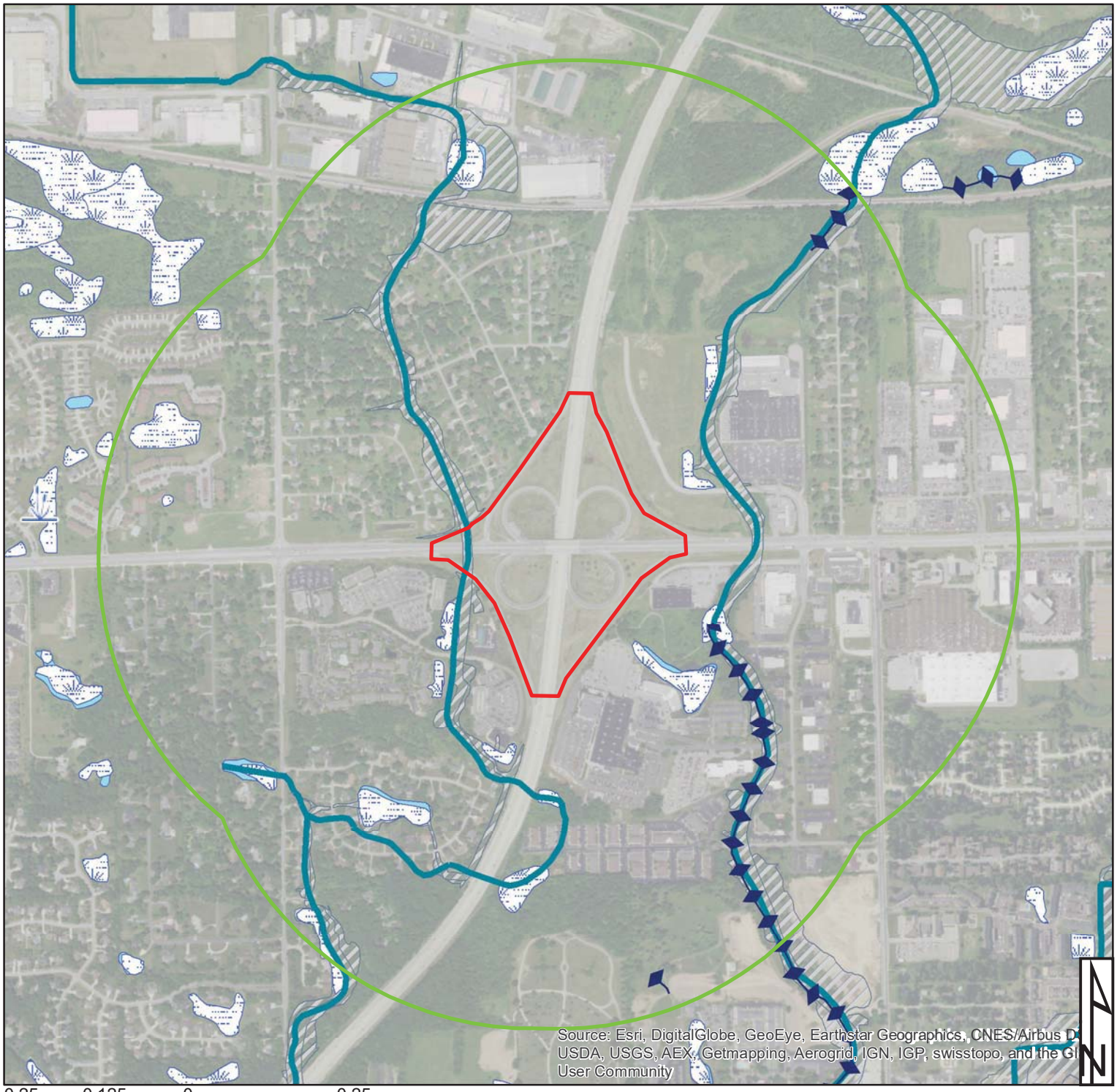
Red Flag Investigation - Water Resources Map
I-69 at S.R. 14
Des. No. 1401868, Interchange Modification
Aboite Township, Allen County, Indiana



0.25 0.125 0 0.25 Miles

Sources:

Non Orthophotography

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

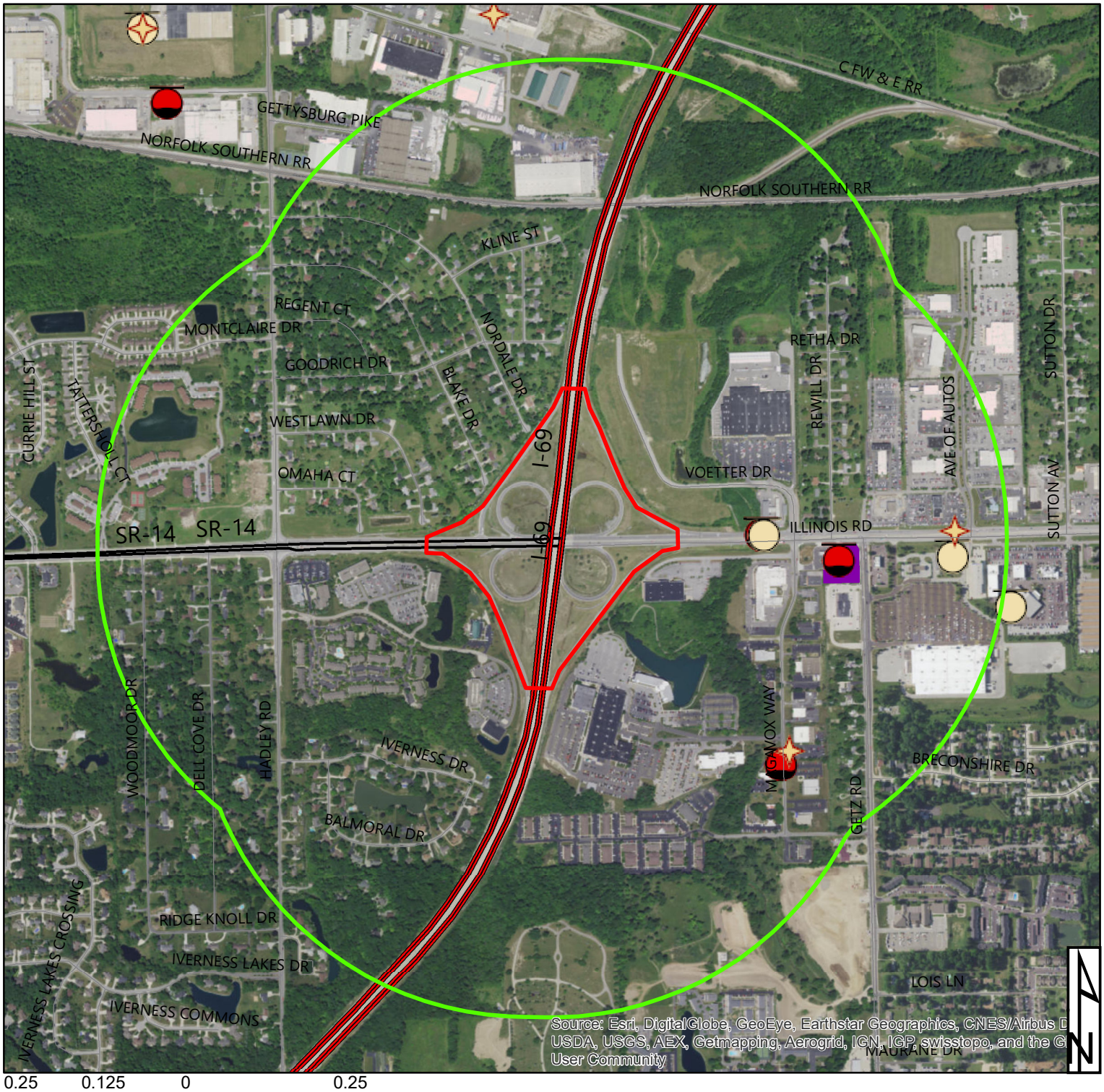
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

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.

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

Red Flag Investigation - Hazardous Material Concerns Map
I-69 at S.R. 14
Des. No. 1401868, Interchange Modification
Aboite Township, Allen County, Indiana



0.25 0.125 0 0.25 Miles

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Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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- Brownfield
- RCRA Corrective Action Sites
- Confined Feeding Operation
- 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
- Interstate
- State Route
- US Route
- Local Road

Indiana County Endangered, Threatened and Rare Species List

County: Allen

Species Name	Common Name	FED	STATE	GRANK	SRANK
Mollusk: Bivalvia (Mussels)					
Epioblasma obliquata perobliqua	White catspaw	LE	SE	G1T1	SX
Epioblasma torulosa rangiana	Northern Riffleshell	LE	SE	G2T2	SX
Lampsilis fasciola	Wavyrayed Lampmussel		SSC	G5	S3
Ligumia recta	Black Sandshell			G4G5	S2
Obovaria subrotunda	Round Hickorynut		SE	G4	S1
Pleurobema clava	Clubshell	LE	SE	G1G2	S1
Ptychobranchus fasciolaris	Kidneyshell		SSC	G4G5	S2
Quadrula cylindrica cylindrica	Rabbitsfoot	LT	SE	G3G4T3	S1
Toxolasma lividus	Purple Lilliput		SSC	G3Q	S2
Villosa fabalis	Rayed Bean	LE	SE	G2	S1
Insect: Odonata (Dragonflies)					
Tachopteryx thoreyi	Gray Petaltail		SR	G4	S2S3
Fish					
Moxostoma valenciennesi	Greater Redhorse		SE	G4	S2
Percina evides	Gilt Darter		SE	G4	S1
Amphibian					
Ambystoma laterale	Blue-spotted Salamander		SSC	G5	S2
Hemidactylium scutatum	Four-toed Salamander		SSC	G5	S2
Lithobates pipiens	Northern Leopard Frog		SSC	G5	S2
Reptile					
Clemmys guttata	Spotted Turtle		SE	G5	S2
Clonophis kirtlandii	Kirtland's Snake		SE	G2	S2
Emydoidea blandingii	Blanding's Turtle		SE	G4	S2
Sistrurus catenatus catenatus	Eastern Massasauga	C	SE	G3G4T3Q	S2
Bird					
Asio flammeus	Short-eared Owl		SE	G5	S2
Bartramia longicauda	Upland Sandpiper		SE	G5	S3B
Buteo lineatus	Red-shouldered Hawk		SSC	G5	S3
Buteo platypterus	Broad-winged Hawk		SSC	G5	S3B
Certhia americana	Brown Creeper			G5	S2B
Circus cyaneus	Northern Harrier		SE	G5	S2
Cistothorus palustris	Marsh Wren		SE	G5	S3B
Dendroica cerulea	Cerulean Warbler		SE	G4	S3B
Falco peregrinus	Peregrine Falcon		SSC	G4	S2B
Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2
Ixobrychus exilis	Least Bittern		SE	G5	S3B
Lanius ludovicianus	Loggerhead Shrike		SE	G4	S3B
Nyctanassa violacea	Yellow-crowned Night-heron		SE	G5	S2B
Nycticorax nycticorax	Black-crowned Night-heron		SE	G5	S1B

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

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

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

GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank

SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

Indiana County Endangered, Threatened and Rare Species List

County: Allen

Species Name	Common Name	FED	STATE	GRANK	SRANK
Phalaropus tricolor	Wilson's Phalarope		SSC	G5	SHB
Sturnella neglecta	Western Meadowlark		SSC	G5	S2B
Tyto alba	Barn Owl		SE	G5	S2
Wilsonia citrina	Hooded Warbler		SSC	G5	S3B
Mammal					
Taxidea taxus	American Badger		SSC	G5	S2
Vascular Plant					
Andromeda glaucophylla	Bog Rosemary		SR	G5	S2
Armoracia aquatica	Lake Cress		SE	G4?	S1
Chelone obliqua var. speciosa	Rose Turtlehead		WL	G4T3	S3
Circaea alpina	Small Enchanter's Nightshade		SX	G5	SX
Coeloglossum viride var. virescens	Long-bract Green Orchis		ST	G5T5	S2
Crataegus succulenta	Fleshy Hawthorn		SR	G5	S2
Euphorbia obtusata	Bluntleaf Spurge		SE	G5	S1
Phlox ovata	Mountain Phlox		SE	G4	S1
Platanthera psycodes	Small Purple-fringe Orchis		SR	G5	S2
Poa alsodes	Grove Meadow Grass		SR	G4G5	S2
Scutellaria parvula var. parvula	Small Skullcap		SE	G4T4	S1
Spiranthes lucida	Shining Ladies'-tresses		SR	G5	S2
Spiranthes magnicamporum	Great Plains Ladies'-tresses		SE	G4	S1
High Quality Natural Community					
Forest - flatwoods black swamp	Black Swamp Flatwoods			GNR	S1
Forest - flatwoods central till plain	Central Till Plain Flatwoods		SG	G3	S2
Forest - floodplain mesic	Mesic Floodplain Forest		SG	G3?	S1
Forest - floodplain wet-mesic	Wet-mesic Floodplain Forest		SG	G3?	S3
Forest - upland dry	Dry Upland Forest		SG	G4	S4
Forest - upland dry-mesic	Dry-mesic Upland Forest		SG	G4	S4
Forest - upland mesic	Mesic Upland Forest		SG	G3?	S3
Lake - pond	Pond		SG	GNR	SNR
Prairie - dry-mesic	Dry-mesic Prairie		SG	G3	S2
Wetland - marsh	Marsh		SG	GU	S4
Wetland - swamp forest	Forested Swamp		SG	G2?	S2
Wetland - swamp shrub	Shrub Swamp		SG	GU	S2
Other Significant Element					
Geomorphic - Nonglacial Erosional Feature - Water Fall and Cascade	Water Fall and Cascade			GNR	SNR

Indiana Natural Heritage Data Center
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APPENDIX F: Water Resources

WATERS DETERMINATION REPORT

I-69 AT S.R. 14
INTERCHANGE MODIFICATION
DES.NO. 1401828
ALLEN COUNTY, INDIANA

Prepared for:
INDOT

January 30, 2018

Prepared by:

Metric Environmental, LLC

Complex Environment. Creative Solutions.

6971 Hillsdale Court
Indianapolis, IN 46256
Telephone: 317.400.1633
www.metricenv.com

Contents

WATERS OF THE US DETERMINATION REPORT
I-69 at State Road (S.R.) 14
Interchange Modification
Aboite Township, Allen County, Indiana
Des. No. 1401828
Prepared By: Kathleen Sexton
January 30, 2018

Date of Waters Field Investigation: August 30, 2017

Location:
Sections 1 and 12; Township 30 North; Range 11 East (**Exhibit 1**)
Fort Wayne West, IN 7.5 minute United States Geological Survey (USGS) Topographic Quadrangle (**Exhibit 2A and 2B**)
Aboite Township, Allen County, Indiana

National Wetlands Inventory (NWI) Information:
No mapped NWI wetland polygons are located within the project study limits. The nearest NWI wetland polygon is a Palustrine, Unconsolidated Bottom, Intermittently Exposed, Excavated (PUBGx) wetland located approximately 300 ft from the southwest corner of the project study limits (**Exhibit 3**).

Karst Feature Information:
There are no mapped karst features located within 0.5 mi of the project study limits.

Flood Insurance Rate Map (FIRM):
The floodplain of Durnell Ditch, identified as Zone AE, an area subject to inundation by the 1% annual chance of flood, crosses the western portion of the project study limits. As a result of the construction of S.R. 14 and I-69 exit and entrance ramps, the ditch is piped throughout the entirety of the project study limits. The elevation of the road above the existing elevation of Durnell Ditch and the presence of a noise wall provide evidence that this area likely no longer floods and this particular floodplain area for Durnell Ditch no longer exists. The FIRM map for this area is provided as **Exhibit 4**.

Soils:
According to the Natural Resources Conservation Service (NRCS) Soil Survey Geographic (SSURGO) Database for Allen County, Indiana, the project study limits contain four mapped soil units, shown in the table below. Blount silt loam (BmA), Glynwood silt loam (MrB2), and Shoals silty clay loam (Sh) are listed as hydric soils. Morley soils (MsC3) is not listed as a hydric soil. The NRCS soil survey map is provided as **Exhibit 5**.

Symbol	Map Unit Name	Hydric Rating
BmA	Blount silt loam, 0 to 2 percent slopes	Hydric (5%)
MrB2	Glynwood silt loam, 2 to 6 percent slopes, eroded	Hydric (4%)
MsC3	Morley soils, 6 to 12 percent slopes, severely eroded	Not Hydric
Sh	Shoals silty clay loam	Hydric (5%)

Attached Documents:

Maps of the project area (**Exhibits 1-6**)
Photograph location map (**Exhibit 7A and 7B**)
Site Photographs
Wetland Determination Data Form(s)
Plan of S.R. 14 Interchange
Preliminary Jurisdictional Determination Form

Photos and photo location maps removed for space conservation. See Appendix B.

Project Description:

The proposed project is located at I-69 and S.R. 14 in Allen County. Specifically, the project is in Sections 1 and 12, Township 30 North, Range 11 East, of the Fort Wayne West, Indiana 7.5 minute United States Geological Survey (USGS) topographic quadrangle. The proposed improvements consist of closing the southwest I-69 off-ramp and routing that traffic onto the northwest I-69 off-ramp. The median barrier will be removed at the location. Two left turn lanes will be constructed, in addition to the two existing right-turn lanes on the northwest I-69 off-ramp. The eastbound segment of S.R. 14 will be expanded to three lanes, starting at the southwest I-69 off ramp and extending to the bridge.

Field Reconnaissance:

The wetland determination field visit was conducted on August 30, 2017 by Josh Myers and Ryan Hennessey with Metric Environmental, LLC (Metric). The project study limits consist of the area that has the potential to be impacted, based on the provided design scenario. This area was evaluated for the presence of wetlands and Waters of the United States (U.S). This investigation was conducted in accordance with the *1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual* and the *August 2010 Midwest Regional Supplement (version 2.0) Manual*.

A Location Map showing the project location is provided as **Exhibit 1** and a Fort Wayne West, Indiana Quadrangle Topographic Map is provided as **Exhibits 2A** and **2B**. The project area encompasses the two western I-69 on and off-ramp at the intersection of I-69 and S.R. 14. The project study limits extend north to south along I-69 approximately 2,000 ft. The western project study limit boundary extends southwest approximately 1,700 ft from I-69 to S.R. 14 along the off ramp for I-69 southbound. It then continues to the southeast along the I-69 southbound on ramp for approximately 600 ft. An aerial map of sampling points and wetland locations is provided as

Exhibit 6. Photo location maps are provided as **Exhibit 7A and 7B** and site photographs are attached.

The site was investigated for evidence of hydrophytic vegetation, hydric soil, and wetland hydrology to determine if the project impacts wetlands and other Waters of the U.S. The sampling point (SP) locations were chosen in possible wetland areas within the project study limits. The uplands consisted of mowed grass road right-of-way. Fifteen sampling points were taken and are identified in the table below. SP-A1, SP-A2, SP-D1, SP-D2, SP-E1, SP-E2, SP-G1, SP-G2, and SP-1 were located in the Glynwood silt loam (MrB2) soil map unit which has a hydric rating of 4%. SP-B1, SP-B2, SP-C1, SP-C2, SP-F1, and SP-F2 were located in the Blount silt loam (BmA) soil map unit, which has a hydric rating of 5%. The sampling points, shown on **Exhibit 6** and recorded on the USACE Wetland Determination Data Forms, provided the following information:

Sampling Plot Data Summary Table
I-69 at S.R. 14
Interchange Modification
Aboite Township, Allen County, Indiana
Des. No. 1401828

Plot #	Photo #s	Lat/Long	Hydrophytic Vegetation	Hydric Soils	Wetland Hydrology	Within a Wetland
SP-A1	30-32	41.074851 -85.23023	Yes	Yes	Yes	Yes, Wetland A
SP-A2	33-35	41.07495 -85.230069	No	No	No	No
SP-B1	36-38	41.075141 -85.229735	Yes	Yes	Yes	Yes, Wetland B
SP-B2	39-40	41.075271 -85.22983	No	No	No	No
SP-C1	46-48	41.077852 -85.228176	Yes	Yes	Yes	Yes, Wetland C
SP-C2	49-50	41.077859 -85.228193	No	No	No	No
SP-D1	51-53	41.076446 -85.228317	Yes	Yes	Yes	Yes, Wetland D
SP-D2	54-56	41.076429 -85.228407	No	No	No	No
SP-E1	62-64	41.072983 -85.229296	Yes	Yes	Yes	Yes, Wetland E
SP-E2	65-67	41.072973 -85.229419	No	No	No	No

Plot #	Photo #s	Lat/Long	Hydrophytic Vegetation	Hydric Soils	Wetland Hydrology	Within a Wetland
SP-F1	68-70	41.073426 -85.229113	Yes	Yes	Yes	Yes, Wetland F
SP-F2	71-72	41.073417 -85.229027	No	No	No	No
SP-G1	73-75	41.074221 -85.230592	Yes	Yes	Yes	Yes, Wetland G
SP-G2	76-78	41.074318 -85.230588	No	No	No	No
SP-1	27-29	41.074813 -85.230856	No	No	Yes	No

Wetlands:

Seven wetlands were observed within the project study limits. Descriptions of the sampling points for Wetlands A through G are provided below.

