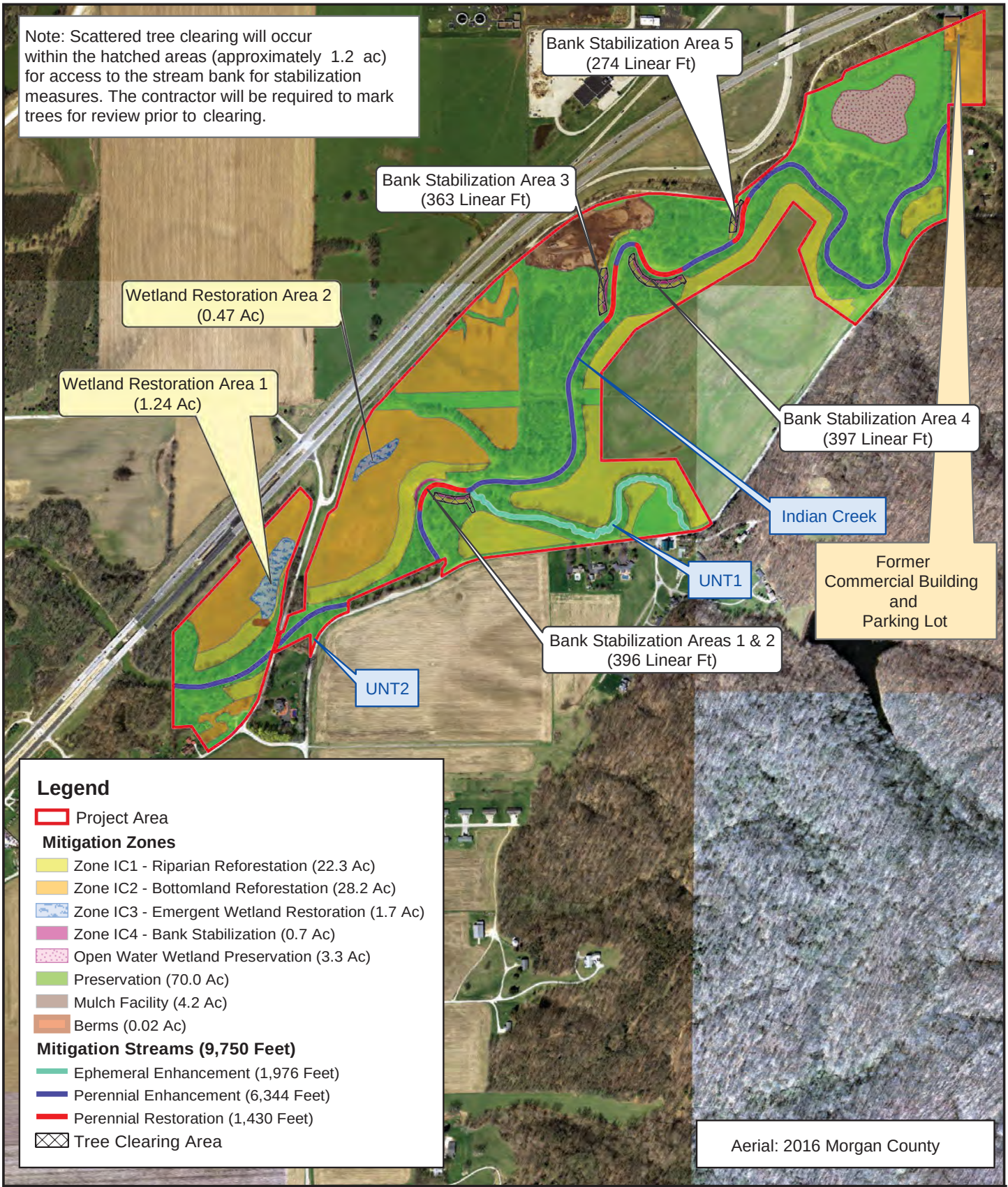
Aerial Map

Des. No. 1801389

0 500 1,000 Feet

County: Morgan
Township: Washington

Indian Creek Landlocked Mitigation Site
I-69 Section 6
Created:1/24/2020, H. Hume



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LOCHMUELLER GROUP
6200 Vogel Road
Evansville, IN 47715
Phone: (812) 479-6200
Fax: (812) 479-6262

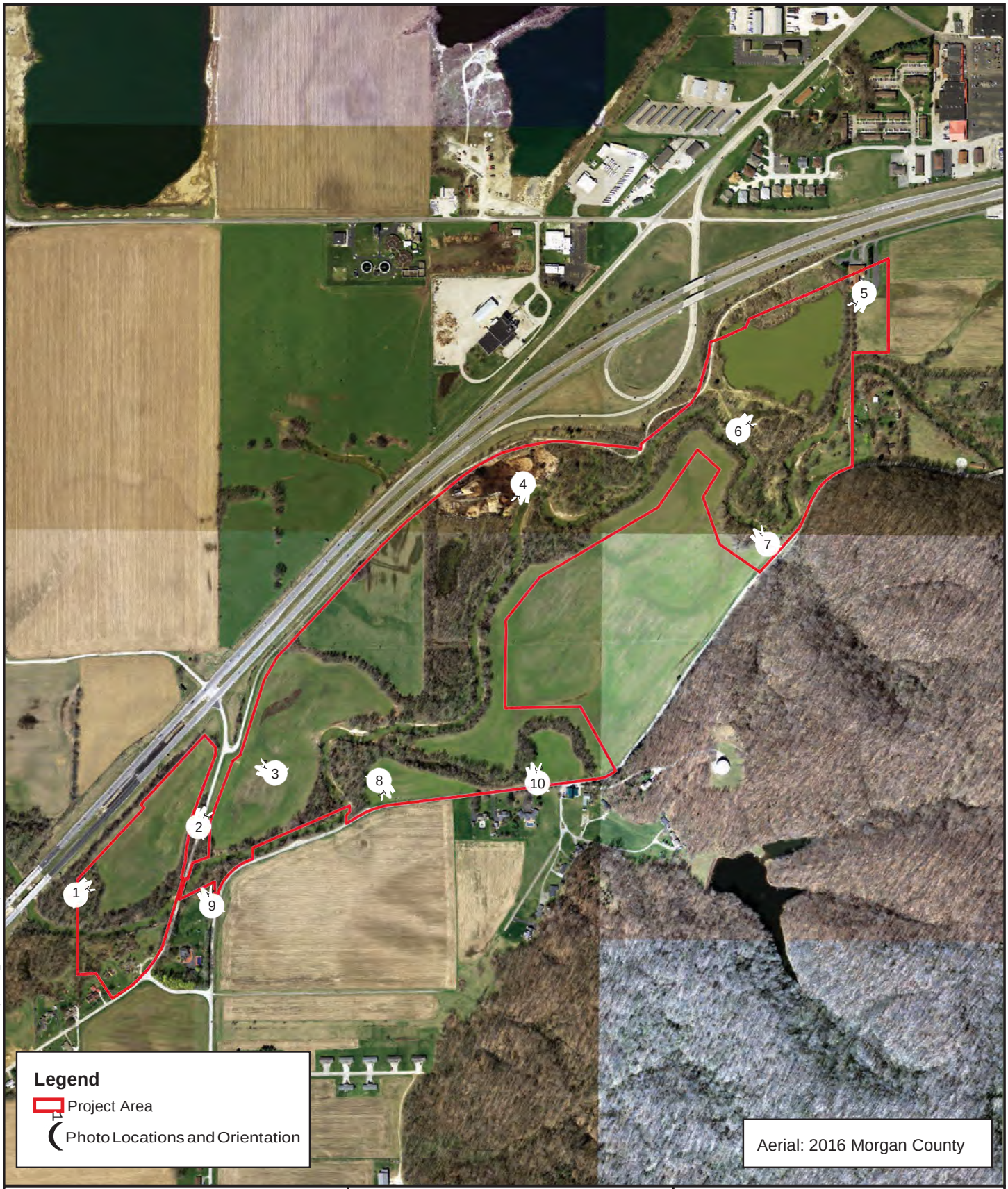
Project Map

Des. No. 1801389

0 500 1,000 Feet

County: Morgan
Township: Washington

Indian Creek Landlocked Mitigation Site
I-69 Section 6
Created:3/5/2020, H. Hume



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LOCHMUELLER GROUP

6200 Vogel Road
Evansville, IN 47715
Phone: (812) 479-6200
Fax: (812) 479-6262

Photo Location Map

Des No. 1801389

0 500 1,000 Feet

County: Morgan
Township: Washington

Indian Creek Landlocked Mitigation Site
I-69 Section 6
Created:12/3/2019, H. Hume

1. Wooded area, looking northeast (12/18/18)

2. Old SR 37, looking north (12/18/18)

3. Agricultural field, looking west (12/18/18)

4. Indian Creek, looking south (12/18/18)

5. Agricultural field, looking southwest (12/18/18)

6. Wooded wetland area, looking northeast (12/18/18)

7. Indian Creek, looking northwest (12/18/18)

8. Agricultural field, looking southeast (12/18/18)

9. Wooded area, looking northwest (12/18/18)

10. Agricultural field, looking north (12/18/18)

PROJECT	DESIGNATION
1801389	1801389
CONTRACT	BRIDGE FILE
____	-

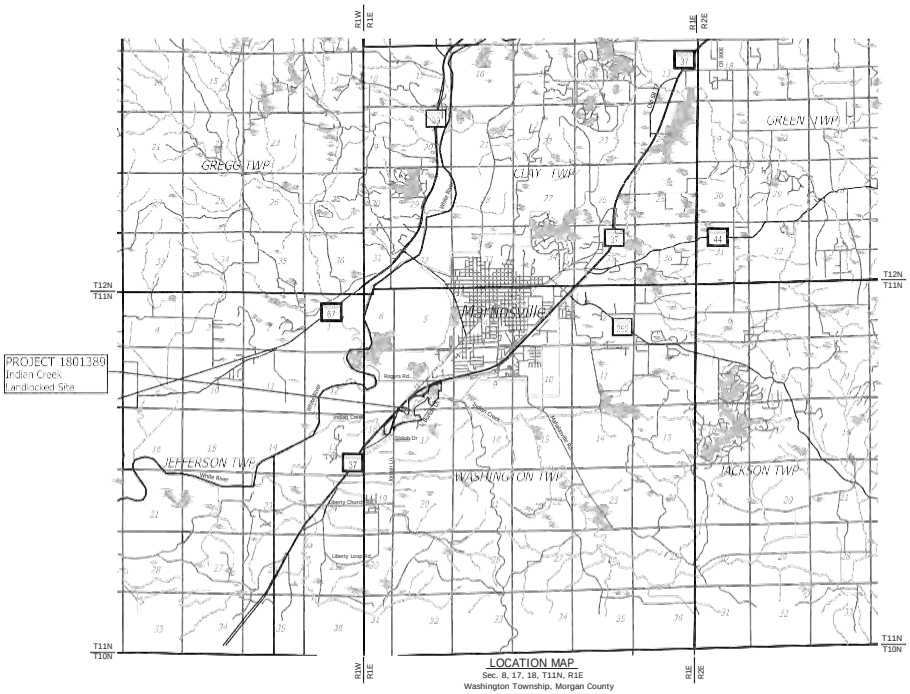
INDIANA DEPARTMENT OF TRANSPORTATION

MITIGATION PLANS

INDIAN CREEK LANDLOCKED SITE

PROJECT NO. 1801389 P.E., R/W & CONSTR.

Project Site Located adjacent to the south side of the SR 37/SR 39 interchange on Martinsville in between SR 37 and Burton Lane.



LOCATION MAP
Sec. 8, 17, 18, T11N, R1E
Washington Township, Morgan County

SCALE: 1"=5000'

TRAFFIC DATA

A.A.D.T.	(---)	---- V.P.D.
A.A.D.T.	(---)	---- V.P.D.
D.H.V.	(---)	---- V.P.H.
DIRECTIONAL DISTRIBUTION		---- %
TRUCKS		---- A.A.D.T.
		---- D.H.V.

DESIGN DATA

DESIGN SPEED	---- M.P.H.
PROJECT DESIGN CRITERIA	N/A
FUNCTIONAL CLASSIFICATION	N/A
RURAL/URBAN	N/A
TERRAIN	N/A
ACCESS CONTROL	N/A

PROJECT LOCATION SHOWN BY
(------)

LATITUDE: 39°23'57" N LONGITUDE: 86°26'57" W

BRIDGE LENGTH: ---------- MI.
ROADWAY LENGTH: ---------- MI.
TOTAL LENGTH: ---------- MI.
MAX. GRADE---------- %

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2018
TO BE USED WITH THESE PLANS

Plans Prepared By:
LOCHMUELLER GROUP
6200 Vogel Road
Evansville, Indiana 47715
Phone: 812.479.6200
Toll Free: 800.423.7411

:yF m y

PLANS PREPARED BY: ------- (---) -------
PHONE NUMBER

CERTIFIED BY: --/--/--
DATE

APPROVED FOR LETTING: _____
INDIANA DEPARTMENT OF TRANSPORTATION DATE

BRIDGE FILE	
-	
DESIGNATION	
1801389	
SURVEY BOOK	SHEETS
	1 of 11
CONTRACT	PROJECT
-	1801389

UTILITIES

GENERAL NOTES

	All earth shoulders, median areas, and cut and fill slopes shall be plain or mulch seeded except where sodding is specified.
	The final cross section of the grading contract will be the original cross sections of the paving contract. However, partial or complete cross sections shall be taken if necessary to determine the actual excavation quantities.
	The paper relocation will be cross sectioned by the Engineer before construction.
	The quantity of peat excavation shown of the plans has been estimated on the basis of theoretical cross sections by using treatment of existing fills, treatment by removal, or treatment by displacement, where each treatment applies.
	Sheet Signs and Posts shall not be ordered until the exact number of signs and length of each post has been determined upon field investigation.
	All Signs shall be marked for identification. The Marking Material shall be either Scotch Lite, Seibulite, Reflexite or approved equal. The identifying message shall consist of INDOT and the Month and Year the sign is installed. The Message Copy shall consist of White or Black Lettering (of a minimum of 25mm in height) on Black or White Background respectively. The Marking for Sheet Signs shall be placed on the lower corner closest to the center-line of the road. The Marking for Panel Signs shall be placed on the bottom panel on the end closest to the centerline of the roadway. The Marking shall not be covered by the Sign's support after installation of the sign.
	Existing Stop Signs shall not be removed until the new ones are at the job site and ready to install. Stop signs shall be seen by traveling motorists at all times.
	All design shall be in accordance with the Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, Latest Edition.
	The Contractor will have an Option of Either Using our Standard Installation or Transpo's Break-Sate Type A and Type B Couplings for Sign Supports (Wide Flange)

** REPRESENTS GENERAL NOTES REQUIRED

INDEX

REVISIONS

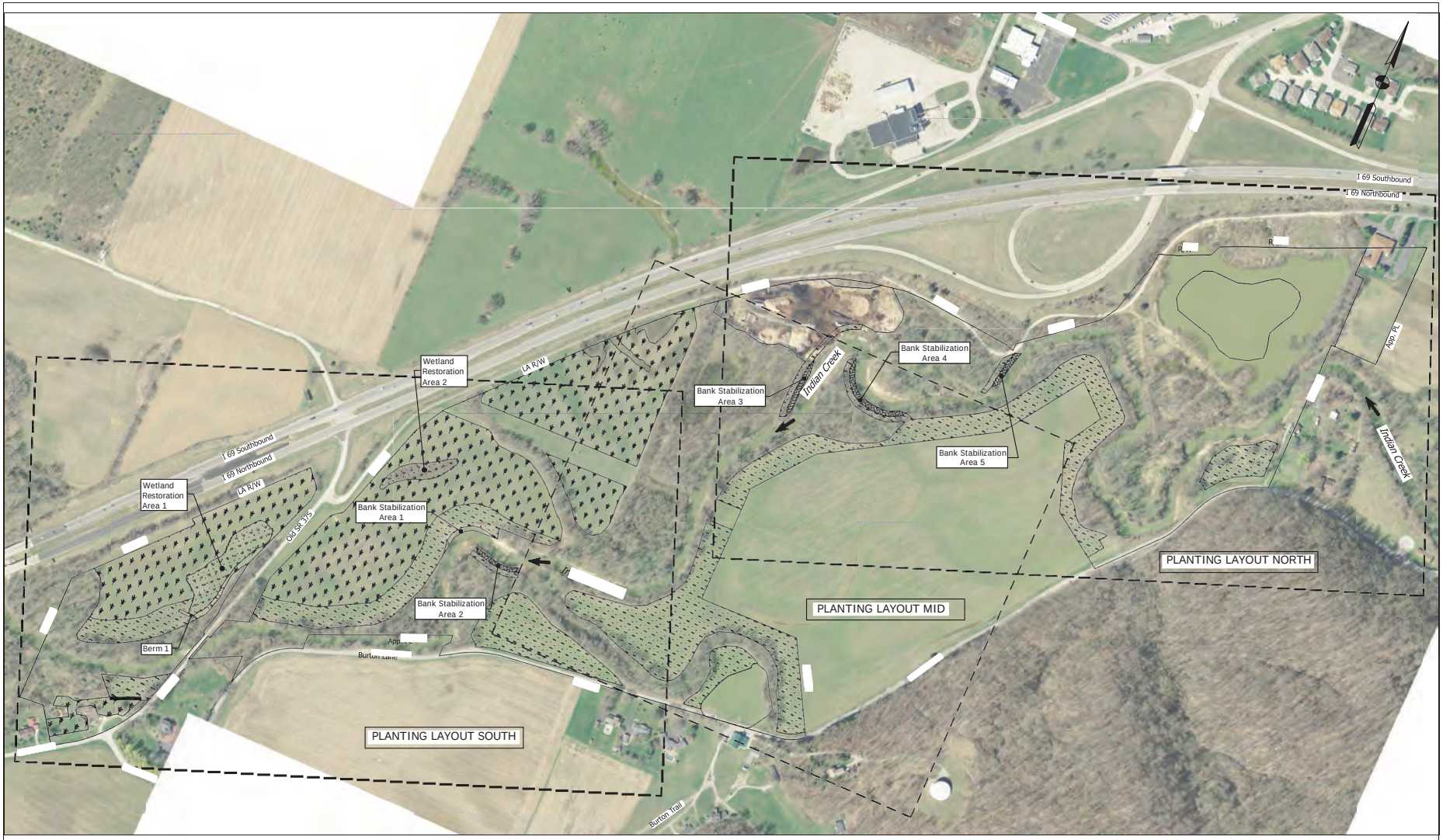
SHEET NO.	DATE	REVISED

Date: Jan 14, 2019, 4:03pm User Name: cap
File: S:\ENVIRNMS\03-0001\Mitigation Efforts\Section 6\Indian Creek Landlocked Site\Design\Cad\Plans\IC-Index.dwg

:yF m y

RECOMMENDED FOR APPROVAL ____ DESIGN ENGINEER --/--/-- DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: -	BRIDGE FILE: -
		VERTICAL SCALE: -	DESIGNATION: 1801389
DESIGNED: M.T.R. DRAWN: R.A.P.	INDEX SHEET	SURVEY BOOK	SHEETS: 2 of 11
CHECKED: J.A.D. CHECKED: M.T.R.		CONTRACT: -	PROJECT: 1801389

:yF m y	RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=300'	BRIDGE FILE -
			VERTICAL SCALE -	DESIGNATION 1801389
	DESIGNED: M.T.R. DRAWN: R.A.P.	OVERALL MITIGATION SITE LAYOUT	SURVEY BOOK -	SHEETS 3 of 11
	CHECKED: J.A.D. CHECKED: M.T.R.		CONTRACT R-41136	PROJECT 1801389



NOTE
See Sheets 5-7 For Planting Layouts South, Mid and North.

ZONE LEGEND

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: M.T.R. DRAWN: R.A.P.

CHECKED: J.A.D. CHECKED: M.T.R.

INDIANA
DEPARTMENT OF TRANSPORTATION

OVERALL PLANTING LAYOUT

HORIZONTAL SCALE	BRIDGE FILE
1"=200'	-
VERTICAL SCALE	DESIGNATION
-	1801389
SURVEY BOOK	SHEETS
	4 of 11
CONTRACT	PROJECT
R-41136	1801389

ZONE LEGEND

ZONE IC1 - Riparian Reforestation

ZONE IC2 - Non-WetlandReforestation

ZONE IC3 - Emergent Wetland Restoration

ZONE IC4 - Stream Bank Stabilization

MW_ Monitoring Well

:yF m y

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: M.T.R. DRAWN: R.A.P.

CHECKED: J.A.D. CHECKED: M.T.R.

INDIANA DEPARTMENT OF TRANSPORTATION

PLANTING LAYOUT SOUTH

HORIZONTAL SCALE	BRIDGE FILE
1"=100'	-
VERTICAL SCALE	DESIGNATION
-	1801389
SURVEY BOOK	SHEETS
	5 of 11
CONTRACT	PROJECT
R-41136	1801389

ZONE LEGEND

ZONE IC1 - Riparian Reforestation

ZONE IC2 - Non-Wetland Reforestation

ZONE IC4 - Stream Bank Stabilization

:yF m y

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: M.T.R. DRAWN: R.A.P.

CHECKED: J.A.D. CHECKED: M.T.R.

INDIANA DEPARTMENT OF TRANSPORTATION

PLANTING LAYOUT MID

HORIZONTAL SCALE	BRIDGE FILE
1"=100'	-
VERTICAL SCALE	DESIGNATION
-	1800935 & 1800937
SURVEY BOOK	SHEETS
	6 of 11
CONTRACT	PROJECT
R-41136	R-41136

ZONE LEGEND

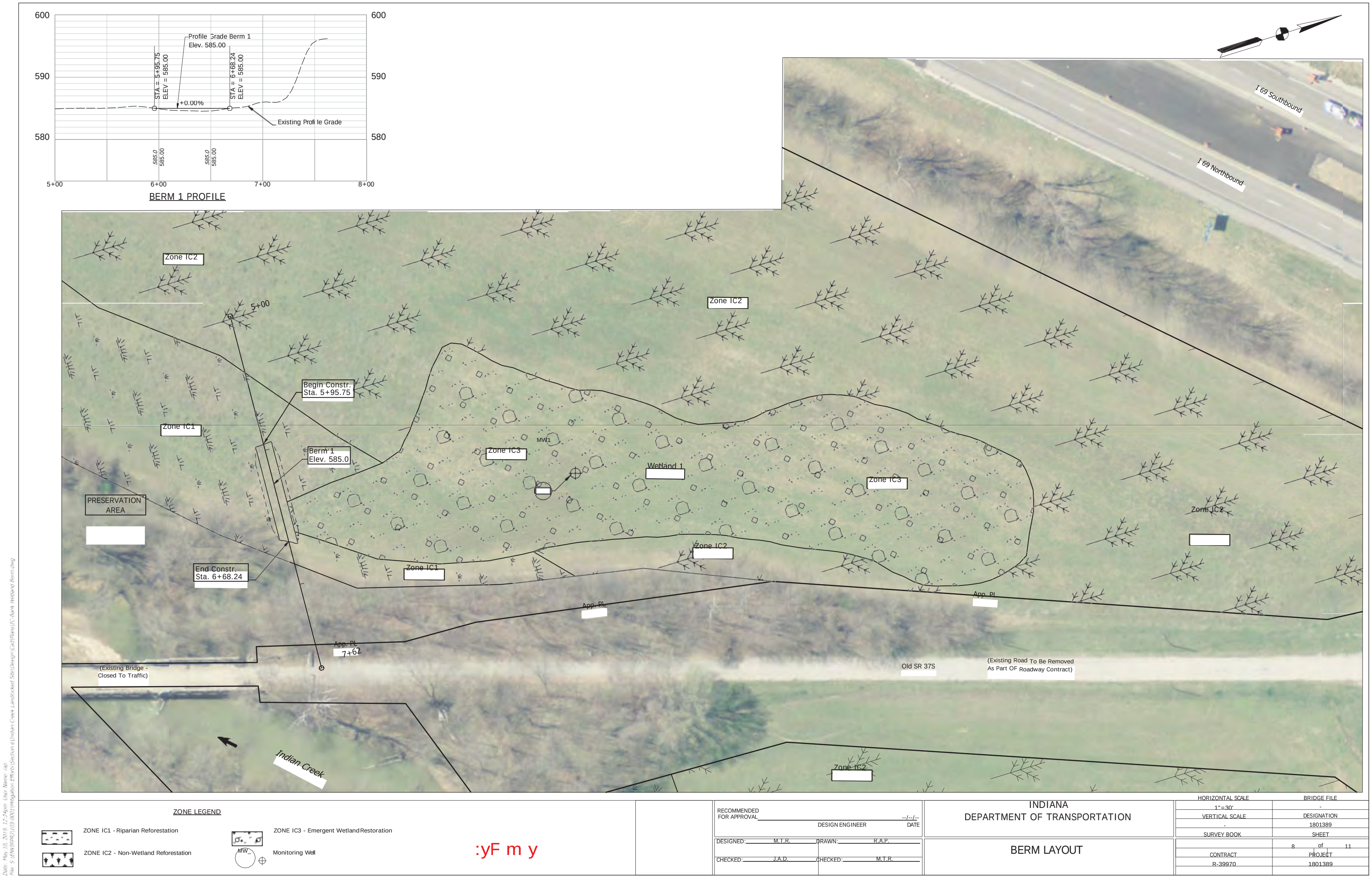
ZONE IC1 - Riparian Reforestation

ZONE IC2 - Non-Wetland Reforestation

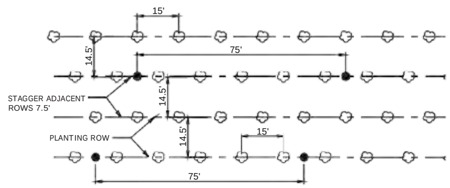
ZONE IC4 - Stream Bank Stabilization

:yF m y

RECOMMENDED FOR APPROVAL ______ DESIGN ENGINEER -/-/- DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=100'	BRIDGE FILE -
		VERTICAL SCALE -	DESIGNATION 1801389
DESIGNED: M.T.R. DRAWN: R.A.P.		SURVEY BOOK	SHEETS 7 of 11
CHECKED: J.A.D. CHECKED: M.T.R.	PLANTING LAYOUT NORTH	CONTRACT R-41136	PROJECT 1801389

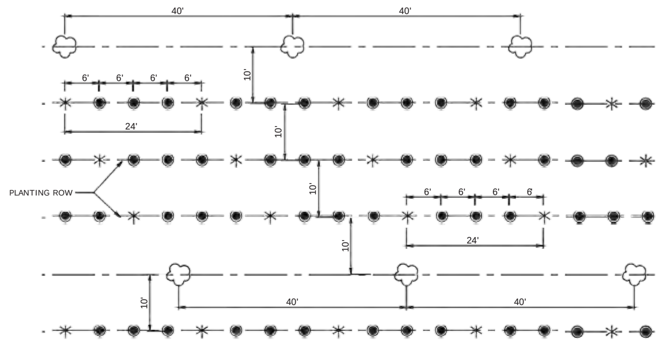


600
590
580
Profile Grade Berm 1
Elev. 585.00
STA = 5+95.75
ELEV = 585.00
STA = 6+68.24
ELEV = 585.00
+0.00%
Existing Profile Grade
585.0
585.00
5+00
6+00
7+00
8+00
BERM 1 PROFILE
I 69 Southbound
I 69 Northbound
Zone IC2
Zone IC1
Zone IC3
5+00
Begin Constr.
Sta. 5+95.75
Berm 1
Elev. 585.0
MW1
Wetland 1
PRESERVATION AREA
End Constr.
Sta. 6+68.24
App. PL
7+62
(Existing Bridge - Closed To Traffic)
Old SR 37S
(Existing Road To Be Removed As Part OF Roadway Contract)
Indian Creek
ZONE LEGEND
ZONE IC1 - Riparian Reforestation
ZONE IC2 - Non-Wetland Reforestation
ZONE IC3 - Emergent Wetland Restoration
MW
Monitoring Well
:yF m y
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE
DESIGNED: M.T.R.
DRAWN: R.A.P.
CHECKED: J.A.D.
CHECKED: M.T.R.
INDIANA
DEPARTMENT OF TRANSPORTATION
BERM LAYOUT
HORIZONTAL SCALE
1"=30'
VERTICAL SCALE
SURVEY BOOK
CONTRACT
R-39970
BRIDGE FILE
DESIGNATION
1801389
SHEET
8 of 11
PROJECT
1801389