Wetland Summary Table
I-69 at S.R. 14
Interchange Modification
Aboite Township, Allen County, Indiana
Des. No. 1401828

Wetland	Photo #s	Lat/Long	Cowardin Class	Est. Amount in Review Area	Quality	Likely Water of the US?
Wetland A	7, 30-32	41.074863 -85.230224	PEM1A	0.010 ac 25 LFT	Poor	No, Isolated
Wetland B	10, 36-38, 41-43	41.075310 -85.228655	PEM1A	0.178 ac 519 LFT	Poor	No, Isolated
Wetland C	44-48	41.077649 -85.228319	PEM1A	0.056 ac 563 LFT	Poor	No, Isolated
Wetland D	18, 51-53	41.076511 -85.228329	PEM1A	0.022 ac 117 LFT	Poor	No, Isolated
Wetland E	58, 62-64	41.072646 -85.22934	PEM1A	0.033 ac 160 LFT	Poor	Yes
Wetland F	68-70	41.073429 -85.229074	PEM1A	0.142 ac 660 LFT	Poor	Yes
Wetland G	26, 73-75	41.074255 -85.230955	PEM1A	0.074 ac 237 LFT	Poor	No, Isolated
Total Wetland Amount in Review Area				0.515 ac		

Wetland A - PEM1A (0.010 ac)

Wetland A was located north of S.R. 14 between Roadside Ditch (RSD) 1 and RSD 2, between the I-69 southbound on and off ramps. Wetland A was classified as a Palustrine, Emergent, Persistent, Temporarily Flooded (PEM1A) wetland, and was located where RSD 1 and RSD 2 converged. An underdrain pipe appears to drain into RSD 2 from the I-69 southbound off ramp, which eventually flows into Wetland A. Both of these roadside ditches did not exhibit an Ordinary High Water Mark (OHWM). Wetland A did not appear to flow into or have a significant nexus with any jurisdictional Waters of the U.S., as the road embankment slopes for the I-69 southbound on and off ramps appear to direct water into Wetland A, but not away from it. Therefore, Wetland A should be considered isolated. This wetland was located within the MrB2 soil unit, which is listed as containing 4% hydric components. Wetland A is adjacent to S.R. 14 and I-69 and receives water from RSD 1. This wetland likely receives significant polluted run-off from the adjacent roadway. In addition, the wetland exhibited low plant species diversity and is mowed on a regular basis. Therefore, it appears that this wetland does not support significant wildlife or aquatic habitat, or possess significant hydrologic function. Due to these factors, Wetland A can be classified as a Class I isolated wetland and should be considered to be of poor quality. Descriptions of the sampling points for Wetland A are provided below.

Sampling Point A1 (SP-A1) – Wetland A

SP-A1 was located north of S.R. 14, within Wetland A at the juncture of RSD 1 and RSD 2. The dominant vegetation present at this sampling point was lesser poverty rush (*Juncus tenuis*, FAC) in the herb stratum. This met the hydrophytic vegetation indicator for dominance test (100%). To a depth of 20 in., the soil in the test pit was a sandy loam with gravel mixed in. From 0 to 7 in., the soil exhibited a matrix color of 10YR 4/2 (100%). From 7 to 20 in., the soil exhibited a matrix color of 10YR 5/1 (80%) with 10YR 4/4 (20%) distinct mottles. This met the hydric soil indicator for sandy redox (S5). One primary indicator of hydrology, surface water (A1), and one secondary indicator, geomorphic position (D2), were observed. Since the hydrophytic vegetation, hydric soil, and hydrology criteria were met, this area qualified as a wetland.

Sampling Point A2 (SP-A2)- Wetland A upland

SP-A2 was located north of S.R. 14 and Wetland A. The dominant vegetation at this sampling point was tall false rye grass (*Schedonorus arundinaceus*, FACU) and red clover (*Trifolium pratense,* FACU) in the herb stratum. This did not meet any hydrophytic vegetation indicators. The soil in the test pit was a silt loam to a depth of 20 in. From 0 to 20 in. the soil exhibited a matrix color of 10YR 4/2 (90%) with 10YR 5/1 (10%) faint mottles. This did not meet any hydric soil indicators. There were no primary or secondary indicators of hydrology observed. Since none of the three wetland criteria were met, this area did not qualify as a wetland.

Wetland B - PEM1A (0.178 ac)

Wetland B was located north of S.R. 14, inside the circular I-69 southbound entrance ramp. Wetland B was classified as a PEM1A wetland and was contained entirely within the entrance ramp loop. It appears that Wetland B formed via stormwater runoff from the adjacent roadway and is fed via several small culverts including Structure No. 18, 19, 21, 84, 85, and 88 (see attached Plan of S.R. 14 Interchange). Wetland B did not appear to flow into or have a significant nexus with any jurisdictional Waters of the U.S. Therefore, Wetland B should be considered isolated. This wetland was located within the BmA soil unit, which is listed as containing 5% hydric components. Wetland B is adjacent to S.R. 14 and I-69, and likely receives significant polluted run-off from these roadways. In addition, the wetland exhibited low plant species diversity with greater than 50% of the vegetation consisting of non-native species, and it is also mowed on a regular basis. Therefore, it appears that this wetland does not support significant wildlife or aquatic habitat, or possess significant hydrologic function. Due to these factors, Wetland B can be classified as a Class I isolated wetland and should be considered to be of poor quality. Descriptions of the sampling points for Wetland B are provided below.

Sampling Point B1 (SP-B1) – Wetland B

SP-B1 was located north of S.R. 14, within Wetland B and inside the circular I-69 southbound entrance ramp. The dominant vegetation present at this sampling point was narrow-leaf cat-tail (*Typha angustifolia,* OBL) and tall false rye grass (*Schedonorus arundinaceus,* FACU) in the herb stratum. This met the hydrophytic vegetation indicator for prevalence index (1.80). The soil in the test pit was a silt loam to a depth of 20 in. From 0 to 20 in., the soil exhibited a matrix color of 10YR 4/2 (95%) with 5YR 3/1 (5%) distinct mottles. This met the hydric soil indicator for depleted matrix (F3). Two primary indicators of wetland hydrology, surface water (A1) and saturation (A3) were observed. Since the hydrophytic vegetation, hydric soil, and hydrology criteria were met, this area qualified as a wetland.

Sampling Point B2 (SP-B2)- Wetland B upland

SP-B2 was located on the north side of S.R. 14, to the west of Wetland B, inside the circular I-69 southbound entrance ramp. The dominant vegetation at this sampling point was tall false rye grass (*Schedonorus arundinaceus,* FACU) in the herb stratum. This did not meet any hydrophytic vegetation indicators. A restrictive layer of gravel and rip rap was present at the soil surface, which prevented the characterization of the soil. Several attempts were made to dig an upland test pit, but gravel was consistently present. Due to the lack of hydrophytic vegetation and hydrology indicators, and the location of the sampling point on a 5% slope, it is unlikely that the soil would contain the hydric soil indicators needed to be classified as a hydric soil. There were no primary or secondary indicators of hydrology observed. Since none of the three wetland criteria were met, this area did not qualify as a wetland.

Wetland C - PEM1A (0.056 ac)

Wetland C was located north of S.R. 14, within RSD 3 along the I-69 southbound exit ramp. Wetland C was classified as a PEM1A wetland, and was located entirely within a roadside drainage ditch that did not exhibit an OHWM (RSD 3). This roadside ditch did not appear to flow into or have a significant nexus with any jurisdictional Waters of the U.S. This wetland was located within the BmA soil unit, which is listed as containing 5% hydric components. Wetland C is adjacent to I-69, and likely receives significant polluted run-off from this source. In addition, the wetland exhibited low plant species diversity and is mowed on a regular basis. Therefore, it appears that this wetland does not support significant wildlife or aquatic habitat, or possess significant hydrologic function. Due to these factors, Wetland C can be classified as a Class I isolated wetland and should be considered to be of poor quality. Descriptions of the sampling points for Wetland C are provided below.

Sampling Point C1 (SP-C1) – Wetland C

SP-C1 was located within Wetland C and RSD 3, north of S.R. 14 and west of the I-69 southbound exit ramp. The dominant vegetation present at this sampling point was lesser poverty rush (*Juncus tenuis*, FAC), soft-stem club-rush (*Scheonoplectus tabernaemontani,* OBL), and tall false rye grass (*Schedonorus arundinaceus,* FACU) in the herb stratum. This met the hydrophytic vegetation indicators for dominance test (67%) and prevalence index (2.45). The soil in the test pit was a silt loam to a depth of 20 in. Hydrogen sulfide odor was observed during soil pit excavation due to soil saturation. From 0 to 6 in., the soil exhibited a matrix color of 10YR 4/2 (95%) with 10YR 3/6 (5%) prominent mottles within the pore linings. From 6 to 20in., the soil exhibited a mixed matrix color of 10YR 4/2 (60%) and 10YR 3/2 (20%), with 10YR 3/6 (20%) prominent mottles in the pore linings. This met the hydric soil indicators for hydrogen sulfide (A4) and depleted matrix (F3). Four primary indicators of wetland hydrology were observed; surface water (A1), saturation (A3), hydrogen sulfide odor (C1), and oxidized rhizospheres on living roots (C3). One secondary indicator of wetland hydrology was observed, geomorphic position. Since the hydrophytic vegetation, hydric soil, and hydrology criteria were met, this area qualified as a wetland.

Sampling Point C2 (SP-C2)- Wetland C upland

SP-C2 was located north of S.R. 14, west of the I-69 southbound exit ramp and Wetland C. The dominant vegetation at this sampling point was Fuller's teasel (*Dipsacus fullonum,* FACU) and tall false rye grass (*Schedonorus arundinaceus,* FACU) in the herb stratum. This did not meet any hydrophytic vegetation indicators. A restrictive layer of gravel was present at 0 in., which prevented the characterization of the soil. Several attempts were made to dig an upland test pit, but gravel was consistently present. Due to the lack of hydrophytic vegetation and hydrology indicators, and the sampling point being located on a 15% slope, it is unlikely that the soil would contain the hydric soil indicators needed to be classified as a hydric soil. There were no primary or secondary indicators of hydrology observed. Since none of the three wetland criteria were met, this area did not qualify as a wetland.

Wetland D - PEM1A (0.022 ac)

Wetland D was located north of S.R. 14 and west of the southbound lanes of I-69. Wetland D was classified as a PEM1A wetland and did not appear to flow into or have a significant nexus with any jurisdictional Waters of the U.S. This wetland was located within the MrB2 soil unit, which is listed as containing 4% hydric components. It appeared to be an isolated feature with no connection to any roadside ditches, though it does appear to be fed significant polluted stormwater runoff via a culvert located under I-69 (Structure No. 24 on the attached Plan of S.R. 14 Interchange). In addition, the wetland exhibited low plant species diversity and is mowed on a regular basis. Therefore, it appears that this wetland does not support significant wildlife or aquatic habitat, or possess significant hydrologic function. Due to these factors, Wetland D can be classified as a Class I isolated wetland and should be considered to be of poor quality. Descriptions of the sampling points for Wetland D are provided below.

Sampling Point D1 (SP-D1) – Wetland D

SP-D1 was located within Wetland D, north of S.R. 14 and west of I-69. The dominant vegetation present at this sampling point was lesser poverty rush (*Juncus tenuis*, FAC) in the herb stratum. This met the hydrophytic vegetation indicators of dominance test (100%) and prevalence index (2.85). The soil in the test pit was a silty clay loam to a depth of 20 in. From 0 to 4 in., the soil exhibited a matrix color of 10YR 2/1 (100%). From 4 to 20 in., the soil exhibited a matrix color of 10YR 5/1 (90%), with 10YR 5/8 (10%) distinct mottles. This met the hydric soil indicator for depleted matrix (F3). Two primary indicators of wetland hydrology were observed; surface water (A1) and saturation (A3). One secondary indicator of wetland hydrology, geomorphic position (D2), was observed. Since the hydrophytic vegetation, hydric soil, and hydrology criteria were met, this area qualified as a wetland.

Sampling Point D2 (SP-D2)- Wetland D upland

SP-D2 was located on the north side of S.R. 14, west of I-69 and Wetland D. The dominant vegetation at this sampling point was tall false rye grass (*Schedonorus arundinaceus*, FACU) in the herb stratum. This did not meet any hydrophytic vegetation indicators. The soil in the test pit was a clay loam to a depth of 20 in. From 0 to 20 in. the soil exhibited a matrix color of 10YR 4/2 (100%). This did not meet any of the hydric soil indicators. There were no primary or secondary indicators of hydrology observed. Since none of the three wetland criteria were met, this area did not qualify as a wetland.

Wetland E - PEM1A (0.033 ac)

Wetland E was located south of S.R. 14 and west of I-69, and can be classified as a PEM1A wetland. This wetland continues south outside of the project study limits within a roadside ditch, and has a significant nexus to Durnell Ditch via a culvert (Structure No. 28 on the attached Plan of S.R. 14 Interchange) that carries water from Wetland E underneath the entrance ramp for I-69 southbound to Durnell Ditch. Durnell Ditch flows south into McCulloch Ditch, which flows into Graham Ditch, which flows into the Little River. The Little River flows into and has a significant nexus with the Wabash River, a Section 10 TNW. Therefore, Wetland E should be considered a

jurisdictional Water of the U.S. Wetland E is adjacent to I-69 and is fed stormwater from Wetland F via a culvert located under the I-69 southbound circular exit ramp (Structure No. 33 on the attached Plan of S.R. 14 Interchange). This wetland likely receives significant polluted run-off from the adjacent roadway. In addition, the wetland exhibited low plant species diversity and is mowed on a regular basis. Therefore, it can be concluded that this wetland does not support significant wildlife or aquatic habitat, or possess significant hydrologic function. Due to these factors, Wetland E should be considered to be of poor quality. Descriptions of the sampling points for Wetland E are provided below.

Sampling Point E1 (SP-A1) – Wetland E

SP-E1 was located south of S.R. 14 and west of I-69, within Wetland E. The dominant vegetation present at this sampling point was narrow-leaf cat-tail (*Typha angustifolia,* OBL), lesser poverty rush (*Juncus tenuis*, FAC), and soft-stem club-rush (*Scheonoplectus tabernaemontani,* OBL) in the herb stratum. This met the hydrophytic vegetation indicators of dominance test (100%) and prevalence index (1.40). The soil in the test pit was a silty clay loam to a depth of 20 in. From 0 to 20 in., the soil exhibited a matrix color of 7.5YR 4/1 (80%) with 10YR 4/6 (20%) prominent mottles. This met the hydric soil indicator for depleted matrix (F3). Three primary indicators of wetland hydrology were observed; surface water (A1), high water table (A2), and saturation (A3). Two secondary indicators of hydrology were observed; geomorphic position (D2) and FAC-Neutral test (D5). Since the hydrophytic vegetation, hydric soil, and hydrology criteria were met, this area qualified as a wetland.

Sampling Point E2 (SP-E2)- Wetland E upland

SP-E2 was located south of S.R. 14 and west of I-69 and Wetland E. The dominant vegetation at this sampling point was tall false rye grass (*Schedonorus arundinaceus*, FACU) in the herb stratum. This did not meet any hydrophytic vegetation indicators. The soil in the test pit was a silt loam to a depth of 20 in. From 0 to 20 in. the soil exhibited a matrix color of 10YR 4/4 (100%). This did not meet any of the hydric soil indicators. There were no primary or secondary indicators of hydrology present. Since none of the three wetland criteria were met, this area did not qualify as a wetland.

Wetland F - PEM1A (0.142 ac)

Wetland F was located south of S.R. 14 and west of I-69, within the circular exit ramp for I-69 southbound. Wetland F was classified as a PEM1A wetland. It appears that Wetland F formed via stormwater runoff from the adjacent roadway and RSD 5, and is connected to Wetland E via a drainage pipe that carries water from Wetland F underneath the I-69 southbound exit ramp. Wetland E has a significant nexus to Durnell Ditch, which flows south into McCulloch Ditch, which flows into Graham Ditch, which flows into the Little River, which flows into and has a significant nexus with the Wabash River, a Section 10 TNW. Therefore, Wetland E should be considered a jurisdictional Water of the U.S. Wetland F is adjacent to S.R. 14 and I-69, and likely receives significant polluted run-off from the adjacent roadways. In addition, the wetland exhibited low plant species diversity and appears to be mowed on a regular basis. Therefore, it can be

concluded that this wetland does not support significant wildlife or aquatic habitat, or possess significant hydrologic function. Due to these factors, Wetland F should be considered to be of poor quality. Descriptions of the sampling points for Wetland F are provided below.

Sampling Point F1 (SP-F1) – Wetland F

SP-F1 was located south of S.R. 14 and west of I-69, within the circular exit ramp for I-69 and Wetland F. The dominant vegetation present at this sampling point was lesser poverty rush (*Juncus tenuis,* FAC) in the herb stratum. This met the hydrophytic vegetation indicators of dominance test (100%) and prevalence index (3.00). The soil in the test pit was a silty clay loam to a depth of 10 in., at which point a restrictive layer of gravel was encountered. From 0 to 10 in., the soil exhibited a matrix color of 10YR 5/1 (100%). This met the hydric soil indicator for depleted matrix (F3). Three primary indicators of wetland hydrology were observed; surface water (A1), high water table (A2), and saturation (A3). One secondary indicator of hydrology, geomorphic position (D2) was observed. Since the hydrophytic vegetation, hydric soils, and hydrology criteria were met, this area qualified as a wetland.

Sampling Point F2 (SP-F2)- Wetland F upland

SP-F2 was located south of S.R. 14, west of I-69, and east of Wetland F. The dominant vegetation at this sampling point was tall false rye grass (*Schedonorus arundinaceus*, FACU), in the herb stratum. This did not meet any hydrophytic vegetation indicators. A restrictive layer of gravel was present at 0 in., which prevented the characterization of the soil. Several attempts were made to dig an upland test pit, but gravel was consistently present. Due to the lack of hydrophytic vegetation and hydrology indicators, and the sampling point being located on an 8% slope, it is unlikely that the soil would exhibit hydric soil indicators. No primary or secondary indicators of hydrology were observed. Since none of the three wetland criteria were met, this area did not qualify as a wetland.

Wetland G - PEM1A (0.074 ac)

Wetland G was located south of S.R. 14, in the western portion of the project study limits. Wetland G was classified as a PEM1A wetland and is fed by stormwater runoff from S.R. 14 via RSD 4. This wetland appears to have formed as a result of the construction of RSD 4. Though Wetland G is located within the mapped floodplain of Durnell Ditch, as a result of the construction of S.R. 14 and I-69 exit and entrance ramps, the ditch is piped throughout the entirety of the project study limits. The elevation of the road above the existing elevation of Durnell Ditch and the presence of a noise wall provide evidence that this area no longer floods and this particular floodplain area for Durnell Ditch no longer exists. Therefore, this wetland did not appear to flow into or have a significant nexus with any jurisdictional Waters of the U.S. Wetland G is adjacent to S.R. 14 and I-69, and likely receives significant polluted run-off from this source. In addition, the wetland exhibited low plant species diversity and appears to be mowed on a regular basis. It can also be concluded that this wetland does not support significant wildlife or aquatic habitat, or possess significant hydrologic function. Due to these factors, Wetland G can be classified as a

Class I isolated wetland and should be considered to be of poor quality. Descriptions of the sampling points for Wetland G are provided below.

Sampling Point G1 (SP-G1) – Wetland G

SP-G1 was located south of S.R. 14 and west of RSD 4, within Wetland G. The dominant vegetation present at this sampling point was lesser poverty rush (*Juncus tenuis*, FAC) and tall false rye grass (*Schedonorus arundinaceus*, FACU) in the herb stratum. This met the hydrophytic vegetation indicators for prevalence index (2.90). The soil in the test pit was a silty clay loam to a depth of 20 in. From 0 to 20 in., the soil exhibited a matrix color of 10YR 4/2 (80%) with 10YR 5/6 (20%) prominent mottles. This met the hydric soil indicator for depleted matrix (F3). One primary indicator of wetland hydrology, saturation (A3), was observed and one secondary indicator of wetland hydrology, geomorphic position (D2), was observed. Since the hydrophytic vegetation, hydric soils, and hydrology criteria were met, this area qualified as a wetland.

Sampling Point G2 (SP-G2)- Wetland G upland

SP-G2 was located south of S.R. 14 and north of Wetland G. The dominant vegetation present at this sampling point was tall false rye grass (*Schedonorus arundinaceus*, FACU) in the herb stratum. This did not meet any hydrophytic vegetation indicators. The soil in the test pit was a silt loam to a depth of 20 in. From 0 to 20 in. the soil exhibited a matrix color of 10YR 4/2 (100%). This did not meet any of the hydric soil indicators. No primary or secondary indicators of hydrology were observed. Since none of the three wetland criteria were met, this area did not qualify as a wetland.

Additional Sampling Point:

An additional sampling point was taken in an area where wetlands were suspected, but the area did not meet the criteria to qualify as wetland. A description of this sampling point is provided below.

Sampling Point 1 (SP-1)

SP-1 was located north of S.R. 14, west of the I-69 southbound exit ramp. The dominant vegetation present at this sampling point was tall false rye grass (*Schedonorus arundinaceus*, FACU) in the herb stratum. This did not meet any of the hydrophytic vegetation indicators. The soil in the test pit was silty clay loam to a depth of 20 in. From 0 to 10 in. the soil exhibited a matrix color of 10YR 4/2 (95%) with 10YR 3/1 (5%) faint mottles. From 10 to 20 in. the soil exhibited a matrix color of 10YR 3/1 (90%) with 10YR 5/6 (10%) prominent mottles. This did not meet any of the hydric soil indicators, because prominent concentrations did not begin within the upper 10 inches of the soil profile. Since no stratified layers were observed in the test pit, the soil does not qualify for a problematic floodplain soil. Two primary indicators of hydrology were observed; surface water (A1) and saturation (A3). One secondary indicator of hydrology, geomorphic position (D2) was observed. Since only one of the three required wetland criteria was met, this area did not qualify as a wetland.

Streams:
One stream was identified within the project study limits during the waters investigation. A description of the stream characteristics is provided in the table below.

Stream Summary Table
I-69 at S.R. 14
Interchange Modification
Aboite Township, Allen County, Indiana
Des. No. 1401828

Stream Name	Photo #s	Lat/Long	OHWM Width (ft.)	OHWM Depth (ft.)	USGS Blue-line	Substrate	Riffles and Pools	Quality	Likely Water of the U.S.	Potential Stream Impact (LFT)
Durnell Ditch	N/A*	41.074548 -85.231036	12.0	1.0	Yes (Perennial)	N/A*	N/A*	N/A*	Yes	330 (piped)

*Data not available as the daylighted portion of the stream was located outside of the project study limits.

Durnell Ditch (330 LFT)
The approximate location of Durnell Ditch provided by the National Hydrography Dataset stream data is shown on **Exhibit 6.** During the field reconnaissance, it was observed that this stream is encapsulated throughout the entirety of the project study limits as a result of the construction of S.R. 14 and I-69 exit and entrance ramps. Durnell Ditch is approximately 330 linear feet (LFT) in length (0.091 ac) within the project study limits, and flows from north to south under S.R. 14. The stream flows south into McCulloch Ditch, which flows into Graham Ditch, which flows into the Little River, which flows into and has a significant nexus with the Wabash River, a Section 10 TNW. Therefore, Durnell Ditch should be considered a jurisdictional Water of the U.S. This stream is associated with a solid blue line on the USGS topographic map, indicating it is perennial. Durnell Ditch is classified by the NWI as a Riverine, Unknown Perennial, Unconsolidated Bottom, Permanently Flood (R5UBH) wetland. Since it is encapsulated throughout the entirety of the project study limits, no stream characteristics could be determined in the field. The OHWM was estimated to be an average of 12.0 ft in width within the project study limits, based off of aerial photographs (*Indiana Spatial Data Portal,* 2012). According to USGS *Indiana StreamStats*, the drainage area upstream of the project study limits is 2.302 square miles (sq. mi.).

Roadside Ditches:
There were four roadside ditches observed within the project study limits during the field reconnaissance.

Roadside Ditch 1 (RSD 1) (98 LFT)

RSD 1 is located north of S.R. 14 and west of the circular I-69 southbound entrance ramp. This feature is a rip rap lined man-made drainage ditch that carries stormwater runoff from S.R. 14 northwest to Wetland A. RSD 1 is approximately 98 LFT in length. No OHWM was observed so this drainage feature is likely non-jurisdictional.

Roadside Ditch 2 (RSD 2) (155 LFT)

RSD 2 is located north of S.R. 14 and west of the circular I-69 southbound entrance ramp. This feature is a rip rap lined man-made drainage ditch that collects stormwater runoff from the I-69 exit ramp and conveys it south to Wetland A. RSD 2 also appears to be fed by a small underdtrain pipe located underneath the I-69 southbound entrance ramp. RSD 2 is approximately 155 LFT in length. No OHWM was observed so this drainage feature is likely non-jurisdictional.

Roadside Ditch 3 (RSD 3) (626 LFT)

RSD 3 is located along the northwest boundary of the project study limits, along the I-69 southbound exit ramp. RSD 3 appears to flow north and convey stormwater runoff into Wetland C, which seems to have formed as the result of the construction of this roadside ditch. The feature is entirely vegetated, consisting primarily of upland vegetation within a mowed right-of-way outside of the delineated area of Wetland C. RSD 3 is approximately 626 LFT in length. No OHWM was observed so this drainage feature is likely non-jurisdictional.

Roadside Ditch 4 (RSD 4) (123 LFT)

RSD 4 is located south of S.R. 14 and west of the circular I-69 southbound exit ramp. This feature is a rip rap lined man-made drainage ditch that carries stormwater runoff from S.R. 14 southwest to Wetland G. Wetland G appears to have been formed as the result of the construction of this roadside ditch. RSD 4 is approximately 123 LFT in length. No OHWM was observed so this drainage feature is likely non-jurisdictional.

Roadside Ditch 5 (RSD 5) (182 LFT)

RSD 5 is located south of S.R. 14 and west of I-69, within the circular I-69 southbound exit ramp. RSD 5 appears to convey stormwater runoff to Wetland F. The feature is entirely vegetated, consisting primarily of upland vegetation within a mowed right-of-way outside of the delineated area of Wetland F. RSD 5 is approximately 182 LFT in length. No OHWM was observed so this drainage feature is likely non-jurisdictional.

Conclusion:

Seven PEM1A wetlands totaling 0.515 ac and 2,281 LFT, were identified within the project study limits. Every effort should be taken to avoid and minimize impacts to these waterways. If impacts are necessary, then mitigation may be required. The INDOT Office of Environmental Services should be contacted immediately if impacts occur. The final determination of jurisdictional waters is ultimately made by the USACE. This report is our best judgment based on the guidelines set forth by the USACE.

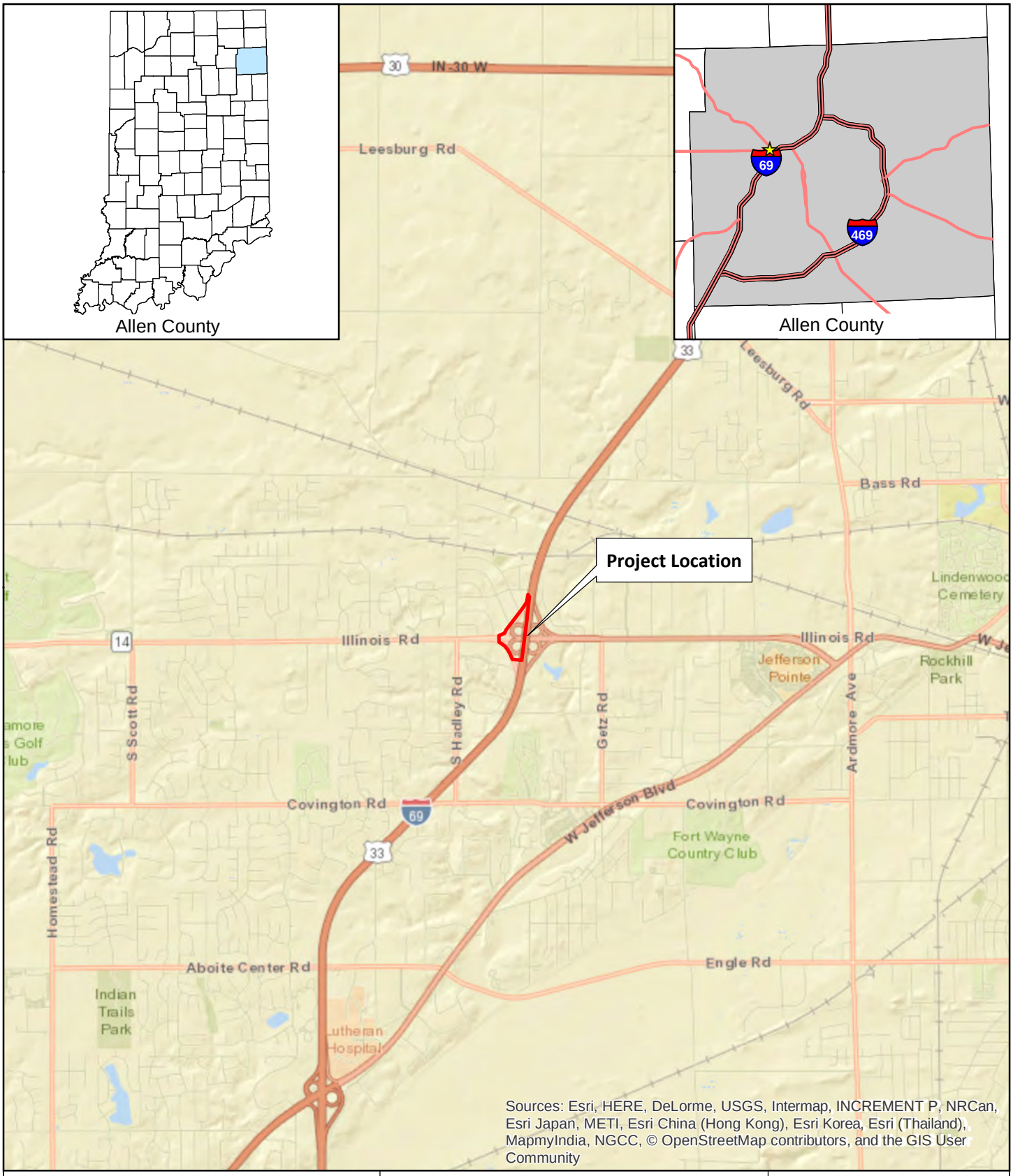


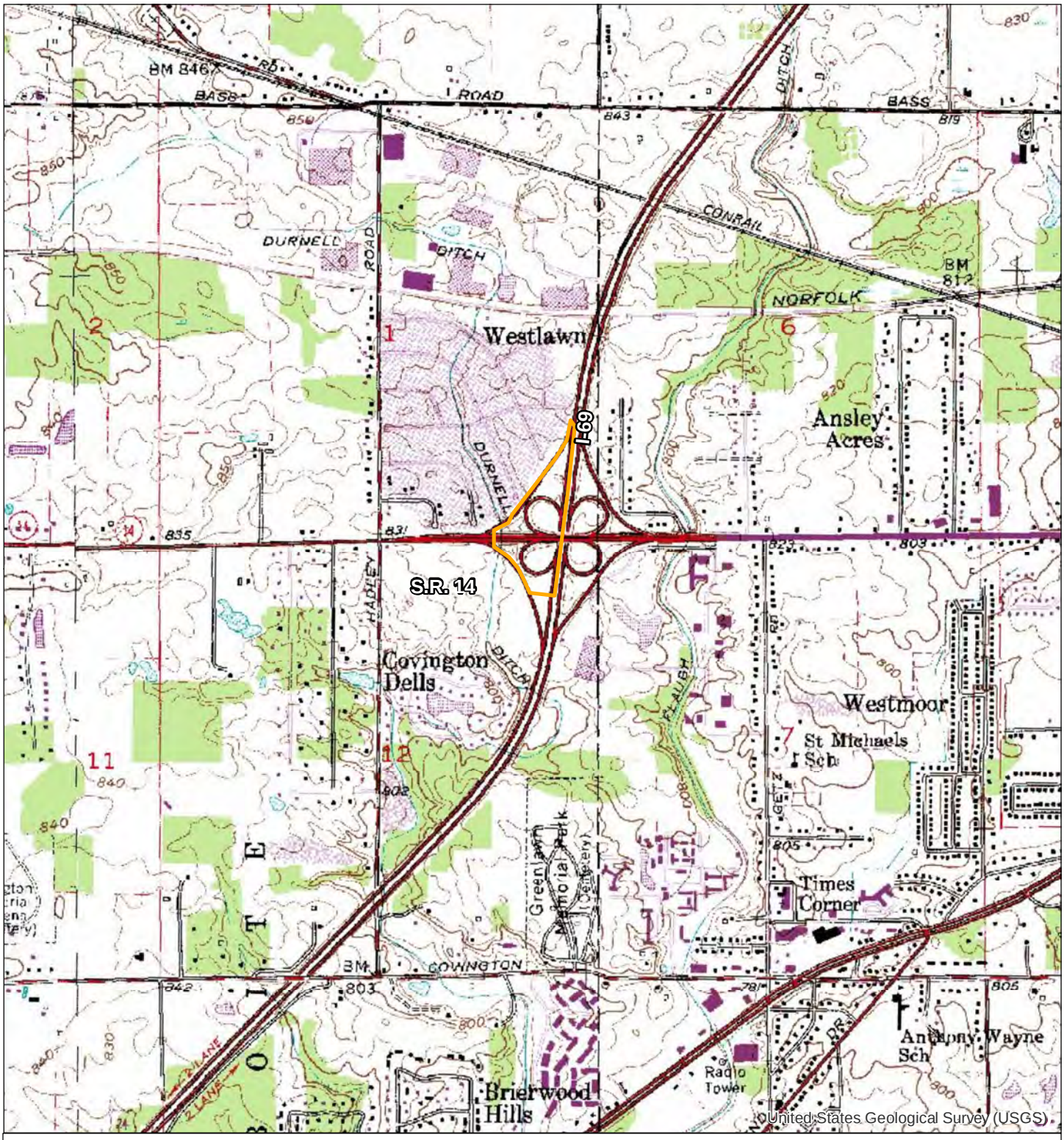
Exhibit 1 - Location Map
I-69 at S.R. 14
Interchange Modification
Aboite Township, Allen County, Indiana
Des. No. 1401828
Metric Project No. 16-0108-3

All locations approximate
2017 Basemap

N

0 0.5 1 2
Miles

METRIC ENVIRONMENTAL



Project Study Limits

Exhibit 2A - USGS Topographic Map - Small Scale
Fort Wayne West, IN Quadrangle
I-69 at S.R. 14
Interchange Modification
Aboite Township, Allen County, Indiana
Des. No. 1401828
Metric Project No. 16-0108-3

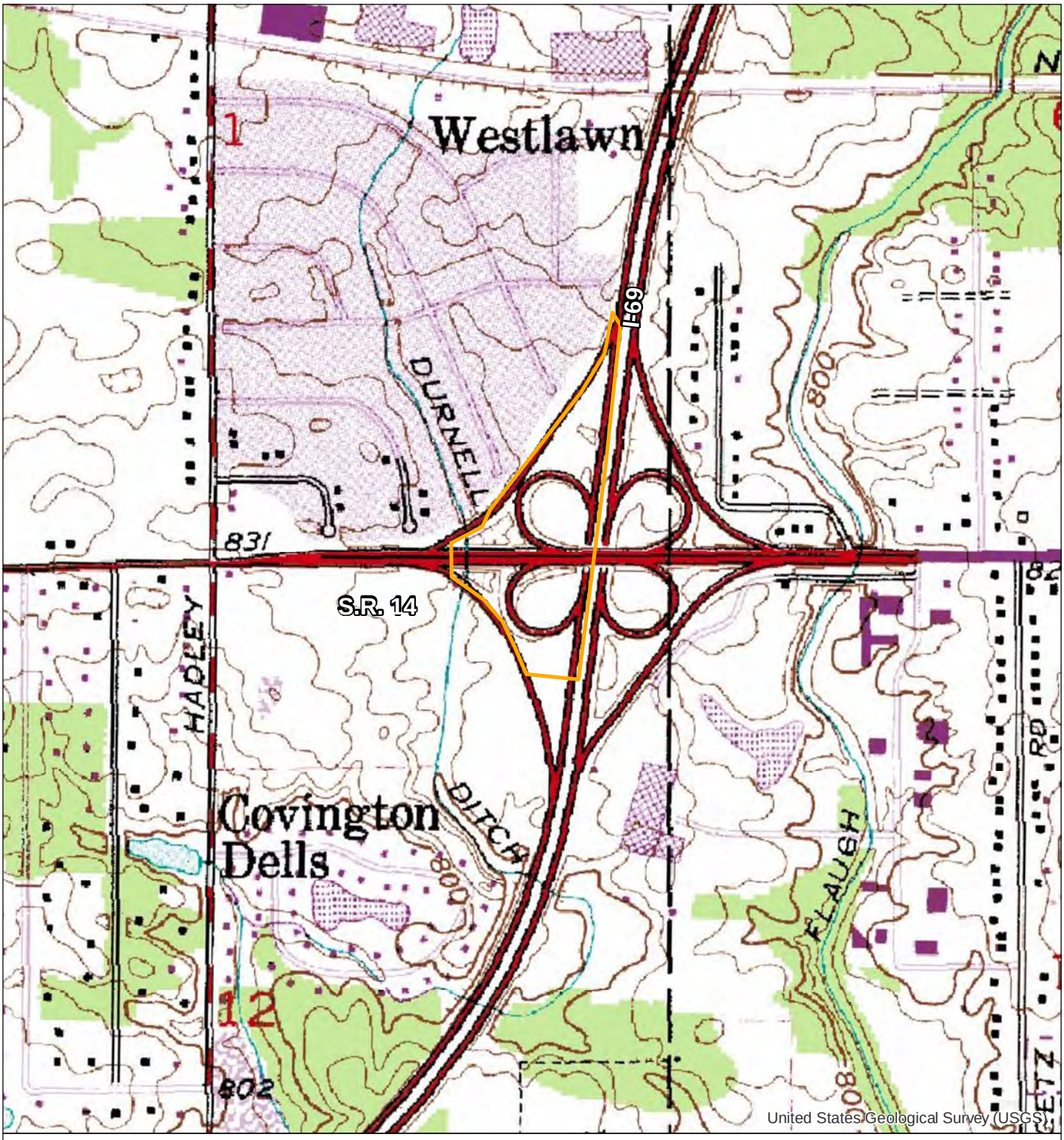
All locations approximate

Source: Indiana Spatial Data Portal (1963)

N

0 750 1,500 3,000
Feet

METRIC ENVIRONMENTAL



Project Study Limits

Exhibit 2B - USGS Topographic Map Large Scale
Fort Wayne West, IN Quadrangle
I-69 at S.R. 14
Interchange Modification
Aboite Township, Allen County, Indiana
Des. No. 1401828
Metric Project No. 16-0108-3

All locations approximate

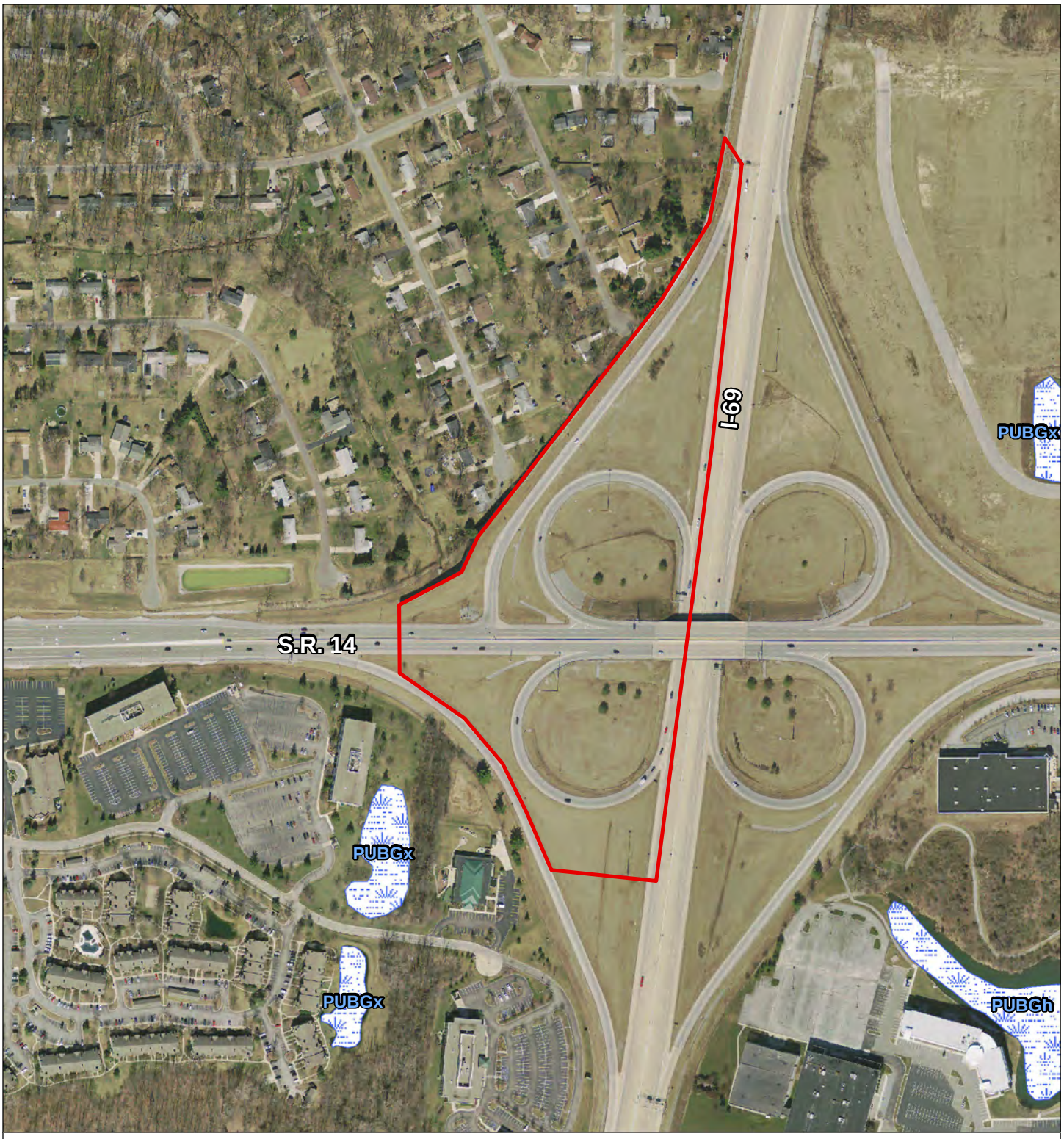
Source: Indiana Spatial Data Portal (1963)

N

0 375 750 1,500

Feet

METRIC ENVIRONMENTAL



Project Study Limits NWI Wetlands

Exhibit 3 - National Wetlands Inventory Map
I-69 at S.R. 14
Interchange Modification
Aboite Township, Allen County, Indiana
Des. No. 1401828
Metric Project No. 16-0108-3

All locations approximate

Source: Indiana Spatial Data Portal (2012 Aerial)