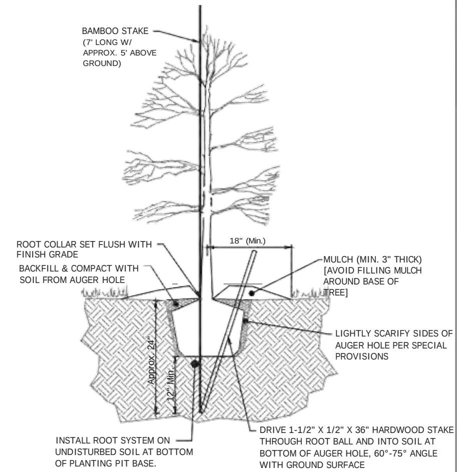
PLANTING LAYOUT ZONE IC1 (RIPARIAN REFORESTATION)
NOT TO SCALE

LEGEND
CONTAINER GROWN CANOPY TREE
CONTAINER GROWN UNDERSTORY SHRUB



PLANTING LAYOUT ZONE IC2 (BOTTOMLAND REFORESTATION)
NOT TO SCALE

LEGEND
CONTAINER GROWN CANOPY TREE
BARE ROOT UNDERSTORY SEEDLING
BARE ROOT CANOPY SEEDLING



CONTAINER GROWN TREE PLANTING DETAIL
NOT TO SCALE

TREE AND SHRUB PLANTING SUMMARY

Canopy Species	Planting Zone / Description / Acreage/Length / Planting Density	IC1 / Riparian / 22.3 / 200 st/ac	IC2 / Bottomland / 28.5 / 408 st/ac	27 st/ac	IC4 / Bank Stabilization / 0.7 (1,430 Ft) / varies**	Project Total		
Scientific Name	Common Name	CG	BR	CG	LS (3')	BR	CG	LS (3')
Acer rubrum	Red Maple		1292	77		1,292	77	--
Acer saccharinum	Silver Maple		646	77		646	77	--
[illegible]	Bitternut Hickory	558	1292	77		1,292	635	--
[illegible]	Shellbark Hickory		1292	77		1,292	77	--
Juglans nigra	Black Walnut	558				--	558	--
Liquidambar styraciflua	Sweetgum		1292	77		1,292	77	--
Quercus bicolor	Swamp White Oak	558	1292	77		1,292	635	--
Quercus imbricaria	Shingle Oak	558				--	558	--
Quercus macrocarpa	Bur Oak	557	1292	77		1,292	634	--
Quercus palustris	Pin Oak	557	1292	77		1,292	634	--
Quercus shumardii	Shumard Oak	557				--	557	--
Platanus occidentalis	Sycamore	557	1292	77	536	1,292	634	536
Populus deltoides	Cottonwood		646	77		646	77	--
	Totals	4,460	11,628	770	536	11,628	5,230	536

Understory Species	Planting Density	40 st/ac	336 st/ac	N/A	varies**	Project Total		
Scientific Name	Common Name	CG	BR	CG	LS (3')	BR	CG	LS (3')
[illegible]	Black Chokeberry		969			969	--	--
Cornus amomum	Silky dogwood	223			1,341	--	223	1,341
Cornus drummondii	Roughleaf Dogwood	223	969			969	223	--
Cornus racemosa	Gray Dogwood	223	969			969	223	--
Physocarpus opulifolius	Common Ninebark	223	969			969	223	--
Salix spp.*	Willow Species				1,340	--	--	1,340
	Totals	892	3,876	0	2,681	3,876	892	2,681

Planting Totals	BR	CG	LS (3')
BR Seedling, Bare Root (EACH)	15,504	--	--
CG Plant Deciduous Tree, Single Stem 0.75 inch or Under (EACH)	--	5,230	--
CG Plant Deciduous Shrub, Single Stem 24 to 36 inch (EACH)	--	892	--
LS Plant Live Stake Planting, 3 Foot (EACH)	--	--	3,217

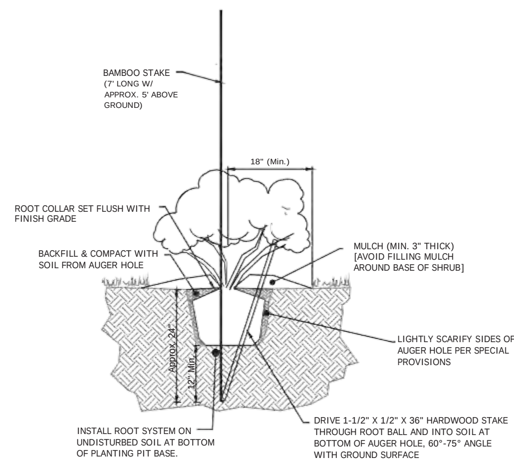
*[illegible]

**[illegible]

SEEDING SUMMARY

Seed Mixtures	Rate (lbs/ac)	Zone (Acres) IC1 22.3	IC2 28.5	IC3 1.2	IC4 0.7	Berm 0.02	Totals
Seed Mixture, Woodland (LBS)	45.00	1,003.5	--				1,003.5
Seed Mixture, Wet Rye (LBS)	48.00		1,368.0				1,368.0
Seed Mixture, Emergent Wetlands (LBS)	[illegible]			54.0			54.0
Seed Mixture, Soil Stabilization (LBS)	75.00				51.0	1.5	52.6

Zone Descriptions:
Zone IC1 - Riparian Reforestation
Zone IC2 - Bottomland Reforestation
Zone IC3 - Emergent Wetland Restoration (PEM)
Zone IC4 - Open Water Wetland Preservation (PUB)
Berm



CONTAINER GROWN SHRUB PLANTING DETAIL
Not To Scale

:yF m y

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	-/-/- DATE	
DESIGNED: M.T.R.	DRAWN: R.A.P.		
CHECKED: J.A.D.	CHECKED: M.T.R.		

INDIANA
DEPARTMENT OF TRANSPORTATION

DETAILS & TABLES

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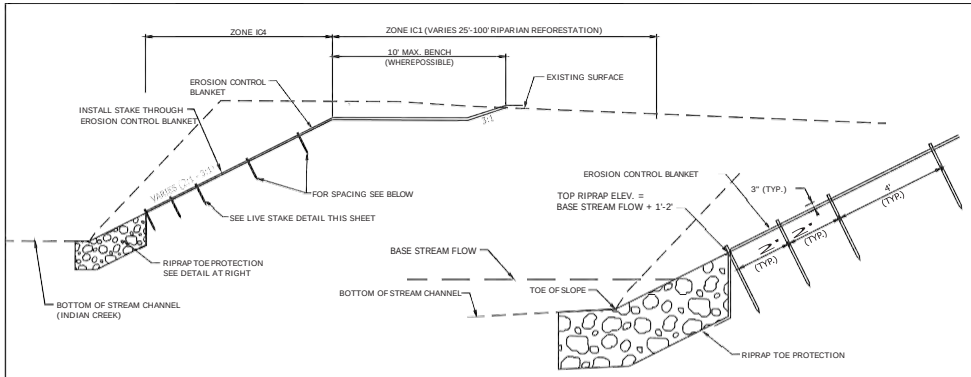
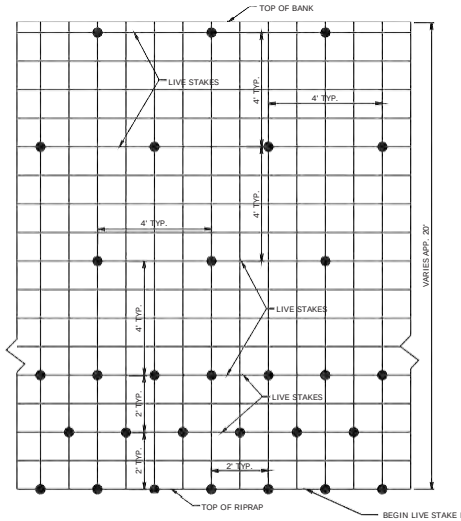
AS SHOWN	-
VERTICAL SCALE	DESIGNATION
AS SHOWN	1801389
SURVEY BOOK	SHEETS
	9 of 11
CONTRACT	PROJECT
R-41136	1801389



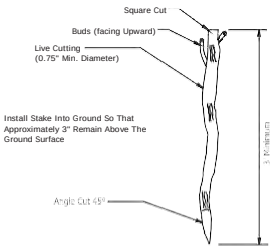
INDIAN CREEK STREAM BANK STABILIZATION ZONE IC4

Not To Scale

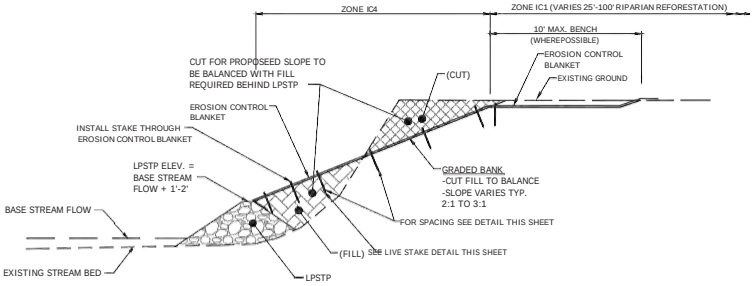
BANK STABILIZATION OPTION 1



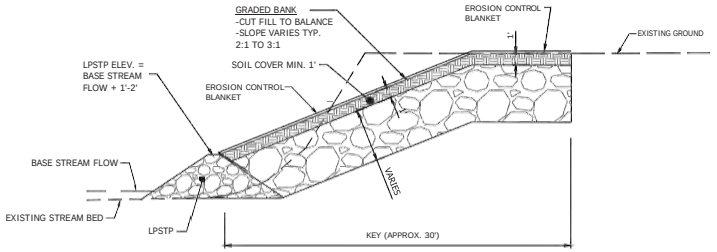
LIVE STAKE INSTALLATION DETAIL ZONE IC4



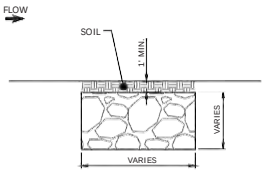
LIVE STAKE DETAIL



LPSTP TYPICAL SECTION
STREAM BANK STABILIZATION
Scale: 1"=5'



LPSTP KEYWAY DETAIL
STREAM BANK STABILIZATION
Scale: 1"=5'



LPSTP KEY TYPICAL SECTION
STREAM BANK STABILIZATION
Scale: 1"=5'

BANK STABILIZATION OPTION 2

NOTE:
LPSTP DENOTES LONGITUDINAL PEAK STONE TOE PROTECTION.

FINAL DESIGN OF BANK STABILIZATION MEASURES WILL BE DETERMINED FOLLOWING TOPOGRAPHIC SURVEY AND HYDRAULIC ANALYSIS. STABILIZATION MEASURES ARE ANTICIPATED TO BE IN ACCORDANCE WITH OPTION 1 AND/OR 2 AS SHOWN, OR MAY INVOLVE A COMBINATION OF BOTH OPTIONS.

:yF m y

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: M.T.R. DRAWN: R.A.P.

CHECKED: J.A.D. CHECKED: M.T.R.

INDIANA DEPARTMENT OF TRANSPORTATION

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VERTICAL SCALE	DESIGNATION
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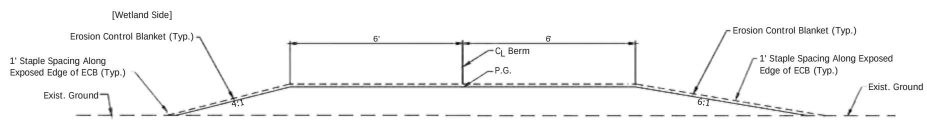
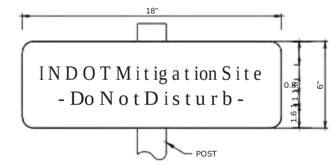
SURVEY BOOK	SHEETS
	10 of 11
CONTRACT	PROJECT
R-41136	1801389



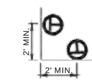
BERM TYPICAL SECTION
Scale: 1"=2'



SIGN, "DO NOT DISTURB"
NOT TO SCALE
EACH SIGN ASSEMBLY SHALL INCLUDE SIGN W/ POST

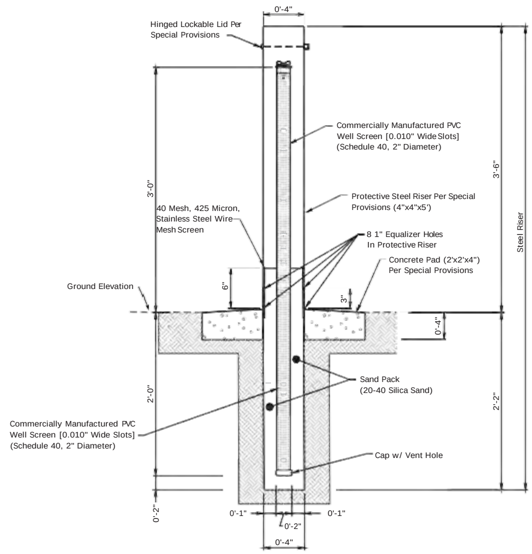
NOTES

- SIGNS ARE SHOWN OFFSET FROM THE PROPERTY/MITIGATION BOUNDARY LINES FOR GRAPHICAL PURPOSES. THE SIGNS SHALL BE PLACED DIRECTLY ON THE PROPERTY LINE .
- SIGNS WILL BE PLACED ALONG THE PROPERTY BOUNDARY FACING THE ADJACENT PROPERTIES. LOCATIONS TO BE DETERMINED DURING FINAL DESIGN AND SURVEY.



SIGNS AT CORNER (TYP.)

- 2 SIGNS SHALL BE PLACED AT EACH CORNER OF THE PROPERTY LINE. EACH SIGN SHALL BE A MAXIMUM OF 2 FEET FROM THE CORNER.



MW MONITORING WELL
NOT TO SCALE

:yF m y

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	--/--/-- DATE	
DESIGNED: M.T.R.	DRAWN: R.A.P.		
CHECKED: J.A.D.	CHECKED: M.T.R.		

INDIANA
DEPARTMENT OF TRANSPORTATION

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VERTICAL SCALE	DESIGNATION
AS SHOWN	1801389
SURVEY BOOK	SHEETS
	11 of 11
CONTRACT	PROJECT
-	1801389

Categorical Exclusion

Appendix C

Early Coordination

September 12, 2019

«Name»
«Title»
«Address1»
«Address2»
«City», «State» «Zip»

SAMPLE EARLY COORDINATION LETTER

Re: Des. No.: 1801389
I-69 Section 6 Mitigation Site – Indian Creek Landlocked
State Project
Less than one mile south of the City of Martinsville, between SR 37 and Burton Lane
Washington Township, Morgan County, Indiana

Dear «Salu»:

The Federal Highway Administration (FHWA) and the Indiana Department of Transportation (INDOT) propose to proceed with the development of an environmental mitigation project involving the Indian Creek Landlocked Site in Morgan County (Des. No.: 1801389) to provide a portion of the forest, wetland, and stream mitigation for Section 6 of the I-69 project from Martinsville to Indianapolis (Des. No. 0300382).

This letter is part of the early coordination phase of the environmental review process requesting comments associated with this project. Please use the above Des. No. and project description in your reply, and your comments will be incorporated into the formal environmental study. Your cooperation in this endeavor is appreciated.

Project Location and Existing Conditions
The proposed project is located between SR 37 and Burton Lane less than one mile south of Martinsville. More specifically, the project is located in Sections 8, 17, and 18, Township 11 North, Range 1 East, in Washington Township as depicted on the Martinsville U.S. Geological Survey (USGS) 1:24,000 scale quadrangle. Adjacent land use consists of agricultural areas, existing woodlands, and residential areas.

The total size of the Indian Creek Landlocked Mitigation Site is approximately 130.3 acres. Of this, 76.0 acres consist of existing forest, wetland, and stream habitat. The remaining 54.3 acres of the site consist primarily of fields in agricultural row crop production. Please see attachments for maps and photographs of the proposed project area.

Purpose and Need
The need for the project stems from the loss of forest, wetlands, and streams occurring from the construction of Section 6 of I-69. The purpose of the project is to provide compensatory mitigation for unavoidable impacts due the construction of Section 6 of I-69 and to comply with permitting regulations.

6200 Vogel Road
Evansville, Indiana 47715
PHONE: 812.479.6200 • TOLL FREE: 800.423.7411

Proposed Project

The Indian Creek Landlocked Mitigation Site will provide forest, wetland, and stream mitigation for the impacts associated with Design Contracts 2-5 of the I-69 Section 6 project. Design Contracts 2-5 extend from west of Morgan Street north of Martinsville along State Road 37 to the northern terminus of Section 6 at I-465 in Indianapolis. The proposed mitigation plan for the property includes 50.8 acres of bottomland and riparian reforestation, 69.8 acres of forest preservation, 3.3 acres of open water wetland preservation, 1.7 acres of emergent wetland restoration, 0.7 acre of live stake plantings for bank stabilization, 0.02 acre of berm creation, 1,976 linear feet of ephemeral stream enhancement, 6,344 linear feet of perennial stream enhancement, and 1,430 linear feet of perennial stream restoration in the form of Indian Creek bank stabilization. A 4.2-acre former mulch processing facility is located in the northern portion of the site. Site and soil investigations will occur within this area to evaluate opportunities for restoration, seeding, and/or planting. The existing riparian forested habitat will undergo enhancements in the form of invasive species treatments. Proposed activities will include grading to construct a water retention berm and for stabilization of the Indian Creek banks. Scattered tree clearing will be required for access to the banks of Indian Creek and construction of bank stabilization measures. Tree clearing will be minimized to the greatest extent possible.

An IDNR Construction in Floodway permit and IDEM Rule 5 Notice of Intent will be required for the proposed construction activities. The project will be included as a part of the IDEM Section 401 Water Quality Certification and USACE Section 404 Permit process associated with the I-69 Section 6 roadway project. Multiple construction entrances will be installed to prevent equipment from tracking soil material onto the roadways. Portions of the construction entrances may be left in place to provide parking and staging areas for future post-construction maintenance and monitoring activities. These locations will be determined during construction. Since the property directly abuts the I-69 Section 6 right-of-way and a county road, Burton Lane, a permanent easement will not be required.

No work will be performed within the roadway; therefore, a maintenance of traffic plan will not be required.

Construction is anticipated to begin in fiscal year (FY) 2020.

Right-of-Way (ROW)

The mitigation site is being purchased from multiple owners, primarily due to the properties becoming landlocked as a result of the I-69 Section 6 project. Much of the northern portions of the site have been acquired by INDOT via fee simple purchase. INDOT is currently in negotiations for fee simple acquisition of the remainder of the property, including the southern portions of the site and areas southeast of Indian Creek. The mitigation site is approximately 130.3 acres.

Environmental Resources

A Red Flag Investigation (RFI) was performed within a 0.5-mile radius of the property. Several "Red Flags" were identified within the 0.5-mile search radius; however, not all will be impacted by the proposed project. McDaniel's Field, a private airport, is located within 0.5 mile of the project area. Coordination with the airport will occur. Two pipeline segments associated with Indiana Gas Co. Inc. are located within or adjacent to the project area. Due to the presence of two lakes, ten NWI wetlands, and 21 NWI lines, seven stream segments (associated with Indian Creek and two unnamed tributaries (UNTs) to Indian Creek), and the location of the project area within a floodplain, coordination with INDOT Ecology and Waterway Permitting Office (EWPO) will occur. Indian Creek and the two UNTs to Indian Creek are listed as impaired for E. coli. Workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. This project is located outside the Karst Memorandum of Understanding Potential Karst Features Region.

Urbanized Area Boundary (UAB)

The project lies within the Martinsville UAB, and in accordance with 327 IAC 15-13 (Rule 13 – Municipal Separate Storm Sewer Systems), INDOT will develop a Storm Water Quality Management Plan. As part of its implementation, projects falling within the UAB will be required to consider appropriate post-construction storm water quality best management practices (BMPs). These BMPs should take into consideration the available space, pollutants of concern, and receiving waters.

Section 106

The National Register of Historic Places (NRHP) and the Indiana Register of Historic Sites and Structures (State Register) were reviewed using the State Historical and Archaeological Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM). No resources on either list are within a quarter-mile (0.25 mile) of the project area. The *Morgan County Interim Report* (1993) was examined. There is one inventoried resource rated Contributing within 100 feet of the project area. This resource, Morgan County Bridge No. 224 (HB-1253/IHSSI #109-386-60030) has been previously determined eligible for the NRHP according to the *Indiana Historic Bridge Inventory Volume 2: Listing of Historic and Non-Historic Bridges* (February 2009) by Mead & Hunt. No construction will occur adjacent to this bridge. There are no other bridges near the project area. There is another inventoried resource on the *Interim Report* within 200 feet of the project area; IHSSI #109-386-60031, House, Contributing. There are no cemeteries within a quarter-mile (0.25 mile) of the project area. Due to the project scope, coverage under the Minor Projects Programmatic Agreement (MPPA), Category B-13, appears applicable. If the MPPA is found not to apply, then formal Section 106 consultation with the State Historic Preservation Officer (SHPO), and other identified consulting parties will occur.

Range-wide Informal Programmatic Consultation

Morgan County is within the range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (*Myotis septentrionalis*). Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal and it was determined that the project falls outside of the scope of the Range-wide Programmatic

Informal Consultation for the Indiana bat and northern long-eared bat (NLEB); therefore, coordination with U.S. Fish and Wildlife Service (USFWS) will occur.

Early Coordination
This letter is part of the early coordination review process. You are asked to review this information and provide any comments you may have relative to anticipated impacts of the project on areas in which you have jurisdiction or special expertise. We will incorporate your comments into a study of the project's environmental impacts. To facilitate the development of this project, you are asked to reply within **30 days** of receipt of this letter. If no response is received by that date, it will be assumed you have no comments at the present time.

If you have any questions regarding this project, please feel free to contact me at (812)479-6200 or HHume@lochgroup.com. Additionally, should you want to contact the sponsor of this project, the Indiana Department of Transportation, please contact the project manager for I-69 Section 6 Mitigation, Sandra Flum, at (317)234-7248 or sflum@indot.IN.gov.

Thank you in advance for your input.

Sincerely,

Holly Hume
Environmental Biologist
Lochmueller Group, Inc.

Attachments:

- General Location Map
- USGS Quadrangle Map
- Red Flag Investigation Maps
- Soil and Wetland Map
- Photo Location Map and Photographs
- Proposed Mitigation Plan

Note: Attachments have been removed to avoid duplication

Distribution List:

- USFWS, Bloomington Field Office (electronic submission)
- National Resources Conservation Service, Indianapolis Office (electronic submission)
- U.S. Department of Housing and Urban Development (electronic submission)
- National Park Service
- FHWA – Indiana Division (electronic submission)
- IDNR, Division of Fish and Wildlife (electronic submission)
- IDEM (electronic submission)
- IDEM, Groundwater Section (electronic submission)

- INDOT, Office of Public Involvement (electronic submission)
- INDOT, Seymour District (electronic submission)
- INDOT, Environmental Services Division (electronic submission)
- INDOT, Utilities and Railroads (electronic submission)
- U.S. Army Corps of Engineers (electronic submission)
- Indiana Geological Survey (electronic submission)
- Morgan County MS4 Coordinator
- Morgan County Board of Commissioners
- Morgan County Planning and Zoning Office
- Morgan County Surveyor
- Morgan County Soil and Water Conservation District (electronic submission)
- Morgan County Highway Department
- Indianapolis Metropolitan Planning Organization
- McDaniel's Field
- Morgan County Council
- Washington Township Trustee
- Morgan County Sherriff's Office
- Morgan County EMA

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
Sandra Flum
100 N Senate Ave, Rm N601-IPD
Indianapolis , IN 46204
Date

Lochmueller Group, Inc.
Holly Hume
6200 Vogel Road
Evansville , IN 47715

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: The 130.3 Indian Creek Landlocked Mitigation Site will provide forest, wetland, and stream mitigation for the impacts associated with Design Contracts 2-5 of the I-69 Section 6 project. Design Contracts 2-5 extend from west of Morgan Street north of Martinsville along State Road 37 to the northern terminus of Section 6 at I-465 in Indianapolis. The proposed mitigation plan for the property includes 50.8 acres of bottomland and riparian reforestation, 69.8 acres of forest preservation, 3.3 acres of open water wetland preservation, 1.7 acres of emergent wetland restoration, 0.7 acre of live stake plantings for bank stabilization, 0.02 acre of berm creation, 1,976 linear feet of ephemeral stream enhancement, 6,344 linear feet of perennial stream enhancement, and 1,430 linear feet of perennial stream restoration in the form of Indian Creek bank stabilization. A 4.2-acre former mulch processing facility is located in the northern portion of the site. Site and soil investigations will occur within this area to evaluate opportunities for restoration, seeding, and/or planting. Proposed activities will include grading to construct a water retention berm and for stabilization of the Indian Creek banks. Scattered tree clearing will be required for access to the banks of Indian Creek and construction of bank stabilization measures. Tree clearing will be minimized to the greatest extent possible. An IDNR Construction in Floodway permit and IDEM Rule 5 Notice of Intent will be required for the proposed construction activities. The project will be included as a part of the IDEM Section 401 Water Quality Certification and USACE Section 404 Permit process associated with the I-69 Section 6 roadway project. Multiple construction entrances will be installed to prevent equipment from tracking soil material onto the roadways. Portions of the construction entrances may be left in place to provide parking and staging areas for future post-construction maintenance and monitoring activities. These locations will be determined during construction. Construction is anticipated to begin in fiscal year 2020. A Red Flag Investigation was performed within a 0.5-mile radius of the property. Several “Red Flags” were identified within the 0.5-mile search radius; however, not all will be impacted by the proposed project. Due to the presence of two lakes, ten NWI wetlands, and 21 NWI lines, seven stream segments (associated with Indian Creek and two unnamed tributaries (UNTs) to Indian Creek), and the location of the project area within a floodplain, coordination with INDOT Ecology and Waterway Permitting Office will occur. Indian Creek and the two UNTs to Indian Creek are listed as impaired for E. coli.

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 (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, Kosciosko, 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:
    - 0 IC 14-26-2 Lakes Preservation Act 312 IAC 11
    - 0 IC 14-26-5 Lowering of Ten Acre Lakes Act No related code
    - 0 IC 14-28-1 Flood Control Act 310 IAC 6-1
    - 0 IC 14-29-1 Navigable Waterways Act 312 IAC 6
    - 0 IC 14-29-3 Sand and Gravel Permits Act 312 IAC 6
    - 0 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
   0 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

The 130.3 Indian Creek Landlocked Mitigation Site will provide forest, wetland, and stream mitigation for the impacts associated with Design Contracts 2-5 of the I-69 Section 6 project. Design Contracts 2-5 extend from west of Morgan Street north of Martinsville along State Road 37 to the northern terminus of Section 6 at I-465 in Indianapolis. The proposed mitigation plan for the property includes 50.8 acres of bottomland and riparian reforestation, 69.8 acres of forest preservation, 3.3 acres of open water wetland preservation, 1.7 acres of emergent wetland restoration, 0.7 acre of live stake plantings for bank stabilization, 0.02 acre of berm creation, 1,976 linear feet of ephemeral stream enhancement, 6,344 linear feet of perennial stream enhancement, and 1,430 linear feet of perennial stream restoration in the form of Indian Creek bank stabilization. A 4.2-acre former mulch processing facility is located in the northern portion of the site. Site and soil investigations will occur within this area to evaluate opportunities for restoration, seeding, and/or planting. Proposed activities will include grading

to construct a water retention berm and for stabilization of the Indian Creek banks. Scattered tree clearing will be required for access to the banks of Indian Creek and construction of bank stabilization measures. Tree clearing will be minimized to the greatest extent possible. An IDNR Construction in Floodway permit and IDEM Rule 5 Notice of Intent will be required for the proposed construction activities. The project will be included as a part of the IDEM Section 401 Water Quality Certification and USACE Section 404 Permit process associated with the I-69 Section 6 roadway project. Multiple construction entrances will be installed to prevent equipment from tracking soil material onto the roadways. Portions of the construction entrances may be left in place to provide parking and staging areas for future post-construction maintenance and monitoring activities. These locations will be determined during construction. Construction is anticipated to begin in fiscal year 2020. A Red Flag Investigation was performed within a 0.5-mile radius of the property. Several "Red Flags" were identified within the 0.5-mile search radius; however, not all will be impacted by the proposed project. Due to the presence of two lakes, ten NWI wetlands, and 21 NWI lines, seven stream segments (associated with Indian Creek and two unnamed tributaries (UNTs) to Indian Creek), and the location of the project area within a floodplain, coordination with INDOT Ecology and Waterway Permitting Office will occur. Indian Creek and the two UNTs to Indian Creek are listed as impaired for E. coli.