N

0 200 400 800
Feet

METRIC ENVIRONMENTAL

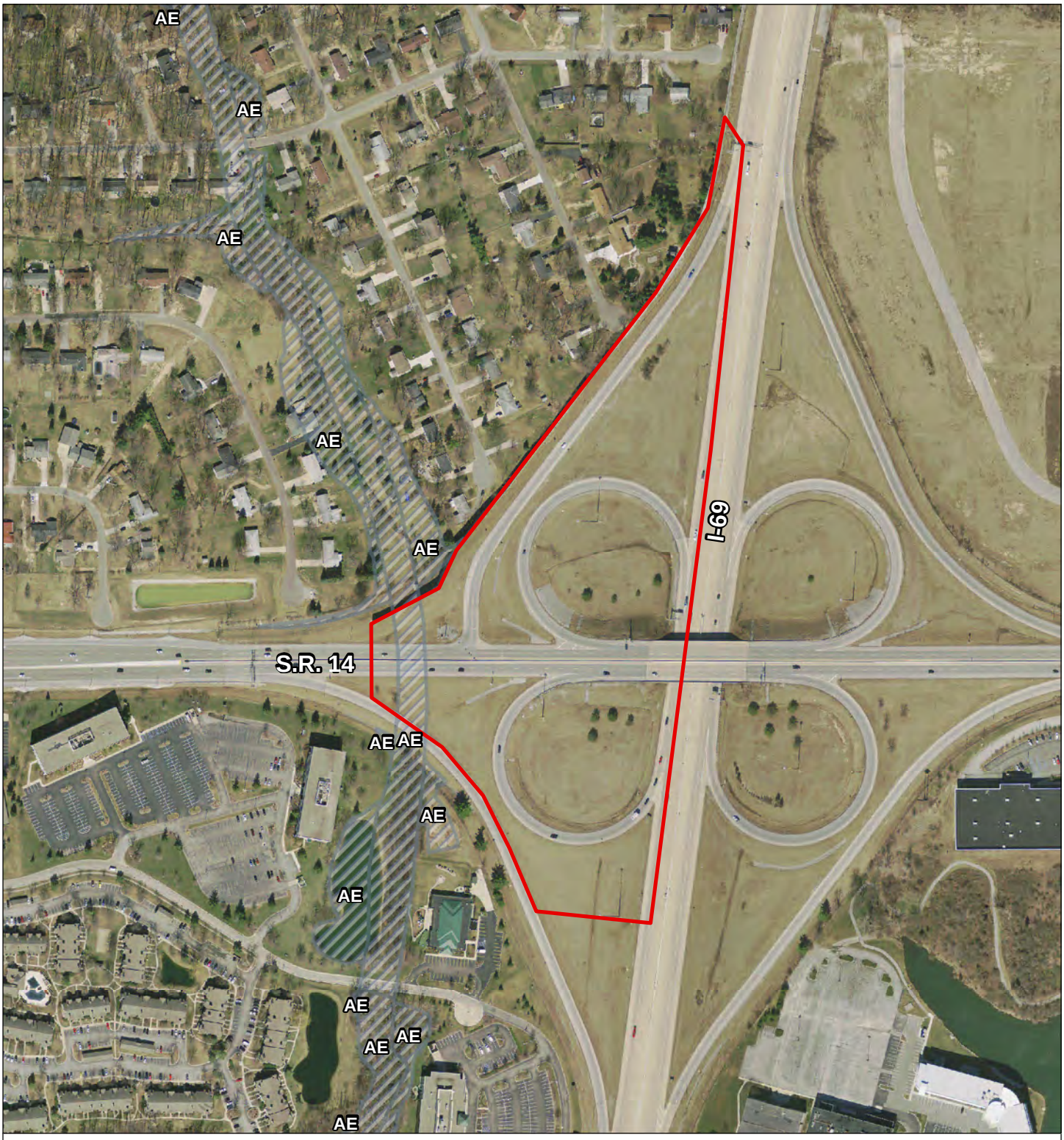


Exhibit 4 - Flood Insurance Rate Map
I-69 at S.R. 14
Interchange Modification
Aboite Township, Allen County, Indiana
Des. No. 1401828
Metric Project No. 16-0108-3

All locations approximate

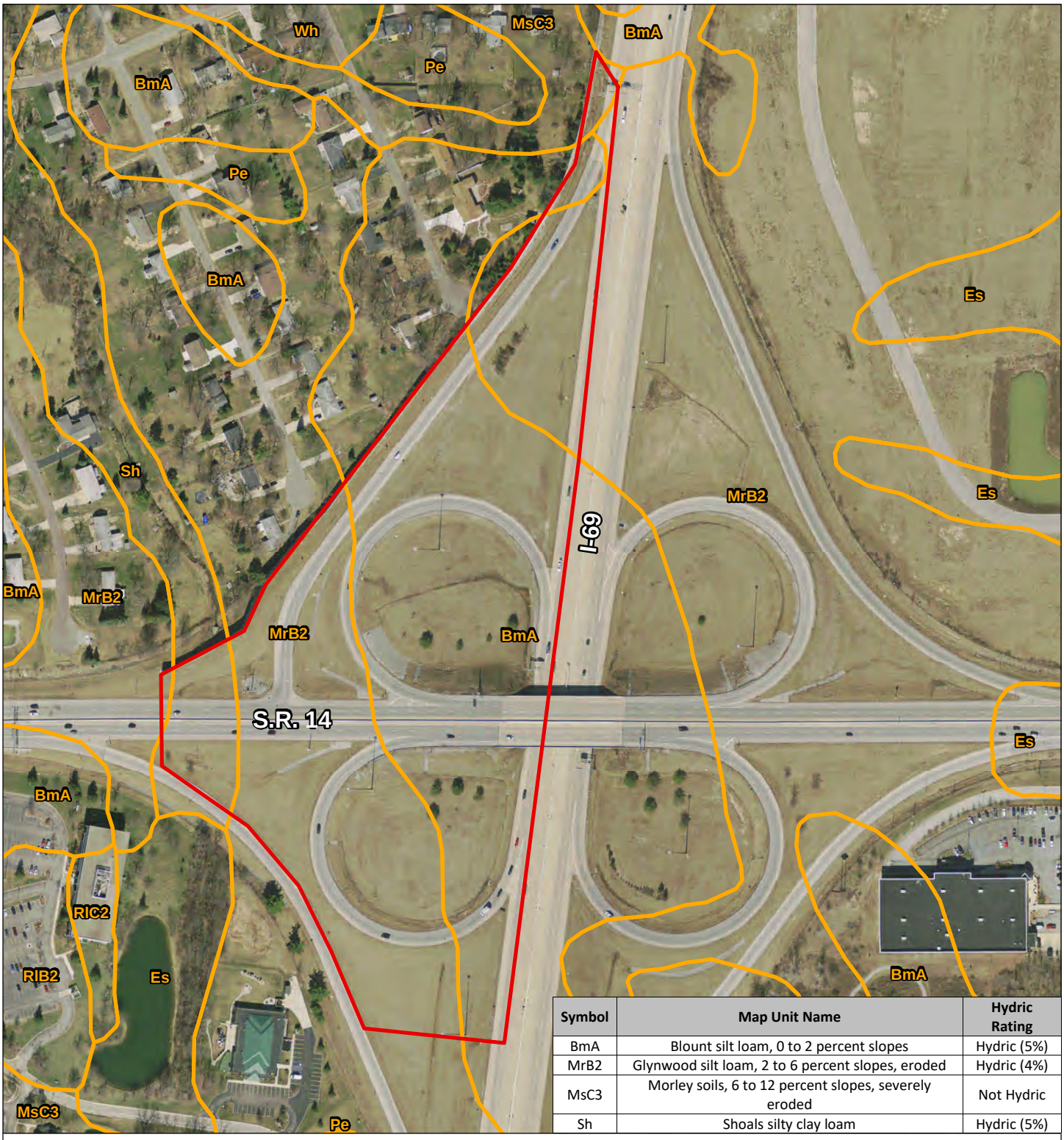
Source: Indiana Spatial Data Portal (2012 Aerial)

N

0 200 400 800

Feet

METRIC ENVIRONMENTAL



Symbol	Map Unit Name	Hydric Rating
BmA	Blount silt loam, 0 to 2 percent slopes	Hydric (5%)
MrB2	Glynwood silt loam, 2 to 6 percent slopes, eroded	Hydric (4%)
MsC3	Morley soils, 6 to 12 percent slopes, severely eroded	Not Hydric
Sh	Shoals silty clay loam	Hydric (5%)

Project Study Limits NRCS Soil Survey

Exhibit 5 - NRCS Soil Survey Map
I-69 at S.R. 14
Interchange Modification
Aboite Township, Allen County, Indiana
Des. No. 1401828
Metric Project No. 16-0108-3

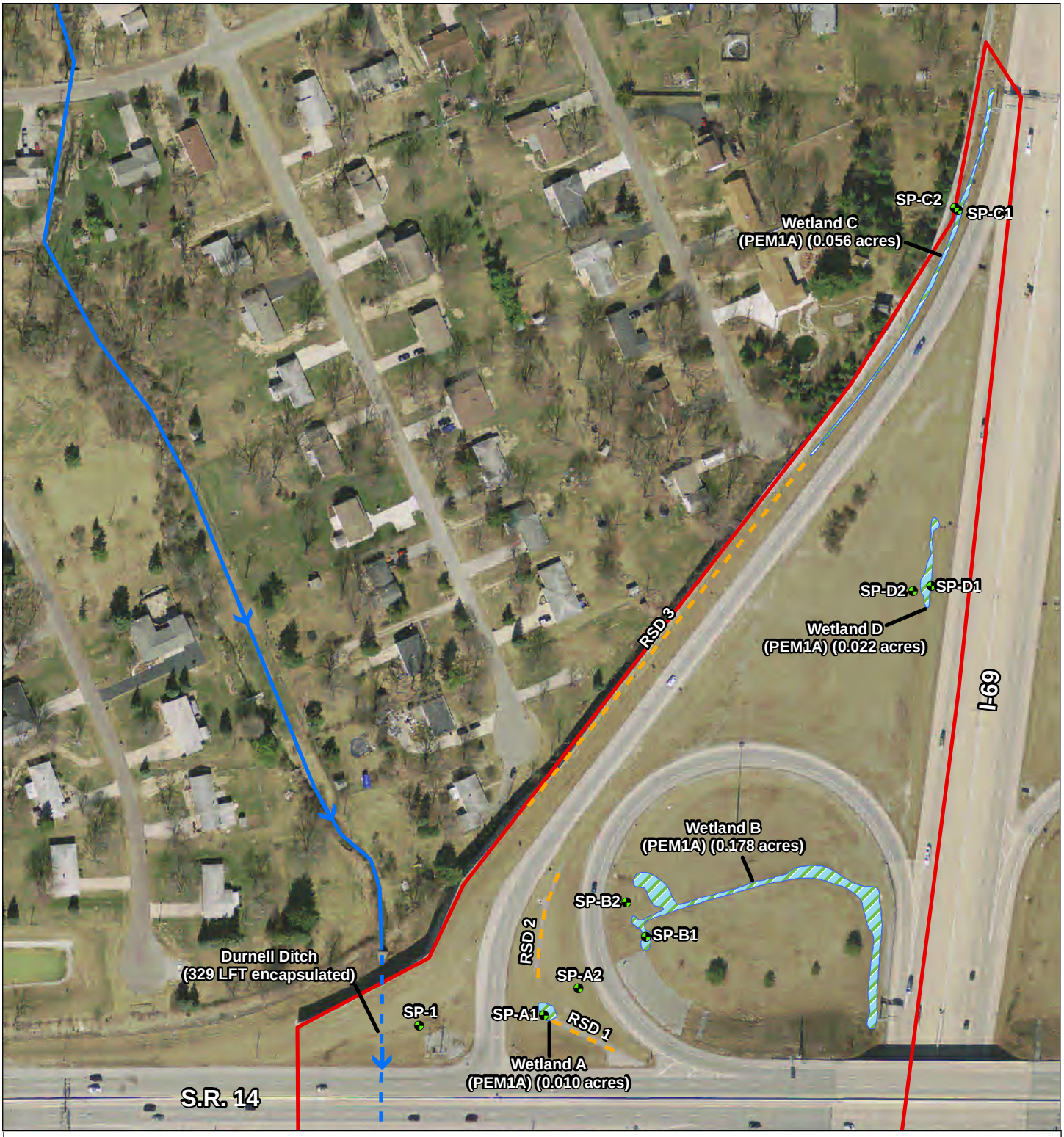
All locations approximate

Source: Indiana Spatial Data Portal (2012 Aerial)

N

0 150 300 600
Feet

METRIC ENVIRONMENTAL



Project Study Limits (PSL) | Wetland | Sampling Point

Stream | Encapsulated Stream | Roadside Ditch (RSD)

Exhibit 6A - Waters Delineation Map
I-69 at S.R. 14
Interchange Modification
Aboite Township, Allen County, Indiana
Des. No. 1401828
Metric Project No. 16-0108-3

All locations approximate

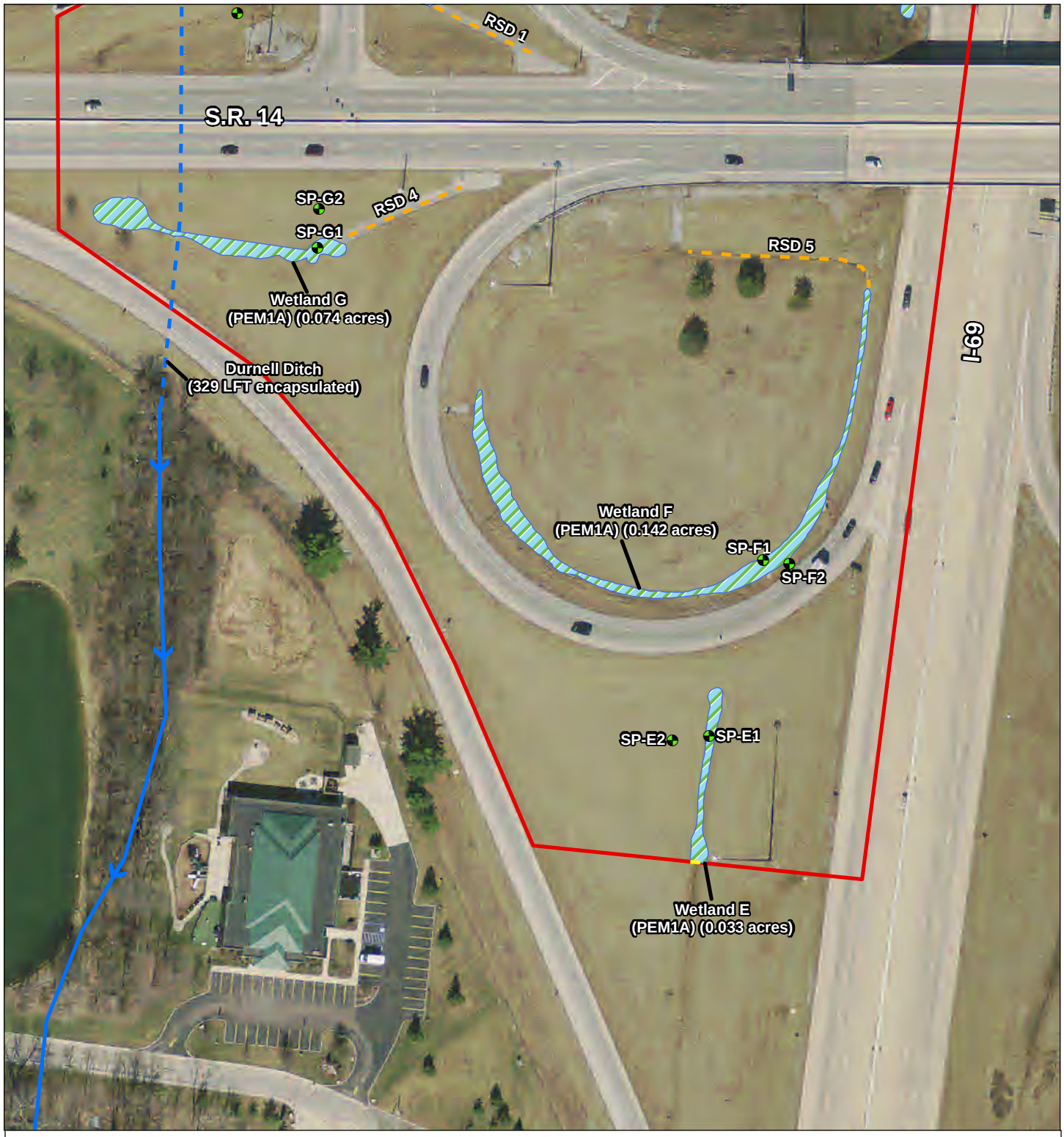
Source: Indiana Spatial Data Portal (2012 Aerial)

N

0 100 200 400

Feet

METRIC ENVIRONMENTAL



Project Study Limits (PSL) | Wetland | Sampling Point | NHD Streams

Encapsulated Stream | Roadside Ditch (RSD) | Delineated Wetland Extends Outside of PSL

Exhibit 6B - Waters Delineation Map
I-69 at S.R. 14
Interchange Modification
Aboite Township, Allen County, Indiana
Des. No. 1401828
Metric Project No. 16-0108-3

All locations approximate

Source: Indiana Spatial Data Portal (2012 Aerial)

N

0 62.5 125 250

Feet

METRIC ENVIRONMENTAL

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: I-69 and S.R. 14 (Des. No. 1401828) City/County: Allen County Sampling Date: 8/30/2017

Applicant/Owner: INDOT State: IN Sampling Point: SP-A1

Investigator(s): Josh Myers and Ryan Hennessey Section, Township, Range: Section 1 and 12; Township 30N; Range 11E

Landform (hillslope, terrace, etc.): Drainage swale Local relief (concave, convex, none): Concave

Slope (%): 0% Lat: 41.074851 Long: -85.23023 Datum: NAD 83

Soil Map Unit Name: Glynwood silt loam (MrB2) NWI classification: None

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

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

Are Vegetation No, Soil No, or Hydrology No 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:
Wetland A sampling point (PEM1A)

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. *Juncus tenuis*	60%	Yes	FAC
2. *Schedonorus arundinaceus*	20%	No	FACU
3. *Lotus corniculatus*	10%	No	FACU
4. *Typha angustifolia*	10%	No	OBL
5. *Poa pratensis*	5%	No	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	105% = Total Cover		

Woody Vine Stratum (Plot size: 30' 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% (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:
OBL species	10%	x1 =	0.1
FACW species		x2 =	
FAC species	65%	x3 =	1.95
FACU species	30%	x4 =	1.2
UPL species		x5 =	
Column Totals:	1.05 (A)		3.25 (B)

Prevalence Index = B/A = 3.10

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: SP-A1

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
0-7	10YR 4/2	100					SL	Gravel present
7-20	10YR 5/1	80	10YR 4/4	20	C	RM	SL	Distinct

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

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)
- ___ 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)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0.2

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:

Surface water present due to recent significant rainfall event (8/29/17). Wetland meets hydrology indicator for geomorphic position because this sampling point was located within a drainageway.

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: I-69 and S.R. 14 (Des. No. 1401828) City/County: Allen County Sampling Date: 8/30/2017

Applicant/Owner: INDOT State: IN Sampling Point: SP-A2

Investigator(s): Josh Myers and Ryan Hennessey Section, Township, Range: Section 1 and 12; Township 30N; Range 11E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None

Slope (%): 5% Lat: 41.07495 Long: -85.230069 Datum: NAD 83

Soil Map Unit Name: Glynwood silt loam (MrB2) NWI classification: None

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

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

Are Vegetation No, Soil No, or Hydrology No 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:
Wetland A upland sampling point.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. *Schedonorus arundinaceus*	35%	Yes	FACU
2. *Trifolium pratense*	20%	Yes	FACU
3. *Pyrus calleryana*	20%	Yes	NI
4. *Lotus corniculatus*	15%	No	FACU
5. *Daucus carota*	10%	No	UPL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	80% = Total Cover		
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species	70%	x4 =	2.8
UPL species	10%	x5 =	0.5
Column Totals:	0.80 (A)		3.3 (B)

Prevalence Index = B/A = 4.13

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: SP-A2

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 4/2	90	10YR 5/1	10	C	M	SiL	Faint mottles

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

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: I-69 and S.R. 14 (Des. No. 1401828) City/County: Allen County Sampling Date: 8/30/2017

Applicant/Owner: INDOT State: IN Sampling Point: SP-B1

Investigator(s): Josh Myers and Ryan Hennessey Section, Township, Range: Section 1 and 12; Township 30N; Range 11E

Landform (hillslope, terrace, etc.): Drainage swale Local relief (concave, convex, none): Concave

Slope (%): 0% Lat: 41.075141 Long: -85.229735 Datum: NAD 83

Soil Map Unit Name: Blount silt loam (BmA) NWI classification: None

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

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

Are Vegetation No, Soil No, or Hydrology No 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:
Wetland B sampling point (PEM1A).

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. *Typha angustifolia*	70%	Yes	OBL
2. *Schedonorus arundinaceus*	20%	Yes	FACU
3. *Juncus tenuis*	10%	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100%	= Total Cover	

Woody Vine Stratum (Plot size: 30' 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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	70%	x1 =	0.7
FACW species		x2 =	
FAC species	10%	x3 =	0.3
FACU species	20%	x4 =	0.8
UPL species		x5 =	
Column Totals:	1.00 (A)		1.8 (B)

Prevalence Index = B/A = 1.80

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation

____ 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: SP-B1

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 4/2	95	5YR 3/1	5	D	M	SiL	Distinct mottles

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

HYDROLOGY

Wetland Hydrology Indicators:

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

- X 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)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X No ___	Depth (inches):	0.2
Water Table Present?	Yes ___ No X	Depth (inches):	
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:

Surface water present due to recent significant rainfall event (8/29/17).

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: I-69 and S.R. 14 (Des. No. 1401828) City/County: Allen County Sampling Date: 8/30/2017

Applicant/Owner: INDOT State: IN Sampling Point: SP-B2

Investigator(s): Josh Myers and Ryan Hennessey Section, Township, Range: Section 1 and 12; Township 30N; Range 11E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None

Slope (%): 5% Lat: 41.075271 Long: -85.22983 Datum: NAD 83

Soil Map Unit Name: Blount silt loam (BmA) NWI classification: None

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

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

Are Vegetation No, Soil No, or Hydrology No 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:
Wetland B upland sampling point.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. *Schedonorus arundinaceus*	80%	Yes	FACU
2. *Daucus carota*	10%	No	UPL
3. *Lotus corniculatus*	10%	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species	90%	x4 =	3.6
UPL species	10%	x5 =	0.5
Column Totals:	1.00 (A)		4.1 (B)

Prevalence Index = B/A = 4.10

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: SP-B2

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Gravel and rip rap

Depth (inches): 0

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

Remarks:

Presence of gravel and rip rap prevented soil pit from being taken. Multiple attempts were made to dig, but gravel was consistently encountered.

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: I-69 and S.R. 14 (Des. No. 1401828) City/County: Allen County Sampling Date: 8/30/2017

Applicant/Owner: INDOT State: IN Sampling Point: SP-C1

Investigator(s): Josh Myers and Ryan Hennessey Section, Township, Range: Section 1 and 12; Township 30N; Range 11E

Landform (hillslope, terrace, etc.): Drainage swale Local relief (concave, convex, none): Concave

Slope (%): 0% Lat: 41.077852 Long: -85.228176 Datum: NAD 83

Soil Map Unit Name: Blount silt loam (BmA) NWI classification: None

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

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

Are Vegetation No, Soil No, or Hydrology No 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:
Wetland C sampling point (PEM1A). The wetland was contained entirely within Roadside Ditch 3.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. *Juncus tenuis*	30%	Yes	FAC
2. *Schoenoplectus tabernaemontani*	30%	Yes	OBL
3. *Schedonorus arundinaceus*	20%	Yes	FACU
4. *Typha angustifolia*	10%	No	OBL
5. *Poa pratensis*	5%	No	FAC
6. *Dipsacus fullonum*	5%	No	FACU
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30' 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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40%	x1 =	0.4
FACW species		x2 =	
FAC species	35%	x3 =	1.05
FACU species	25%	x4 =	1
UPL species		x5 =	
Column Totals:	1.00 (A)		2.45 (B)

Prevalence Index = B/A = 2.45

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: SP-C1

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
0-6	10YR 4/2	95	10YR 3/6	5	C	PL	SiL	Prominent mottles
6-20	10YR 4/2	60	10YR 3/6	20	C	PL	SiL	Prominent mottles
	10YR 3/2	20						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- X 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:
Hydrogren sulfide odor observed during soil pit excavation.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X 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)
- X Hydrogen Sulfide Odor (C1)
- X 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)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X No ___	Depth (inches):	0.2
Water Table Present?	Yes ___ No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes X No ___	Depth (inches):	4

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

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

Remarks:
Surface water present due to recent significant rainfall event (8/29/17). Wetland meets hydrology indicator for geomorphic position because this sampling point was located within a drainageway - Roadside Ditch 3.

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: I-69 and S.R. 14 (Des. No. 1401828) City/County: Allen County Sampling Date: 8/30/2017

Applicant/Owner: INDOT State: IN Sampling Point: SP-C2

Investigator(s): Josh Myers and Ryan Hennessey Section, Township, Range: Section 1 and 12; Township 30N; Range 11E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None

Slope (%): 15% Lat: 41.077859 Long: -85.228193 Datum: NAD 83

Soil Map Unit Name: Blount silt loam (BmA) NWI classification: None

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

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

Are Vegetation No, Soil No, or Hydrology No 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:
Wetland C upland sampling point.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. *Dipsacus fullonum*	60%	Yes	FACU
2. *Schedonorus arundinaceus*	25%	Yes	FACU
3. *Juglans nigra*	5%	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	90% = Total Cover		
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species	90%	x4 =	3.6
UPL species		x5 =	
Column Totals:	0.90 (A)		3.6 (B)

Prevalence Index = B/A = 4.00

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: SP-C2

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Gravel

Depth (inches): 0

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

Remarks:

Could not dig point due to presence of gravel. Multiple attempts were made to dig, but gravel was consistently encountered.

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: I-69 and S.R. 14 (Des. No. 1401828) City/County: Allen County Sampling Date: 8/30/2017

Applicant/Owner: INDOT State: IN Sampling Point: SP-D1

Investigator(s): Josh Myers and Ryan Hennessey Section, Township, Range: Section 1 and 12; Township 30N; Range 11E

Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave

Slope (%): 5% Lat: 41.076446 Long: -85.228317 Datum: NAD 83

Soil Map Unit Name: Glynwood silt loam (MrB2) NWI classification: None

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

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

Are Vegetation No, Soil No, or Hydrology No 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:
Wetland D sampling point (PEM1A).

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. *Juncus tenuis*	75%	Yes	FAC
2. *Typha angustifolia*	10%	No	OBL
3. *Poa pratensis*	10%	No	FAC
4. *Schedonorus arundinaceus*	5%	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30' 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10%	x1 =	0.1
FACW species		x2 =	
FAC species	85%	x3 =	2.55
FACU species	5%	x4 =	0.2
UPL species		x5 =	
Column Totals:	1.00 (A)		2.85 (B)

Prevalence Index = B/A = 2.85

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: SP-D1

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 2/1	100					SiCL	
4-20	10YR 5/1	90	10YR 5/8	10	C	M	SiCL	Distinct mottles

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

HYDROLOGY

Wetland Hydrology Indicators:

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

- X 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)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X No ___	Depth (inches):	0.2
Water Table Present?	Yes ___ No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes X No ___	Depth (inches):	5

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

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

Remarks:

Surface water present due to recent significant rainfall event (8/29/17). Wetland meets hydrology indicator for geomorphic position because this sampling point was located within a drainageway.

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: I-69 and S.R. 14 (Des. No. 1401828) City/County: Allen County Sampling Date: 8/30/2017

Applicant/Owner: INDOT State: IN Sampling Point: SP-D2

Investigator(s): Josh Myers and Ryan Hennessey Section, Township, Range: Section 1 and 12; Township 30N; Range 11E

Landform (hillslope, terrace, etc.): Upland vegetatated field Local relief (concave, convex, none): None

Slope (%): 0% Lat: 41.076429 Long: -85.228407 Datum: NAD 83

Soil Map Unit Name: Glynwood silt loam (MrB2) NWI classification: None

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

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

Are Vegetation No, Soil No, or Hydrology No 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:
Wetland D upland sampling point.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. *Schedonorus arundinaceus*	90%	Yes	FACU
2. *Daucus carota*	10%	No	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100% = Total Cover		
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species	90%	x4 =	3.6
UPL species	10%	x5 =	0.5
Column Totals:	1.00 (A)		4.1 (B)

Prevalence Index = B/A = 4.10

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: SP-D2

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 4/2	100					CL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

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: I-69 and S.R. 14 (Des. No. 1401828) City/County: Allen County Sampling Date: 8/30/2017

Applicant/Owner: INDOT State: IN Sampling Point: SP-E1

Investigator(s): Josh Myers and Ryan Hennessey Section, Township, Range: Section 1 and 12; Township 30N; Range 11E

Landform (hillslope, terrace, etc.): Roadside ditch Local relief (concave, convex, none): None

Slope (%): 0% Lat: 41.072983 Long: -85.229296 Datum: NAD 83

Soil Map Unit Name: Glynwood silt loam (MrB2) NWI classification: None

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

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

Are Vegetation No, Soil No, or Hydrology No 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:
Wetland E sampling point (PEM1A)

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. *Typha angustifolia*	60%	Yes	OBL
2. *Juncus tenuis*	20%	Yes	FAC
3. *Schoenoplectus tabernaemontani*	20%	Yes	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30' 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80%	x1 =	0.8
FACW species		x2 =	
FAC species	20%	x3 =	0.6
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	1.00 (A)		1.4 (B)

Prevalence Index = B/A = 1.40

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: SP-E1

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	7.5YR 4/1	80	10YR 4/6	20	C	M	SiCL	Prominent mottles

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0.2

Water Table Present? Yes X No ___ Depth (inches): 9

Saturation Present? Yes X No ___ Depth (inches): 0

(includes capillary fringe)

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

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

Remarks:

Surface water present due to recent significant rainfall event (8/29/17). Wetland meets hydrology indicator for geomorphic position because this sampling point was located within a drainageway.

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: I-69 and S.R. 14 (Des. No. 1401828) City/County: Allen County Sampling Date: 8/30/2017

Applicant/Owner: INDOT State: IN Sampling Point: SP-E2

Investigator(s): Josh Myers and Ryan Hennessey Section, Township, Range: Section 1 and 12; Township 30N; Range 11E

Landform (hillslope, terrace, etc.): Upland vegetated field Local relief (concave, convex, none): None

Slope (%): 0% Lat: 41.072973 Long: -85.229419 Datum: NAD 83

Soil Map Unit Name: Glynwood silt loam (MrB2) NWI classification: None

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

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

Are Vegetation No, Soil No, or Hydrology No 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:
Wetland E upland sampling point.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. *Schedonorus arundinaceus*	90%	Yes	FACU
2. *Lotus corniculatus*	10%	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100% = Total Cover		
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species	100%	x4 =	4
UPL species		x5 =	
Column Totals:	1.00 (A)		4 (B)

Prevalence Index = B/A = 4.00

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: SP-E2

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 4/4	100					SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

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: I-69 and S.R. 14 (Des. No. 1401828) City/County: Allen County Sampling Date: 8/30/2017

Applicant/Owner: INDOT State: IN Sampling Point: SP-F1

Investigator(s): Josh Myers and Ryan Hennessey Section, Township, Range: Section 1 and 12; Township 30N; Range 11E

Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave

Slope (%): 0% Lat: 41.073426 Long: -85.229113 Datum: NAD 83

Soil Map Unit Name: Blount silt loam (BmA) NWI classification: None

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

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

Are Vegetation No, Soil No, or Hydrology No 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:
Wetland F sampling point (PEM1A).

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. *Juncus tenuis*	100%	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30' 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species	100%	x3 =	3
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	1.00 (A)		3 (B)

Prevalence Index = B/A = 3.00

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: SP-F1

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
0-10	10YR 5/1	100					SiCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Gravel

Depth (inches): 10

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

Remarks:

Met depleted matrix due to matrix value of 5. Gravel was present at 10 inches; Multiple attempts were made to dig, but gravel was consistently encountered.

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)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X No ___	Depth (inches):	0.2
Water Table Present?	Yes X No ___	Depth (inches):	10
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:

Surface water present due to recent significant rainfall event (8/29/17). Wetland meets hydrology indicator for geomorphic position because this sampling point was located within a drainageway.

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: I-69 and S.R. 14 (Des. No. 1401828) City/County: Allen County Sampling Date: 8/30/2017

Applicant/Owner: INDOT State: IN Sampling Point: SP-F2

Investigator(s): Josh Myers and Ryan Hennessey Section, Township, Range: Section 1 and 12; Township 30N; Range 11E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None

Slope (%): 8% Lat: 41.073417 Long: -85.229027 Datum: NAD 83

Soil Map Unit Name: Blount silt loam (BmA) NWI classification: None

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

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

Are Vegetation No, Soil No, or Hydrology No 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:
Wetland F upland sampling point.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. *Schedonorus arundinaceus*	80%	Yes	FACU
2. *Daucus carota*	10%	No	UPL
3. *Lotus corniculatus*	10%	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100% = Total Cover		
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species	90%	x4 =	3.6
UPL species	10%	x5 =	0.5
Column Totals:	1.00 (A)		4.1 (B)

Prevalence Index = B/A = 4.10

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: SP-F2

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Gravel

Depth (inches): 0

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

Remarks:
Could not dig due to gravel.

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: I-69 and S.R. 14 (Des. No. 1401828) City/County: Allen County Sampling Date: 8/30/2017

Applicant/Owner: INDOT State: IN Sampling Point: SP-G1

Investigator(s): Josh Myers and Ryan Hennessey Section, Township, Range: Section 1 and 12; Township 30N; Range 11E

Landform (hillslope, terrace, etc.): Drainage swale Local relief (concave, convex, none): Concave

Slope (%): 0% Lat: 41.074221 Long: -85.230592 Datum: NAD 83

Soil Map Unit Name: Glynwood silt loam (MrB2) NWI classification: None

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

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

Are Vegetation No, Soil No, or Hydrology No 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:
Wetland G sampling point (PEM1A).

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. *Juncus tenuis*	60%	Yes	FAC
2. *Schedonorus arundinaceus*	20%	Yes	FACU
3. *Typha angustifolia*	10%	No	OBL
4. *Phragmites australis*	10%	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100% = Total Cover		
Woody Vine Stratum (Plot size: 30' 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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10%	x1 =	0.1
FACW species	10%	x2 =	0.2
FAC species	60%	x3 =	1.8
FACU species	20%	x4 =	0.8
UPL species		x5 =	
Column Totals:	1.00 (A)		2.9 (B)

Prevalence Index = B/A = 2.90

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation

____ 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: SP-G1

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 4/2	80	10YR 5/6	20	C	M	SiCL	Prominent mottles

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

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)
- X 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 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 meets hydrology indicator for geomorphic position because this sampling point was located within a drainageway.

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: I-69 and S.R. 14 (Des. No. 1401828) City/County: Allen County Sampling Date: 8/30/2017

Applicant/Owner: INDOT State: IN Sampling Point: SP-G2

Investigator(s): Josh Myers and Ryan Hennessey Section, Township, Range: Section 1 and 12; Township 30N; Range 11E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None

Slope (%): 5% Lat: 41.074318 Long: -85.230588 Datum: NAD 83

Soil Map Unit Name: Glynwood silt loam (MrB2) NWI classification: None

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

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

Are Vegetation No, Soil No, or Hydrology No 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:
Wetland G upland sampling point.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. *Schedonorus arundinaceus*	90%	Yes	FACU
2. *Lotus corniculatus*	10%	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100% = Total Cover		
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species	100%	x4 =	4
UPL species		x5 =	
Column Totals:	1.00 (A)		4 (B)

Prevalence Index = B/A = 4.00

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: SP-G2

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 4/2	100					SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

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: I-69 and S.R. 14 (Des. No. 1401828) City/County: Allen County Sampling Date: 8/30/2017

Applicant/Owner: INDOT State: IN Sampling Point: SP-1

Investigator(s): Josh Myers and Ryan Hennessey Section, Township, Range: Section 1 and 12; Township 30N; Range 11E

Landform (hillslope, terrace, etc.): Drainage swale Local relief (concave, convex, none): Concave

Slope (%): 0% Lat: 41.074813 Long: -85.230856 Datum: NAD 83

Soil Map Unit Name: Glynwood silt loam (BmA) NWI classification: None

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

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

Are Vegetation No, Soil No, or Hydrology No 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 X No ____

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks:

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. *Schedonorus arundinaceus*	100%	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species	100%	x4 =	4
UPL species		x5 =	
Column Totals:	1.00 (A)		4 (B)

Prevalence Index = B/A = 4.00

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: SP-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
0-10	10YR 4/2	95	10YR 3/1	5	D	M	SiCL	Faint mottles
10-20	10YR 3/1	90	10YR 5/6	10	C	M	SiCL	Prominent mottles

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:
Does not pass for depleted matrix because distinct or prominent redox concentrations do not begin within the upper 10 inches of soil profile.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X 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)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

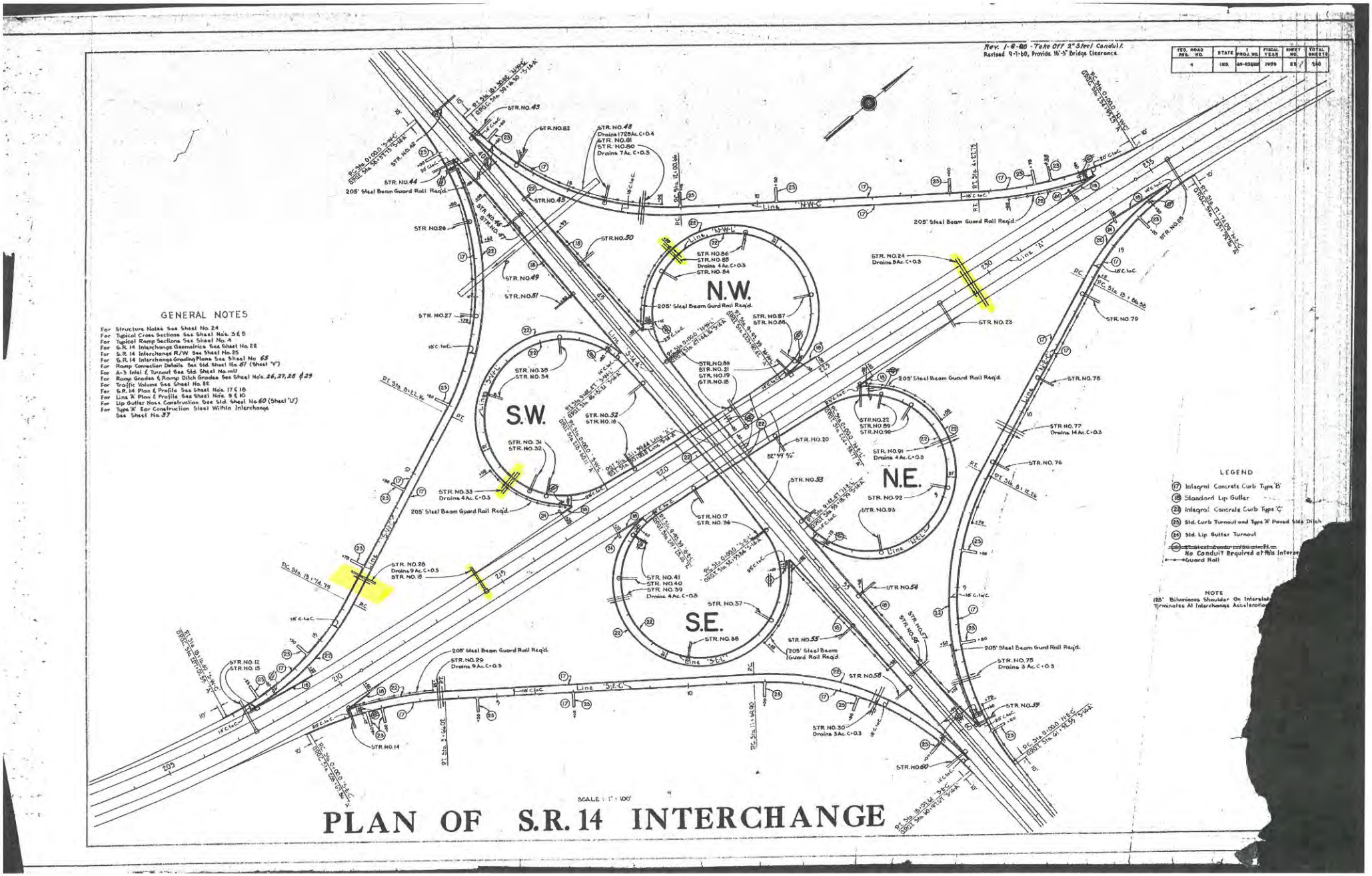
Field Observations:

Surface Water Present?	Yes X No ___	Depth (inches):	0.2
Water Table Present?	Yes ___ No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes X No ___	Depth (inches):	2

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

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

Remarks:
Surface water present due to recent significant rainfall event (8/29/17). Wetland meets hydrology indicator for geomorphic position because this sampling point was located within a drainageway.



PLAN OF S.R. 14 INTERCHANGE

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: January 30, 2018

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:

Kathleen Sexton
Metric Environmental, LLC
6971 Hillsdale Court
Indianapolis, IN 46250
317-207-4286

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The proposed project is located at I-69 and S.R. 14 in Allen County (Des. No. 1401828). Specifically, the project is in Sections 1 and 12, Township 30 North, Range 11 East, of the Fort Wayne West, Indiana 7.5 minute United States Geological Survey (USGS) topographic quadrangle. The proposed improvements consist of closing the southwest I-69 off-ramp loop and routing that traffic onto the northwest I-69 off-ramp loop. The median barrier will be removed at the location. Two left turn lanes will be constructed in addition to the two existing right-turn lanes on the northwest I-69 off-ramp loop and the eastbound segment of S.R. 14/Illinois Rd. from the southwest I-69 off ramp loop to the bridge will be expanded to three lanes.

(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: IN County/parish/borough: Allen County City: Huntington
Center coordinates of site (lat/long in degree decimal format):
Lat.: 41.074949°
Long.: -85.229419°
Universal Transverse Mercator: 16N, 648743.05 m E 4548587.49 m N

Name of nearest waterbody: Durnell Ditch

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:

☐ Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
Wetland E	41.072646	-85.22934	0.033 ac 160 LFT	Wetland	Section 404
Wetland F	41.073429	-85.229074	0.142 ac 660 LFT	Wetland	Section 404
Durnell Ditch	41.074548	-85.231036	330 LFT (piped) 0.091 ac	Non-wetland waters	Section 404

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may be"* waters of the U.S. and/or that there *"may be"* navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- [x] Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
- [x] Map: Dated 1/30/2018

  Data sheets prepared/submitted by or on behalf of the PJD requestor.
  - [ ] Office concurs with data sheets/delineation report.
  - [ ] Office does not concur with data sheets/delineation report. Rationale: _____.
- [ ] Data sheets prepared by the Corps: _____.
- [ ] Corps navigable waters' study: _____.
- [ ] U.S. Geological Survey Hydrologic Atlas: _____.
  - [ ] USGS NHD data.
  - [ ] USGS 8 and 12 digit HUC maps.
- [x] U.S. Geological Survey map(s). Cite scale & quad name: Fort Wayne West, IN 7.5 min, 1963
- [x] Natural Resources Conservation Service Soil Survey. Citation: SSURGO Allen County
- [x] National wetlands inventory map(s). Cite name: http://www.fws.gov/wetlands/ .
- [ ] State/local wetland inventory map(s): _____.
- [x] FEMA/FIRM maps: ; Effective _____
- [ ] 100-year Floodplain Elevation is: _____.(National Geodetic Vertical Datum of 1929)
- [x] Photographs: [x] Aerial (Name & Date): Indiana Aerial Photograph, 2012 .

  or [x] Other (Name & Date): Site Photographs, 8/30/17.
- [ ] Previous determination(s). File no. and date of response letter: _____.
- [ ] Other information (please specify): _____.