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: December 3, 2019

Signature of the INDOT
Project Engineer or Other Responsible Agent

Sandra Flum

Sandra Flum

Date: 9/12/2019

Signature of the
For Hire Consultant

Holly Hume

Holly Hume

Indiana Department of Environmental Management
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno Pigott
Commissioner

October 8, 2019

66-33
Lochmueller Group, Inc.
Attention: Holly Hume
6200 Vogel Road
Evansville, Indiana 47715

Dear Holly Hume,

RE: Wellhead Protection Area
Proximity Determination
Des No 1801389
I-69 Section 6 Mitigation Site – Indian Creek Landlocked
State Project, Less than one mile south of the City of Martinsville, between SR 37 and Burton Lane
Washington Township, Morgan County, Indiana

Upon review of the above referenced project site, it has been determined that the proposed project area **is not located within** a Wellhead Protection Area. The information is accurate to the best of our knowledge; however, there are in some cases a few factors that could impact the accuracy of this determination. Some Wellhead Protection Area Delineations have not been submitted, and many have not been approved by this office. In these cases we use a 3,000 foot fixed radius buffer to make the proximity determination. To find the status of a Public Water Supply System's (PWSS's) Wellhead Protection Area Delineation please visit our tracking database at http://www.in.gov/idem/cleanwater/2456.htm and scroll to the bottom of the page.

Note: the Drinking Water Branch has a self service feature which allows one to determine wellhead proximity without submitting the application form. Use the following instructions:

1. Go to http://idemmaps.idem.in.gov/whpa2/
2. Use the search tool located in the upper left hand corner of the application to zoom to your site of interest by way of city, county, or address; or use the mouse to click on the site of interest displayed on the map.
3. Once the site of interest has been located and selected, use the print tool to create a .pdf of a wellhead protection area proximity determination response.

In the future please consider using this self service feature if it is suits your needs.

If you have any additional questions please feel free to contact me at the address above or at (317) 233-9158 and aturnbow@idem.in.gov.

Sincerely,

Alisha Turnbow

Alisha Turnbow,
Environmental Manager
Ground Water Section, Drinking Water Branch, Office of Water Quality

Organization and Project Information

Project ID: Indian Creek Landlocked Mitigation Site
Des. ID: Des 1801389
Project Title: I-69 Section 6
Name of Organization: Lochmueller Group, Inc.
Requested by: Holly Hume

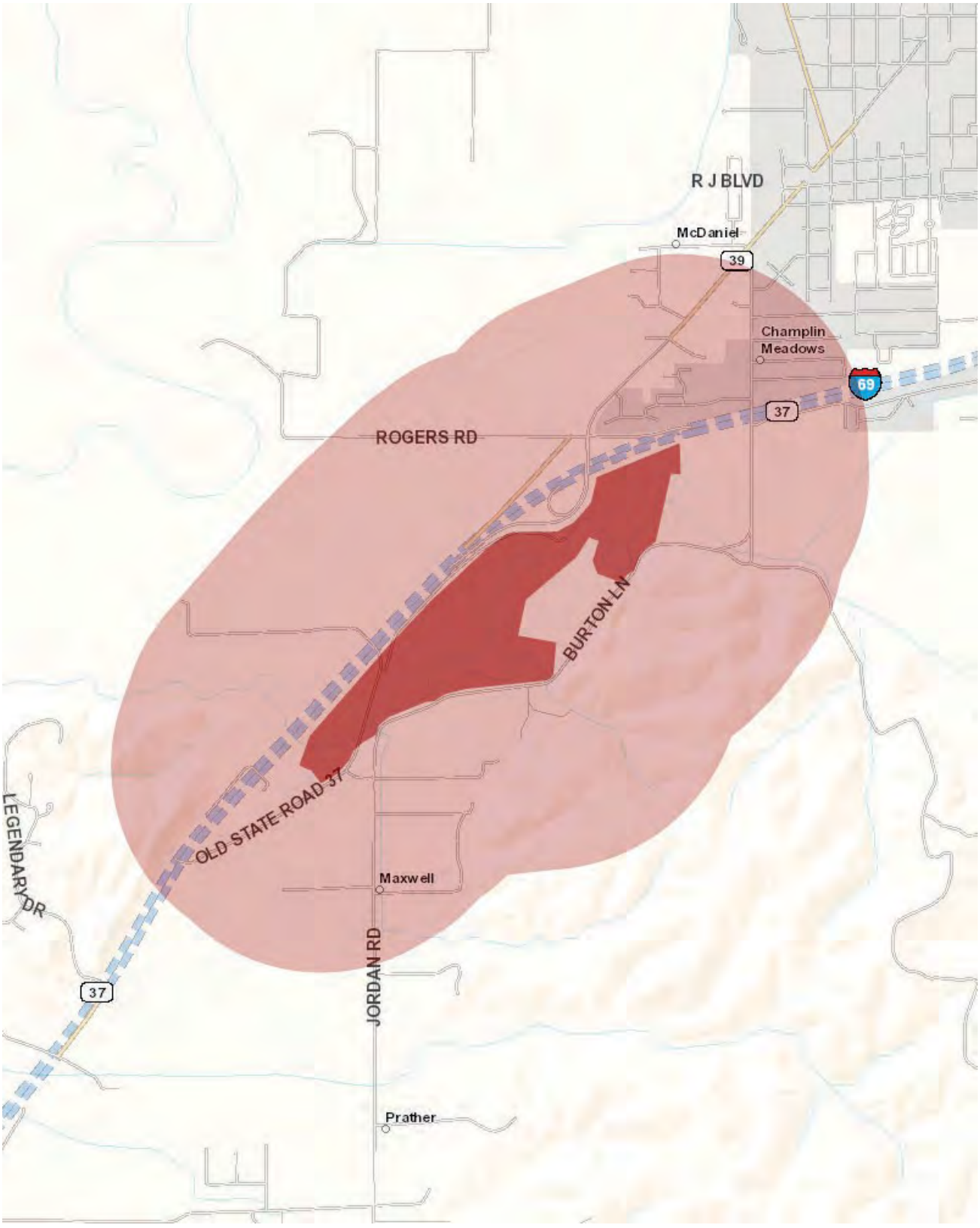
Environmental Assessment Report

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:
    - None documented in the area

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

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: September 12, 2019



Metadata:

- 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

Hume, Holly

From: Wright, Mary <MWRIGHT@indot.IN.gov>
Sent: Friday, September 13, 2019 5:50 AM
To: Hume, Holly
Subject: RE: Early Coordination, Des 1801389, Indian Creek Landlocked Mitigation Site, I-69 Section 6, Morgan County, IN

Early Coordination and Creating a Public Involvement Plan (PIP)

We have received your early coordination notification packet for the above referenced project(s). Our office prefers to be notified at the early coordination stage in order to encourage early and ongoing public involvement aside from the specific legal requirements as outlined in our Public Involvement Manual http://www.in.gov/indot/2366.htm . Seeking the public's understanding of transportation improvement projects early in the project development stage can allow the opportunity for the public to express their concerns, comments, and to seek buy-in. Early coordination is the perfect opportunity to examine the proposed project and its impacts to the community along with the many ways and or tools to inform the public of the improvements and seek engagement. A good public involvement plan, or PIP, should consider the type, scope, impacts, and the level of public awareness that should, or could, be implemented. In other words, although there are cases where no public involvement is legally required, sometimes it is simply the right thing to do in order to keep the public informed.

The public involvement office is always available to provide support and resources to bolster any public involvement activities you may wish to implement or discuss. Please feel free to contact our office anytime should you have any questions or concerns. Thank you for notifying our office about your proposed project. We trust you will not only analyze the appropriate public involvement required, but also consider the opportunity to do go above and beyond those requirements in creating a good PIP.

Rickie Clark, Manager
100 North Senate Avenue, Room N642
Indianapolis, IN 46204
Phone: 317-232-6601
Email: rclark@indot.in.gov

From: Hume, Holly [mailto:HHume@lochgroup.com]
Sent: Thursday, September 12, 2019 3:39 PM
To: Clark, Rickie <RCLARK@indot.IN.gov>
Cc: Wright, Mary <MWRIGHT@indot.IN.gov>; Townsend, Daniel <DTownsend@lochgroup.com>
Subject: Early Coordination, Des 1801389, Indian Creek Landlocked Mitigation Site, I-69 Section 6, Morgan County, IN

Dear Mr. Clark,

We are working on the environmental document for the Indian Creek Landlocked Mitigation Site (Des 1801389). Please find attached the early coordination letter package for your review and comment.

Please let me know if you have any questions.

Thank you,

Holly

Holly Hume
Environmental Biologist
Lochmueller Group
6200 Vogel Road, Evansville, IN 47715
812.759.4107 (direct)

Hume, Holly

From: McWilliams, Robin <robin_mcwilliams@fws.gov>
Sent: Monday, September 16, 2019 2:25 PM
To: Hume, Holly
Subject: Re: [EXTERNAL] Early Coordination, Des 1801389, Indian Creek Landlocked Mitigation Site, I-69 Section 6, Morgan County, IN

Dear Holly,

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (l6 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of l969, the Endangered Species Act of l973, as amended, and the U. S. Fish and Wildlife Service's Mitigation Policy.

According to information you provided our office, the proposed project includes 50.8 acres of bottomland and riparian reforestation, 69.8 acres of forest preservation, 3.3 acres of open water wetland preservation, 1.7 acres of emergent wetland restoration, 0.7 acre of live stake plantings for bank stabilization, 0.02 acre of berm creation, 1,976 linear feet of ephemeral stream enhancement, 6,344 linear feet of perennial stream enhancement, and 1,430 linear feet of perennial stream restoration in the form of Indian Creek bank stabilization. The existing riparian forested habitat will undergo enhancements in the form of invasive species treatments. Proposed activities will include grading to construct a water retention berm and for stabilization of the Indian Creek banks. Scattered tree clearing will be required for access to the banks of Indian Creek and construction of bank stabilization measures. Tree clearing will be minimized to the greatest extent possible.

RECOMMENDATIONS

Based on a review of the information you provided, we recommend the following mitigation measures be included in the final project plans to minimize adverse impacts to fish and wildlife resources:

1. Avoid all work within the inundated part of the stream channel (in perennial streams and larger intermittent streams) during the fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment should be operated below Ordinary High Water Mark during this time unless the machinery is within the caissons or on the cofferdams.

2. Restrict below low-water work to placement of piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap.

3. Restrict channel work and vegetation clearing to the minimum necessary.

4. Construct new structures with a widened span and benches on one or both sides to provide for wildlife crossing, if practical. The crossing should be above normal high water, relatively flat and with natural substrate suitable for use by a wide variety of wildlife.

5. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat.

6. Implement temporary erosion and siltation control devices such as placement of riprap check dams in drainage ways and ditches, installation of silt fences, covering exposed areas with erosion control materials, and grading slopes to retain runoff in basins.

7. Re-vegetate all disturbed soil areas immediately upon project completion, using native trees and shrubs in the riparian zone wherever feasible.

8. Post DO NOT DISTURB signs at the construction zone boundaries and do not clear trees or understory vegetation outside the boundaries.

THREATENED AND ENDANGERED SPECIES

The proposed project is within the range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (*Myotis septentrionalis*) (NLEB). There are numerous records of both species in Morgan County.

Indiana bats hibernate in caves then disperse to reproduce and forage in relatively undisturbed forested areas associated with water resources during spring and summer. Recent research has shown that they will inhabit fragmented landscapes with adequate forest for roosting and foraging. Young are raised in nursery colony roosts in trees, typically near drainage-ways in undeveloped areas. Like all other bat species in Indiana, the Indiana bat diet consists exclusively of insects.

The northern long-eared bat was recently listed as threatened under the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*). At this time, no critical habitat has been proposed for the NLEB. The entire state of Indiana is within the knownrange of the NLEB. During the summer, NLEBs typically roost singly or in colonies in cavities, underneath bark, crevices, or hollows of both live and dead trees and/or

snags (typically ≥3 inches dbh). Males and non-reproductive females may also roost in cooler places, like caves and mines. The NLEB appears opportunistic in selecting roosts, using tree species based on presence of cavities or crevices or presence of peeling bark. It has also been occasionally found roosting in structures like barns and sheds (particularly when suitable tree roosts are unavailable). They forage for insects in upland and lowland woodlots and tree lined corridors. During the winter, NLEBs predominately hibernate in caves and abandoned mine portals. Additional habitat types may be identified as new information is obtained.

There is suitable summer habitat for **both** of these species present throughout the area surrounding the project site, including wooded areas within the project boundary. The project will not eliminate enough habitat to affect these species, but to avoid incidental take from removal of an occupied roost tree we recommend that tree-clearing be avoided during the period **April 1 - September 30**. If this measure is implemented we concur that the proposed project is not likely to adversely affect the Indiana bat or the northern long-eared bat.

This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act of l973, as amended. However, should new information arise pertaining to project plans or a revised species list be published, it will be necessary for the Federal agency to reinitiate consultation.

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

Sincerely,

Robin

Robin McWilliams Munson

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

Monday, Tuesday - 7:30a-3:00p
Wednesday, Thursday - telework 8:30a-3:00p

On Thu, Sep 12, 2019 at 3:49 PM Hume, Holly <HHume@lochgroup.com> wrote:

> Dear Ms. McWilliams Munson,

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: September 12, 2019
Consultation Code: 03E12000-2019-SLI-1465
Event Code: 03E12000-2019-E-07504
Project Name: Des No. 1801389; I-69 Section 6 - Indian Creek Landlocked Mitigation Site

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-1465

Event Code: 03E12000-2019-E-07504

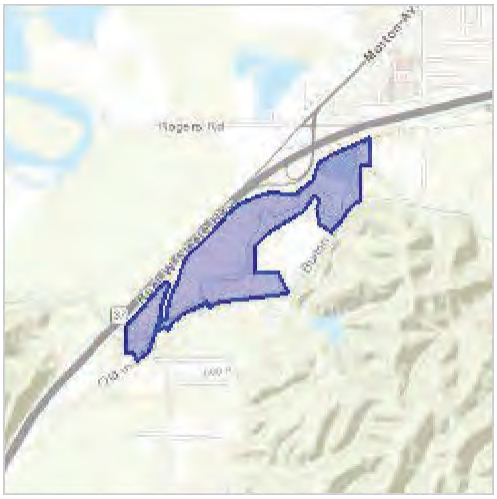
Project Name: Des No. 1801389; I-69 Section 6 - Indian Creek Landlocked Mitigation Site

Project Type: TRANSPORTATION

Project Description: The Indian Creek Landlocked Mitigation Site is being developed to provide a portion of the forest, wetland, and stream mitigation for Section 6 of the I-69 project from Martinsville to Indianapolis. The proposed project is located between SR 37 and Burton Lane less than one mile south of Martinsville. More specifically, the project is located in Sections 8, 17, and 18, Township 11 North, Range 1 East, in Washington Township as depicted on the Martinsville U.S. Geological Survey (USGS) 1:24,000 scale quadrangle. The Indian Creek Landlocked Mitigation Site is approximately 130.3 acres in size. The proposed mitigation plan for the property includes 52.0 acres of bottomland and riparian reforestation, 68.5 acres of forest preservation, 3.3 acres of open water wetland preservation, 1.7 acres of emergent wetland restoration, 0.7 acre of live stake plantings for bank stabilization, 0.02 acre of berm creation, 1,976 linear feet of ephemeral stream enhancement, 6,344 linear feet of perennial stream enhancement, and 1,430 linear feet of perennial stream restoration in the form of Indian Creek bank stabilization. The existing riparian forested habitat will undergo enhancements in the form of invasive species treatments. Proposed activities will include grading to construct a water retention berm and for stabilization of the Indian Creek banks. No bridges or culverts will be affected by this project. Approximately 1.2 acres along the banks of Indian Creek will require scattered tree clearing for access to and construction of the bank stabilization measures. Dominant species in the areas where scattered tree clearing will occur include sycamore, silver maple, box elder, hackberry, and mulberry. Tree clearing will be minimized to the greatest extent possible. Work is expected to begin in July 2020 and be completed by May 2023. No temporary or permanent lighting is anticipated.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/39.39842634924831N86.45074319310928W



Counties: Morgan, 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 Fisheries[1], 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.

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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 *Myotis sodalis* 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 *Myotis septentrionalis* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See www.fws.gov/midwest/endangered/mammals/nleb/index.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

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

THIS IS NOT A PERMIT

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

DNR #: ER-21824 **Request Received:** September 12, 2019

Requestor: Lochmueller Group Inc
Holly Hume
6200 Vogel Road
Evansville, IN 47715

Project: Proposed Indian Creek Landlocked Mitigation Site to offset impacts associated with I-69 Section 6 (Des #0300382), less than 1 mile south of Martinsville, between SR 37 and Burton Lane; Des #1801389

County/Site info: Morgan

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 will require the formal approval for construction in a floodway under the Flood Control Act, IC 14-28-1. Please submit a copy of this letter with the permit application.

Natural Heritage Database: The Natural Heritage Program's data have been checked.
The American Badger (Taxidea taxus), a state species of special concern, and the following bat species, have been documented within 1/2 mile of the project area:
1. Little Brown Bat (Myotis lucifugus), state endangered
2. Evening Bat (Nycticeius humeralis), state endangered
3. Tri-colored Bat (Perimyotis subflavus), state endangered
4. Eastern Red Bat (Lasiurus borealis), state special concern

Fish & Wildlife Comments: 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) Bats:
To minimize impacts to the bark roosting species, including Indiana bat and Northern long-eared bat, do not cut any trees suitable for 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.

To minimize impacts to foliage roosting species (such as the tri-colored bat), avoid the cutting of deciduous canopy trees as well from April 1 through September 30 to the extent possible. Foliage roosting species show no strong preference to certain tree species.

THIS IS NOT A PERMIT

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

2) Mitigation Site:
Minimize tree clearing for site access and construction and limit the width of any temporary access roads to 20' or less to facilitate closure of the forest canopy over the cleared access lane.

Live stakes and/or other vegetation planted (woody and herbaceous) should consist of locally-native species only.

Please provide a courtesy copy of the monitoring reports required by the US Army Corps of Engineers and IDEM to the Division of Fish and Wildlife's Environmental Unit at environmentalreview@dnr.in.gov or 402 W. Washington St, Room W273, Indianapolis, IN 46204-2781 (please include the ER# and/or permit#, if required, in all future correspondence).

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 with a mixture of native grasses, sedges, wildflowers, and also native hardwood trees and shrubs if any woody plants are disturbed during construction as soon as possible upon completion. Do not use any varieties of Tall Fescue or other non-native plants, including prohibited invasive species (see 312 IAC 18-3-25).
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. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
6. Plant native hardwood trees along the top of the bank and right-of-way to replace the vegetation destroyed during construction.
7. Post "Do Not Mow or Spray" signs along the right-of-way.
8. 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.
9. 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.

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.

Christie L. Stanifer **Date:** October 10, 2019
Christie L. Stanifer
Environ. Coordinator
Division of Fish and Wildlife

United States Department of Agriculture

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

October 14, 2019

Holly Hume
Lochmueller Group, Inc.
3502 Woodview Trace, Suite 150
Indianapolis, Indiana 46268

Dear Ms. Hook:

The proposed project to provide forest, wetland, and stream mitigation in Washington Township, Morgan County, Indiana, (Des No 1801389), as referred to in your letter received September 12, 2019, will cause a conversion of prime farmland.

The attached packet of information is for your use competing Parts VI and VII of the AD-1006. After completion, the federal funding agency needs to forward one copy to NRCS for our records.

If you need additional information, please contact Daniel Phillips at 317-295-5871.

Sincerely,

JERRY RAYNOR Digitally signed by JERRY RAYNOR
Date: 2019.10.21 17:32:52 -04'00'

JERRY RAYNOR
State Conservationist

Enclosures

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request 09/12/2019	
Name of Project Indian Creek Landlocked Mitigation Site		Federal Agency Involved FHWA	
Proposed Land Use Mitigation		County and State Morgan County, Indiana	
PART II *(To be completed by NRCS)*		Date Request Received By NRCS 9-12-2019	Person Completing Form: JRA
Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☑ NO ☐	Acres Irrigated	Average Farm Size 178
Major Crop(s) Corn	Farmable Land In Govt. Jurisdiction Acres: 200266% 76	Amount of Farmland As Defined in FPPA Acres: 15318% 58	
Name of Land Evaluation System Used LESA	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS 10/14/2019	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	130.3			
B. Total Acres To Be Converted Indirectly	0			
C. Total Acres In Site	130.3			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	109.5			
B. Total Acres Statewide Important or Local Important Farmland	0			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	.065			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	94			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	57			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	14			
2. Perimeter In Non-urban Use	(10)	10			
3. Percent Of Site Being Farmed	(20)	10			
4. Protection Provided By State and Local Government	(20)	20			
5. Distance From Urban Built-up Area	(15)	0			
6. Distance To Urban Support Services	(15)	0			
7. Size Of Present Farm Unit Compared To Average	(10)	6			
8. Creation Of Non-farmable Farmland	(10)	10			
9. Availability Of Farm Support Services	(5)	5			
10. On-Farm Investments	(20)	1			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	0			
TOTAL SITE ASSESSMENT POINTS	160	76	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	57	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	76	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	133	0	0	0

Site Selected: A	Date Of Selection 12/04/2019	Was A Local Site Assessment Used? YES ☐ NO ☑

Reason For Selection:

This is an I-69 Section 6 mitigation project; this site has been determined suitable for mitigation.

Name of Federal agency representative completing this form: Holly Hume - Lochmueller Group	Date: 12/04/2019

(See Instructions on reverse side) **Form AD-1006 (03-02)**

Categorical Exclusion

Appendix D

Section 106 of the National Historic Preservation Act (NHPA)

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

Date: 09/30/2019; updated 2/13/2020

Project Designation Number: 1801389

Route Number: SR 37/I-69

Project Description: Environmental Mitigation, Indian Creek Landlocked South of SR 37 & SR 39 Interchange

The Indian Creek Landlocked Site will provide a portion of the forest, wetland, and stream mitigation for Section 6 of the I-69 project from Martinsville to Indianapolis (Des. No. 0300382). The proposed project is located off of the south side of SR 37 along Indian Creek in Morgan County, immediately south of Martinsville. The Indian Creek Landlocked mitigation site is approximately 130.3 acres in size. The proposed mitigation includes reforestation, forest preservation, wetland restoration, and stream restoration and enhancement. Excavation up to six feet in the agricultural fields for tile exploration and wetland development, as well as reshaping and grading of stream banks for stabilization are proposed.

The three added areas consist of two segments for bank stabilization along the edge of Indian Creek and another for needed for access. Riverbank stabilization activities may include the grading of banks, placement of stone toe protection (riprap), and revegetation with native plant materials. These newly tested areas lie within the original 130.3 acres of permanent r/w.

Feature crossed (if applicable):

Township: Washington Township

City/County: Morgan County

Information reviewed (please check all that apply):

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

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

☑ Previously completed historic property reports ☑ Previously completed archaeology reports

☐ Bridge Inspection Information

Other (please specify): SHAARD GIS; SHAARD; online street-view imagery; Indiana Historic Building, Bridges, and Cemeteries (IHBBC) map; *I-69 Evansville to Indianapolis Tier 2 Studies Historic Property Report Section 5, SR 37 south of Bloomington to SR 39*, January 9, 2008; County GIS data (accessed via https://morganin.elevatemaps.io/); Bridge Inspection Application System (BIAS); 2010 INDOT-sponsored *Historic Bridge Inventory* (HBI); project information provided by Lochmueller Group, Inc. dated 8/23/2019;

Laswell, Jeff
2019 I-69 Tier 2 Studies, Evansville to Indianapolis, Phase Ia Archaeological Survey for the Indian Creek Landlocked Mitigation Area, Section 6, Morgan County, Indiana, Des. No. 1801389. Gray & Pape, Indianapolis.

McCord, Beth K. and Christopher J. Baltz
2015 Phase Ia Archaeological Survey 1 for Section 6, Indian Creek South of Martinsville to Teeters Road, Morgan County, Des. No. 0300382, I-69 Tier 2 Studies, Evansville to Indianapolis. Gray & Pape, Indianapolis.

Trader, Patrick D.
2019 I-69 Tier 2 Studies, Evansville to Indianapolis, Archaeological Phase Ic Investigation, Indian Creek Landlocked Mitigation Area, Section 6, Morgan County, Indiana, Des. No. 1801389. Gray & Pape, Indianapolis.

Trader, Patrick D. and Monte Lawton
2019 Archaeological Phase Ic Work Plan, Indian Creek Landlocked Mitigation Area, Section 6, Morgan County, Indiana, I-69 Tier 2 Studies, Evansville to Indianapolis. Gray & Pape, Indianapolis.

Vehling, Marcia and Jeff Laswell
2020 I-69 Tier 2 Section 6 Indian Creek Landlocked Mitigation Area: Addendum Phase Ia Archaeological Survey for Bank Stabilization Areas (Des No. 1801389) Morgan County, Indiana. Project No. 19-43503.001, Gray & Pape, Indianapolis.

Zoll, Mitch
1996 Archaeological Field Reconnaissance, Martinsville Fill Area, Morgan County, Indiana. Project 95FR94, Archaeological Resources Management Service, Ball State University, Muncie.

Results of the Records Review for Above-Ground Resources:

With regard to above-ground resources, an INDOT Cultural Resources Office (CRO) historian, who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61, first performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for Morgan County. No listed resources are present within 0.25 mile of the project area, a distance that would serve as an adequate area of potential effects (APE) given the scope of the project and the surrounding terrain. Burton Lane Bridge; NR-1335 (IHSSI #109-386-60029, Burton Lane over Indian Creek, 1872-1946; listed in the National Register on 4/14/1997) was de-listed according to SHAARD on 6/1/2004. The bridge is no longer extant.

The *Morgan County Interim Report* (1993; Washington Township) 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 (IHBBC) map. The SHAARD information was checked against the Interim Report hard copy maps. Two IHSSI sites are recorded within 0.25 mile of the project:

IHSSI #109-386-60030 (County Bridge No. 224; NBI # 5500142, Old SR 37, c. 1925; rated "contributing")—This bridge was previously evaluated in the 2008 Historic Property Report for I-69 Section 5 and found to maintain its integrity. It was also noted that bridge was previously determined eligible for listing in the National Register in the *Historic Bridge Inventory* (pg. 145).

IHSSI #109-386-60031 (House, Old SR 37, c. 1855; rated "contributing")

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

"outstanding" usually possess the necessary level of significance to be considered National Register eligible, if they retain material integrity. Historic districts identified in the IHSSI are usually considered eligible for the National Register.

Though County Bridge No. 224 (IHSSI #109-386-60030) is within 0.25 mile of the project area, the project will avoid the bridge by at least 50-70 feet on all sides in order to ensure that no mitigation work, such as tree planting, will be adjacent to the bridge. The existing riparian vegetation 50 feet and closer to the bridge will be preserved in place. Project activities will not impact the bridge or its immediate surroundings. For the purposes of this determination, it is not considered adjacent to the project area.

Land surrounding the project area is semi-rural with agricultural fields and wooded areas, scattered residential housing, and some commercial properties present. Properties within 0.25 mile of the project area date from the mid-nineteenth century to the early-twenty-first century. The majority of the properties date from the mid-to-late-twentieth century. However, based on an examination of aerial photography, online street-view imagery, and property card records by the INDOT-CRO historian, there is no evidence to suggest that any of these resources possess the necessary cultural significance or material integrity to be considered potentially eligible for the National Register.