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

1/30/2018

katies@metricenv.com

Signature and date of Regulatory staff member completing PJD

Signature and date of person requesting PJD (REQUIRED, unless obtaining the signature is impracticable)[1]

[1] Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

Amy Smith

From: Cooper, Nicholas <NCooper5@indot.IN.gov>
Sent: Tuesday, January 30, 2018 1:26 PM
To: Amy Smith
Cc: Perry, Damien N (INDOT); Marc.Rape@strand.com; Bailey, Andrea; Alex Gray; Katie Sexton; Susan Castle
Subject: RE: Des. No. 1401828 Waters Determination Report, I-69 at S.R. 14 Interchange Modification, Aboite Township, Allen County, Indiana

Amy,

Thank you for submitting the waters report for **I-69 at SR 14 Intersection Modification, DES 1401828**. Your most recent submission has been reviewed and approved. For the INDOT Project Manager, the approved report can be found on Projectwise through this link: Waters Report Des. No. 1401828. It is the responsibility of the Project Manager to forward a copy of this report to the Project Designer.

The information in this report should be used by the Project Designer to determine if waters of the U.S. will be impacted by the project. Avoidance and minimization of impacts must occur before mitigation will be considered. If mitigation is required, the Project Manager or Project Designer must coordinate with the Ecology and Waterway Permitting Office to discuss how adequate compensatory mitigation will be provided.

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

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

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

From: Amy Smith [mailto:amys@metricenv.com]
Sent: Tuesday, January 30, 2018 12:25 PM
To: Cooper, Nicholas <NCooper5@indot.IN.gov>
Cc: Perry, Damien N (INDOT) <DPerry1@indot.IN.gov>; Marc.Rape@strand.com; Bailey, Andrea <Andrea.Bailey@strand.com>; Alex Gray <alexg@metricenv.com>; Katie Sexton <katies@metricenv.com>; Susan Castle <susanc@metricenv.com>
Subject: RE: Des. No. 1401828 Waters Determination Report, I-69 at S.R. 14 Interchange Modification, Aboite Township, Allen County, Indiana

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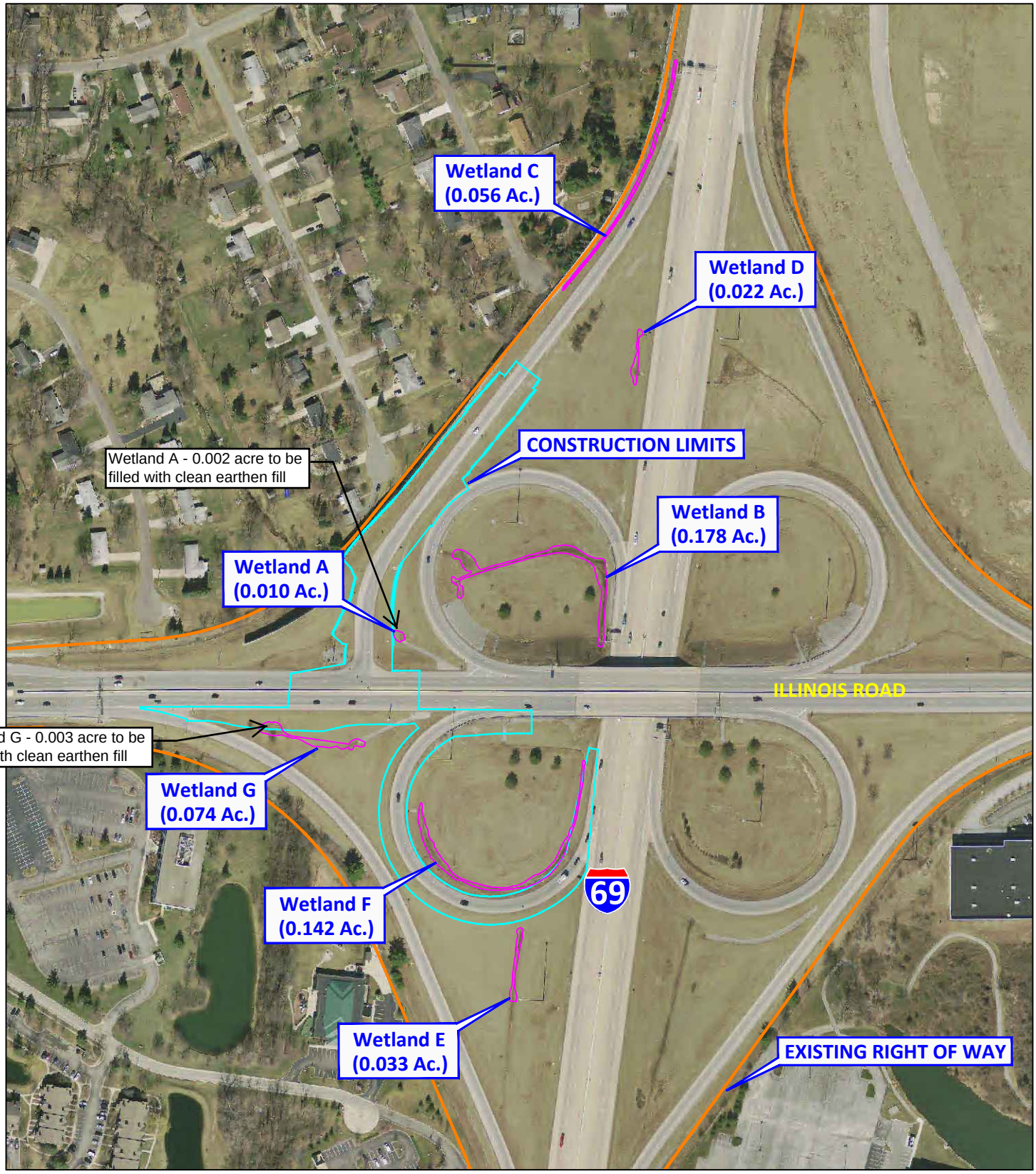
Nick,



Source: http://maps.indy.gov/MapIndy/

2015 Aerial Photograph with Wetlands I-69 at S.R. 14 Interchange Modifications Aboite Township, Allen County, Indiana Des. No. 1401828	All locations approximate N W E S 0 300' Scale	METRIC ENVIRONMENTAL

Jessica,

Since all work is above the BFE elevation as you stated, then a CIF won't be needed. Additionally, that floodplain shown is also not completely accurate given that the stream is now piped under the roadway there.

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

From: Jessica Peterson [mailto:jessicap@metricenv.com]
Sent: Monday, May 21, 2018 11:48 AM
To: Cooper, Nicholas <NCooper5@indot.IN.gov>
Subject: RE: Des. No. 1401828, I-69 at SR 14, Interchange Modification, Allen County

---

Hi again Nick,

Just wondering – what was the deciding factor in your determination that no CIF will be required?

Thanks,

JESSICA R. PETERSON, MS
Project Manager
Office: 317.983.5328
Mobile: 812.325.2809
Email: JessicaP@MetricEnv.com

From: Cooper, Nicholas <NCooper5@indot.IN.gov>
Sent: Monday, May 21, 2018 9:52 AM
To: Jessica Peterson <jessicap@metricenv.com>
Cc: Amy Smith <amys@metricenv.com>; Alex Gray <alexg@metricenv.com>; Couch, Gregory <GCouch@indot.IN.gov>; Phillabaum, Richard <RPHILLABAUM@indot.IN.gov>; Perry, Damien N (INDOT) <DPerry1@indot.IN.gov>
Subject: RE: Des. No. 1401828, I-69 at SR 14, Interchange Modification, Allen County

Jessica,

Thanks for this information. Based on the information provided, the following permits are needed for **Des. No. 1401828, RFC 5/19/19** (the designer should confirm all schedules with the Project Manager):

- **401/404 NWP** (Use State Form 51937) due to 0.005 acre of wetland impacts. **Please submit to our office for review by 1/19/19.**
- **Rule 5** due to soil disturbance exceeding 1.0 acre. **Please submit to our office for review by**

1/19/19.

*We are providing **preliminary** permit determinations based on the information presented at the time of the request. **If scope and plans change the designer should contact us for a revised determination.** A final permit determination will be done at the time of permit application submittal and/or any changes to the scope of the project.*

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

From: Jessica Peterson [mailto:jessicap@metricenv.com]
Sent: Monday, May 21, 2018 9:39 AM
To: Cooper, Nicholas <NCooper5@indot.IN.gov>
Cc: Amy Smith <amys@metricenv.com>; Alex Gray <alexg@metricenv.com>
Subject: RE: Des. No. 1401828, I-69 at SR 14, Interchange Modification, Allen County

---

Hi Nick,

There will be approximately 2.14 acre of unpaved ground disturbance. Feel free to contact me if you have any other questions.

Thank you,

JESSICA R. PETERSON, MS
Project Manager
Office: 317.983.5328
Mobile: 812.325.2809
Email: JessicaP@MetricEnv.com

From: Cooper, Nicholas <NCooper5@indot.IN.gov>
Sent: Monday, May 21, 2018 8:19 AM
To: Jessica Peterson <jessicap@metricenv.com>
Cc: Amy Smith <amys@metricenv.com>; Alex Gray <alexg@metricenv.com>
Subject: RE: Des. No. 1401828, I-69 at SR 14, Interchange Modification, Allen County

Jessica,

Thanks for this information. What is the total acreage of soil disturbance for this project?

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

From:	Cooper, Nicholas
To:	Jessica Peterson
Subject:	RE: Des. No. 1401828, I-69 at SR 14, Interchange Modification, Allen County
Date:	Wednesday, May 23, 2018 9:51:25 AM
Attachments:	image001.png image002.png image003.png image004.png image005.png

Jessica,

I discussed this correspondence with Sandy to get some additional input. Our view is still that a CIF permit will not be needed for this project and that we will not be completing one. Please make sure this is reflected in the CE.

Thanks,

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

From: Jessica Peterson [mailto:jessicap@metricenv.com]
Sent: Tuesday, May 22, 2018 11:16 AM
To: Cooper, Nicholas <NCooper5@indot.IN.gov>
Subject: RE: Des. No. 1401828, I-69 at SR 14, Interchange Modification, Allen County

Hi Nick,

Please see attached the email with IDNR. They responded that the floodway has "infinitely vertical limits", and being above the BFE is still in the floodway. So, if a construction project is within a floodway of a stream with a drainage area over 1 square mile, a CIF permit is required (unless it meets one of the listed exemptions). If it's agreeable to you, since there will be excavation and fill within the floodway, and the project doesn't seem to qualify for any other exemptions, I'll write in the CE that a CIF permit will be necessary. Please let me know.

Thank you,

JESSICA R. PETERSON, MS
Project Manager
Office: 317.983.5328
Mobile: 812.325.2809
Email: JessicaP@MetricEnv.com

From: Cooper, Nicholas <NCooper5@indot.IN.gov>
Sent: Monday, May 21, 2018 2:49 PM
To: Jessica Peterson <jessicap@metricenv.com>
Subject: RE: Des. No. 1401828, I-69 at SR 14, Interchange Modification, Allen County

Jessica,

I asked Kristi as well and we couldn't come up with a concrete reference for you. I don't believe that the DNR cites the BFE anywhere specifically, but I know this is how they have looked at projects with a similar situation in the past. If you want, you are welcome to email the DNR to see if they can get you a better reference.

Let me know if you find out anything contrary to the determination I provided.

Thanks,

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

From: Jessica Peterson [mailto:jessicap@metricenv.com]
Sent: Monday, May 21, 2018 1:38 PM
To: Cooper, Nicholas <NCooper5@indot.IN.gov>
Subject: RE: Des. No. 1401828, I-69 at SR 14, Interchange Modification, Allen County

---

Hi Nick,

Sorry to keep bothering you about this! In their response to the early coordination letter, IDNR said that, if excavation or fill would occur, a CIF permit would be required for this project unless it met criteria for the bridge exemption. So, last week, I did some research looking for the regulation where it's written that no CIF permit is required for projects above the BFE. I was unable to find this. There is one place in the Flood Control Act that says the lowest floor of a home or abode must be at or above the BFE, but this isn't really applicable here. I try to file all my primary sources for any rules I cite in the CE document, so that we have them in case there are questions or issues later on. If possible, will you please send me a link or citation where I can find this exemption? Or, if it's easier for you, I can email IDNR—just let me know.

Thank you,

JESSICA R. PETERSON, MS
Project Manager
Office: 317.983.5328
Mobile: 812.325.2809
Email: JessicaP@MetricEnv.com

From: Cooper, Nicholas <NCooper5@indot.IN.gov>
Sent: Monday, May 21, 2018 11:58 AM
To: Jessica Peterson <jessicap@metricenv.com>
Subject: RE: Des. No. 1401828, I-69 at SR 14, Interchange Modification, Allen County

From: Stanifer, Christie
To: Jessica Peterson
Subject: RE: Des. No. 1401828, Interchange Modification, I-69 at SR 14, Fort Wayne, Allen County
Date: Wednesday, May 23, 2018 12:18:42 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
Des1401828FEMAmap.pdf

Hi Jessica,

The DNR regulates the floodway portion of the floodplain (or the floodplain if the floodway has not been determined). The waters of the US and any 401/404 permitting is irrelevant to DNR's permitting (unless a wetland is within the floodway), though IDEM may require comments from us on ETR species for their permitting sometimes. Technical Services will likely not tell you if a permit is required. They usually leave it up to engineering firms to know if they need a permit or not based on the following:

**Any proposal to construct, excavate, or fill in or on the floodway of a stream or other flowing waterbody which has a drainage area greater than one square mile will require the formal approval of our agency pursuant to the Flood Control Act (IC 14-28-1), unless it qualifies for a general license (they don't determine if the project qualifies for the general license).

However, you can contact them at 317-232-4160 to discuss this and see if they're willing to look it over. If a project is really small in nature, they sometimes will approve a project with a letter, but I doubt that would be the case here. But basically, if there is any work within the floodway limits of Durnell Ditch (red & blue hashed area on attached map), and it doesn't qualify under the bridge general license or the INDOT bridge maintenance MOU, then a Construction in a Floodway permit is required.

If there's anything that needs clarification, I'd be happy to try to explain better or shed light on.

Thanks,

Christie L. Stanifer
Environmental Coordinator
Indiana Department of Natural Resources
Division of Fish and Wildlife
402 West Washington St, Room W273
Indianapolis, IN 46204
Direct: (317) 232-8163
Fax: (317) 232-8150

From: Jessica Peterson [mailto:jessicap@metricenv.com]
Sent: Wednesday, May 23, 2018 10:40 AM
To: Stanifer, Christie <cstanifer@dnr.IN.gov>
Subject: RE: Des. No. 1401828, Interchange Modification, I-69 at SR 14, Fort Wayne, Allen County

Hi Christie,

I do have some more info to add/expand upon, and would like a formal permit determination. I'd very much appreciate it someone in the Technical Services Section could respond via email, so that I'll have a written record for the environmental document. Will you please forward this, and/or send me the email of someone in the Technical Services Section who provides permit determinations?

There will be construction over what is shown as the floodplain of Durnell Ditch. I've attached an exhibit of the construction limits overlaid on the DFIRM and the exhibits/plans. Construction limits cross the floodplain at around Station 42+50 on SR 14 (Plan Sheets 6, 10, and 15). Within the floodplain on SR 14, they're constructing an additional travel lane on the south side of SR 14. Construction limits also cross the floodplain at Stations 12 and 13 on Ramp C (Plans Sheets 8 and 14). Within the floodplain on Ramp C, it looks like it'll just be "incidental" construction. There are lanes being added to the east side of Ramp C but it seems they'll be out of the floodplain. The new limits of Ramp C will still be about 40' east of the floodplain. There will be no trees removed as a result of this project.

One factor I failed to mention is that, during the waters of the US determination and delineation, Durnell Ditch was found to be entirely encapsulated (i.e., piped) within the project limits. Since it is piped, no impact below the OHWM of Durnell Ditch is anticipated. There is one wetland (Wetland G) within the floodplain, of which approximately 0.003 acre will be impacted through discharge of 5 cys. of clean earthen fill. I attached an exhibit showing that too. Wetland A is out of the floodplain. I'm not sure if you need this info, but it might be useful. We will be acquiring the appropriate 401/404 permits for the wetland impacts.

Please let me know if you have questions or if there is any other information you need to make a final determination.

Thank you,

JESSICA R. PETERSON, MS
Project Manager
Office: 317.983.5328
Mobile: 812.325.2809
Email: JessicaP@MetricEnv.com

From: Stanifer, Christie <cstanifer@dnr.IN.gov>
Sent: Tuesday, May 22, 2018 9:07 AM
To: Jessica Peterson <jessicap@metricenv.com>
Subject: RE: Des. No. 1401828, Interchange Modification, I-69 at SR 14, Fort Wayne, Allen County

Hi Jessica. I appreciate you asking about this. I attached the last page of the original submittal showing that the "project area" in yellow encompases a portion of the floodway of Durnell Ditch. Since there wasn't enough information submitted to know what type of work might be in the floodway in that area (bridge, road, or what-not), we had to say that a permit might be required. Keep in mind also that the floodway has infinitely vertical limits, so if you are doing any road/bridge work that crosses over a stream with a drainage area greater than 1 square mile, it doesn't matter if you're above the BFE….you're in the floodway regardless (not saying that's the case here, but something to keep in mind). In this case, if there's no work in the floodway of Durnell Ditch (including the bridge over it), then a permit isn't required. There isn't another exemption that would apply here if you are working in the floodway (other exemptions are: utility, obstruction removal, outfall, and wetland restoration).

Hopefully this answers your question. If you need any further clarification, the Division of Water's Technical Services Section is in charge of permitting, and they can be reached at 317-232-4160.

Sincerely,

Christie L. Stanifer
Environmental Coordinator
Indiana Department of Natural Resources
Division of Fish and Wildlife
402 West Washington St, Room W273
Indianapolis, IN 46204
Direct: (317) 232-8163
Fax: (317) 232-8150

From: Jessica Peterson [mailto:jessicap@metricenv.com]
Sent: Monday, May 21, 2018 5:22 PM
To: Stanifer, Christie <cstanifer@dnr.IN.gov>
Subject: Des. No. 1401828, Interchange Modification, I-69 at SR 14, Fort Wayne, Allen County

Hello Ms. Stanifer:

Please feel free to forward this to whoever is most appropriate to respond, if needed. I am seeking help determining if this project will need a CIF permit, and need pointed to the section in IDNR regulations for an exemption I've been seeing applied a lot lately.

In the early coordination response, you said that, if excavation or fill would occur, a CIF permit would be required for this project, unless it met criteria for the bridge exemption. The project doesn't include any bridge or structure work, so that exemption won't apply. Based on the current design plans, and data on the IN Flood Information Portal, no work will be performed below the base-flood elevation (810 ft.). The plans show that nearly all work is to occur at elevations ranging from 815 to 825 ft, with some areas slightly above or below that, but none under 810'. Is it correct then that a CIF is not required, since there will be no construction, excavation, or fill below the BFE?

I received an INDOT permit determination stating the above (no CIF required since all work above BFE), but they were unable to provide a citation for the exemption being used there. I read through the Flood Control Act and several other IDNR guidance docs, but was unable to find this specific exemption. It could possibly be inferred from some documents, but I've been unable to find it explicitly stated anywhere in my search. Will you please provide the source (e.g., which act, regulation, guidance document, etc.) and section where I can find this, if it is actually a defensible permit exemption?

Thank you in advance. Please let me know if you need any other information to provide a response.

Sincerely,

JESSICA R. PETERSON, MS
Project Manager

Phone: 317.983.5328
Mobile: 812.325.2809
Email: jessicap@metricenv.com
6971 Hillsdale Court, Indianapolis, IN 46250

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APPENDIX G: Public Involvement

APPENDIX H: Air Quality

Indiana Department of Transportation (INDOT)

State Preservation and Local Initiated Projects FY 2016 - 2019

SPONSOR	DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2016	2017	2018	2019
Allen County																	
Indiana Department of Transportation	1500349	A 01	I 69	New Signal Installation	On Top of Lower Huntington Rd Interchange-W Ramps, 2.45 M. N. of S. Jct of I-469	Fort Wayne	0	STP		District Other Construction	CN	$138,600.00	$15,400.00	$154,000.00			
Comments: IN MPO. - NIRCC - Add project to 2016-2019 STIP for CN in FY2016. In old 2014-2017 NIRCC TIP. Amendment 14-125. Also in New 2016-2019 NIRCC TIP, approved on June 24,2015.																	
Indiana Department of Transportation	1401828	A 01	I 69	Interchange Modification	I-69 @ SR 14 interchange	Fort Wayne	2.125	STP	$922,500.00	Safety Consulting	PE	$180,000.00	$0.00		$180,000.00		
Comments: CN in FY 2020. In Ft Wayne MPO. Add project to 2016-2019 STIP for PE FY2017. NIRCC TIP amendment #16-5.																	
Indiana Department of Transportation	1500781	A 01	SR 101	Bridge Deck Overlay	Bridge Over Hamm Ditch, 1.49 Miles North of SR 37.	Fort Wayne	0	STP		Bridge Construction	CN	$547,440.00	$136,860.00			$684,300.00	
										Bridge Consulting	PE	$76,000.00	$19,000.00	$95,000.00			
Comments: NO MPO. Add project to 2016-2019 STIP for PE in FY2016 and CN in FY 2018. .																	

Allen County Total

Federal: $942,040.00 Match :$171,260.00 2016: $249,000.00 2017: $180,000.00 2018: $684,300.00 2019:

*Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

Indiana Department of Transportation (INDOT)
State Preservation and Local Initiated Projects FY 2018 - 2021

SPONSOR	CONTRACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2018	2019	2020	2021
Allen County	38005 / 1401273	Init.	IR 1025	Road Reconstruction (3R/4R Standards)	Bass Rd: from Scott Rd to Hadley Rd	Fort Wayne	2	STP		Fort Wayne MPO	RW1	$1,856,230.00	$0.00		$1,856,230.00		
Indiana Department of Transportation	38562 / 1600115	Init.	SR 14	HMA Overlay, Preventive Maintenance	2.44 miles W of I-69 to 0.28 miles E of I-69	Fort Wayne	2.447	STP		Road Construction	CN	$1,241,060.00	$310,265.00		$1,551,325.00		
Indiana Department of Transportation	38564 / 1383542	Init.	SR 37	Small Structure Pipe Lining	Over Branch #2, Sowers Ditch, 3.05 miles N of SR 101	Fort Wayne	0	STP		Bridge Construction	CN	$164,474.40	$41,118.60			$205,593.00	
										Bridge ROW	RW1	$4,000.00	$1,000.00		$5,000.00		
Indiana Department of Transportation	38564 / 1383553	Init.	SR 101	Small Structure Pipe Lining	Imback Ditch, 6.64 miles N of US 30	Fort Wayne	0	STP		Bridge Construction	CN	$57,790.40	$14,447.60			$72,238.00	
Indiana Department of Transportation	38564 / 1592638	Init.	SR 3	HMA Overlay, Preventive Maintenance	From I-69 to 3.63 miles N of I-69	Fort Wayne	3.562	NHPP		Road Construction	CN	$2,173,720.00	$543,430.00			$2,717,150.00	
Indiana Department of Transportation	38564 / 1700224	Init.	US 33	Bridge Deck Overlay	Bridge over Johnson Ditch, 5.3 3 miles N of US 30	Fort Wayne	0	NHPP		Bridge Construction	CN	$277,720.00	$69,430.00			$347,150.00	
Indiana Department of Transportation	38565 / 1401828	Init.	I 69	Interchange Modification	I-69 at SR 14 interchange	Fort Wayne	2.125	NHPP		Safety Construction	CN	$830,250.00	$92,250.00			$922,500.00	
Indiana Department of Transportation	38565 / 1401828	A 01	I 69	Interchange Modification	I-69 at SR 14 interchange	Fort Wayne	2.125	NHPP	$937,500.00	Safety Consulting	PE1	$13,500.00	$1,500.00	$15,000.00			
Comments:NIRCC Resolution 17-318. Adding PE to FY 2018 into FY 2018 - 2021 STIP.																	
Indiana Department of Transportation	38565 / 1700224	A 04	US 33	Bridge Deck Overlay	Bridge over Johnson Ditch, 5.3 3 miles N of US 30	Fort Wayne	0	NHPP	$422,000.00	Bridge Consulting	PE1	$60,000.00	$15,000.00	$75,000.00			
Comments:NO MPO. Adding PE to FY 2018 into FY 2018 - 2021 STIP.																	
Indiana Department of Transportation	38565 / 1701341	A 04	SR 930	HMA Overlay, Preventive Maintenance	From 4.97 miles W of I-469 (Cloverleaf) to 0.54 miles W of I-469 (Minnich	Fort Wayne	4.723	NHPP	$2,897,000.00	Road Construction	CN	$2,157,276.80	$539,319.20			$2,696,596.00	
										Road Consulting	PE1	$160,000.00	$40,000.00	$200,000.00			
Comments:NIRCC Resolution 18-39. Adding PE to FY 2018 and CN to FY 2020 into FY 2018 - 2021 STIP.																	
Indiana Department of Transportation	38565 / 1701348	A 04	I 469	Bridge Rehab-Pipe Lining	CIPP Pipe Liner, 6.0 miles E of US 27	Fort Wayne	0	NHPP	$257,000.00	Bridge Construction	CN	$172,741.50	$19,193.50			$191,935.00	
										Bridge Consulting	PE1	$54,000.00	$6,000.00	$60,000.00			
										Bridge ROW	RW1	$4,500.00	$500.00		$5,000.00		
Comments:NIRCC Resolution 18-40. Adding PE to FY 2018, RW to FY 2019, and CN to FY 2020 into FY 2018 - 2021 STIP.																	
Indiana Department of Transportation	38565 / 1701352	A 04	US 30	Bridge Deck Overlay	Bridge over Hoffman Creek EB, 0.65 miles W of SR 101	Fort Wayne	0	NHPP	$905,000.00	Bridge Consulting	PE1	$100,000.00	$25,000.00	$125,000.00			
										Bridge Construction	CN	$623,903.20	$155,975.80			$779,879.00	

*Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

Project Location (Description of Project)	*LRP* # DES #	Phase	Est. Cost ($1000)	Year	Federal ($1000)	State ($1000)	A/M
I-69: NB & SB bridge over US 24, 3.21 mi s/o SR 14	1401770	CN	25.3	2016	22.8	2.5	
Repair or Replace Joints	1401771	CN	25.3	2016	22.8	2.5	
NB - 1401770 SB - 1401771							
I-69: SB & NB bridge over NS RR, 0.53 mi n/o SR 14	1401774	CN	100.0	2016	90.0	10.0	
	1401775	CN	101.4	2016	91.2	10.1	
Repair or Replace Joints							
EB - 1401774 WB - 1401775							
I-69: bridge over McCulloch Ditch & NS RR, 0.8 mi s/o US 24	1401776	PE	103.0	2016	92.7	10.3	
		CN	101.4	2016	91.2	10.1	
Repair or Replace Joints							
I-69: SB & NB bridge over CFE RR, 1.9 mi s/o US 30	1401788	CN	101.4	2016	91.2	10.1	
Repair or Replace Joints	1401789	PE	67.8	2016	61.0	6.8	
SB - 1401788 WB - 1401789		CN	101.4	2016	91.2	6.8	
*I-69 at SR 14 Interchange	1401828	PE	160.0	2016	144.0	16.0	16-144
Interchange Modification		PE	15.0	2018	13.5	1.5	17-318
		CN	922.5	TBD	TBD	TBD	16-5
I-69: SB ramps at Lower Huntington Rd							
New Signal Installation	1500349	CN	154.0	2016	138.6	15.4	
*I-69 at SR 3: from 1.4 mi north to 1.94 mi n/o US 30							
HMA Overlay, Preventive Maintenance	1592429	CN	350.0	2016	315.0	35.0	16-29
*I-69: 0.68 mi s/o US 224 to 9.52 mi n/o US 224							16-104
	1592633	PE	20.0	2017	18.0	2.0	16-204
HMA Overlay, Preventive Maintenance		PE/CE	450.0	2018	405.0	45.0	17-322
		CN	6686.2	2018	6017.6	668.6	16-183
*I-69: NB over NS RR, 0.53 mi n/o SR14	1592908	PE	15.0	2017	13.5	1.5	
Bridge Maintenance and Repair							16-124
	1592908	CN	134.0	2018	107.2	26.8	16-210
*I-69: NB over NS RR, 0.53 mi n/o SR14	1592914	PE	15.0	2017	13.5	1.5	
Bridge Maintenance and Repair							16-125
	1592914	CN	101.8	2018	81.4	20.4	16-211
*I-69: NB over CFE RR, 0.81 mi n/o SR 14	1592916	PE	15.0	2017	13.5	1.5	
Bridge Maintenance and Repair							16-126
	1592916	CN	101.8	2018	81.4	20.4	16-212
*I-69: SB over CFE RR, 0.81 mi n/o SR 14	1592917	PE	15.0	2017	13.5	1.5	
Bridge Maintenance and Repair							16-127
		CN	101.8	2018	81.4	20.4	16-213
*I-69: NB over US 24, 3.21 mi s/o SR 14		PE	30.0	2017	27.0	3.0	17-290
Bridge Maintenance and Repair	1592926	CN	26.8	2018	21.4	5.4	16-51
							16-107
*I-69: SB over US 24, 3.21 mi s/o SR 14		PE	30.0	2017	27.0	3.0	17-291
Bridge Maintenance and Repair	1592927	CN	26.8	2018	21.4	5.4	16-52
							16-108
*I-69: NB over NS RR, 0.53 mi n/o SR 14	~~1592928~~	~~CN~~	~~42.8~~	~~2018~~	~~34.2~~	~~8.6~~	~~16-53~~
Bridge Maintenance and Repair							16-109

Project Location (Description of Project)	*LRP #* DES #	Phase	Est. Cost ($1000)	Year	Federal ($1000)	State ($1000)	A/M	Percentage Split / Comments
SR 37 Bridge over Wann Ditch, 0.38 miles S of SR 101 Scour Protection (Erosion)	1592648	CN	69.1	2018	55.3	13.8		80/20 12/13/2017
*SR 37 Bridge over Dietzen Ditch, 3.71 mi n/o SR101 Bridge Replacement, Other Construction	1602284	PE PE	37.5 122.5	2018 2019	30.0 98.0	7.5 24.5	18-6	
*SR 37 Bridge over Hamm Ditch, 0.80 mi n/o SR 101 Replace Superstructure	1701392	PE PE	30.0 130.0	2018 2019	24.0 104.0	6.0 26.0	18-8	
*SR 37 Bridge over Roth Ditch, 3.15 mi n/o I-469 Bridge Replacement	1701400	PE PE	42.5 132.5	2018 2019	34.0 106.0	8.5 26.5	18-9	
*SR 37 Bridge over Porter Creek, 1.52 mi n/o SR 101 Bridge Replacement	1701401	PE PE	42.5 132.5	2018 2019	34.0 106.0	8.5 26.5	18-10	
*I-69 Hillegas Road Bridge over I-69, 0.48 miles S of US 30 *HSIP Urban Funding **match funding is Fort Wayne Bridge Deck Replacement & Widening	1006172 1401164	CN CN	2789.7 1049.5	2018 2018	2510.7 *944.6	279.0 **105	18-66 18-67	90/10 12/13/2017
I-69 I-69 Various Locations - SR 5 to 1.24M S of US24 & US6 to 1.18M. N of SR4. Install New Cable Rail Barriers	1297947	CN	3313.0	2018	2650.4	662.6		90/10 02/07/2018
*I-69 I-69 at SR 14 interchange Interchange Modification	1401828	PE CN	15.0 922.5	2018 2020	13.5 738.0	1.5 184.5	17-318	90/10 08/07/2019
*I-69 0.68 miles S of US 224 to 9.52 miles N of US 224 HMA Overlay, Preventive Maintenance	1592633	PE/CE CN	450.0 6686.2	2018 2018	405.0 5349.0	45.0 1337.2	17-322	90/10 02/07/2018
I-69 Bridge over NS Railroad(Chicago), NB Lane, 0.53 miles N of SR 14 Substructure Repair And Rehabilitation	1592908	CN	101.8	2018	81.4	20.4		90/10 08/09/2017
I-69 Bridge over NS Railroad(Chicago), SB Lane, 0.553 miles N Substructure Repair And Rehabilitation	1592914	CN	101.8	2018	81.4	20.4		90/10 08/09/2017
I-69 Bridge over CFE Railroad, NB Lane, 0.81 miles N of SR 14 Substructure Repair And Rehabilitation	1592916	CN	101.8	2018	81.4	20.4		90/10 08/09/2017
I-69 Bridge over CFE Railroad, SB Lane, 0.81 miles N of SR 14 Substructure Repair And Rehabilitation	1592917	CN	101.8	2018	81.4	20.4		90/10 08/09/2017

APPENDIX I: Additional Studies

Report for

INDOT, Fort Wayne District

Engineering Assessment Report

I-69 at SR 14 Interchange Modification

Des. No. 1401828

Allen County–Fort Wayne District

Note: Only pages applicable to Purpose and Need section of the CE are included.

Prepared by:

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April 2017

ENGINEER'S REPORT
I-69 at SR 14/Illinois Road Interchange Modification
Des. No. 1401828

I. PURPOSE OF REPORT

The purpose of this Engineer's Report is to outline the proposal to improve safety at the interchange of I-69 at SR 14/Illinois Road. This Engineer's Report is intended to serve as a guide for the ongoing development of the environmental document and succeeding site survey and design.

II. PROJECT LOCATION

This interchange modification project is located at I-69 at the SR 14/Illinois Road interchange in Allen County within the Fort Wayne District. The project site is located at I-69 from Reference Post 305+18 to Reference Post 305+37. Project location maps are provided in Appendices A–1 and A–2.

III. PROJECT PURPOSE AND NEED

The need for this project is evidenced by the high traffic volumes on loop ramps H southwest (SW) and E southeast (SE), weaving with eastbound (EB) through traffic on Illinois Road. Drivers have reported confusion over how to legally merge and who should yield to whom. American Association of State Highway and Transportation Official's (AASHTO) *A Policy on Geometric Design of Highways and Streets* (Green Book) does not recommend adjacent loops when the sum of the volumes on those two ramps exceeds 1,000 because of the weaving problem and its effect on mainline traffic. Current counts show a combined morning peak-hour volume of nearly 1,800 vehicles per hour (vph) on the two loops previously mentioned.

IV. EXISTING FACILITY

A. ROADWAY HISTORY AND CONDITION

This urban section of I-69 has a Functional Classification of Interstate Highway. The current alignment of I-69 was constructed in 1960 (69-4(13)105) as a four-lane freeway with a full cloverleaf interchange at SR 14/Illinois Road. In 2003, travel lanes were added on I-69 and Ramp C (northwest) was converted from a free-flow ramp into a signalized intersection to minimize weaving conflict (R-26484). SR 14/Illinois Road is classified as Principal Arterial 3.

The I-69 typical cross section features three lanes in each direction, 12 feet in width, consisting of 14-inch concrete pavement (PCCP). The outside shoulders are 12 feet and the median shoulders are 14 feet wide. Underdrain pipes 6 inches in diameter were also included in the construction. The concrete median barrier is 2 foot 6 inches in width and 45 inches in height. Ramps were originally constructed as 10 inch PCCP with 13.5-inch asphalt shoulders but were overlaid with 4 inches of asphalt in 2003.

SR 14/Illinois Road consists of two through lanes in each direction, 12 feet in width, with 12 foot auxiliary lanes. The pavement consists of approximately 16 inches of asphalt. West

	Existing	2030	2040
Hadley Road	0.78	0.82	0.85
Ramp Terminals	0.78	0.82	0.85
Magnavox Way	0.73	0.77	0.80

Table VI-4 AM Peak Hour Factors

VII. CRASH DATA AND ANALYSIS

As mentioned in the project need section of this report, many crashes in this area of influence are caused by merging or weaving scenarios. Crashes at Hadley Road and Magnavox Way along SR 14/Illinois Road are included because of the current weaving patterns caused by free-flow movements between Hadley Road and the southbound (SB) On Ramp as well as between the northbound (NB) Off Ramp and Magnavox Way. The nearest intersection listed (I-69 or SR 14/Illinois Road) in the crash report was used to determine the type of crash for the loops and ramps. Crashes were excluded for the following primary factors listed in the crash report: animal/object in roadway; roadway surface condition, provided speed was not a contributing issue; and driver asleep or fatigued.

A total of 201 intersection-related crashes occurred in the 5-year period from 2012 through 2016. They involved 347 vehicles, 37 total injuries, and one fatality. These crashes are summarized in Table VII-1.

			Crash Severity			Crash Type			
Year	Crashes	Vehicles Involved	Property Damage Only	Injury	Fatal	Rear End	Ran off Road	Same-direction Sideswipe	Other
2012	33	56	26	6	1	11	11	8	3
2013	37	61	30	7	0	14	15	8	0
2014	37	65	33	4	0	16	14	7	0
2015	49	83	39	10	0	21	17	9	2
2016	45	82	38	7	0	20	14	10	1
Total	201	347	166	34	1	82	71	42	6
% Total			**82.6%**	**16.9%**	**0.5%**	**40.8%**	**35.3%**	**20.9%**	**3.0%**

Table VII–1 Summary of Crash Types and Severities

The crash type distribution shows three primary types: rear end, ran off road, and same-direction sideswipe. These three types often have lower severity levels, which corresponds with the large majority of crashes that are classified as property damage only. Additionally, there is a relatively high proportion of same-direction sideswipe crashes, and all three of those crash types are frequently found in congested areas with high merging volumes.

Table VII-2 shows the Index of Crash Frequency (ICF) and Index of Crash Cost (ICC) for each interchange road segment, diagonal ramp, and loop. The annual average daily traffic (AADT) value used was the average of the AADT for 2012 through 2016 from the TCDS (for both directions, if applicable). The positive values for SR 14/Illinois Road, Loop E, and Loop H are

indicative of the observed weaving problem involving those loops, and the ICF for Loop H is particularly high. The short-term solution will directly address these higher crash indexes. Ramp C also has a significantly high ICF, which may be affected by this project. Ramp A has a higher-than-average crash frequency but the crashes at Ramp A would not be addressed until the second phase of the project. The RoadHAT reports can be found in Appendix B-5.

2012 Through 2016 Crashes								
Segment Name	**Length**	**Average AADT**	**PDO***	**Non-Incap. Injury**	**Incap. Inj./Fatal**	**Total**	**ICF**	**ICC**
I-69	1.09	57,071	53	9	1	63	-0.42	-0.62
SR 14/Illinois Rd	0.55	33,431	35	7	2	44	0.44	0.75
Ramp A	0.35	2,678	10	2	1	13	1.34	1.15
Ramp B	0.35	7,578	10	1	0	11	0.35	0.25
Ramp C	0.29	6,967	26	4	1	31	3.45	1.75
Ramp D	0.35	1,769	1	0	0	1	-0.49	-0.59
Loop E	0.20	6,733	7	2	0	9	0.89	0.62
Loop F	0.20	1,577	3	0	0	3	0.02	-0.28
Loop G	0.20	2,732	2	1	0	3	-0.03	-0.01
Loop H	0.20	7,086	23	3	0	26	3.03	1.92

*Property Damage Only (PDO)

Table VII–2 RoadHAT Analysis

VIII. DISCUSSION OF SHORT-TERM ALTERNATIVES/IDENTIFICATION OF PROPOSAL

Currently, money is programed to construct a short-term solution to the operations at this interchange. The alternatives evaluated in this section of the report are the "No Build" alternative, the "Modified Loop" alternative, and the recommended "Closed Loop" alternative. The short-term alternatives have been analyzed with an interim design year of 2030.

Certain assumptions were made for the analysis of these alternatives. First, count data were limited for SR 14/Illinois Road. The TCDS had comprehensive data for the interstate and ramps; however, counts for SR 14/Illinois Road were only available at points west and east of the interchange, and no truck information was available. A peak hour factor (PHF) was estimated for all ramp intersections by adding 15-minute counts from SR 14/Illinois Road and each ramp to determine an approximate PHF for the interchange. Heavy vehicle percentages were estimated for EB and westbound (WB) Illinois Road by comparing percentages from counts at Hadley Road and Magnavox Way. For the A.M. peak hour, the EB and WB percentages at each intersection were the same. For the P.M. peak hour, the WB percentages were the same but EB differed by 2 percent, so the average of the two percentages was used for the interchange intersections.

To project traffic counts to design year, a 1.1 percent linear annual growth rate (LGR) was used for Illinois Road, 0.2 percent for I-69, and 0.7 percent for the freeway ramps. Traffic operations were analyzed using Synchro 9.1 and Highway Capacity Manual (HCM) 2010 wherever possible. Similar to the existing condition, HCM 2000 was used for the modified loop alternative because of its phasing structure; HCM 2010 shows no delays for the right-turning ramp movements. If the optimal network signal timing was greater than 120 seconds, the network was set to a cycle length of 120 seconds consistent with IDM 41-5.0.

A. NO-BUILD ALTERNATIVE

Report for
Indiana Department of Transportation, Fort Wayne District

Draft Interstate Access Document
I-69 at SR 14/Illinois Road Interchange Modification

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October 2017

STRAND ASSOCIATES®

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Appendices removed for space conservation. Appendix A-1--Closed Loop Plan is provided in this document as B-4.

INTERSTATE ACCESS DOCUMENT
I-69 at SR 14/Illinois Road Interstate Modification

I. INTRODUCTION

The purpose of this interchange modification is to improve safety and mobility at the interchange of I-69 at SR 14/Illinois Road. Currently, there are mobility and safety problems with the weaving segment on SR 14/Illinois Road and the two loops on the south side of the road.

The project schedule is as follows:

- Stage 1 Plans: July 31, 2017
- Preliminary Field Check: September 15, 2017
- Stage 2 Plans and Categorical Exclusion completed: April 27, 2018
- Stage 3 Plans: June 1, 2019
- Tracings: August 1, 2019
- Letting: November 14, 2019

The layout of the proposed design from the *Alternative Selection Report* is shown in Appendix A-1, and the *Alternative Selection Report* can be found in Appendix B-1.

II. PROJECT AND STUDY AREAS

This project is located at the I-69 and SR 14/Illinois Road interchange in Allen County within the Indiana Department of Transportation (INDOT)–Fort Wayne District. The project site is located at I-69 from Reference Post 305+18 to Reference Post 305+37. With the proposed geometrics, the project will begin west of the southwest ramp and end at the concrete bridge approach on SR 14/Illinois Road. A project location map is provided in Appendix A–2.

The study area will include intersections along the SR 14/Illinois Road corridor on each side of I-69, from Hadley Road to the west through Magnavox Way, Getz Avenue, and Avenue of Autos to the east. Each of these signalized intersections will be included in the Synchro model network. Segments of I-69 immediately north and south of the interchange will be analyzed for capacity, along with each merging, diverging, and weaving segment on I-69 and SR 14/Illinois Road. A study area map is provided in Appendix A-3.

III. EXISTING CONDITIONS

The current interchange layout is a full cloverleaf. All loops and ramps are single-lane and free-flow, with the exception of a signal at the northwest ramp (Ramp C) to control the dual right-turn lanes and westbound SR 14/Illinois Road traffic. SR 14/Illinois Road has two through lanes in each direction, while I-69 has three through lanes in each direction. Direction of travel on both roads is separated by median barrier wall. The weaving sections between loops measure approximately 580 feet on SR 14/Illinois Road and 390 feet on I-69. Another weave is created by northbound traffic on Hadley Road, just west of the interchange, having a free-flow right turn into the lane on SR 14/Illinois Road that terminates into the I-69 southbound ramp

IV. STATEMENT OF NEED AND PURPOSE

The need for this project is evidenced by the high traffic volumes on loop ramps H southwest (SW) and E southeast (SE), weaving with eastbound (EB) through traffic on Illinois Road. Drivers experience confusion when merging and it has led to a higher rate of crashes. The volume on these adjacent ramps far exceeds the recommendation of American Association of State Highway and Transportation Officials (AASHTO) for a full cloverleaf design. A Highway Capacity Software (HCS) analysis shows that the weaving segment on EB SR 14/Illinois Road under existing conditions in the AM peak hour is Level of Service (LOS) F; it is currently LOS C for the PM peak hour, but worsens to LOS D in 2040. Additionally, a RoadHAT analysis showed that Loop H had an index of crash frequency and cost significantly higher than expected.