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

Archaeology Report Author/Date:

Jeff Laswell/September 17, 2019
Patrick D. Trader/May 28, 2019
Patrick D. Trader and Monte Lawton/September 6, 2019
Marcia Vehling and Jeff Laswell/February 12, 2020

Summary of Archaeology Investigation Results:

An archaeological records check and Phase Ia field reconnaissance (Laswell 2019) were conducted by Gray and Pape personnel who meet the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61. The records review found that approximately 11.6 acres of the mitigation area had been previously covered by two reconnaissance surveys (McCord and Baltz 2016; Zoll 1996), and that no archaeological sites had been previously recorded within or adjacent to the mitigation area. The mitigation area was investigated through a Phase Ia reconnaissance survey consisting of a combination of surface inspection and systematic shovel probing (Laswell 2019). One archaeological site, 12Mg621, was newly recorded as a result of this survey. This site consisted of an unidentified prehistoric period camp site and a nineteenth to twentieth century historical scatter. The prehistoric component of the site was recommended as being potentially eligible for the National Register, and it was recommended that a 50-foot buffer around the site be avoided or else the site must be subjected to additional archaeological investigations (Laswell 2019). The site will be avoided by all mitigation activities.

A Phase Ic work plan (Trader 2019) was submitted to DHPA on May 31, 2019 and approved in a letter dated July 8, 2019. Phase Ic subsurface investigations found that the subplowzone mitigation area soils generally consisted of weakly developed cambic (Bw) horizons over stacked sandy C horizons (Trader and Lawton 2019). No buried archaeological sites were found to be present within the mitigation area.

An addendum Phase Ia report was prepared by Gray and Pape for two river bank stabilization areas and an associated access road (Vehling and Laswell 2020). Three areas totaling 0.7 acres were investigated by a combination of systematic shovel probing (n=6), augering (n=1), and visual inspection of disturbed areas. No evidence for archaeological deposits was encountered, and the areas lacked the potential for buried archaeological deposits. No additional investigation was recommended.

The reports were reviewed by INDOT Cultural Resources personnel who meet the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61. It is our opinion that the reports are acceptable and we concur with recommendations made by Gray and Pape (Laswell 2019; Trader and Lawton 2019; Vehling and Laswell 2020). Therefore, provided that no ground disturbing activities take place within a 50-foot buffer around the prehistoric portion of site 12Mg621, there are no archaeological concerns.

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

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

B-13. Construction and maintenance of environmental mitigation sites, including, but not limited to wetland and stream, forested floodway, and bat habitat 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. No demolition of existing structures will occur.

If no, please explain:

Additional comments: The applicability of the MPPA to this project is dependent upon the avoidance of all project-related activities within fifty feet of site 12Mg621. This site will be delineated with a 50-foot buffer and labeled "Avoidance Area – Do Not Disturb" on design plans. Special provisions will include no soil disturbance in this area. In the field, the area must be marked with 4"x4" wood posts to avoid accidental disturbance. If any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, construction in the immediate area of the find will be stopped and the INDOT Cultural Resources office and the Division of Historic Preservation and Archaeology will be notified immediately.

INDOT Cultural Resources staff reviewer(s): Kelyn Alexander and Matt Coon

****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.*

NOTE: Only excerpts from this report are included.

Phase Ia Archaeological Survey for the Indian Creek Landlocked Mitigation Area, Section 6, Morgan County, Indiana

I-69 Tier 2 Studies

Evansville to Indianapolis

Des. No. 1801389

Lead Agency: Federal Highway Administration

Prepared for:

Indiana Department of Transportation

Indiana Government Center North, N642

Indianapolis, Indiana 46204

Prepared by:

Jeff Laswell, M.S.

Gray & Pape

5807 North Post Road

Indianapolis, Indiana 46216

Jeff Laswell, M.S.

Principal Investigator

August 8, 2019

Abstract

Gray & Pape, Inc, under contract with Lochmueller Group, conducted a Phase Ia archaeological survey for the proposed Indian Creek Landlocked Mitigation Area for I-69, Section 6. The Mitigation Area includes ten Survey Segments, located just south of the junction of State Route 37 and State Route 39, south of the town of Martinsville, along the east side of Old State Road 37 and west of Burton Lane, in Morgan County, Indiana. The Area of Potential Effect encompasses approximately 26 hectares (64 acres). However, 4.7 hectares (11.6 acres) of the Area of Potential Effect had been previously surveyed, leaving approximately 21.9 hectares (52.4 acre) subject to the current field investigation. The Mitigation Area primarily consisted of fallow agricultural fields and small wooded areas along Indian Creek.

The objective of the archaeological investigation was to locate, record, and assess all archaeological historical and prehistoric resources within the Mitigation Area pursuant to Section 106 of the National Historic Preservation Act of 1966, as stipulated by 36 C.F.R. Part 800 and the Indiana Historic Preservation Act (IC 14-21-1). All archaeological resources were evaluated with respect to the criteria set forth under Section 101 National Register of Historic Places of the National Historic Preservation Act and IC 14-21-1-9 Indiana Register of Historic Sites and Structures. The archaeological investigation was performed under the supervision of personnel who meet the Secretary of Interior's Professional Qualification Standards, as per 36 C.F.R. Part 61.

The Phase Ia investigation for the Indian Creek Mitigation Area included background research, a site file check, and archaeological fieldwork. While no previously recorded sites were located within the Mitigation Area, one archaeological site ineligible for the National Register for Historic Places was recorded just outside the project limits in 2018. Fieldwork consisted of pedestrian survey, augering and shovel testing. Due to the topographic setting and presence of well-drained alluvial soils throughout the Mitigation Area, shovel testing and auger coring were conducted to both identify archaeological deposits and to assess subsurface stratigraphy for the potential existence of stable buried soil horizons conducive for the presence of archaeological deposits. Based on the results of shovel testing and augering, seven areas of deep testing locations are recommended for Phase Ic subsurface reconnaissance, covering an approximate area of 4.36 hectares (10.84 acres).

One previously undocumented archaeological site (12MG621) was identified within the limits of the Mitigation Area that consisted of a nondiagnostic prehistoric campsite located in Survey Segment 8. Due to the consistent presence of fire-cracked rock and a range of lithics and chert types, a portion of Site 12MG621 is recommended as potentially eligible for the National Register of Historic Places. Avoidance or Phase II testing is recommended for this area. If avoidance of Site 12MG621 is pursued as a part of this project, a 50-foot buffer must be added around the potentially eligible portion of the site to ensure intact deposits are not disturbed by project activities.

If archaeological deposits or human remains are encountered during the construction phase of the currently proposed project, all construction activities must cease and an archaeologist from Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology, and the Indiana Department of Transportation, Cultural Resources Office, must be notified.

6 Conclusions and Recommendations

Gray & Pape, under contract with Lochmueller, conducted a Phase Ia archaeological survey for the proposed Indian Creek Landlocked Mitigation Area for I-69, Section 6. The Mitigation Area includes ten Survey Segments, located just south of the junction of S.R. 37 and S.R. 39, south of the town of Martinsville, along the east side of Old S.R. 37 and west of Burton Lane, in Morgan County, Indiana. The APE encompasses approximately 26 ha (64 ac). However, 4.7 ha (11.6 ac) of the APE has been previously surveyed, leaving approximately 21.9 ha (52.4 ac) subject to the current field investigation. The Mitigation Area primarily consisted of fallow agricultural fields and small wooded areas along Indian Creek.

The objective of the archaeological investigation was to locate, record, and assess all archaeological historical and prehistoric resources within the Mitigation Area pursuant to Section 106 of the NHPA of 1966, as stipulated by 36 C.F.R. Part 800 and the Indiana Historic Preservation Act (IC 14-21-1). All archaeological resources were evaluated with respect to the criteria set forth under Section 101 of the NRHP of the NHPA and IC 14-21-1-9 Indiana Register of Historic Sites and Structures. The archaeological investigation was performed under the supervision of personnel who meet the Secretary of Interior's Professional Qualification Standards as per 36 C.F.R. Part 61.

The Phase Ia investigation for the Indian Creek Mitigation Area included background research, a site file check, and archaeological fieldwork. While no previously recorded sites were located within the Mitigation Area, one archaeological site ineligible for the NRHP was recorded just outside the project limits in 2018 (Baltz et al. 2018). Fieldwork consisted of pedestrian survey, augering and shovel testing. Due to the topographic setting, and presence of well-drained alluvial soils throughout the Mitigation Area, shovel testing and auger coring were conducted to both identify archaeological deposits and to assess subsurface stratigraphy for the potential existence of stable buried soil horizons conducive to the presence of archaeological deposits. Based on the results of shovel testing and augering, seven areas or deep testing locations are recommended for Phase Ic subsurface reconnaissance, covering an approximate area of 4.36 ha (10.84 ac) (Figure 10).

One previously undocumented archaeological site (12MG621) was identified within the limits of the Mitigation Area that consisted of a nondiagnostic prehistoric campsite located in Survey Segment 8. Due to the consistent presence of FCR, and a range of lithics and chert types, a portion of Site 12MG621 is recommended as potentially eligible for the NRHP. Avoidance, or Phase II testing, is recommended for this area. If avoidance of Site 12MG621 is pursued as a part of this project, a 15.2-m (50-ft) buffer has been added around the potentially eligible portion of the site in order ensure intact deposits are not disturbed by project activities.

If archaeological deposits, or human remains, are encountered during the construction phase of the currently proposed project, all construction activities must cease and an archaeologist from the IDNR, DHPA, and the INDOT CRO must be notified.

NOTE: Only excerpts from this report are included.

Archaeological Phase Ic Investigations, Indian Creek Landlocked Mitigation Area, Section 6, Morgan County, Indiana Des. No. 1801389

I-69 Tier 2 Studies

Evansville to Indianapolis

Lead Agency: Federal Highway Administration

Prepared for:

Indiana Department of Transportation

Indiana Government Center North, N642

Indianapolis, Indiana 46204

Prepared by:

Patrick D. Trader, M.A., and Monte Lawton, M.A.

Gray & Pape

5807 North Post Road

Indianapolis, Indiana 46216

Patrick D. Trader, M.A.

Principal Investigator

August 6, 2019

Abstract

Gray & Pape, Inc., under contract with Lochmueller Group, on behalf of Indiana Department of Transportation and the Federal Highway Administration, conducted Phase Ic investigations for the I-69 Section 6 corridor within the Indian Creek Landlocked Mitigation Area, Morgan County, Indiana. Fieldwork was conducted in July 2019. Phase Ic investigations were conducted to assess the potential for buried archaeological deposits, delineate boundaries of identified archaeological sites and to assess their National Register of Historic Places eligibility. All fieldwork was conducted in compliance with Section 106 of the National Historic Preservation Act, as amended, and Indiana Division of Historic Preservation and Archaeology Guidelines.

Gray & Pape, Inc., conducted Phase Ic investigations in the areas recommended at the close of Phase Ia investigations. In total, 10 trenches were excavated along the floodplain of Indian Creek River. For the most part, trenches exposed an A-B-C soil sequence, composed of weakly developed cambic B (Bw) horizons or series of stacked C horizons. No buried archaeological sites were identified during trench excavations. No further archaeological investigations are recommended for this project.

6 CONCLUSIONS AND RECOMMENDATIONS

Gray & Pape conducted Phase Ic investigations for I-69 Section 6 Indian Creek Landlocked Mitigation Area in Morgan County, Indiana, in July 2019. Ten backhoe trenches were excavated across the floodplain of Indian Creek, a tributary of the West Fork of the White River. One trench was excavated in DTL 1, three more in DTL 2, two in DTL 3, and one each in DTLs 4–7. Trench excavations resulted in the identification of relatively consistent A-B-C soil sequences, consisting of a series of stacked C horizons, or weakly developed cambic B (Bw) horizons. No buried soil horizons (Ab) were identified in any of DTLs investigated. Based on the results of trenching, the upper 2.0 m of deposits consist of vertical accretional sediments deposited during the Holocene, overlying lateral accretional deposits.

Phase Ic investigations failed to uncover archaeological materials. As a result, Gray & Pape recommends that no further archaeological investigations are necessary.

Hume, Holly

From: Coon, Matthew <mcoon@indot.IN.gov>
Sent: Monday, September 30, 2019 12:14 PM
To: 'Jeff Laswell'
Cc: Cinder Miller; Quigg, Gary; Riehle, Matt; Miller, Shaun (INDOT); Hinkle, Meghan; Miller, Brandon
Subject: RE: Indian Creek Revised Phase Ia Des 1801389
Attachments: Minor Projects PA determination form_B-13_1801389.pdf

Thank you for the submittal. We have completed our review of the materials and have determined that Category B-13 of the MPPA is applicable, and therefore no further Section 106 work is necessary. Please note that the applicability of the MPPA to this project is dependent upon the avoidance of all project-related activities within fifty feet of site 12Mg621. The prehistoric component of this site must be delineated with a 50-foot buffer and labeled "Avoidance Area – Do Not Disturb" on design plans. Special provisions will include no soil disturbance in this area. In the field, the area must be marked with 4"x4" wood posts to avoid accidental disturbance. The completed determination form is attached for use in the CE document.

The revised Phase Ic archaeological report has been reviewed and approved by INDOT-CRO. Please forward one hard copy of the report to DHPA, indicating in the cover letter that the project qualified as a Minor Project and therefore the report is for their records only and no formal review is required under Section 106. In addition, we ask that a copy of the DHPA submittal letter be sent to INDOT-CRO c/o Matt Coon during the time of submission and that the archaeological report be posted to IN SCOPE (please ensure that the uploaded file follows the IN SCOPE naming conventions).

Please keep in mind that if the scope of the project or the project limits should change, our office will need to re-examine the information to determine whether the MPPA still applies. Please don't hesitate to contact us should you have any questions or need additional information. Thank you.

Sincerely,

Matt Coon
Archaeologist, Cultural Resources Office
INDOT Environmental Services
100 N. Senate Avenue, Room N642
Indianapolis, IN 46204
Phone: 317.233.2083

From: Jeff Laswell [mailto:jlaswell@graypape.com]
Sent: Tuesday, September 17, 2019 1:57 PM
To: Coon, Matthew <mcoon@indot.IN.gov>
Cc: Cinder Miller <cmiller@graypape.com>; Quigg, Gary <GQuigg@lochgroup.com>; Riehle, Matt <mriehle@lochgroup.com>; Miller, Shaun (INDOT) <smiller@indot.IN.gov>
Subject: Indian Creek Revised Phase Ia Des 1801389

Matt,

Please find the link below to the revised Indiana Creek Phase Ia mitigation report and attached comment response form.

https://gpemail.sharepoint.com/:b:/g/ActiveProjects/CinderMiller/I69%20Section%206/ESsDSas_MppMvkEwrjC_yHQB2TVNev5jv6yN6o4-kIpkrQ?e=9Lctao

INDIANA ARCHAEOLOGICAL SHORT REPORT

State Form 54566 (1-11)

INDIANA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF HISTORIC PRESERVATION AND ARCHAEOLOGY
402 West Washington Street, Room W274
Indianapolis, Indiana 46204-2739
Telephone Number: (317) 232-1646
Fax Number: (317) 232-0693
E-mail: dhpa@dnr.IN.gov

NOTE: Only excerpts from this report are included.

Where applicable, the use of this form is recommended but not required by the Division of Historic Preservation and Archaeology.

Author: Marcia Vehling and Jeff Laswell

Date *(month, day, year)*: February 12, 2020

Project Title: I-69 Tier 2 Section 6 Indian Creek Landlocked Mitigation Area: Addendum Phase Ia Archaeological Survey for Bank Stabilization Areas (Des No. 1801389) Morgan County, Indiana

PROJECT OVERVIEW

Project Description: Gray & Pape, Inc, under contract with Lochmueller Group, conducted a Phase Ia archaeological survey for three additional areas of mitigation work within the Indian Creek Landlocked Mitigation Area for I-69, Section 6 not surveyed as part of the original investigation. The current survey is an addendum to the 2019 Phase Ia reconnaissance (Laswell 2019) which qualified under Category B-13 of the Minor Projects Programmatic Agreement. The three added areas consisted of two segments for bank stabilization along the edge of Indian Creek and another for needed access. River bank stabilization activities may include the grading of banks, placement of stone toe protection (riprap), and revegetation with native plant materials.

The objective of this archaeological investigation was to locate, record and assess all archaeological historical and prehistoric resources within the project areas pursuant to Section 106 of the National Historic Preservation Act (NHPA) of 1966, as stipulated by 36 CFR Part 800 and the Indiana Historic Preservation Act (IC 14-21-1). The archaeological investigation was performed under the supervision of personnel who meet the Secretary of Interior's Professional Qualification Standards as per 36 CFR Part 61. The Phase Ia archaeological reconnaissance located no archaeological sites within the three survey areas and no further work is recommended.

INDOT Designation Number/Contract Number: 1801389 Project Number: 19-43503.001

DHPA Number: Approved DHPA Plan Number:

Prepared For: Lochmueller Group

Contact Person: Matt Riehle

Address: 6200 Vogel Road

City: Evansville State: IN ZIP Code: 47715

Telephone Number: 812.759.4148 Email Address: MRiehle@lochgroup.com

Principal Investigator: Jeff Laswell

Signature:

Company/Institution: Gray & Pape Heritage Management

☐ County Interim Report

Results:

☒ Historic Maps

Results: W.W. Richie's Map of Morgan County, Indiana was examined for the presence of historical houses or structures within the parcel areas; none were clearly identified within or adjacent to the parcel locations (Currie and Richie 1875).

Known Cultural Manifestations and/or Additional Information: A full description of the cultural periods for the I-69 Section 6 project, has been previously reviewed and presented in McCord and Baltz (2015) as wall as generally outlined in Table 1 of the attachments.

FIELD INVESTIGATION: *(check all that apply)* Field Investigation Dates *(month, day, year)*: February 7, 2020

Field Supervisor: Marcia Vehling

Field Crew: Sara Cole

Surface Visibility: 50 to 90 percent

Factors Affecting Visibility: Undergrowth and piles of debris

Visual Walkover ☒ Pedestrian Survey ☐ Shovel Test ☒ Screened ☒ Mesh Size 1/4 in

Interval 5 m ☐ 10 m 15 m ☒ Other *(describe below)* ☐

☐

Number of Shovel Test Units Excavated: 6 shovel tests and one auger test

Describe Methods: The project area was investigated in general accordance with IDNR, DHPA (2019) Indiana Archaeological Guidelines and the INDOT Indiana Cultural Resources Manual (2018). The survey area was subject to shovel testing and auguring. Visual walkover was conducted in areas with obvious disturbance. The survey was divided into three areas (Survey Segments 11 - 13). Each of these areas are discussed in the field reconnaissance results.

Attach photographs documenting disturbances below

Describe Disturbances: Mulch piles, grading, asphalt and gravel lots and roads

Comments:

Results

☐ Archaeological records check has determined that the project area does not have the potential to contain archaeological resources.

☐ Archaeological records check has determined that the project area has the potential to contain archaeological resources.

☒ Phase Ia reconnaissance has located no archaeological resources in the project area.

☐ Phase Ia reconnaissance has identified landforms conducive to buried archaeological deposits.

Actual Area Surveyed hectares: 00.3 acres: 00.7

Comments:

Bank Stabilization Area (Survey Segment 11) measured 0.44 acres and consisted of a wooded tract along the northern bank of Indian Creek. An overgrown gravel and asphalt road extended across the northwestern quarter of the survey area. Surface visibility ranged from 50 to 90 percent (see attached Figures 3 and 4-5). Disturbed areas were visually inspected and walked over. Three shovel tests and one auger were excavated in the Shoreline Stabilization Area. The three shovel tests exhibited a varied stratigraphy. Shovel test A1 exhibited 15cm of brown (10YR 4/3) silt over yellowish brown (10YR 5/4) silty clay. Shovel test A2 exhibited 30cm of brown (10YR 4/3) silty clay with thin layers of yellowish brown (10YR 5/4) fine grained sand over dark yellowish brown (10YR 4/4) silt. Shovel test A3 exhibited 50cm of brown (10YR 4/3) silt with thin layers of yellowish brown (10YR 5/4) fine grained sand. The auger exhibited 110cm of brown (10YR 4/3) silt mixed with thin layers of yellowish brown (10YR 5/4) fine grained sand over 110 to 150cm of pale brown (10YR 6/3) coarse sand.

Access Road (Survey Segment 12) measured 0.2 acres and consisted mainly of an overgrown, asphalt and gravel road. A graded area covered in mulch and gravel is located near the center of the access road (see attached Figures 3 and 6). Surface visibility averaged 50 percent. Disturbed areas were visually inspected and walked over. One shovel test was excavated in the survey area and exhibited a mixed stratigraphy consisting of gravel mixed with yellowish brown (10YR 5/4) silty clay. No sites or cultural materials were identified within the northern-most Access Road (New Survey Area 2).

Bank Stabilization Area (Survey Segment 13) measured 0.07 acres and consisted of the eastern bank of Indian Creek. The majority of this area was covered in a thick layer of debris deposited by Indian Creek (see attached Figures 3 and 7). Surface visibility averaged 50 percent. Disturbed areas were visually inspected and walked over. One shovel test was excavated in the survey area and exhibited 80cm of yellowish brown (10YR 5/4) coarse sand mixed with organic debris.

Recommendation

☐ The archaeological records check has determined that the project area has the potential to contain archaeological resources and a Phase Ia archaeological reconnaissance is recommended.

☐ The archaeological records check has determined that the project area does not have the potential to contain archaeological resources and no further work is recommended before the project is allowed to proceed.

☒ The Phase Ia archaeological reconnaissance has located no archaeological sites within the project area and it is recommended that the project be allowed to proceed as planned.

☐ The Phase Ia archaeological reconnaissance has determined that the project area includes landforms which have the potential to contain buried archaeological deposits. It is recommended that Phase Ic archaeological subsurface reconnaissance be conducted before the project is allowed to proceed.

☐ The Phase Ia archaeological reconnaissance has determined that the project area is within 100 feet of a cemetery and a Cemetery Development Plan is required per IC-14-21-1-26.5.

Cemetery Name:

Other Recommendations/Commitments:

Pursuant to IC-14-21-1, if any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646.

Attachments

☒ Figure showing project location within Indiana.

☒ USGS topographic map showing the project area *(1:24,000 scale)*.

☒ Aerial photograph showing the project area, land use and survey methods.

☒ Photographs of the project area.

☐ Project plans *(if available)*

Attachments have been removed to avoid duplication and reduce file size.

Other Attachments:

Blad, Hannah

From: Coon, Matthew <mcoon@indot.IN.gov>
Sent: Thursday, February 13, 2020 9:28 AM
To: Blad, Hannah
Cc: Miller, Shaun (INDOT); Branigin, Susan; Kumar, Anuradha; Alexander, Kelyn; Riehle, Matt; Cinder Miller; Quigg, Gary; 'Jeff Laswell'
Subject: RE: Indian Creek Mitigation Site - I-69 Mitigation - Des. No. 1801389 - MPPA Submission Form and Phase 1a Addendum
Attachments: Minor Projects PA determination form_B-13_1801389_2020-02-13update.pdf

Hanna,

Thank you for the submittal. We have completed our review of the addendum materials and have determined that Category B-13 of the MPPA is still applicable, and therefore no further Section 106 work is necessary. The updated determination form is attached for use in the CE document.

The revised archaeological report has been reviewed and approved by INDOT-CRO. Please forward one hard copy of the report to DHPA, indicating in the cover letter that the project qualifies as a Minor Project and therefore the report is for their records only and no formal review is required under Section 106. In addition, we ask that a copy of the DHPA submittal letter be sent to INDOT-CRO c/o Matt Coon during the time of submission and that the archaeological report be posted to IN SCOPE.

Please be aware that the applicability of the MPPA to this project is dependent upon the avoidance of all project-related activities within fifty feet of archaeological site 12Mg621. This site will be delineated with a 50-foot buffer and labeled “Avoidance Area – Do Not Disturb” on design plans. Special provisions will include no soil disturbance in this area. In the field, the area must be marked with 4”x4” wood posts to avoid accidental disturbance. Please also keep in mind that if the scope of the project or the project limits should change, our office will need to re-examine the information to determine whether the MPPA still applies. Please don't hesitate to contact us should you have any questions or need additional information. Thank you.

Sincerely,

Matt Coon
Archaeologist, Cultural Resources Office
INDOT Environmental Services
100 N. Senate Avenue, Room N642
Indianapolis, IN 46204
Phone: 317.233.2083

From: Jeff Laswell [mailto:jlaswell@graypape.com]
Sent: Thursday, February 13, 2020 9:05 AM
To: Coon, Matthew <mcoon@indot.IN.gov>
Cc: Miller, Shaun (INDOT) <smiller@indot.IN.gov>; Branigin, Susan <SBranigin@indot.IN.gov>; Kumar, Anuradha <akumar@indot.IN.gov>; Alexander, Kelyn <KAlexander3@indot.IN.gov>; Riehle, Matt <mriehle@lochgroup.com>; Cinder Miller <cmiller@graypape.com>; Quigg, Gary <GQuigg@lochgroup.com>; 'Blad, Hannah' <HBlad@lochgroup.com>
Subject: RE: Indian Creek Mitigation Site - I-69 Mitigation - Des. No. 1801389 - MPPA Submission Form and Phase 1a Addendum

Categorical Exclusion

Appendix E

Red Flag Investigation & Hazardous Materials

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana46204

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

Eric Holcomb, Governor
Joe McGuinness, Commissioner

Date: June 11, 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: Daniel Townsend
Lochmueller Group, Inc.
6200 Vogel Road
Evansville, IN 47715
DTownsend@lochgroup.com

Re: RED FLAG INVESTIGATION
DES # 1801389, State Project
Mitigation Site
I-69 Section 6, Indian Creek Landlocked Site
Morgan County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The Federal Highway Administration (FHWA) and the Indiana Department of Transportation (INDOT) propose to proceed with the development of the Indian Creek Landlocked Mitigation Site (Des. No. 1801389) to provide a portion of the forest, wetland, and stream mitigation for Section 6 of the I-69 project from Martinsville to Indianapolis (Des. No. 0300382). The proposed project is located south/east of State Road (SR) 37 along Indian Creek, off Old SR 37 and Burton Lane, in Morgan County, immediately south of Martinsville. The Indian Creek Landlocked mitigation site is approximately 115.6 acres in size. The proposed mitigation includes reforestation, forest preservation, wetland restoration, and stream restoration and enhancement.

Bridge and/or Culvert Project: Yes ☐ No ☐ Structure #

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 115.6, Not Applicable ☐

Type of excavation: Excavation up to six feet in the agricultural fields for tile exploration and wetland development, as well as reshaping and grading of stream banks for stabilization are proposed.

Maintenance of traffic: N/A

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

State Project: ☐ LPA: ☐

Any other factors influencing recommendations: Final design is not yet complete.

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	**4**
Cemeteries	**N/A**	Railroads	**N/A**
Hospitals	**N/A**	Trails	**N/A**
Schools	**N/A**	Managed Lands	**N/A**

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

Explanation:

Religious Facilities: Three (3) religious facilities are located within the 0.5 mile search radius. The nearest facility, Emmanuel Apostolic Church, is located approximately 0.21 mile north of the project area. No impact is expected.

Airports: One (1) airport is located within the 0.5 mile search radius. The airport, McDaniel's Field, is a private airport and is located approximately 0.35 mile north of the project area. Coordination with McDaniel's Field airport will occur.

Recreational Facilities: One (1) recreational facility is located within the 0.5 mile search radius. Sportsman's Conservation Club is located approximately 0.25 mile east of the project area. No impact is expected.

Pipelines: Four (4) pipeline segments are located within the 0.5 mile search radius. Two (2) pipeline segments, associated with Indiana Gas Co. Inc., are located within or adjacent to 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	**27**
Canal Structures – Historic	**N/A**	Lakes	**9**
NPS NRI Listed	**N/A**	Floodplain - DFIRM	**13**
NWI-Lines	**41**	Cave Entrance Density	**N/A**
IDEM 303d Listed Streams and Lakes (Impaired)	**5**	Sinkhole Areas	**N/A**
Rivers and Streams	**13**	Sinking-Stream Basins	**N/A**

Explanation:
NWI-Lines: Forty-one (41) NWI-line segments are located within the 0.5 mile search radius. Twenty-one (21) NWI-line segments are located within the project area. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

IDEM 303d Listed Streams and Lakes (Impaired): Five (5) IDEM 303d listed stream segments are located within the 0.5 mile search radius. Indian Creek and two (2) unnamed tributaries (UNTs) are located within the project area. Indian Creek and the two (2) UNTs to Indian Creek are listed as impaired for E. coli. Workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.