To eliminate this deficiency, the southwest ramp will be closed in order to eliminate the weaving conflict with the southeast ramp. This traffic will use the northwest ramp, to which left-turn lanes will be added to accommodate eastbound traffic on SR 14/Illinois Road. Signal modification will also be required because of the additional phases.

V. FRAMEWORK

The existing conditions, a short-term solution, and a long-term solution were studied in the *Alternative Selection Report*. The short-term alternatives were analyzed for opening year (2020), interim design year (2030), and horizon year (2040). Long-term alternatives were analyzed for 2020 and 2040. A capacity analysis was performed for the no-build condition and each alternative in the AM and PM peak hours. Level of service and density were determined for each merge, diverge, and weave segment using Highway Capacity Software. Level of service and delay were determined for signalized intersections using Synchro. Safety was studied at this interchange using RoadHAT 3.0 for each road segment.

VI. ALTERNATIVES

For the short-term analysis, three alternatives were evaluated: no-build, modified loop, and closed loop. The no-build alternative was quickly eliminated because it would not solve the safety or capacity problems as defined in the purpose and need statement. The modified loop would possibly be slightly more operationally effective because of having a two-phase signal, and it would require less pavement removal. However, it would require more pavement construction, risked queuing back on the interstate, and did not transition easily into the long-term design. Some of the difference in intersection delay could be accounted for by the different methodology used. The recommended “closed loop” alternative is discussed in more detail in the subsequent section, and a comparison of the alternatives is shown in Table V-1. Although the delay and LOS at the signalized intersection are better under the no build condition, the proposed alternatives eliminate a weaving segment currently operating at LOS F as seen in Table V-2.

Alternative	Peak	SB Ramp Terminal		Cost
		Delay (s)	LOS	
No Build	AM	8.1	A	
	PM	18.9	B	
Modified Loop*	AM	34.8	C	N/A
	PM	27.8	C	
Closed Loop	AM	36.1	D	$892,000
	PM	36.6	D	

*Uses HCM 2000 because of non-NEMA phasing.

Table V-1 Short-Term Alternatives Comparison (Design Year 2040)

Road	Peak	2015		2040	
		Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
I-69 NB	AM	13.7	B	15.4	B
	PM	9.9	A	11.0	B
I-69 SB	AM	12.0	B	13.5	B
	PM	16.0	B	17.7	B
SR 14/Illinois Rd. EB	AM	--	F	--	F
	PM	22.9	C	29.7	D
SR 14/Illinois Rd. WB	AM	6.5	A	8.1	A
	PM	14.2	B	21.4	C

Table V–2 Existing Weaving Operations

The long-term alternatives evaluated were a diverging diamond interchange (DDI), a partial cloverleaf Type B, and a partial cloverleaf Type A. A diverging diamond, while it operated well, was not worth the significantly higher cost when compared to the Partial Cloverleaf Type A. The Parclo B was eliminated based on poor operation at the southbound ramp terminal. The Partial Cloverleaf Type A was recommended based on a combination of LOS and project cost; additionally, this alternative is halfway completed by constructing the “closed loop” alternative as the short-term solution. Information about each long-term alternative can be found in Table V-3.

Alternative	Peak	NB Ramp Terminal		SB Ramp Terminal		Cost
		Delay (s)	LOS	Delay (s)	LOS	
Diverging Diamond*	AM	17.9	B	28.2	C	$8,960,000
	PM	21.2	C	26.0	C	
Partial Cloverleaf Type A	AM	20.0	B	36.4	D	$1,008,000
	PM	18.8	B	33.2	C	
Partial Cloverleaf Type B*	AM	18.8	B	108.5	F	N/A
	PM	48.1	D	64.3	E	

*Uses HCM 2000 because of clustered intersections (DDI) and non-NEMA phasing (Parclo B).

Table V-3 Long-Term Alternatives Comparison (Design Year 2040)

VII. INTERSTATE SYSTEM ACCESS POLICY POINTS

A. POLICY POINT 1: OPERATIONAL AND SAFETY ANALYSIS

An operational and safety analysis has concluded that the proposed change in access does not have a significant adverse impact on the safety and operation of the Interstate facility (which includes mainline lanes, existing, new, or modified ramps, and ramp intersections with crossroad) or on the local street network based on both the current and the planned future traffic projections. The analysis should, particularly in urbanized areas, include at least the first adjacent existing or proposed interchange on either side of the proposed change in access (Title 23, Code of Federal Regulations (CFR), paragraphs 625.2(a), 655.603(d) and 771.111(f)). The crossroads and the local street network, to at least the first major intersection on either side of the proposed change in access, should be included in this analysis to the extent necessary to fully evaluate the safety and operational impacts that the proposed change in access and other transportation improvements may have on the local street network (23 CFR 625.2(a) and 655.603(d)). Requests for a proposed change in access should include a description and assessment of the impacts and ability of the proposed changes to safely and efficiently collect, distribute, and accommodate traffic on the Interstate facility, ramps, intersection of ramps with crossroad, and local street network (23 CFR 625.2(a) and 655.603(d)). Each request should also include a conceptual plan of the type and location of the signs proposed to support each design alternative (23 U.S.C. 109(d) and 23 CFR 655.603(d)).

This section provides an analysis of the recommended short-term solution, the closed loop, and the recommended long-term solution, the Partial Cloverleaf Type A. Information about traffic counts, growth rates, peak-hour factors, and other assumptions can be found in the Alternative Selection Report (Appendix B-1).

Short-Term Recommended Alternative: Closed Loop

The “closed loop” alternative consists of closing and removing the southwest loop and expanding the northwest ramp to accommodate southbound, left-turning vehicles. Two left-turn lanes will be added, median barrier removed, and the signal modified. Additionally, a third eastbound lane on SR 14/Illinois Road will be added beginning at the southwest ramp, making the lane for that ramp a shared through/right lane, and terminating at the southeast loop. Table VI-1 shows the intersection delay and LOS for the construction year, interim design year, and design year at the signalized SB ramp terminal.

		2020		2030		2040	
Intersection	**Peak**	**Delay (s)**	**LOS**	**Delay (s)**	**LOS**	**Delay (s)**	**LOS**
SB Ramp Terminal	AM	29.5	C	33.5	C	36.1	D
	PM	25.4	C	28.1	C	36.6	D

Table VII-1 SB Ramp Terminal Operations for Closed Loop Alternative

An additional recommendation is to coordinate signals for this arterial. Currently, the intersections at Hadley Road and the southbound (SB) ramp terminal operate separately from Magnavox Way, Getz Avenue, and Avenue of Autos because they fall under different jurisdictions (INDOT and the Northeastern Indiana Regional Coordinating Council, respectively). Information about improvements to adjacent signals can be found in the “Local Improvements” section.

Some sign modifications would be required at the interchange. Signs to be removed include: the 305A “Illinois Road 1/4 Mile” exit on the box truss on I-69 SB, the cantilever

sign for the exit on I-69 SB, the ground-mounted exit sign near the removed loop; and the merging lane sign on eastbound SR 14/Illinois Road. The sign on the box truss and the ground-mounted sign near Ramp C would need to be modified to show “Exit 305” instead of “Exit 305B.” However, the majority of sign modifications would occur well in advance of the intersection; all the guide signs and service signs would need to be changed to reflect the new exit number and configuration. A conceptual signing plan can be found in Appendix A-4.

Long-Term Recommended Alternative: Partial Cloverleaf Type A

Partial Cloverleaf Type A was analyzed because of its similarity with the recommended short-term “Closed Loop” alternative. The short-term alternative would have already closed the SW loop, so a Partial Cloverleaf Type A would already be partially built. One of the primary benefits of a partial cloverleaf is that it would entirely eliminate weaving conflicts along SR 14/Illinois Road and along I-69.

Improvements for this alternative would consist of widening the arterial to six lanes between Hadley Road and Magnavox Way and adding a deceleration lane for westbound traffic using Ramp B NE to access I-69 northbound (NB). It would also include closing the northeast (NE) loop, reconstructing Ramp A SE to intersect perpendicularly with SR 14/Illinois Road, and adding a signal at that intersection. This configuration also eliminates weaving associated with the EB right turns onto Magnavox Way. Operations of each ramp terminal are shown in Table VI-2.

Ramp	Peak	2020		2040	
		Delay (s)	LOS	Delay (s)	LOS
SB Ramp Terminal	AM	29.5	C	36.4	D
	PM	21.7	C	33.2	C
NB Ramp Terminal	AM	12.9	B	20.0	B
	PM	8.6	A	18.8	B

Table VII–2 Partial Cloverleaf Type A

Merge, Diverge, and Weave Analysis

To ensure adequate safety and operation on I-69, HCS 2010 was used to analyze merging, diverging, and weaving segments. Free-flow speeds for I-69 and SR 14/Illinois Road were taken as 5 miles per hour (mph) over the posted speed limit and loops and ramps were taken as 10 mph over the posted speed limit, all of which are generally consistent with the 85th percentile speed according to the Traffic Count Database System (TCDS). Table VI-3 shows that each segment has an acceptable level of service in 2040. The only segment with LOS D is the diverging segment of SR 14/Illinois Road and Loop E. However, this is a safety improvement over the existing configuration; the weaving segment on SR 14/Illinois Road between Loop H and Loop E operated at LOS F during the AM peak hour in 2015.

Road	Type	Peak	Density (pc/mi/ln)	LOS
SR 14/Illinois Road and Ramp D SW	Diverge	AM	23.4	C
		PM	16.5	B
I-69 and Ramp D SW	Merge	AM	11.6	B
		PM	12.6	B
SR 14/Illinois Road and Ramp B NE	Diverge	AM	10.0	B
		PM	25.2	C
I-69 and Ramp B NE	Merge	AM	18.8	B
		PM	19.5	B
I-69 and Ramp C NW + Loop H SW	Diverge	AM	20.5	C
		PM	25.4	C
I-69 and Ramp A SE + Loop F NE	Diverge	AM	12.2	B
		PM	9.1	A
SR 14/Illinois Road and Loop E SE	Diverge	AM	32.8	D
		PM	14.4	B
I-69 and Loop E SE	Merge	AM	22.1	C
		PM	16.5	B
SR 14/Illinois Road and Loop G NW	Diverge	AM	5.9	A
		PM	15.0	B
I-69 and Loop G NW	Merge	AM	17.5	B
		PM	23.4	C

Table VII-3 2040 HCS 2010 Freeway Operations

The 2040 results for the “closed loop” alternative that differ from the Partial Cloverleaf Type A recommendation are shown in Table VI-4. All movements perform at LOS D or better, so leaving the closed loop as a long-term solution would be acceptable. However, the Partial Cloverleaf Type A is still recommended as the long-term solution because of its operational and safety benefits, particularly the removal of the weaving section.

Road	Type	Peak	Density (pc/mi/ln)	LOS
I-69 NB and Loop E/Loop F	Weave	AM	15.4	B
		PM	11.0	B
SR 14/Illinois Road WB and Loop F/Loop G	Weave	AM	8.1	A
		PM	21.4	C
I-69 NB and Ramp A	Diverge	AM	10.9	B
		PM	8.0	A
SR 14/Illinois Road and Ramp A	Merge	AM	26.7	C
		PM	13.3	B

Table VII-4 2040 HCS 2010 Freeway Operations for Closed Loop Alternative

Local Improvements

Local improvements are recommended to ensure the network functions properly. An EB right-turn lane is recommended at Magnavox Way; otherwise, the right-turning vehicles risk queuing back near the interstate ramps during the morning peak hour. This improvement is the most time-sensitive because this intersection operates at LOS E in 2020 and LOS F in 2030. It is also recommended that the northbound lanes be reconfigured to provide for dual left-turn lanes and a NB shared through and right-turn lane. At Hadley Road, an additional left-turn lane and a separate right turn lane are also recommended because of NB and SB approaches having LOS F in the no-build scenario. LOS and delay for the existing, no-build, and proposed scenarios are shown in Table VI-5.

Road	Peak	2015		2040 (No Build)		2040 (Proposed)	
		Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
Hadley Road	AM	38.8	D	46.1	D	34.4	C
	PM	29.7	C	50.3	D	35.2	D
Magnavox Way	AM	42.7	D	99.0	F	56.6	E
	PM	33.5	C	38.0	D	24.6	C

Table VII-5 Intersection Operations at Adjacent Intersections

B. POLICY POINT 2: FULL ACCESS TO PUBLIC ROADWAY

The proposed access connects to a public road only and will provide for all traffic movements. Less than "full interchanges" may be considered on a case-by-case basis for applications requiring special access, such as managed lanes (e.g., transit or high occupancy vehicle and high occupancy toll lanes) or park and ride lots. The proposed access will be designed to meet or exceed current standards (23 CFR 625.2(a), 625.4(a)(2), and 655.603(d)). In rare instances where all basic movements are not provided by the proposed design, the report should include a full-interchange option with a comparison of the operational and safety analyses to the partial-interchange option. The report should also include the mitigation proposed to compensate for the missing movements, including wayfinding signage, impacts on local intersections, mitigation of driver expectation leading to wrong-way movements on ramps, etc. The report should describe whether future provision of a full interchange is precluded by the proposed design.

The preferred alternative design, just as with the current interchange layout, provides full access to and from I-69 at SR 14/Illinois Road. After the interchange modifications, it will still provide for all traffic movements. Although one loop will be removed, its movements will be diverted to a different ramp. SR 14 to the west is under State jurisdiction while Illinois Road to the east is a public road under Fort Wayne jurisdiction. The design will satisfy all design standards for an interchange according to the Indiana Design Manual and AASHTO policy.

INDIANA DEPARTMENT OF TRANSPORTATION

MEMORANDUM

To: Trevor Mills, Engineering & Asset Management Deputy Commissioner

From: Brad Steckler, Traffic Engineering Division Director 11-13-2017

Cc: Daniel McCoy, Corridor Development Traffic Engineer

Date: November 13th, 2017

Re: Interstate Access Determination of Engineering and Operational Acceptability at I-69 and SR 14

According to the Programmatic Agreement between FHWA and INDOT permitting our internal review and approval of specific types of changes in Interstate-System access, only the INDOT Deputy Commissioner of Engineering and Asset Management has the authority to make a determination that an Interstate Access Request (IAR) meets or does not meet Engineering and Operational Acceptability, and that a request to change Interstate-System access has met all FHWA criteria. Only the INDOT Director of Traffic Engineering has the authority and responsibility to make a recommendation to the Deputy Commissioner.

The Corridor Development Office of the Traffic Engineering Division has reviewed, on behalf of INDOT, the Interstate Access Request regarding the proposal to modify access at I-69 and SR 14 (Exit 305) in Allen County. The project was originally programmed to remove the southwest loop ramp thereby converting the west half of the interchange to a Partial Cloverleaf Type A. The IAR and associated documents fully evaluate the interchange, not just the short-term plan. The report details the demands of projected traffic and determines that the proposed modification of the interchange is necessary and appropriate. The proposed modification will improve traffic operations at the interchange in a cost effective and safe manner.

Your signature below signifies your determination that the proposed change in Interstate access meets Engineering and Operational Acceptability. I recommend this action.

Trevor Mills 11/13/17

Trevor Mills, Engineering & Asset Management Deputy Commissioner Date

Grant ID & Element	Type	Grant Element Title	Grant Sponsor	Amount	Status	Date Approved	Exp. Date	Cong. District
Allen								
30 - XXX	A	FRANKE PARK	FORT WAYNE PARK BOARD	$3,750.00	C	12/30/1967	7/31/1969	3
32 - XXX	A	KREAGER PARK	FORT WAYNE PARK BOARD	$54,110.00	C	12/30/1967	6/24/1969	3
67 - XXX	A	FOX ISLAND NATURAL PARK	ALLEN COUNTY PARK BOARD	$97,213.65	C	5/14/1970	12/31/1972	3
97 - XXX	D	JURY PARK DEVELOPMENT	NEW HAVEN-ADAMS TWP. PARK BOARD	$24,640.91	C	8/30/1971	6/30/1974	3
105 - XXX	A	FRANKE PARK-AFRICAN VELDT	FORT WAYNE PARK BOARD	$49,297.50	C	2/15/1972	12/31/1974	3
153 - XXX	D	MOSER PARK LIGHTING PROJECT	NEW HAVEN-ADAMS TWP. PARK BOARD	$11,535.12	C	5/24/1973	12/31/1975	3
188 - XXX	A	LAND ACQ. FOR FRANKE PARK	FORT WAYNE PARK BOARD	$13,150.00	C	2/4/1975	12/31/1977	99
201 - XXX	D	FOSTER PARK LIGHTED TENNIS COURTS	FORT WAYNE PARK BOARD	$39,603.98	C	3/3/1975	12/31/1977	3
315 - XXX	A	D/FOX ISLAND PARK ACQ.	ALLEN COUNTY PARK BOARD	$62,500.00	C	5/1/1978	6/30/1980	4
369 - A	C	D/FOX ISLAND PARK - PHASE III	ALLEN COUNTY PARK BOARD	$137,184.93	C	2/26/1980	12/31/1984	4
369 - K	R	MOSER PARK POND	NEW HAVEN-ADAMS TWP. PARK BOARD	$12,500.00	C	2/26/1980	12/31/1984	99
369 - N	A	FRANKE PARK - FOX ACQUISITION	FORT WAYNE PARK BOARD	$40,000.00	C	2/26/1980	12/31/1984	3
371 - XXX	C	JEHL PARK	FORT WAYNE PARK BOARD	$40,074.50	C	1/9/1980	12/31/1984	4
392 - XXX	D	HAVENHURST PARK DEVELOPMENTS	NEW HAVEN-ADAMS TWP. PARK BOARD	$50,000.00	C	2/9/1981	12/31/1985	3
396 - XXX	D	SHERMAN ST. RIVERGREENWAY	FORT WAYNE PARK BOARD	$280,000.00	C	7/27/1981	12/31/1986	4
408 - XXX	D	ALLEN COUNTY ROADSIDE PARKS	ALLEN COUNTY PARK BOARD	$5,782.14	C	9/23/1983	6/30/1988	99
419 - XXX	D	FT. WAYNE RIVERGREENWAY-PHASE II	FORT WAYNE PARK BOARD	$75,000.00	C	3/20/1984	6/30/1989	3
465 - XXX	D	ST. MARY'S RIVERGREENWAY	FORT WAYNE PARK BOARD	$48,877.00	C	6/27/1988	12/31/1992	3
469 - XXX	D	ST. MARY'S RIVERGREENWAY-PHASE II	FORT WAYNE PARK BOARD	$100,000.00	C	7/18/1989	6/30/1994	3
500 - XXX	C	GRABILL COMMUNITY PARK EXPANSION	GRABILL PARK BOARD	$34,200.00	C	5/20/1994	6/30/1999	3
526 - XXX	C	BUCKNER FARM PARK	FORT WAYNE PARK BOARD	$178,300.00	C	4/1/2002	12/31/2006	3

United States Department of the Interior
National Park Service
Land & Water Conservation Fund

Detailed Listing of Grants Grouped by County

Today's Date: 12/6/2017

INDIANA - 18

Grant ID & Element	Type	Grant Element Title	Grant Sponsor	Amount	Status	Date Approved	Exp. Date	Cong. District
Allen								
527 - XXX	D	METEA PARK NATURE CENTER	ALLEN COUNTY PARK BOARD	$200,000.00	C	4/4/2002	12/31/2006	3
570 - XXX	D	KREAGER PARK BOUNDLESS PLAYGROUND	FORT WAYNE PARK BOARD	$200,000.00	C	5/5/2010	12/31/2014	3
577 - XXX	C	RIVERSIDE GARDEN PARK	LEO-CEDARVILLE PARK BOARD	$199,550.00	C	4/18/2012	12/31/2016	3
			Allen County Total:	**$1,957,269.73**		**County Count:**	**24**	
BARTHOLOMEW								
269 - XXX	D	CLIFTY PARK DEV	COLUMBUS PARK BOARD	$88,376.89	C	2/4/1977	12/31/1980	2
398 - XXX	C	D/HARRISON RIDGE PARK	COLUMBUS PARK BOARD	$87,490.47	C	2/13/1981	12/31/1985	2
399 - XXX	C	D/ANDERSON FALLS NATURE PRESERVE	BARTHOLOMEW COUNTY PARK BOARD	$55,000.00	C	2/17/1981	12/31/1985	2
412 - XXX	D	HARRISON RIDGE PARK - PHASE II	COLUMBUS PARK BOARD	$9,174.47	C	6/21/1983	9/15/1984	2
518 - XXX	C	D/MCCULLOUGHS RUN PARK	COLUMBUS PARK BOARD	$143,166.85	C	9/6/2000	12/31/2006	9
			BARTHOLOMEW County Total:	**$383,208.68**		**County Count:**	**5**	
BENTON								
27 - XXX	D	FOWLER COMMUNITY SWIMMING POOL	FOWLER PARK BOARD	$15,879.30	C	12/28/1967	9/1/1969	3
66 - XXX	D	FOWLER PARK	VIGO COUNTY PARK BOARD	$7,950.74	C	3/13/1970	9/1/1971	5
535 - XXX	D	FOWLER POOL AND PARK RENOVATIONS	FOWLER PARK BOARD	$117,970.00	C	3/19/2003	12/31/2008	5
569 - XXX	R	FOWLER PARK POOL REPLACEMENT	FOWLER PARK BOARD	$133,737.09	C	3/30/2009	12/31/2013	1
			BENTON County Total:	**$275,537.13**		**County Count:**	**4**	
BLACKFORD								
347 - XXX	C	D/MONTPELIER COMMUNITY PARK	MONTPELIER PARK BOARD	$55,186.00	C	2/23/1979	6/30/1984	5
			BLACKFORD County Total:	**$55,186.00**		**County Count:**	**1**	