Rivers and Streams: Thirteen (13) stream segments are located within the 0.5 mile search radius. Seven (7) stream segments, three (3) associated with Indian Creek and four (4) associated with two separate UNTs to Indian Creek, flow through the project area. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

NWI-Wetlands: Twenty-seven (27) wetlands are located within the 0.5 mile search radius. Ten (10) wetlands are located within the project area. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

Lakes: Nine (9) lakes are located within the 0.5 mile search radius. Two (2) lakes are located within the project area. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

Floodplain-DFIRM: Thirteen (13) floodplain polygons are located within the 0.5 mile search radius. The project area is located within five (5) of these floodplain polygons. Coordination with INDOT ES Ecology and Waterway Permitting will occur.

URBANIZED AREA BOUNDARY SUMMARY

Explanation:

Urbanized Area Boundary (UAB): This project lies within the Martinsville 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 Morgan County MS4 coordinator at 180 S Main Street, Suite 010, Martinsville, IN 46151.

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

Explanation:

RCRA Generator/TSD: One (1) RCRA Generator/TSD site is located within the 0.5 mile search radius. The site, Weliever Olds Pontiac General Motors Corporation (655 W Southview Drive, Martinsville, IN 46151; Agency Interest (AI) ID 40255), is located approximately 0.25 mile east of the project area. According to the Indiana Department of Environmental Management (IDEM) Virtual File Cabinet (VFC), an IDEM letter dated March 14, 2002 identifies the site as a conditionally exempt small quantity generator. An IDEM Inspection Summary Letter dated July 15, 2008 stated no violations were observed during the complaint inspection. No impact is expected.

Underground Storage Tank (UST) Sites: Four (4) Underground Storage Tank (UST) sites are located within the 0.5 mile search radius. The nearest site, Nationwise Auto Parts Store 247 UST site (2086 Burton Lane, Martinsville, IN 46151; AI ID 43703), is located approximately 0.22 mile northeast of the project area. The IDEM VFC has a closure document dated August 4, 1995. The closure document indicated the UST, a 500 gallon tank used for storage of virgin oil, was closed by removal on June 7, 1994. No discoloration or stains were found in the soil of the UST cavity (excavation). Laboratory testing revealed the presence of petroleum hydrocarbons less than current IDEM action levels. The deepest point of excavation was approximately eleven feet; therefore, groundwater was not encountered at that time. No impact is expected.

Leaking Underground Storage (LUST) Sites: Three (3) Leaking Underground Storage (LUST) sites are located within the 0.5 mile search radius. The nearest site, the City of Martinsville (995 Rogers Rd, Martinsville, IN 46151; AI ID 42745), is located approximately 0.18 mile north of the project area. According to the IDEM VFC, a No Further Action (NFA) Determination Pursuant to Risk Integrated System of Closure (RISC) was issued by IDEM on May 24, 2018. All soil results were below the IDEM Remediation Closure Guide Soil Screening levels and Direct Contact Screening levels with the exception of naphthalene and 2-methylnaphthalene. Naphthalene and 2-methylnaphthalene exceeded the soil migration to ground water screening level during the UST closure activity. Ground water results showed no chemicals of concern were above groundwater screening levels. All compounds were below vapor intrusion screening levels. No impact is expected.

NPDES Facilities: Two (2) NPDES facilities are located within the 0.5 mile search radius. The nearest facility, Martinsville Wastewater Treatment Plant (WWTP) (Permit Number IN0020303; 995 Rogers Rd, Martinsville, IN 46154) is located approximately 0.22 mile north of the project area. No impact is expected.

NPDES Pipe Locations: Four (4) NPDES Pipe locations are located within the 0.5 mile search radius. Four (4) NPDES Pipe Locations (659 E York St Martinsville, IN 46151, Permit Numbers INP000222002A, INP000222002AS, INP00022002B, and INP000222002BS), associated with Twigg Corporation, are located at the Martinsville WWTP approximately 0.24 mile north of the project area. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Morgan 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 USFWS and IDNR will occur.

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

An inquiry using the USFWS Information for Planning and Consulting (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: One (1) private airport, McDaniel's Field, is located within the 0.5 mile search radius of the project area. Coordination with the airport will occur.

Pipelines: Two (2) pipeline segments, associated with Indiana Gas Co. Inc., are located within or adjacent to 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 Ecology and Waterway Permitting:

- Twenty-one (21) NWI lines are located within the project area.
- Seven (7) stream segments, associated with Indian Creek and two UNTs to Indian Creek, flow through the project area.
- Ten (10) NWI wetlands are located within the project area.
- Two (2) lakes are located within the project area.
- The project area is located within five (5) floodplain polygons (coordination only)

IDEM 303d Listed Streams and Lakes: Indian Creek and two (2) UNTs to Indian Creek are located within the project area. Indian Creek and the two (2) UNTs to Indian Creek are listed as impaired for E. coli. Workers who are working in or near

water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.

URBANIZED AREA BOUNDARY: This project lies within the Martinsville 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 Morgan County MS4 Coordinator at 180 S Main Street, Suite 010, Martinsville, IN 46151.

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: N/A

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

INDOT Environmental Services concurrence: Marlene Mathas Digitally signed by Marlene Mathas Date: 2019.07.16 12:40:16 -04'00' (Signature)

Prepared by:

Daniel Townsend

Daniel Townsend
GIS Manager, Environmental Department
Lochmueller Group, Inc.

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

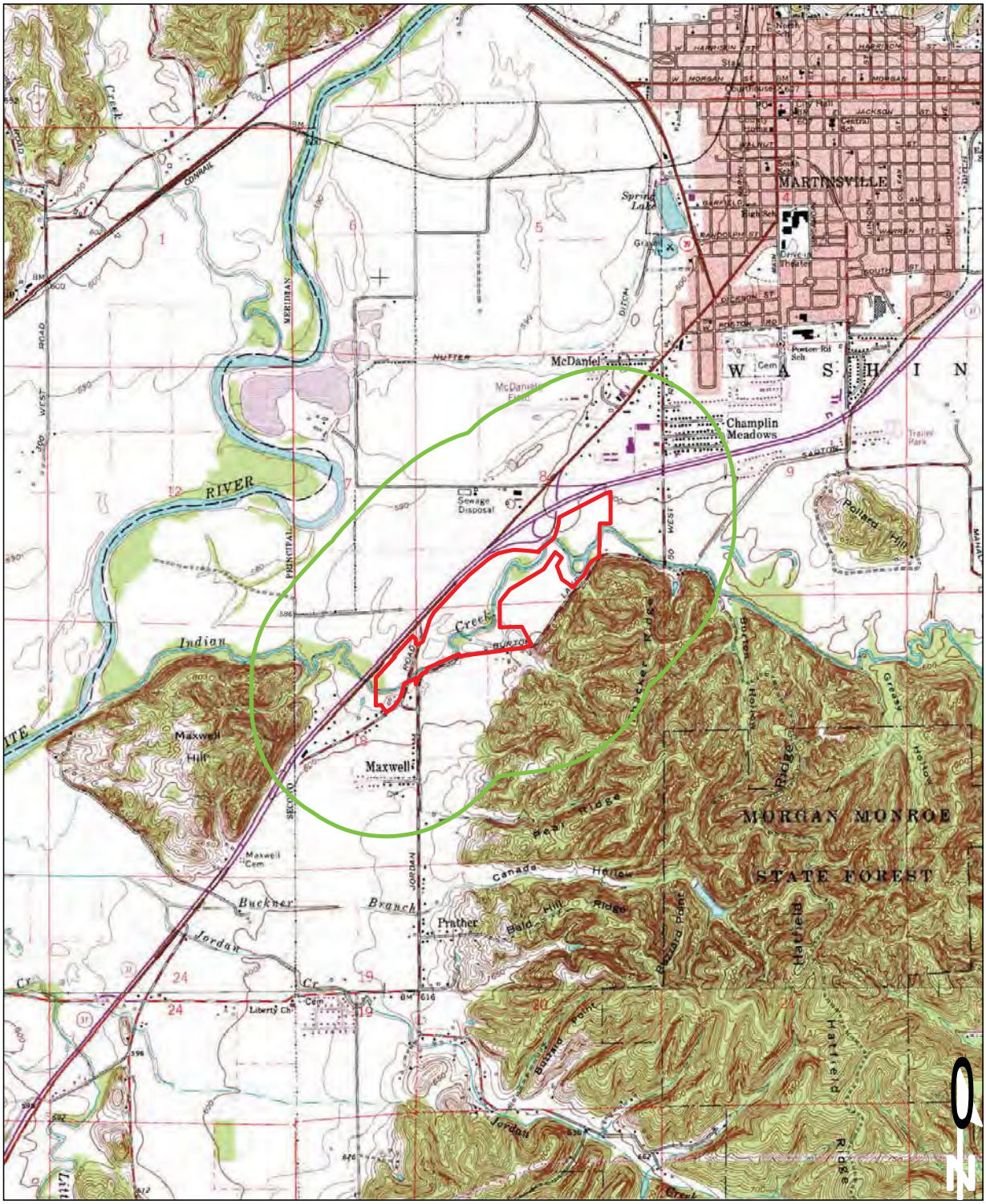
WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: YES

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: YES

Red Flag Investigation - Site Location
I-69 Section 6 Mitigation
Des. No. 1801389, Indian Creek Landlocked Site
Morgan County, Indiana



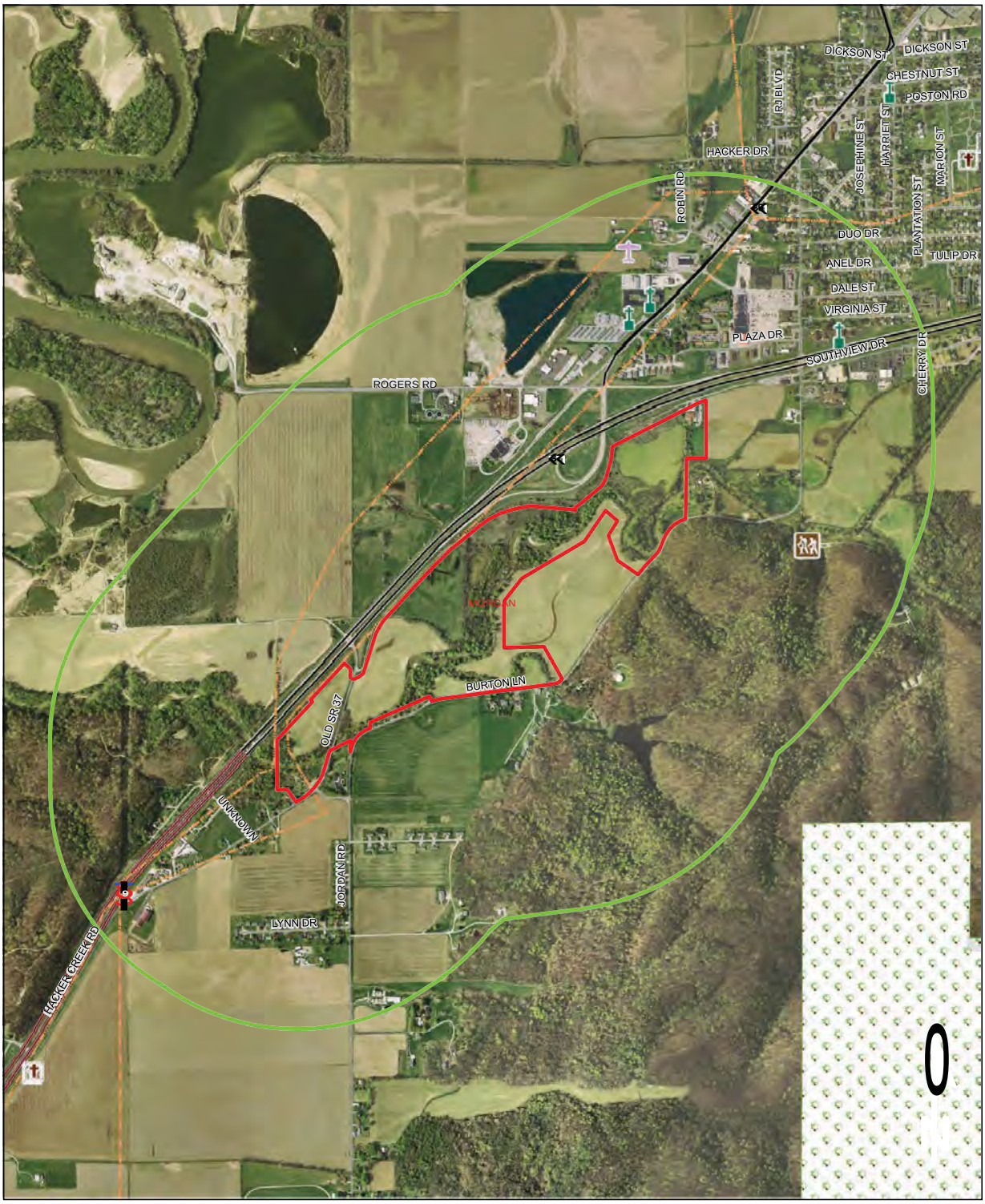
0.5 0.25 0 0.5 Miles

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.

MARTINSVILLE QUADRANGLE
INDIANA
7.5 MINUTE SERIES
(TOPOGRAPHIC)

Red Flag Investigation - Infrastructure
I-69 Section 6 Mitigation
Des. No. 1801389, Indian Creek Landlocked Site
Morgan County, Indiana



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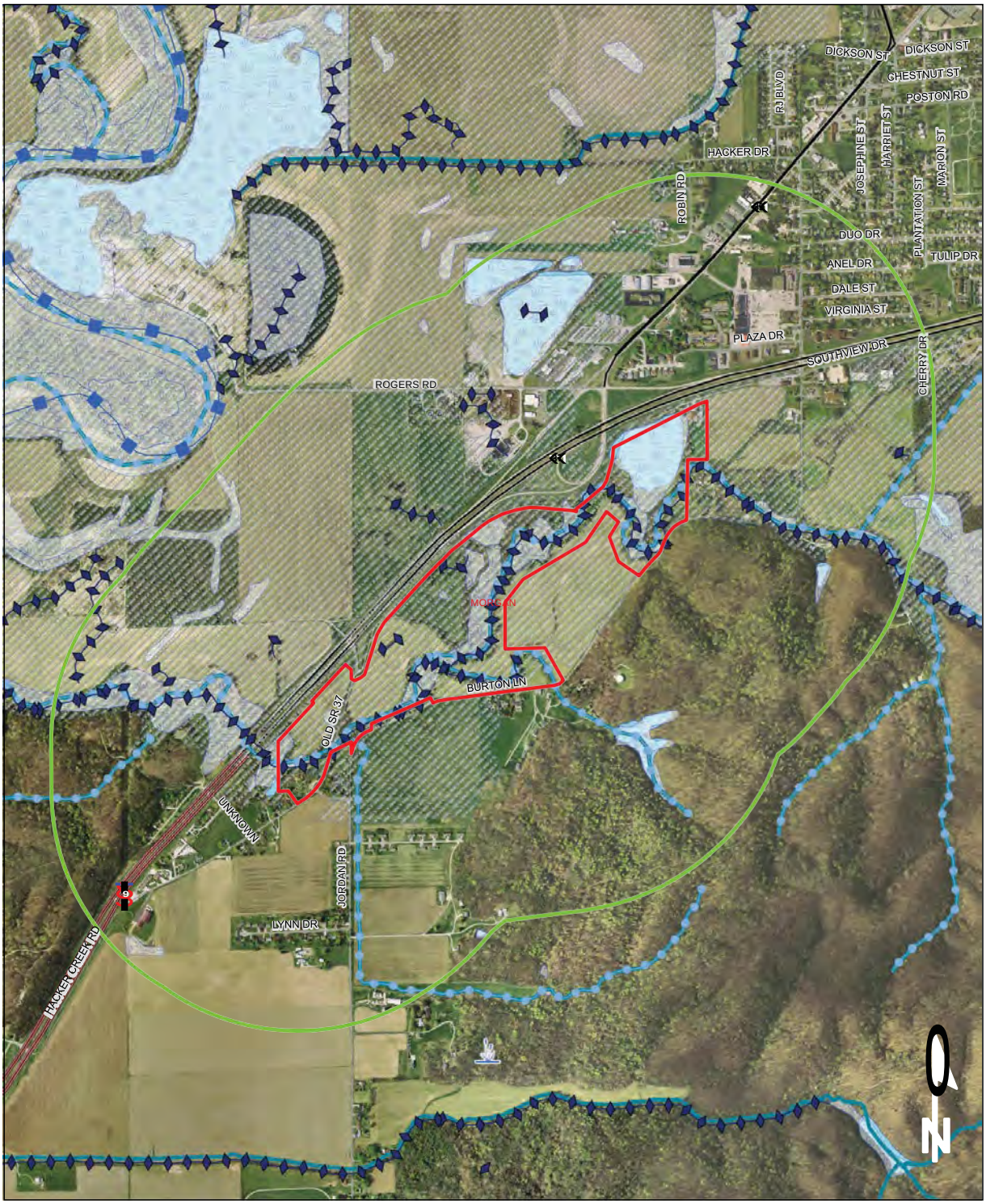
Sources:
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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

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

Red Flag Investigation - Water Resources
I-69 Section 6 Mitigation
Des. No. 1801389, Indian Creek Landlocked Site
Morgan County, Indiana



0.25 0.125 0 0.25 Miles

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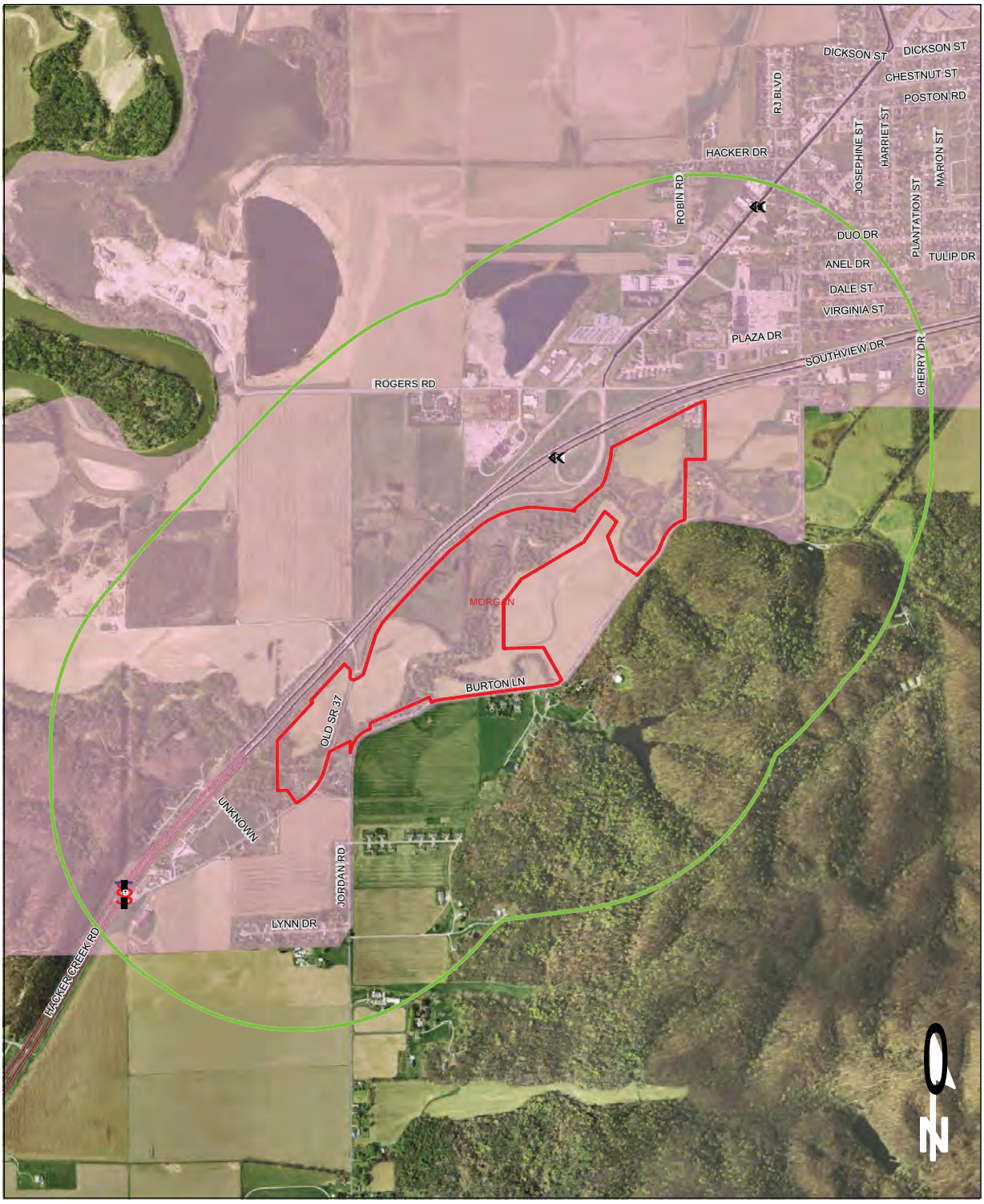
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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

Red Flag Investigation - Urbanized Area Boundary
I-69 Section 6 Mitigation
Des. No. 1801389, Indian Creek Landlocked Site
Morgan County, Indiana



0.25 0.125 0 0.25 Miles

Sources:
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
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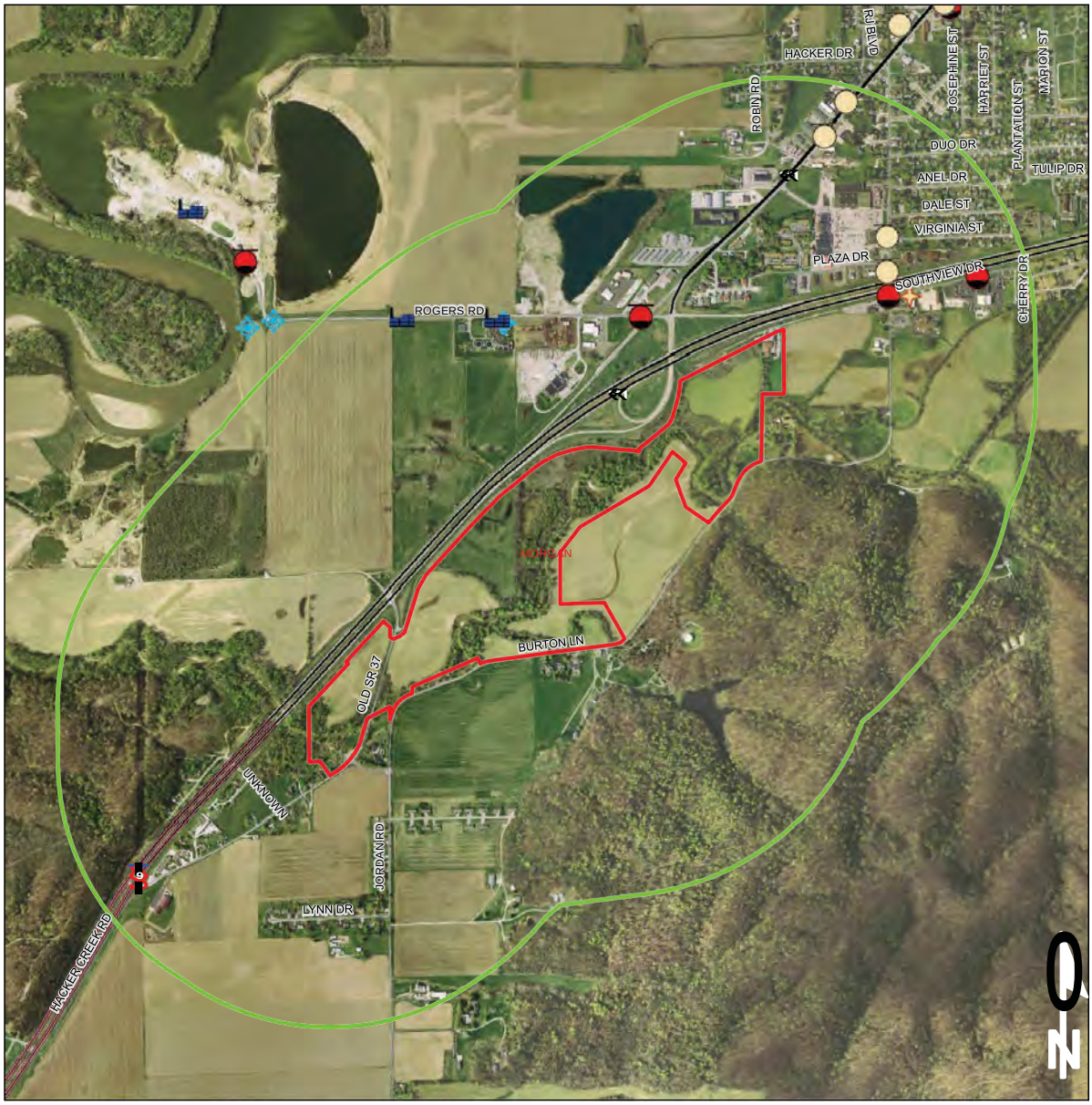
UAB
County Boundary
Project Area
Half Mile Radius
Toll
Interstate
State Route
US Route
Local Road

Red Flag Investigation - Hazardous Material Concerns
I-69 Section 6 Mitigation
Des. No. 1801389, Indian Creek Landlocked Site
Morgan County, Indiana



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

0.25 0.125 0 0.25 Miles

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

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

Indiana County Endangered, Threatened and Rare Species List

County: Morgan

Species Name	Common Name	FED	STATE	GRANK	SRANK
Diplopoda					
Conotyla bollmani	Bollman's Cave Milliped		WL	G5	S3
Crustacean: Malacostraca					
Orconectes inermis testi	Troglobitic Crayfish		SR	G5T3	S3
Mollusk: Bivalvia (Mussels)					
Cyprogenia stegaria	Eastern Fanshell Pearlymussel	LE	SE	GlQ	Sl
Epioblasma propinqua	Tennessee Riffleshell		Sx	Gx	Sx
Epioblasma rangiana	Northern Riffleshell	LE	SE	G2	Sl
Epioblasma torulosa	Tubercled Blossom	LE	Sx	Gx	Sx
Epioblasma triquetra	Snuffbox	LE	SE	G3	Sl
Fusconaia subrotunda	Longsolid	C	Sx	G3	Sx
Hemistena lata	Cracking Pearlymussel	LE	Sx	Gl	Sx
Lampsilis ovata	Pocketbook			G5	S2
Ligumia recta	Black Sandshell			G4G5	S2
Obovaria retusa	Ring Pink	LE	Sx	Gl	Sx
Obovaria subrotunda	Round Hickorynut	C	SE	G4	Sl
Plethobasus cyphyus	Sheepnose	LE	SE	G3	Sl
Pleurobema clava	Clubshell	LE	SE	GlG2	Sl
Pleurobema plenum	Rough Pigtoe	LE	SE	Gl	Sl
Pleurobema rubrum	Pyramid Pigtoe		Sx	G2G3	Sx
Ptychobranchus fasciolaris	Kidneyshell		SSC	G4G5	S2
Quadrula cylindrica cylindrica	Rabbitsfoot	LT	SE	G3G4T3	Sl
Villosa lienosa	Little Spectaclecase		SSC	G5	S3
Insect: Lepidoptera (Butterflies & Moths)					
Euphydryas phaeton	Baltimore			G5	S3S4
Insect: Odonata (Dragonflies & Damselflies)					
Enallagma divagans	Turquoise Bluet		SR	G5	S3
Rhionaeschna mutata	Spatterdock Darner		ST	G4	S2S3
Tachopteryx thoreyi	Gray Petaltail		WL	G4	S3
Fish					
Percina evides	Gilt Darter		SE	G4	Sl
Amphibian					
Hemidactylium scutatum	Four-toed Salamander		SSC	G5	S2
Lithobates areolatus circulosus	Northern Crawfish Frog		SE	G4T4	S2
Reptile					
Clonophis kirtlandii	Kirtland's Snake		SE	G2	S2
Crotalus horridus	Timber Rattlesnake		SE	G4	S2
Macrochelys temminckii	Alligator Snapping Turtle	C	SE	G3G4	SH
Opheodrys aestivus	Rough Green Snake		SSC	G5	S3

Indiana Natural Heritage Data Center
Division of Nature Preserves
Indiana Department of Natural Resources

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

This data is not the result of comprehensive county surveys.

GRANK: Global Heritage Rank: Gl = 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: Sl = 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: Morgan

Species Name	Common Name	FED	STATE	GRANK	SRANK
Terrapene carolina carolina	Eastern Box Turtle		SSC	G5T5	S3
Bird					
Accipiter striatus	Sharp-shinned Hawk		SSC	G5	S2B
Aimophila aestivalis	Bachman's Sparrow			G3	SxB
Ammodramus henslowi	Henslow's Sparrow		SE	G4	S3B
Bartramia longicauda	Upland Sandpiper		SE	G5	S3B
Buteo platypterus	Broad-winged Hawk		SSC	G5	S3B
Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2
Helmitheros vermivorus	Worm-eating Warbler		SSC	G5	S3B
Lanius ludovicianus	Loggerhead Shrike		SE	G4	S3B
Mniotilta varia	Black-and-white Warbler		SSC	G5	SlS2B
Pandion haliaetus	Osprey		SSC	G5	SlB
Setophaga cerulea	Cerulean Warbler		SE	G4	S3B
Setophaga citrina	Hooded Warbler		SSC	G5	S3B
Thryomanes bewickii	Bewick's Wren			G5	SlB
Tyto alba	Barn Owl		SE	G5	S2
Mammal					
Lasiurus borealis	Eastern Red Bat		SSC	G3G4	S4
Lasiurus cinereus	Hoary Bat		SSC	G3G4	S4
Myotis lucifugus	Little Brown Bat	C	SE	G3	S2
Myotis septentrionalis	Northern Long Eared Bat	LT	SE	GlG2	S2S3
Myotis sodalis	Indiana Bat	LE	SE	G2	Sl
Nycticeius humeralis	Evening Bat		SE	G5	Sl
Perimyotis subflavus	Tricolored Bat		SE	G2G3	S2S3
Taxidea taxus	American Badger		SSC	G5	S2
Vascular Plant					
Epigaea repens	Trailing Arbutus		SR	G5	S3
Fleischmannia incarnata	Pink Thoroughwort		ST	G5	S2
Juglans cinerea	Butternut		ST	G4	S2
Panax quinquefolius	American Ginseng		WL	G3G4	S3
Pinus strobus	Eastern White Pine		SR	G5	S3
Rubus odoratus	Purple Flowering Raspberry		ST	G5	S2
Tsuga canadensis	Eastern Hemlock		WL	G5	S3
High Quality Natural Community					
Forest - upland dry-mesic Highland Rim	Highland Rim Dry-mesic Upland Forest		SG	GNR	S3
Forest - upland mesic Highland Rim	Highland Rim Mesic Upland Forest		SG	GNR	S3
Primary - cliff eroding	Eroding Cliff		SG	G4	Sl
Wetland - fen	Fen		SG	G3	S3

Indiana Natural Heritage Data Center
Division of Nature Preserves
Indiana Department of Natural Resources

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

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Indiana County Endangered, Threatened and Rare Species List

County: Morgan

Species Name	Common Name	FED	STATE	GRANK	SRANK
Wetland - seep circumneutral	Circumneutral Seep		SG	GU	Sl
Other Significant Feature					
Geomorphic - Nonglacial Erosional Feature - Water Fall and Cascade	Water Fall and Cascade			GNR	SNR

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

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting

State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; Sx = state extirpated; SG = state significant; WL = watch list

GRANK: Global Heritage Rank: Gl = 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: Sl = 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

Categorical Exclusion

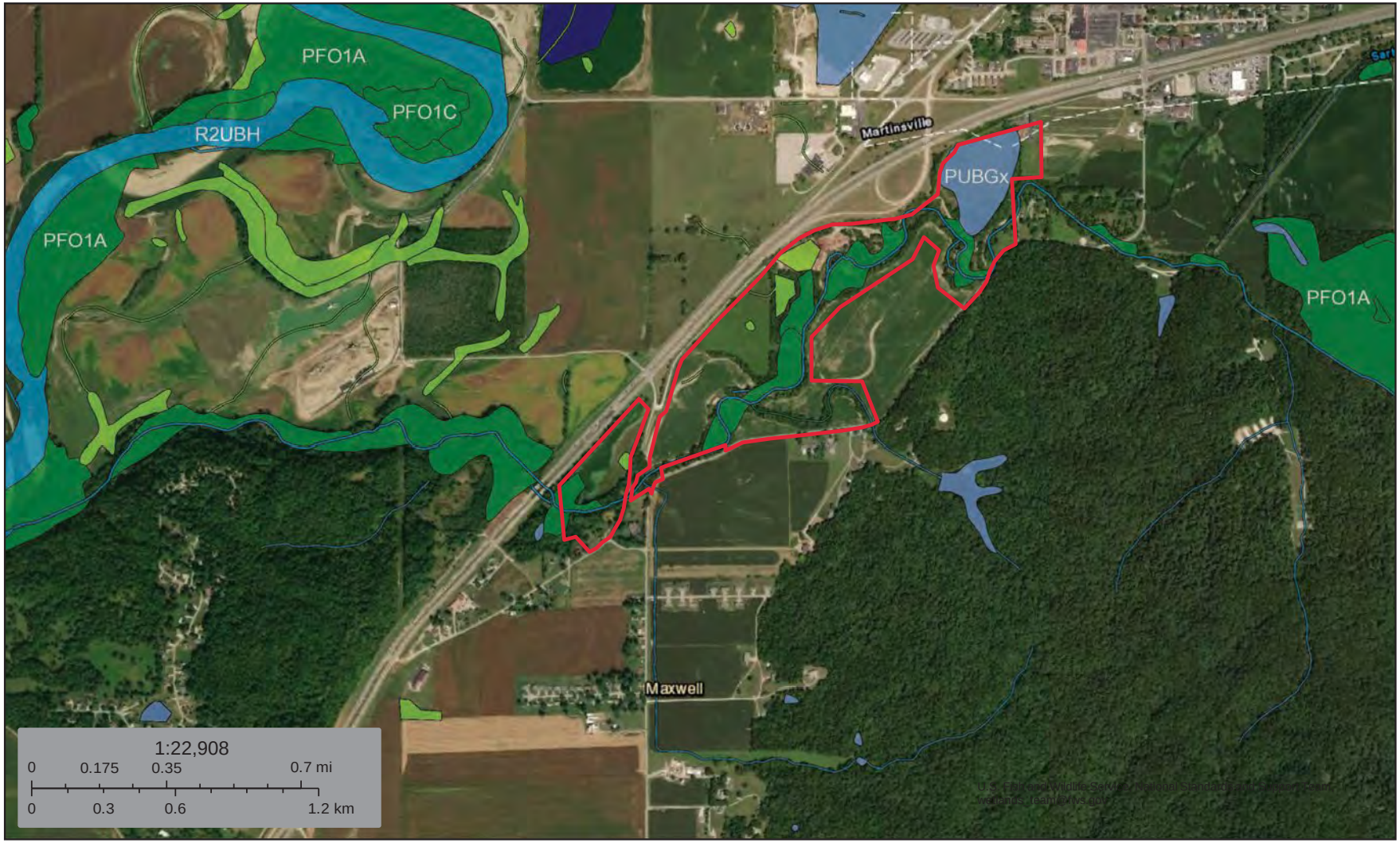
Appendix F

Water Resources

U.S. Fish and Wildlife Service

National Wetlands Inventory

Des 1801389



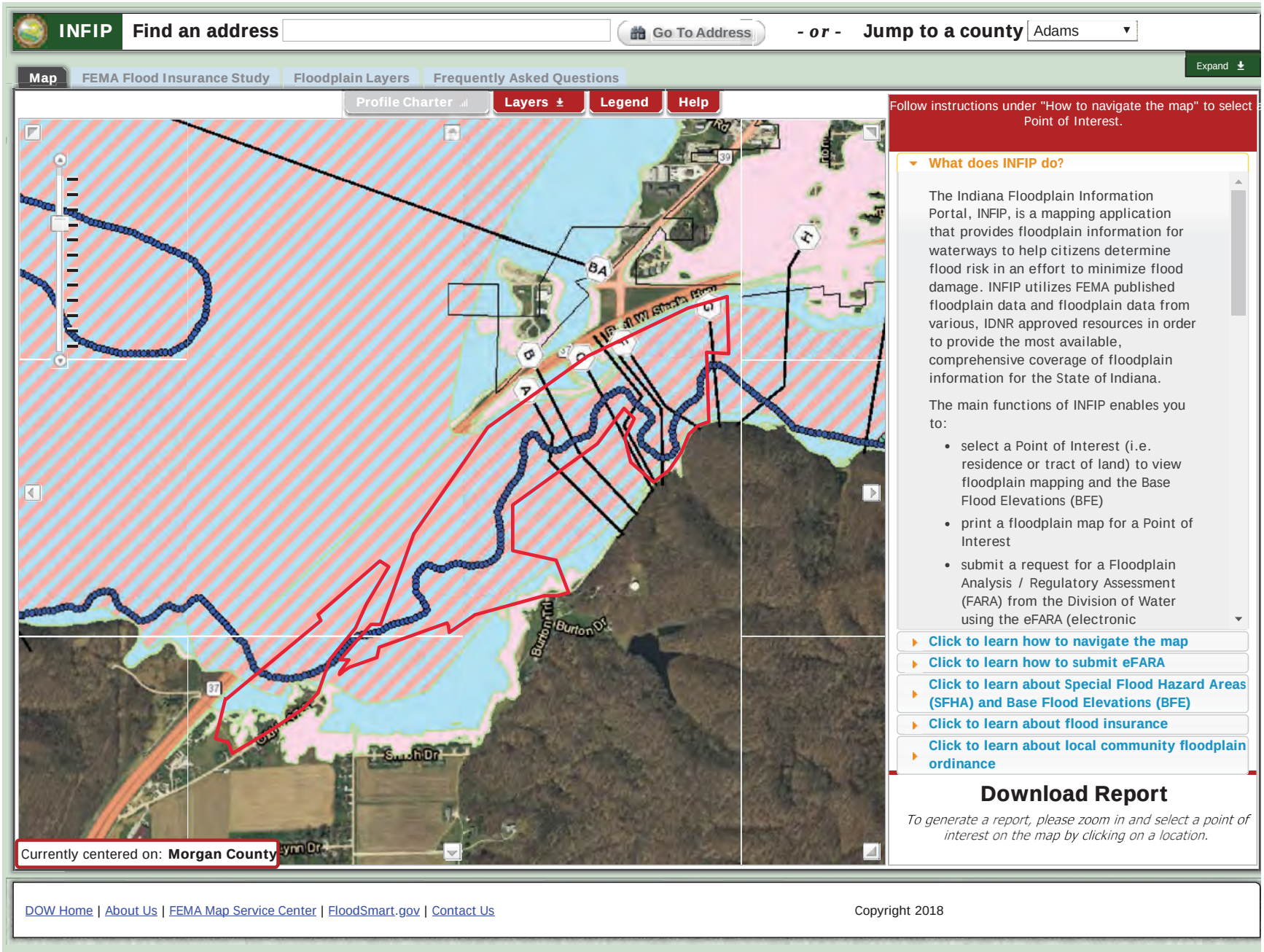
January 21, 2020

Wetlands

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

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

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


INFIP
Find an address
Go To Address
- or -
Jump to a county
Adams
Expand
Map
FEMA Flood Insurance Study
Floodplain Layers
Frequently Asked Questions
Profile Charter
Layers
Legend
Help
Follow instructions under "How to navigate the map" to select a Point of Interest.
What does INFIP do?
The Indiana Floodplain Information Portal, INFIP, is a mapping application that provides floodplain information for waterways to help citizens determine flood risk in an effort to minimize flood damage. INFIP utilizes FEMA published floodplain data and floodplain data from various, IDNR approved resources in order to provide the most available, comprehensive coverage of floodplain information for the State of Indiana.
The main functions of INFIP enables you to:
select a Point of Interest (i.e. residence or tract of land) to view floodplain mapping and the Base Flood Elevations (BFE)
print a floodplain map for a Point of Interest
submit a request for a Floodplain Analysis / Regulatory Assessment (FARA) from the Division of Water using the eFARA (electronic
Click to learn how to navigate the map
Click to learn how to submit eFARA
Click to learn about Special Flood Hazard Areas (SFHA) and Base Flood Elevations (BFE)
Click to learn about flood insurance
Click to learn about local community floodplain ordinance
Download Report
To generate a report, please zoom in and select a point of interest on the map by clicking on a location.
Currently centered on: Morgan County
Burton Trl
Burton Dr
Smith Dr
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OWQ Biological Studies QHEI (Qualitative Habitat Evaluation Index)

Sample #	bioSample #	Stream Name	Location
S-IC1-Q		Indian Creek	39.397111 -86.449893

Surveyor	Sample Date	County	Macro Sample Type	☐ Habitat Complete
BR, SB	01-09-2019	Morgan		

QHEI Score: 61.5

1] *SUBSTRATE* Check ONLY Two predominant substrate TYPE BOXES; estimate % and check every type present

BEST TYPES (PREDOMINANT P R / PRESENT P R / TOTAL %)
- ☐☐ BLDR/SLABS [10] ☐☐
- ☐☐ BOULDER [9] ☐☐
- ☐☐ COBBLE [8] ☐☐
- ☒☒ GRAVEL [7] ☒☒ 5
- ☒☒ SAND [6] ☒☒ 95
- ☐☐ BEDROCK [5] ☐☐

OTHER TYPES (PREDOMINANT P R / PRESENT P R / TOTAL %)
- ☐☐ HARDPAN [4] ☐☐
- ☐☐ DETRITUS [3] ☐☐
- ☐☐ MUCK [2] ☐☐
- ☐☐ SILT [2] ☐☐
- ☐☐ ARTIFICIAL [0] ☐☐

(Score natural substrates; ignore sludge from point-sources)

NUMBER OF BEST TYPES: ☐ 4 or more [2] ☒ 3 or less [0]

ORIGIN Check ONE (Or 2 & average)
- ☒ LIMESTONE [1]
- ☐ TILLS [1]
- ☐ WETLANDS [0]
- ☐ HARDPAN [0]
- ☐ SANDSTONE [0]
- ☐ RIP/RAP [0]
- ☐ LACUSTRINE [0]
- ☐ SHALE [-1]
- ☐ COAL FINES [-2]

QUALITY
- SILT: ☐ HEAVY [-2]; ☒ MODERATE [-1]; ☐ NORMAL [0]; ☐ FREE [1]
- EMBEDDEDNESS: ☐ EXTENSIVE [-2]; ☐ MODERATE [-1]; ☒ NORMAL [0]; ☐ NONE [1]

Substrate 14 (Maximum 20)

Comments

2] *INSTREAM COVER* Indicate presence 0 to 3 and estimate percent: **0**–Absent; **1**–Very small amounts or if more common of marginal quality; **2**-Moderate amounts, but not of highest quality or in small amounts of highest quality; **3**-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed root wad in deep/fast water, or deep, well-defined, functional pools.)

%	Amount	Type	%	Amount	Type	%	Amount	Type
		UNDERCUT BANKS [1]	2	1	POOLS > 70cm [2]			OXBOWS, BACKWATERS [1]
10	1	OVERHANGING VEGETATION [1]			ROOTWADS [1]			AQUATIC MACROPHYTES [1]
		SHALLOWS (IN SLOW WATER) [1]			BOULDERS [1]	2	1	LOGS OR WOODY DEBRIS [1]
		ROOTMATS [1]						

AMOUNT Check ONE (Or 2 & average)
- ☐ EXTENSIVE > 75% [11]
- ☐ MODERATE 25 - 75% [7]
- ☒ SPARSE 5 - < 25% [3]
- ☐ NEARLY ABSENT < 5% [1]

Cover 6 (Maximum 20)

Comments

3] *CHANNEL MORPHOLOGY* Check ONE in each category (Or 2 & average)

SINUOSITY
- ☐ HIGH [4]
- ☒ MODERATE [3]
- ☐ LOW [2]
- ☐ NONE [1]

DEVELOPMENT
- ☐ EXCELLENT [7]
- ☐ GOOD [5]
- ☒ FAIR [3]
- ☐ POOR [1]

CHANNELIZATION
- ☒ NONE [6]
- ☐ RECOVERED [4]
- ☐ RECOVERING [3]
- ☐ RECENT OR NO RECOVERY [1]

STABILITY
- ☐ HIGH [3]
- ☒ MODERATE [2]
- ☐ LOW [1]

Channel 18 (Maximum 20)

Comments

4] *BANK EROSION AND RIPARIAN ZONE* Check ONE in each category for EACH BANK (Or 2 per bank & average)

River right looking downstream

EROSION (L R)
- ☐☐ NONE/LITTLE [3]
- ☒☒ MODERATE [2]
- ☐☐ HEAVY/SEVERE [1]

RIPARIAN WIDTH (L R)
- ☐☐ WIDE > 50m [4]
- ☐☒ MODERATE 10-50m [3]
- ☒☐ NARROW 5-10m [2]
- ☐☐ VERY NARROW [1]
- ☐☐ NONE [0]

FLOOD PLAIN QUALITY (L R)
- ☐☐ FOREST, SWAMP [3]
- ☐☒ SHRUB OR OLD FIELD [2]
- ☐☐ RESIDENTIAL, PARK, NEW FIELD [1]
- ☐☐ FENCED PASTURE [1]
- ☒☐ OPEN PASTURE, ROWCROP [0]
- ☐☐ CONSERVATION TILLAGE [1]
- ☐☐ URBAN OR INDUSTRIAL [0]
- ☐☐ MINING / CONSTRUCTION [0]

Indicate predominant land use(s) past 100m riparian.

Riparian 5.5 (Maximum 10)

Comments

5] *POOL/GLIDE AND RIFFLE/RUN QUALITY*

MAXIMUM DEPTH Check ONE (ONLY!)
- ☒ > 1m [6]
- ☐ 0.7-<1m [4]
- ☐ 0.4-<0.7m [2]
- ☐ 0.2-<0.4m [1]
- ☐ < 0.2m [0]

CHANNEL WIDTH Check ONE (Or 2 & average)
- ☐ POOL WIDTH > RIFFLE WIDTH [2]
- ☐ POOL WIDTH = RIFFLE WIDTH [1]
- ☒ POOL WIDTH < RIFFLE WIDTH [0]

CURRENT VELOCITY Check ALL that apply
- ☐ TORRENTIAL [-1]
- ☐ VERY FAST [1]
- ☒ FAST [1]
- ☒ MODERATE [1]
- ☐ SLOW [1]
- ☐ INTERSTITIAL [-1]
- ☐ INTERMITTENT [-2]
- ☐ EDDIES [1]

Indicate for reach – pools and riffles.

Recreation Potential (Circle one and comment on back)
- ☒ Primary Contact
- ☐ Secondary Contact

Pool/Current 8 (Maximum 12)

Comments

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species:

☐ NO RIFFLE [metric=0]

RIFFLE DEPTH
- ☐ BEST AREAS > 10cm [2]
- ☐ BEST AREAS 5 -10cm [1]
- ☒ BEST AREAS < 5 cm [metric = 0]

RUN DEPTH
- ☒ MAXIMUM > 50cm [2]
- ☐ MAXIMUM < 50cm [1]

RIFFLE/RUN SUBSTRATE Check ONE (Or 2 & average)
- ☐ STABLE (e.g., Cobble, Boulder) [2]
- ☐ MOD. STABLE (e.g., Large Gravel) [1]
- ☒ UNSTABLE (e.g., Fine Gravel, Sand) [0]

RIFFLE/RUN EMBEDDEDNESS
- ☐ NONE [2]
- ☐ LOW [1]
- ☒ MODERATE [0]
- ☐ EXTENSIVE [-1]

Riffle/Run 2 (Maximum 8)

Comments

6] *GRADIENT* (3.8 ft/mi)

DRAINAGE AREA (91.8 mi²)

- ☐ VERY LOW - LOW [2-4]
- ☒ MODERATE [6 -10]
- ☐ HIGH - VERY HIGH [10- 6]

%POOL:	5	%GLIDE:	10
%RUN:	60	%RIFFLE:	25

Gradient 8 (Maximum 10)

IDEM 07/06/10

OWQ Biological Studies QHEI (Qualitative Habitat Evaluation Index)

COMMENT OHWM 58.3' wide x 4' deep

A-C ANOPY

- ☐ > 85% -Open
- ☐ 55% - <85%
- ☒ 30% - <55%
- ☐ 10% - <30%
- ☐ < 10% - Closed

B-AESTHETICS

- ☐ Nuisance algae
- ☐ Invasive macrophytes
- ☒ Excess turbidity
- ☐ Discoloration
- ☐ Foam/Scum
- ☐ Oil sheen
- ☐ Trash/Litter
- ☐ Nuisance odor
- ☐ Sludge deposits
- ☐ CSOs/SSOs/Outfalls

C-RECREATION

Area Depth

Pool: ☐ > 100 ft² ☐ > 3 ft

D-MAINTENANCE

☐ Public ☐ Private
☐ Active ☐ Historic
Succession: ☐ Young ☐ Old
☐ Spray ☐ Islands ☐ Scoured
Snag : ☐ Removed ☐ Modified
Leveed: ☐ One sided ☐ Both banks
☐ Relocated ☐ Cutoffs
Bedload: ☐ Moving ☐ Stable
☐ Armoured ☐ Slumps
☐ Impounded ☐ Desiccated

☐ Flood control ☐ Drainage

E-ISSUES

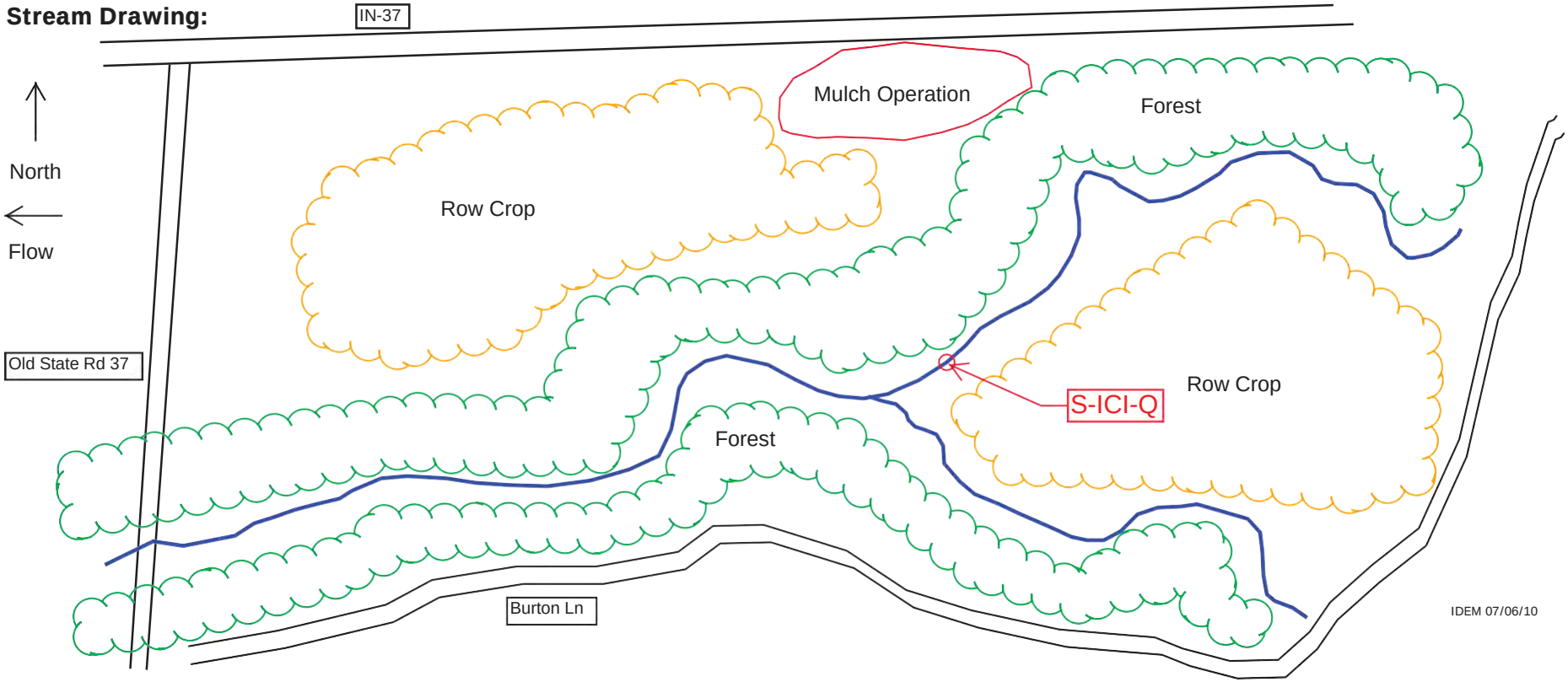
☐ WWTP ☐ CSO ☐ NPDES
☐ Industry ☐ Urban
☐ Hardened ☐ Dirt & Grime
☐ Contaminated ☐ Landfill
BMPs: ☐ Construction ☐ Sediment
☐ Logging ☐ Irrigation ☐ Cooling
Erosion: ☐ Bank ☐ Surface
☐ False bank ☐ Manure ☐ Lagoon
☐ Wash H_2O ☐ Tile ☐ H_2O Table
Mine: ☐ Acid ☐ Quarry

Flow: ☐ Natural ☐ Stagnant
☐ Wetland ☐ Park ☐ Golf
☐ Lawn ☐ Home
☐ Atmospheric deposition

Looking upstream (> 10m, 3 readings; < 10m, 1 reading in middle); Round to the nearest whole percent

% open	Left %	Middle %	Right %	Total Average %
	30	85	30	48
	X	X	X	

Stream Drawing:



IDEM 07/06/10

Stream Assessment Photos
Stream ID: S-IC1-Q

Photo 1: Facing Upstream (01/08/19)

Photo 2: Facing Downstream (01/08/19)

Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) : **36**

SITE NAME/LOCATION: **Indian Creek (S-IC2-H)**

SITE NUMBER: _____ RIVER BASIN: **White River** DRAINAGE AREA (mi²): **0.17**

LENGTH OF STREAM REACH (ft): **507** LAT.: _____ LONG.: _____ RIVER CODE: _____ RIVER MILE: _____

DATE: **01/08/19** SCORER: **BR** COMMENTS: _____

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL MODIFICATIONS: ☐ NONE / NATURAL CHANNEL ☐ RECOVERED ☑ RECOVERING ☐ RECENT OR NO RECOVERY

1. SUBSTRATE (Estimate percent of every type of substrate present. Check *ONLY* two predominant substrate *TYPE* boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.

TYPE		PERCENT	TYPE		PERCENT
☐	BLDR SLABS [16 pts]	0%	☑	SILT [3 pt]	60%
☐	BOULDER (>256 mm) [16 pts]	0%	☐	LEAF PACK/WOODY DEBRIS [3 pts]	0%
☐	BEDROCK [16 pt]	0%	☐	FINE DETRITUS [3 pts]	0%
☐	COBBLE (65-256 mm) [12 pts]	0%	☐	CLAY or HARDPAN [0 pt]	0%
☐	GRAVEL (2-64 mm) [9 pts]	0%	☐	MUCK [0 pts]	0%
☑	SAND (<2 mm) [6 pts]	40%	☐	ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock: **0.00%** (A) = **9**

Substrate Percentage Check: 100% (B) = **2**

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 **TOTAL NUMBER OF SUBSTRATE TYPES:** 2

2. Maximum Pool Depth ***(Measure the maximum pool depth within the 61 meter (200 ft)*** evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

☐	> 30 centimeters [20 pts]	☐	> 5 cm - 10 cm [15 pts]
☐	> 22.5 - 30 cm [30 pts]	☑	< 5 cm [5 pts]
☐	> 10 - 22.5 cm [25 pts]	☐	NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS: _____ **MAXIMUM POOL DEPTH (centimeters):** 2

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) **(Check *ONLY* one box):**

☐	> 4.0 meters (> 13') [30 pts]	☐	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐	> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☐	,:; 1.0 m (<=3' 3") [5 pts]
☑	> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		

COMMENTS: OHWM 5.3' wide x 0.7' deep **AVERAGE BANKFULL WIDTH (meters):** 1.70

HHEI Metric Points

Substrate Max = 40

11

A + B

Pool Depth Max = 30

5

Bankfull Width Max=30

20

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY *NOTE: River Left (L) and Right (R) as looking downstream*

RIPARIAN WIDTH (Per Bank) L	R		FLOODPLAIN QUALITY (Most Predominant per Bank) L	R		L	R	
☐	☐	Wide >10m	☑	☐	Mature Forest, Wetland	☐	☐	Conservation Tillage
☑	☑	Moderate 5-10m	☐	☐	Immature Forest, Shrub or Old Field	☐	☐	Urban or Industrial
☐	☐	Narrow <5m	☐	☐	Residential, Park, New Field	☐	☐	Open Pasture, Row Crop
☐	☐	None	☐	☐	Fenced Pasture	☐	☐	Mining or Construction

COMMENTS: _____

FLOW REGIME *(At Time of Evaluation)* (Check *ONLY* one box):

☑	Stream Flowing	☐	Moist Channel, isolated pools, no flow (Intermittent)
☐	Subsurface flow with isolated pools (Interstitial)	☐	Dry channel, no water (Ephemeral)

COMMENTS: _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check *ONLY* one box):

☐	None	☐	1.0	☐	2.0	☐	3.0
☑	0.5	☐	1.5	☐	2.5	☐	>3

STREAM GRADIENT ESTIMATE

☑ Flat (0.5 ft/100 ft) ☐ Flat to Moderate ☐ Moderate (2 ft/100 ft) ☐ Moderate to Severe ☐ Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

QHEI PERFORMED? - ☐ Yes ☑ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)

DOWNSTREAM DESIGNATED USE(S)

☐ WWH Name: _____ Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: Martinsville NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: _____ Township / City: Washington/Martinsville

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 01/07/19 Quantity: 0.01

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 35%

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NO TE: all voucher sam ples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat A ssessm ent M anual)

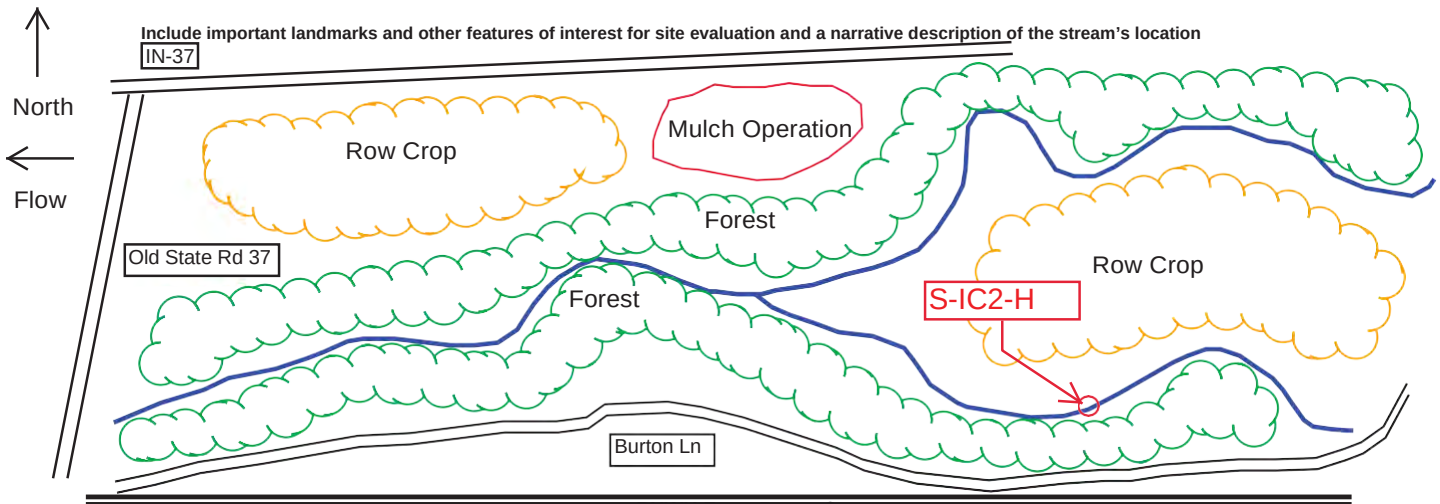
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N

Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

Comments Regarding Biology: _____

DRAWING AND NARRATIVE DESCRIPTION O F STREAM REACH (This must be completed):

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location



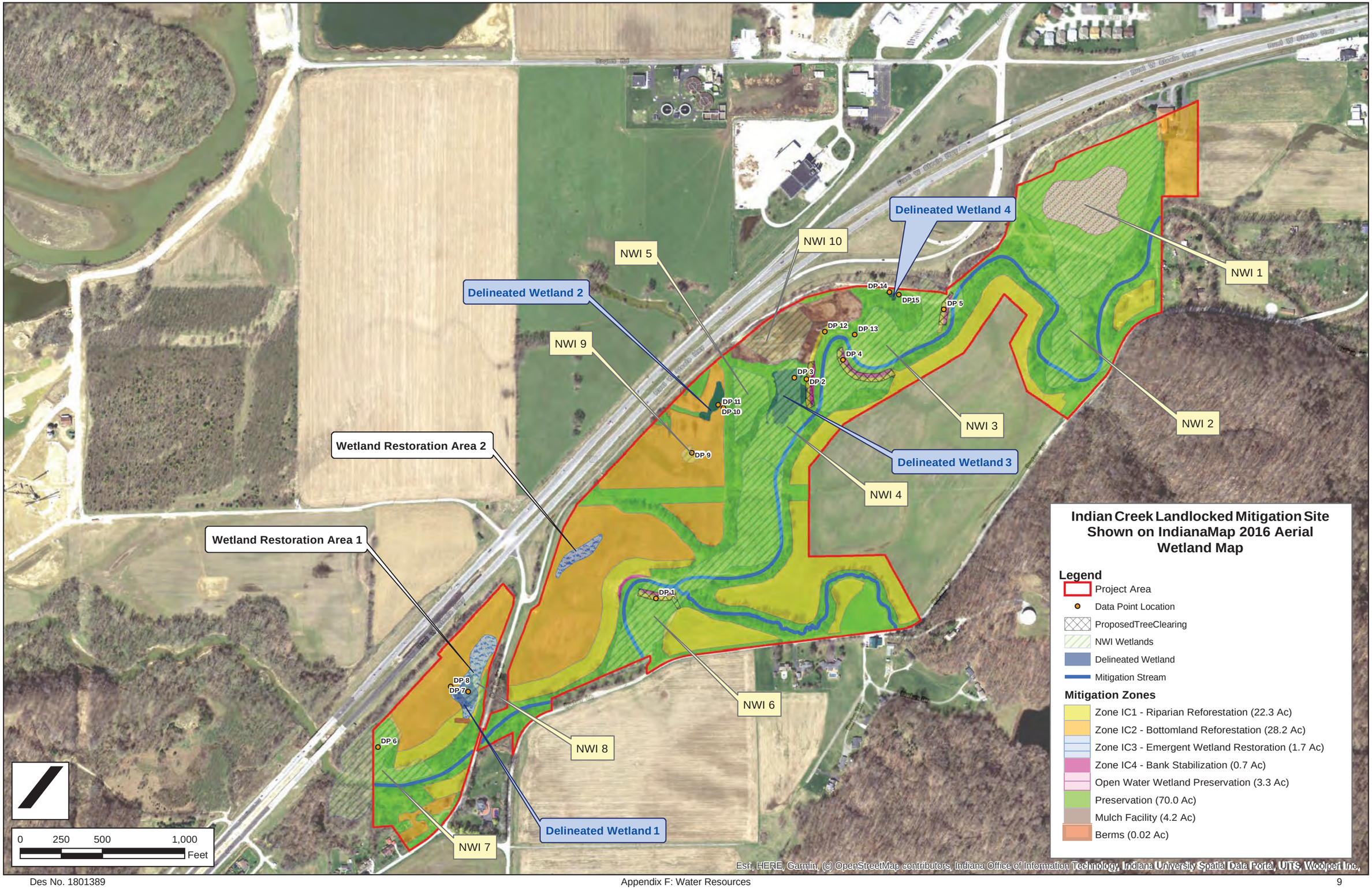
October 24, 2002 Revision

Save as pdf Reset Form

Stream Assessment Photos
Stream ID: S-IC2-H

Photo 1: Facing Upstream (01/08/19)

Photo 2: Facing Downstream (01/08/19)


Delineated Wetland 4
NWI 10
NWI 5
NWI 1
Delineated Wetland 2
DP 14
DP15
DP 5
DP 12
DP 13
NWI 9
DP 4
DP 3
DP 2
DP 11
DP 10
NWI 3
NWI 2
Wetland Restoration Area 2
DP 9
Delineated Wetland 3
NWI 4
Wetland Restoration Area 1
DP 1
DP 8
DP 7
NWI 6
DP 6
NWI 8
Delineated Wetland 1
NWI 7
0 250 500 1,000
Feet
Indian Creek Landlocked Mitigation Site Shown on IndianaMap 2016 Aerial Wetland Map
Legend
Project Area
Data Point Location
ProposedTreeClearing
NWI Wetlands
Delineated Wetland
Mitigation Stream
Mitigation Zones
Zone IC1 - Riparian Reforestation (22.3 Ac)
Zone IC2 - Bottomland Reforestation (28.2 Ac)
Zone IC3 - Emergent Wetland Restoration (1.7 Ac)
Zone IC4 - Bank Stabilization (0.7 Ac)
Open Water Wetland Preservation (3.3 Ac)
Preservation (70.0 Ac)
Mulch Facility (4.2 Ac)
Berms (0.02 Ac)
Esri, HERE, Garmin, (c) OpenStreetMap contributors, Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS, Woolpert Inc.,

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Indian Creek Mitigation City/County: Martinsville/Morgan Sampling Date: 1/27/2020

Applicant/Owner: Indiana Department of Transportation State: IN Sampling Point: DP 1

Investigator(s): Breust Section, Township, Range: Sec 17, Twp 11N, Rng 1E

Landform (hillside, terrace, etc.): flat Local relief (concave, convex, none): none

Slope (%): 1 Lat: 39.395587 Long: -86.452629 Datum: NAD 1983

Soil Map Unit Name: Genesee silt loam NWI classification: PFO1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Platanus occidentalis*	30	Yes	FACW
2. *Acer saccharinum*	30	Yes	FACW
3. *Morus alba*	5	No	FAC
4.			
5.			
	65	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft radius			
1. *Aesculus glabra*	3	Yes	FAC
2. *Celtis occidentalis*	3	Yes	FAC
3. *Juglans nigra*	2	Yes	FACU
4. *Acer negundo*	2	Yes	FAC
5.			
	10	=Total Cover	
Herb Stratum (Plot size: 5ft radius)			
1. *Solidago sp.*	20	Yes	
2. *Symphyotrichum sp.*	20	Yes	
3. *Verbesina alternifolia*	15	No	FACW
4. *Smilax hispida*	10	No	FAC
5. *Silphium perfoliatum*	5	No	FACW
6. *Elymus virginicus*	5	No	FACW
7. *Cinna arundinacea*	2	No	FACW
8.			
9.			
10.			
	77	=Total Cover	
Woody Vine Stratum (Plot size: 30ft radius			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 62.5% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	87	x 2 =	174
FAC species	23	x 3 =	69
FACU species	2	x 4 =	8
UPL species	0	x 5 =	0
Column Totals:	112 (A)		251 (B)
Prevalence Index = B/A =			2.24

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ::3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/2	100					Loamy/Clayey	
12-20	10YR 4/3	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- X Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Indian Creek Mitigation City/County: Martinsville/Morgan Sampling Date: 1/27/2020

Applicant/Owner: Indiana Department of Transportation State: IN Sampling Point: DP 2

Investigator(s): Breust Section, Township, Range: Sec 8, Twp 11N, Rng 1E

Landform (hillside, terrace, etc.): flat Local relief (concave, convex, none): none

Slope (%): 1 Lat: 39.399271 Long: -86.449649 Datum: NAD 1983

Soil Map Unit Name: Genesee silt loam NWI classification: non-wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____ Hydric Soil Present? Yes ____ No X Wetland Hydrology Present? Yes X No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	60	Yes	FACW
2. *Fraxinus pennsylvanica*	30	Yes	FACW
3. *Ulmus americana*	5	No	FACW
4.			
5.			
	95	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft radius)			
1. *Acer negundo*	2	No	FAC
2.			
3.			
4.			
5.			
	2	=Total Cover	
Herb Stratum (Plot size: 5ft radius)			
1. *Panicum dichotomiflorum*	3	Yes	FACW
2. *Solidago sp.*	3	Yes	
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	6	=Total Cover	
Woody Vine Stratum (Plot size: 30ft radius)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	98	x 2 =	196
FAC species	2	x 3 =	6
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		202 (B)

Prevalence Index = B/A = 2.02

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ::3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 5/2	100					Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
X Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ True Aquatic Plants (B14)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Gauge or Well Data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Indian Creek Mitigation City/County: Martinsville/Morgan Sampling Date: 1/27/2020

Applicant/Owner: Indiana Department of Transportation State: IN Sampling Point: DP 3

Investigator(s): Breust Section, Township, Range: Sec 8, Twp 11N, Rng 1E

Landform (hillside, terrace, etc.): flat Local relief (concave, convex, none): none

Slope (%): 1 Lat: 39.399245 Long: -86.449392 Datum: NAD 1983

Soil Map Unit Name: Genesee silt loam NWI classification: PSS1/EM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____ Hydric Soil Present? Yes X No ____ Wetland Hydrology Present? Yes X No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	75	Yes	FACW
2. *Fraxinus pennsylvanica*	20	Yes	FACW
3.			
4.			
5.			
	95 =Total Cover		
Sapling/Shrub Stratum (Plot size: 15ft radius)			
1. *Platanus occidentalis*	2	No	FACW
2.			
3.			
4.			
5.			
	2 =Total Cover		
Herb Stratum (Plot size: 5ft radius)			
1. *Panicum dichotomiflorum*	20	Yes	FACW
2. *Solidago sp.*	10	Yes	
3. *Persicaria lapathifolia*	5	No	FACW
4. *Rudbeckia laciniata*	2	No	FACW
5. *Xanthium strumarium*	2	No	FAC
6.			
7.			
8.			
9.			
10.			
	39 =Total Cover		
Woody Vine Stratum (Plot size: 30ft radius)			
1.			
2.			
	____ =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	124	x 2 =	248
FAC species	2	x 3 =	6
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	126 (A)		254 (B)

Prevalence Index = B/A = 2.02

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ::3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/2	98	10YR 3/6	2	C	M	Loamy/Clayey	Prominent redox concentrations
12-13	10YR 4/1	90	10YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations
13-20	10YR 4/2	90	10YR 4/6	10	C	M	Sandy	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** ____

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- X Sediment Deposits (B2)
- X Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Indian Creek Mitigation City/County: Martinsville/Morgan Sampling Date: 1/27/2020

Applicant/Owner: Indiana Department of Transportation State: IN Sampling Point: DP 4

Investigator(s): Breust Section, Township, Range: Sec 8, Twp 11N, Rng 1E

Landform (hillside, terrace, etc.): flat Local relief (concave, convex, none): none

Slope (%): 1 Lat: 39.399567 Long: -86.448606 Datum: NAD 1983

Soil Map Unit Name: Genesee silt loam NWI classification: PFO1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____ Hydric Soil Present? Yes ____ No X Wetland Hydrology Present? Yes X No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Juglans nigra*	35	Yes	FACU
2. *Platanus occidentalis*	25	Yes	FACW
3. *Fraxinus pennsylvanica*	10	No	FACW
4. *Acer negundo*	5	No	FAC
5. *Celtis occidentalis*	5	No	FAC
	80	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft radius)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5ft radius)			
1. *Elymus virginicus*	60	Yes	FACW
2. *Verbesina alternifolia*	20	Yes	FACW
3. *Phragmites australis*	5	No	FACW
4. *Glechoma hederacea*	5	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	90	=Total Cover	
Woody Vine Stratum (Plot size: 30ft radius)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	120	x 2 =	240
FAC species	10	x 3 =	30
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	170 (A)		430 (B)
Prevalence Index = B/A =			2.53

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ::3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

VEGETATION Continued – Use scientific names of plants. Sampling Point: DP 4

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
	80	=Total Cover	
Sapling/Shrub Stratum			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
		=Total Cover	
Herb Stratum			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
	90	=Total Cover	
Woody Vine Stratum			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/1	100					Loamy/Clayey	
8-20	10YR 4/3	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- X Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Indian Creek Mitigation City/County: Martinsville/Morgan Sampling Date: 1/27/2020

Applicant/Owner: Indiana Department of Transportation State: IN Sampling Point: DP 5

Investigator(s): Breust Section, Township, Range: Sec 8, Twp 11N, Rng 1E

Landform (hillside, terrace, etc.): flat Local relief (concave, convex, none): none

Slope (%): 1 Lat: 39.400408 Long: -86.446435 Datum: NAD 1983

Soil Map Unit Name: Whitaker loam NWI classification: PFO1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____ Hydric Soil Present? Yes ____ No X Wetland Hydrology Present? Yes X No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Robinia pseudoacacia*	40	Yes	FACU
2. *Acer saccharinum*	20	Yes	FACW
3. *Ulmus americana*	10	No	FACW
4.			
5.			
	70	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft radius)			
1. *Acer negundo*	10	Yes	FAC
2. *Sambucus nigra*	4	Yes	FAC
3. *Ailanthus altissima*	2	No	FACU
4.			
5.			
	16	=Total Cover	
Herb Stratum (Plot size: 5ft radius)			
1. *Panicum dichotomiflorum*	60	Yes	FACW
2. *Solidago sp.*	5	No	
3. *Verbesina alternifolia*	5	No	FACW
4. *Rudbeckia laciniata*	2	No	FACW
5. *Carex sp.*	2	No	
6. *Rubus sp.*	2	No	
7. *Glechoma hederacea*	2	No	FACU
8. *Viola sororia*	2	No	FAC
9.			
10.			
	80	=Total Cover	
Woody Vine Stratum (Plot size: 30ft radius)			
1. *Euonymus fortunei*	5	Yes	UPL
2.			
	5	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	97	x 2 =	194
FAC species	16	x 3 =	48
FACU species	44	x 4 =	176
UPL species	5	x 5 =	25
Column Totals:	162 (A)		443 (B)
Prevalence Index = B/A =			2.73

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ::3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/2	100					Loamy/Clayey	
12-20	10YR 4/3	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- X Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Indian Creek Mitigation City/County: Martinsville/Morgan Sampling Date: 02/03/2020

Applicant/Owner: Indiana Department of Transportation State: IN Sampling Point: DP 6

Investigator(s): Breust Section, Township, Range: Sec 18, Twp 11N, Rng 1E

Landform (hillside, terrace, etc.): floodplain Local relief (concave, convex, none): concave

Slope (%): 1 Lat: 39.393102 Long: -86.458606 Datum: NAD 1983

Soil Map Unit Name: Genesee silt loam NWI classification: PFO1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*	70	Yes	FAC
2. *Acer saccharinum*	25	Yes	FACW
3.			
4.			
5.			
	95	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft radius)			
1. *Acer negundo*	15	Yes	FAC
2.			
3.			
4.			
5.			
	15	=Total Cover	
Herb Stratum (Plot size: 5ft radius)			
1. *Cinna arundinacea*	5	Yes	FACW
2. *Lysimachia nummularia*	2	Yes	FACW
3. *Smilax hispida*	2	Yes	FAC
4. *Cyperus strigosus*	2	Yes	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	11	=Total Cover	
Woody Vine Stratum (Plot size: 30ft radius)			
1. *Vitis riparia*	5	Yes	FACW
2.			
	5	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	39	x 2 =	78
FAC species	87	x 3 =	261
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	126 (A)		339 (B)

Prevalence Index = B/A = 2.69

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ::3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP 6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 4/2	100					Loamy/Clayey	
15-20	10YR 4/3	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
X Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ True Aquatic Plants (B14)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Gauge or Well Data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Indian Creek Mitigation City/County: Martinsville/Morgan Sampling Date: 02/03/2020

Applicant/Owner: Indiana Department of Transportation State: IN Sampling Point: DP 7

Investigator(s): Breust Section, Township, Range: Sec 18, Twp 11N, Rng 1E

Landform (hillside, terrace, etc.): flat rowcrop Local relief (concave, convex, none): none

Slope (%): 1 Lat: 39.39403 Long: -86.456669 Datum: NAD 1983

Soil Map Unit Name: Genesee silt loam NWI classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____ Hydric Soil Present? Yes X No ____ Wetland Hydrology Present? Yes X No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15ft radius)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5ft radius)			
1. *Ammannia coccinea*	95	Yes	OBL
2. *Barbarea vulgaris*	2	No	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	97 =Total Cover		
Woody Vine Stratum (Plot size: 30ft radius)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	95	x 1 =	95
FACW species	0	x 2 =	0
FAC species	2	x 3 =	6
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	97 (A)		101 (B)

Prevalence Index = B/A = 1.04

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ::3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP 7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 4/2	100					Loamy/Clayey	
9-16	10YR 4/2	95	10YR 4/6	5	C	M	Loamy/Clayey	Prominent redox concentrations
16-20	10YR 5/2	95	10YR 4/6	5	C	M	Sandy	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
X Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

X Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
X Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ True Aquatic Plants (B14)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Gauge or Well Data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 1
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Indian Creek Mitigation City/County: Martinsville/Morgan Sampling Date: 02/03/2020

Applicant/Owner: Indiana Department of Transportation State: IN Sampling Point: DP 8

Investigator(s): Breust Section, Township, Range: Sec 18, Twp 11N, Rng 1E

Landform (hillside, terrace, etc.): flat rowcrop Local relief (concave, convex, none): none

Slope (%): 1 Lat: 39.394116 Long: -86.457042 Datum: NAD 1983

Soil Map Unit Name: Genesee silt loam NWI classification: non-wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____ Hydric Soil Present? Yes ____ No X Wetland Hydrology Present? Yes ____ No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15ft radius)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5ft radius)			
1. *Panicum dichotomiflorum*	70	Yes	FACW
2. *Amaranthus hybridus*	10	No	UPL
3. *Xanthium strumarium*	10	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90 =Total Cover		
Woody Vine Stratum (Plot size: 30ft radius)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	10	x 5 =	50
Column Totals:	90 (A)		220 (B)

Prevalence Index = B/A = 2.44

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ::3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP 8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 4/2	100					Loamy/Clayey	
9-20	10YR 4/3	100					Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Indian Creek Mitigation City/County: Martinsville/Morgan Sampling Date: 02/03/2020

Applicant/Owner: Indiana Department of Transportation State: IN Sampling Point: DP 9

Investigator(s): Breust Section, Township, Range: Sec 8, Twp 11N, Rng 1E

Landform (hillside, terrace, etc.): flat rowcrop Local relief (concave, convex, none): none

Slope (%): 1 Lat: 39.398013 Long: -86.451858 Datum: NAD 1983

Soil Map Unit Name: Genesee silt loam NWI classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____ Hydric Soil Present? Yes ____ No X Wetland Hydrology Present? Yes ____ No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15ft radius)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5ft radius)			
1. *Echinochloa muricata*	80	Yes	OBL
2. *Solidago sp.*	5	No	
3. *Cyperus strigosus*	5	No	FACW
4. *Physalis heterophylla*	2	No	UPL
5. *Plantago lanceolata*	2	No	FACU
6. *Lysimachia nummularia*	2	No	FACW
7.			
8.			
9.			
10.			
	96 =Total Cover		
Woody Vine Stratum (Plot size: 30ft radius)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	7	x 2 =	14
FAC species	0	x 3 =	0
FACU species	2	x 4 =	8
UPL species	2	x 5 =	10
Column Totals:	91 (A)		112 (B)

Prevalence Index = B/A = 1.23

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ::3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP 9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 4/2	100					Loamy/Clayey	
14-20	10YR 5/4	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Indian Creek Mitigation City/County: Martinsville/Morgan Sampling Date: 02/03/2020

Applicant/Owner: Indiana Department of Transportation State: IN Sampling Point: DP 10

Investigator(s): Breust Section, Township, Range: Sec 8, Twp 11N, Rng 1E

Landform (hillside, terrace, etc.): flat Local relief (concave, convex, none): concave

Slope (%): 0.5 Lat: 39.398818 Long: -86.451289 Datum: NAD 1983

Soil Map Unit Name: Shoals silt loam NWI classification: non-wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____ Hydric Soil Present? Yes X No ____ Wetland Hydrology Present? Yes X No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15ft radius)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5ft radius)			
1. *Juncus effusus*	40	Yes	OBL
2. *Carex frankii*	40	Yes	OBL
3. *Symphyotrichum lateriflorum*	10	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90 =Total Cover		
Woody Vine Stratum (Plot size: 30ft radius)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	90 (A)		100 (B)

Prevalence Index = B/A = 1.11

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ::3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP 10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 5/1	60	10YR 5/6	40	C	M	Loamy/Clayey	Prominent redox concentrations
11-20	10YR 5/1	70	10YR 3/6	30	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
X Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

X Surface Water (A1)
X High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ True Aquatic Plants (B14)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Gauge or Well Data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 4
Water Table Present? Yes X No ___ Depth (inches): 0
Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Indian Creek Mitigation City/County: Martinsville/Morgan Sampling Date: 02/03/2020

Applicant/Owner: Indiana Department of Transportation State: IN Sampling Point: DP 11

Investigator(s): Breust Section, Township, Range: Sec 8, Twp 11N, Rng 1E

Landform (hillside, terrace, etc.): flat Local relief (concave, convex, none): convex

Slope (%): 5 Lat: 39.398768 Long: -86.451178 Datum: NAD 1983

Soil Map Unit Name: Shoals silt loam NWI classification: non-wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____ Hydric Soil Present? Yes ____ No X Wetland Hydrology Present? Yes ____ No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	20	Yes	FAC
2. *Celtis occidentalis*	20	Yes	FAC
3. *Carya ovata*	5	No	FACU
4. *Prunus serotina*	5	No	FACU
5.			
	50	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft radius			
1. *Acer rubrum*	50	Yes	FAC
2. *Cornus racemosa*	2	No	FAC
3. *Lonicera tatarica*	2	No	FACU
4. *Juniperus virginiana*	2	No	FACU
5.			
	56	=Total Cover	
Herb Stratum (Plot size: 5ft radius)			
1. *Echinochloa muricata*	65	Yes	OBL
2. *Andropogon virginicus*	5	No	FACU
3. *Prunella vulgaris*	5	No	FAC
4. *Tridens flavus*	5	No	UPL
5. *Symphyotrichum lateriflorum*	2	No	FACW
6. *Daucus carota*	2	No	UPL
7. *Rubus allegheniensis*	2	No	FACU
8.			
9.			
10.			
	86	=Total Cover	
Woody Vine Stratum (Plot size: 30ft radius			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	65	x 1 =	65
FACW species	2	x 2 =	4
FAC species	97	x 3 =	291
FACU species	21	x 4 =	84
UPL species	7	x 5 =	35
Column Totals:	192 (A)		479 (B)

Prevalence Index = B/A = 2.49

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ::3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP 11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 4/3						Loamy/Clayey	
11-20	10YR 4/4						Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ True Aquatic Plants (B14)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Gauge or Well Data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Indian Creek Mitigation City/County: Martinsville/Morgan Sampling Date: 02/03/2020

Applicant/Owner: Indiana Department of Transportation State: IN Sampling Point: DP 12

Investigator(s): Breust Section, Township, Range: Sec 8, Twp 11N, Rng 1E

Landform (hillside, terrace, etc.): flat Local relief (concave, convex, none): concave

Slope (%): 1 Lat: 39.40004 Long: -86.448996 Datum: NAD 1983

Soil Map Unit Name: Whitaker loam NWI classification: non-wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15ft radius)			
1. *Fraxinus pennsylvanica*	2	No	FACW
2. *Acer saccharinum*	2	No	FACW
3.			
4.			
5.			
	4 =Total Cover		
Herb Stratum (Plot size: 5ft radius)			
1. *Panicum capillare*	80	Yes	FAC
2. *Symphyotrichum ericoides*	5	No	FACU
3. *Oenothera biennis*	2	No	FACU
4. *Rumex crispus*	2	No	FAC
5. *Lysimachia nummularia*	2	No	FACW
6. *Cyperus strigosus*	2	No	FACW
7. *Rubus allegheniensis*	2	No	FACU
8. *Vernonia fasciculata*	2	No	FACW
9.			
10.			
	97 =Total Cover		
Woody Vine Stratum (Plot size: 30ft radius)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	82	x 3 =	246
FACU species	9	x 4 =	36
UPL species	0	x 5 =	0
Column Totals:	101 (A)		302 (B)

Prevalence Index = B/A = 2.99

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ::3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP 12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 4/2	98	10YR 4/6	2	C	M	Loamy/Clayey	Prominent redox concentrations
15-20	10YR 5/2	80	10YR 5/6	20	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
X Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ True Aquatic Plants (B14)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Gauge or Well Data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Indian Creek Mitigation City/County: Martinsville/Morgan Sampling Date: 02/03/2020

Applicant/Owner: Indiana Department of Transportation State: IN Sampling Point: DP 13

Investigator(s): Breust Section, Township, Range: Sec 8, Twp 11N, Rng 1E

Landform (hillside, terrace, etc.): floodplain Local relief (concave, convex, none): none

Slope (%): 1 Lat: 39.399986 Long: -86.448356 Datum: NAD 1983

Soil Map Unit Name: Whitaker loam NWI classification: PFO1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____ Hydric Soil Present? Yes ____ No X Wetland Hydrology Present? Yes ____ No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	70	Yes	FACW
2. *Acer negundo*	10	No	FAC
3.			
4.			
5.			
	80	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft radius)			
1. *Acer negundo*	50	Yes	FAC
2. *Sambucus nigra*	10	No	FAC
3. *Morus alba*	5	No	FAC
4.			
5.			
	65	=Total Cover	
Herb Stratum (Plot size: 5ft radius)			
1. *Elymus virginicus*	5	Yes	FACW
2. *Smilax hispida*	2	Yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	7	=Total Cover	
Woody Vine Stratum (Plot size: 30ft radius)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	75	x 2 =	150
FAC species	77	x 3 =	231
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	152 (A)		381 (B)
Prevalence Index = B/A =			2.51

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ::3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP 13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 4/2	100	10YR 4/2	100			Loamy/Clayey	
14-20	10YR 4/3	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Indian Creek Mitigation City/County: Martinsville/Morgan Sampling Date: 02/03/2020

Applicant/Owner: Indiana Department of Transportation State: IN Sampling Point: DP 14

Investigator(s): Breust Section, Township, Range: Sec 8, Twp 11N, Rng 1E

Landform (hillside, terrace, etc.): flat Local relief (concave, convex, none): none

Slope (%): 1 Lat: 39.400699 Long: -86.447605 Datum: NAD 1983

Soil Map Unit Name: Whitaker loam NWI classification: non-wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____ Hydric Soil Present? Yes X No ____ Wetland Hydrology Present? Yes X No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15ft radius)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5ft radius)			
1. *Cyperus strigosus*	20	Yes	FACW
2. *Persicaria longiseta*	10	Yes	FAC
3. *Ammannia coccinea*	10	Yes	OBL
4. *Bidens frondosa*	5	No	FACW
5. *Panicum dichotomiflorum*	5	No	FACW
6.			
7.			
8.			
9.			
10.			
	50 =Total Cover		
Woody Vine Stratum (Plot size: 30ft radius)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	30	x 2 =	60
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	50 (A)		100 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ::3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP 14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/2	100					Loamy/Clayey	
4-20	10YR 5/2	70	10YR 5/6	30	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes X No ___ Depth (inches): 16

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 10

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Indian Creek Mitigation City/County: Martinsville/Morgan Sampling Date: 02/03/2020

Applicant/Owner: Indiana Department of Transportation State: IN Sampling Point: DP 15

Investigator(s): Breust Section, Township, Range: Sec 8, Twp 11N, Rng 1E

Landform (hillside, terrace, etc.): flat Local relief (concave, convex, none): convex

Slope (%): 1 Lat: 39.400656 Long: -86.447402 Datum: NAD 1983

Soil Map Unit Name: Whitaker loam NWI classification: non-wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No X Hydric Soil Present? Yes ____ No X Wetland Hydrology Present? Yes ____ No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15ft radius)			
1. *Pyrus calleryana*	5	Yes	UPL
2.			
3.			
4.			
5.			
	5 =Total Cover		
Herb Stratum (Plot size: 5ft radius)			
1. *Vernonia fasciculata*	25	Yes	FACW
2. *Solidago sp.*	20	Yes	
3. *Physalis heterophylla*	2	No	UPL
4. *Lysimachia nummularia*	2	No	FACW
5. *Oenothera biennis*	2	No	FACU
6.			
7.			
8.			
9.			
10.			
	51 =Total Cover		
Woody Vine Stratum (Plot size: 30ft radius)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	27	x 2 =	54
FAC species	0	x 3 =	0
FACU species	2	x 4 =	8
UPL species	7	x 5 =	35
Column Totals:	36 (A)		97 (B)

Prevalence Index = B/A = 2.69

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ::3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP 15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 4/2	100					Loamy/Clayey	
3-12	10YR 4/3	100					Loamy/Clayey	
12-20	10YR 5/2	80	10YR 5/6	20	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ True Aquatic Plants (B14)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Gauge or Well Data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Categorical Exclusion

Appendix G

Public Involvement

Hume, Holly

From: James Carter <James.Carter@woodenlawyers.com>
Sent: Thursday, March 28, 2019 5:52 PM
To: Riehle, Matt
Cc: DuPont, Jason; Townsend, Daniel
Subject: Re: I-69 Mitigation Acquisition Option to Purchase

Matt,

Performing those activities on the real estate is fine.

Thanks,
James

Sent from my iPhone

On Mar 27, 2019, at 5:55 PM, Riehle, Matt <MRiehle@lochgroup.com<mailto:MRiehle@lochgroup.com>> wrote:

James,

Thank you for your time on the phone earlier. As we discussed, INDOT would like to initiate survey work on the property purchased from the Daily's, both on the r/w parcels and the option to purchase areas. Survey work will include topographic surveys, wetland assessments, drainage evaluations, and archaeological investigations that are needed for design and environmental clearance. Boundary survey work is also needed to finalize the legal description for the option to purchase. Survey work will primarily be on foot, but also may involve light ATV use. Can you please confirm that we have permission to access the property for these activities?

Plowing of the farm fields will expedite some of the survey activities. We will contact [redacted], the farmer of the property, to discuss his timing and plans for plowing and/or planting of the option area, as well as, discuss any knowledge he may have in regards to existing tile drainage on the properties.

Please let us know if you have any questions or need additional information.

Thanks,
Matt

Matt Riehle. CPESC
Environmental Biologist IV
Lochmueller Group
812.759.4148 (direct) | 812.630.6312 (mobile) MRiehle@lochgroup.com<mailto:MRiehle@lochgroup.com>

From: James Carter <James.Carter@woodenlawyers.com<mailto:James.Carter@woodenlawyers.com>>
Sent: Friday, February 8, 2019 2:52 PM
To: DuPont, Jason <JDuPont@lochgroup.com<mailto:JDuPont@lochgroup.com>>

Hume, Holly

From: Dave Pluckebaum <DPluckebaum@CORRADINO.com>
Sent: Tuesday, July 2, 2019 12:31 PM
To: Ken Fleetwood; Riehle, Matt
Cc: Johnson, Kevin; DuPont, Jason; Townsend, Daniel; Flum, Sandra (SFlum@indot.IN.gov)
Subject: Indian Creek (Daily) Mitigation - Option to Purchase; Code 6519, Parcel 1 - GREEN LIGHT

Matt,

I spoke to Wilma Daily. I told her about the archaeologists work beginning next week. The fields have been planted. I told Wilma that your team would work out crop damages, if any, with the farmer. Wilma was going to contact the farmer.

I believe the farmer is [redacted]. He previously farmed the Daily property. Last winter he expressed a lot of concern about the State purchasing this piece of property. He had been trying to buy it from the Daily's. You might want to let your archaeologist know about [redacted]. I'm sure he will be stopping by.

You have a GREEN LIGHT to proceed with Archaeological investigation on the Daily parcel.

Dave

From: Ken Fleetwood <KFleetwood@b-l-n.com>
Sent: Tuesday, July 2, 2019 10:29 AM
To: Riehle, Matt <MRiehle@lochgroup.com>; Dave Pluckebaum <DPluckebaum@CORRADINO.com>
Cc: Johnson, Kevin <KJohnson@lochgroup.com>; DuPont, Jason <JDuPont@lochgroup.com>; Townsend, Daniel <DTownsend@lochgroup.com>; Flum, Sandra (SFlum@indot.IN.gov) <SFlum@indot.IN.gov>
Subject: RE: Indian Creek (Daily) Mitigation - Option to Purchase; Code 6519, Parcel 1

DaveP
Can you contact this owner and let them know of the work taking place that crop damage will be reimbursed.
Thanks
Ken

From: Riehle, Matt <MRiehle@lochgroup.com>
Sent: Tuesday, July 2, 2019 9:57 AM
To: Ken Fleetwood <KFleetwood@b-l-n.com>; David Pluckebaum (dpluckebaum@corradino.com) <dpluckebaum@corradino.com>
Cc: Johnson, Kevin <KJohnson@lochgroup.com>; DuPont, Jason <JDuPont@lochgroup.com>; Townsend, Daniel <DTownsend@lochgroup.com>; Flum, Sandra (SFlum@indot.IN.gov) <SFlum@indot.IN.gov>
Subject: FW: Indian Creek (Daily) Mitigation - Option to Purchase; Code 6519, Parcel 1

Ken,

Per our discussion, Gray and Pape plans to perform Phase Ic work on the Daily Option to Purchase area beginning next Monday, July 8, weather pending. The RW Engineering for this area is attached. The work will involve excavation of

Categorical Exclusion

Appendix H

Air Quality

INDIANA DEPARTMENT OF TRANSPORTATION

Project Overview | Funding History | Amendment History

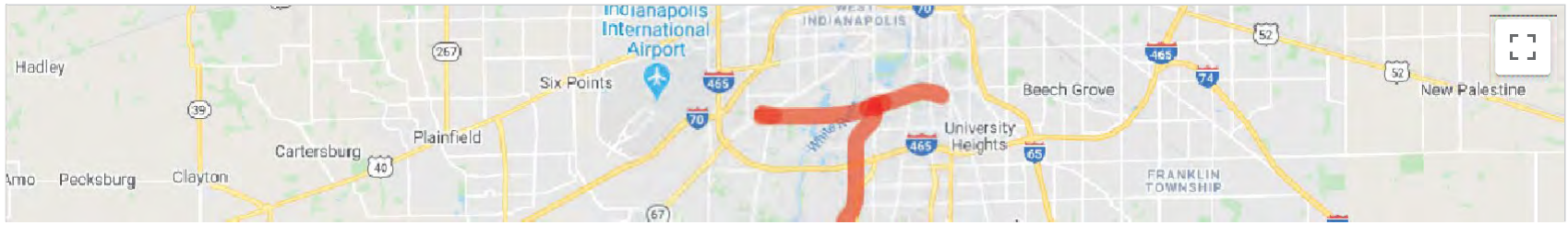
Des Number	0300382	**Amendment**	20 00 TIP	**Exempt Category**		**Est Total Project Cost**	$1,427,636,953
Lead Agency	INDOT	**Contact (ERC)**				**County**	Johnson, Marion, Morgan
Project Type	New Road Construction	**Letting Date**		**Functional Classification**		**Bike/Ped Component(s)**	
Region	Indianapolis MPO	**Contract #**				**Route**	I 69

Title I 69 Section 6 SR 39 to I 465

Limits From Martinsville to Indianapolis of Distance (mile) 26 Milepost begins at 0 ends at 0

Description The I 69 from Evanville to Indianapolis will be completed with the construction of the final section from Indian Creek south of SR 39 to I 465. This final section converts existing SR 37 to I 69 between Indian Creek in Martinsville and I 465 in Indianapolis. Interchanges along I 69 will be constructed at SR 39, Ohio Street, SR 252/SR 44, Henderson Ford Road, SR 144, Smith Valley Road, County Line Road, Southport Road, Epler Avenue, and I 465. I 69 will have two lanes in each direction between Indian Creek south of SR 39 and Olive Branch Road, three lanes in each direction between Olive Branch Road and Southport Road, and four lanes in each direction between Southport Road and I 465. I 465 will be improved between Mann Road and US 31 by adding one through lane in each direction as well as auxiliary lanes where needed.

Phase	Fund Source	Prior SFY	SFY2020	SFY2021	SFY2022	SFY2023	SFY2024	Future SFY	Total
PE	FEDERAL NHPP	$15,565,000	$29,242,434	$19,629,756	$1,639,030	$742,857			$66,819,077
PE	STATE Other	$3,891,250	$7,310,609	$4,907,439	$409,758	$185,714			$16,704,770
Total Preliminary Engineering		$19,456,250	$36,553,043	$24,537,195	$2,048,788	$928,571			$83,523,847
RW	FEDERAL NHPP	$42,964,946	$48,223,359	$45,132,043	$137,931				$136,458,279
RW	STATE Other	$10,741,237	$12,055,840	$11,283,011	$34,483				$34,114,571
Total Right of Way		$53,706,183	$60,279,199	$56,415,054	$172,414				$170,572,850
CN	FEDERAL NHPP	$34,437,866	$80,397,329	$124,173,238	$257,284,791	$196,634,914	$162,681,972	$57,542,095	$913,152,205
CN	STATE Other	$8,609,466	$20,099,332	$31,043,310	$64,321,198	$49,158,728	$40,670,493	$14,385,524	$228,288,051
Total Construction		$43,047,332	$100,496,661	$155,216,548	$321,605,989	$245,793,642	$203,352,465	$71,927,619	$1,141,440,256
CE	FEDERAL NHPP	$1,440,000	$4,715,790	$11,809,925	$7,714,286				$25,680,001
CE	STATE Other	$360,000	$1,178,947	$2,952,481	$1,928,571				$6,419,999
Total Construction Engineering		$1,800,000	$5,894,737	$14,762,406	$9,642,857				$32,100,000
Total Programmed		**$118,009,765**	**$203,223,640**	**$250,931,203**	**$333,470,048**	**$246,722,213**	**$203,352,465**	**$71,927,619**	**$1,427,636,953**



Categorical Exclusion

Appendix I

Other

Resources

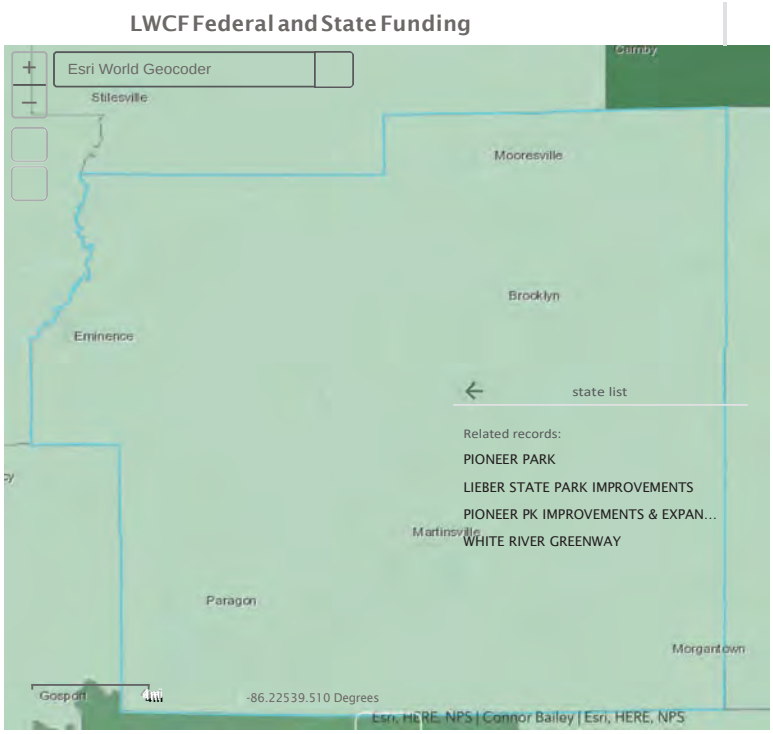
FAC TS HEE TS & L ETT ERS (/T OO L S)

#S AV EL WCF (/SA VELWCF)

MUL TIMEDIA (/MUL T IMED IA)

MAP OF LWC F (/MAP - OF- L WCF)

MAP OF LWCF FUNDING THROUGH FEDERAL LAND MANAGEMENT AGENCIES AND STATE & LOCAL ASSISTANCE PROGRAM.



LWCF Federal Projects | State LWCF by County | County LWCF Project List

Options | Filter by map extent | Zoom to | Clear selection | Refresh

State	County	Grant ID Element	Type	Grant Element Title	Grant Sponsor	Fiscal Year	Amount
Indiana	MORGAN	110	D	PIONEER PARK	MOORESVILLE PARK BOARD	1972	52,100.00
Indiana	Morgan	323	D	LIEBER STATE PARK IMPROVEMENTS	DEPT. OF NATURAL RESOURCES	1979	125,987.00
Indiana	MORGAN	491	C	PIONEER PK IMPROVEMENTS & EXPANSION	MOORESVILLE PARK BOARD	1993	75,000.00
Indiana	Morgan	576	C	WHITE RIVER GREENWAY	MORGAN COUNTY PARK BOARD	2012	200,000.00

4 records 0 selected

Des No. 1801389

Legend:

Your Selections

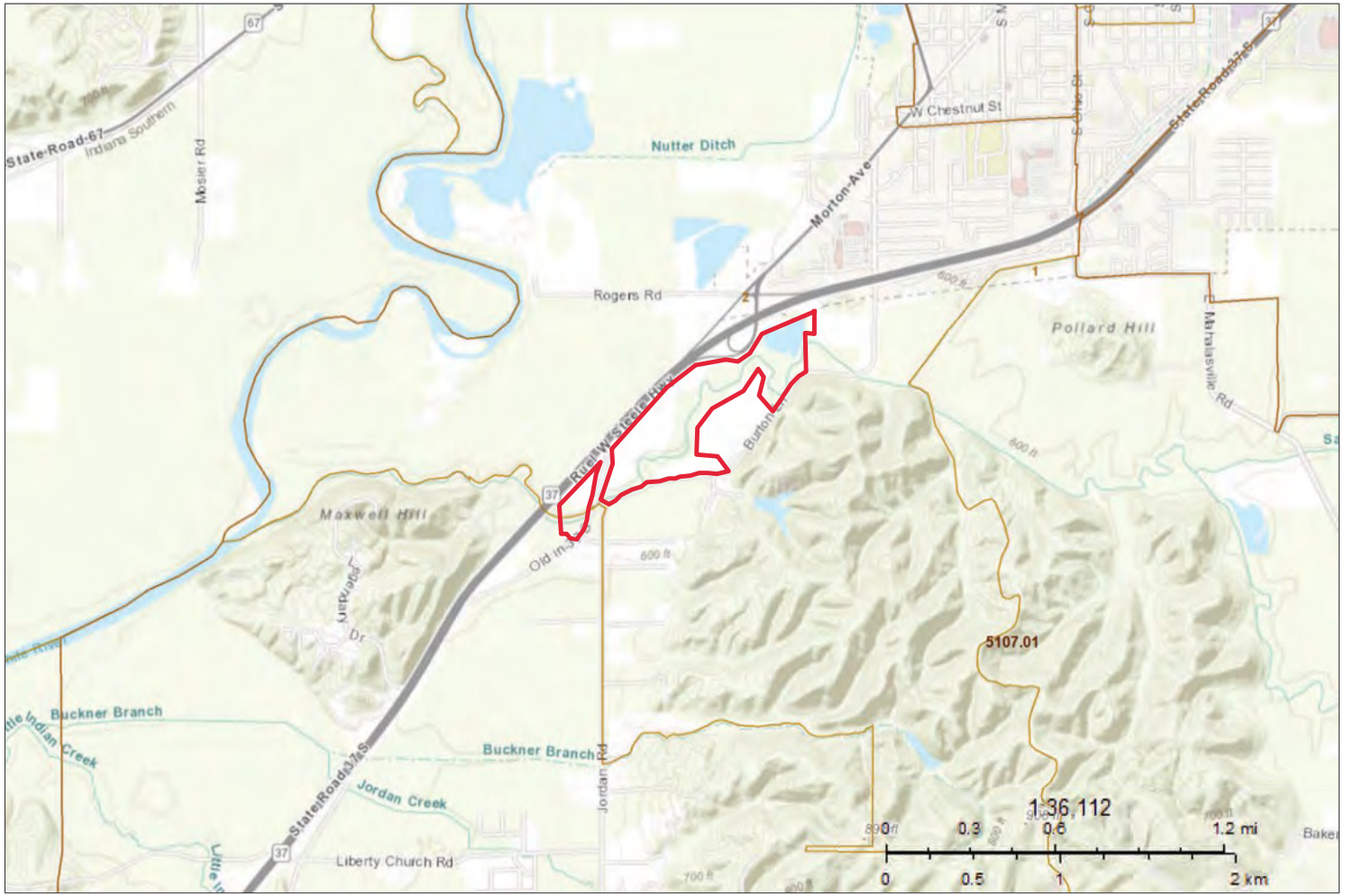
No Legend

Selection Results

No Legend

2018 Boundaries

- ☐ Census Tract
- ☐ Block Group



B03002

HISPANIC OR LATINO ORIGIN BY RACE

Universe: Total population
2013-2017 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

	Morgan County, Indiana		Census Tract 5107.01, Morgan County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
Total:	69,533	*****	3,266	+/-228
Not Hispanic or Latino:	68,513	*****	3,266	+/-228
White alone	66,975	+/-27	3,167	+/-221
Black or African American alone	252	+/-58	42	+/-62
American Indian and Alaska Native alone	39	+/-36	0	+/-11
Asian alone	458	+/-31	24	+/-48
Native Hawaiian and Other Pacific Islander alone	0	+/-27	0	+/-11
Some other race alone	0	+/-27	0	+/-11
Two or more races:	789	+/-80	33	+/-60
Two races including Some other race	12	+/-17	0	+/-11
Two races excluding Some other race, and three or more races	777	+/-80	33	+/-60
Hispanic or Latino:	1,020	*****	0	+/-11
White alone	730	+/-149	0	+/-11
Black or African American alone	23	+/-31	0	+/-11
American Indian and Alaska Native alone	0	+/-27	0	+/-11
Asian alone	17	+/-25	0	+/-11
Native Hawaiian and Other Pacific Islander alone	0	+/-27	0	+/-11
Some other race alone	161	+/-90	0	+/-11
Two or more races:	89	+/-94	0	+/-11
Two races including Some other race	89	+/-94	0	+/-11
Two races excluding Some other race, and three or more races	0	+/-27	0	+/-11

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

B17001

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

Universe: Population for whom poverty status is determined
2013-2017 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

	Morgan County, Indiana		Census Tract 5107.01, Morgan County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
Total:	68,188	+/-327	3,174	+/-230
Income in the past 12 months below poverty level:	8,073	+/-984	412	+/-175
Male:	3,110	+/-496	225	+/-122
Under 5 years	435	+/-147	25	+/-21
5 years	67	+/-54	0	+/-11
6 to 11 years	346	+/-127	29	+/-42
12 to 14 years	277	+/-132	10	+/-18
15 years	57	+/-42	15	+/-23
16 and 17 years	104	+/-53	27	+/-30
18 to 24 years	410	+/-241	15	+/-24
25 to 34 years	333	+/-159	17	+/-25
35 to 44 years	363	+/-144	23	+/-27
45 to 54 years	273	+/-91	24	+/-34
55 to 64 years	335	+/-114	40	+/-43
65 to 74 years	73	+/-49	0	+/-11
75 years and over	37	+/-40	0	+/-11
Female:	4,963	+/-639	187	+/-82
Under 5 years	502	+/-179	0	+/-11
5 years	173	+/-115	0	+/-11
6 to 11 years	455	+/-204	0	+/-11
12 to 14 years	183	+/-87	10	+/-17
15 years	117	+/-102	0	+/-11
16 and 17 years	178	+/-78	0	+/-11
18 to 24 years	393	+/-122	18	+/-18
25 to 34 years	821	+/-195	39	+/-43
35 to 44 years	601	+/-160	41	+/-30
45 to 54 years	727	+/-165	62	+/-50
55 to 64 years	382	+/-135	10	+/-15
65 to 74 years	220	+/-79	0	+/-11
75 years and over	211	+/-105	7	+/-12
Income in the past 12 months at or above poverty level:	60,115	+/-1,022	2,762	+/-288
Male:	30,617	+/-535	1,403	+/-184
Under 5 years	1,476	+/-148	19	+/-27

	Morgan County, Indiana		Census Tract 5107.01, Morgan County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
5 years	279	+/-116	0	+/-11
6 to 11 years	2,490	+/-230	133	+/-70
12 to 14 years	1,121	+/-187	11	+/-17
15 years	385	+/-119	0	+/-11
16 and 17 years	1,023	+/-133	70	+/-54
18 to 24 years	2,500	+/-189	109	+/-62
25 to 34 years	3,319	+/-169	130	+/-76
35 to 44 years	3,656	+/-136	120	+/-53
45 to 54 years	4,966	+/-94	306	+/-88
55 to 64 years	4,664	+/-91	218	+/-72
65 to 74 years	3,124	+/-57	125	+/-83
75 years and over	1,614	+/-47	162	+/-49
Female:	29,498	+/-688	1,359	+/-180
Under 5 years	1,462	+/-163	63	+/-65
5 years	272	+/-114	16	+/-25
6 to 11 years	2,034	+/-238	48	+/-53
12 to 14 years	1,074	+/-196	14	+/-16
15 years	344	+/-95	59	+/-53
16 and 17 years	807	+/-125	7	+/-12
18 to 24 years	2,323	+/-127	103	+/-53
25 to 34 years	3,101	+/-199	171	+/-87
35 to 44 years	3,614	+/-170	133	+/-64
45 to 54 years	4,702	+/-165	224	+/-51
55 to 64 years	4,683	+/-153	232	+/-80
65 to 74 years	3,145	+/-86	143	+/-58
75 years and over	1,937	+/-146	146	+/-45

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Explanation of Symbols:

1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.

2013-2017 American Community Survey 5-Year Estimates

		COC	AC
		Morgan County, Indiana	**Census Tract 5107.01, Morgan County, Indiana**
B17001	**Low-Income**		
001	Population for whom poverty status is determined: Total	68,188	3,174
002	Population for whom poverty status is determined: Income in past 12 months below poverty level	8,073	412
	Percent Low-income (002/001 x 100)	**11.84%**	**12.98%**
	125 Percent of COC	**14.80%**	**AC < 125% COC**
	Potential Low-income EJ Impact?		**No**

B03002	**Minority**		
001	Total Population: Total	69,533	3,266
002	Total Population: Not Hispanic or Latino	68,513	3,266
003	Total Population: Not Hispanic or Latino; White alone	66,975	3,167
004	Total Population: Not Hispanic or Latino; Black or African American alone	252	42
005	Total Population: Not Hispanic or Latino; American Indian and Alaska Native alone	39	0
006	Total Population: Not Hispanic or Latino; Asian alone	458	24
007	Total Population: Not Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	0	0
008	Total Population: Not Hispanic or Latino; Some other race alone	0	0
009	Total Population: Not Hispanic or Latino; Two or more races	789	33
010	Total Population: Hispanic or Latino	1,020	0
011	Total Population: Hispanic or Latino; White alone	730	0
012	Total Population: Hispanic or Latino; Black or African American alone	23	0
013	Total Population: Hispanic or Latino; American Indian and Alaska Native alone	0	0
014	Total Population: Hispanic or Latino; Asian alone	17	0
015	Total Population: Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	0	0
016	Total Population: Hispanic or Latino; Some other race alone	161	0
017	Total Population: Hispanic or Latino; Two or more races	89	0
	Number Non-white/minority (001-003)	**2,558**	**99**
	Percent Non-white/Minority (001-003/001 x 100)	**3.68%**	**3.03%**
	125 Percent of COC	**4.60%**	**AC < 125% COC**
	Potential Minority EJ Impact?		**No**