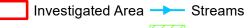


Figure 7 Water Resources Map SR 14, Pavement and Culvert Work Pulaski and Fulton County, IN Des. 1800182



- Upland Data Point Wetlands
- Wetland Data Point
- Culverts

State of India Kaskaskia Engineering Group, LLC ſŊ

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Map Created: 10/23/2020

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• Culverts

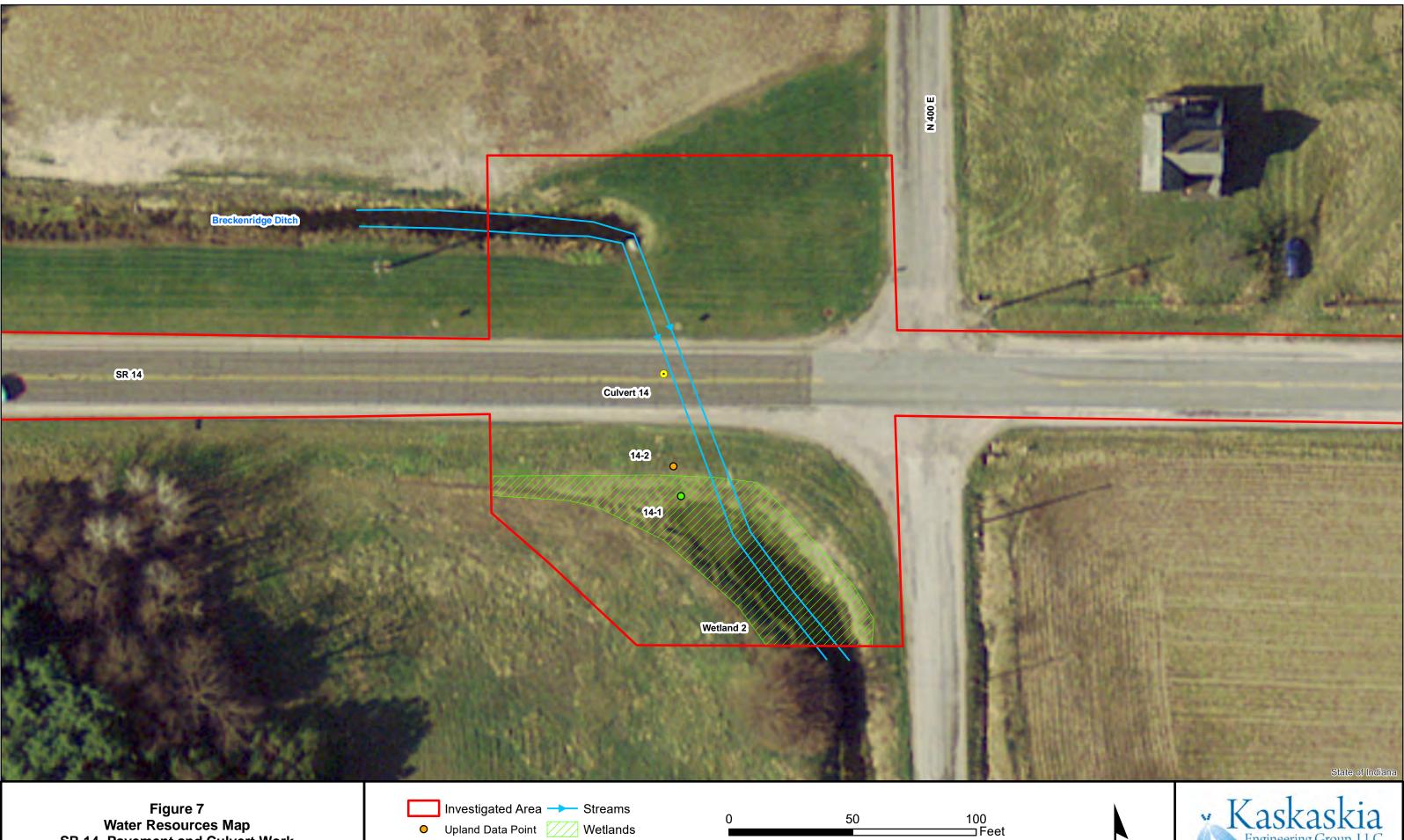
| unty, | IN | | |
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Des. 1800182

State of Indiana



IN



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Map Created: 10/23/2020

Figure 7 Water Resources Map SR 14, Pavement and Culvert Work Pulaski and Fulton County, IN Des. 1800182

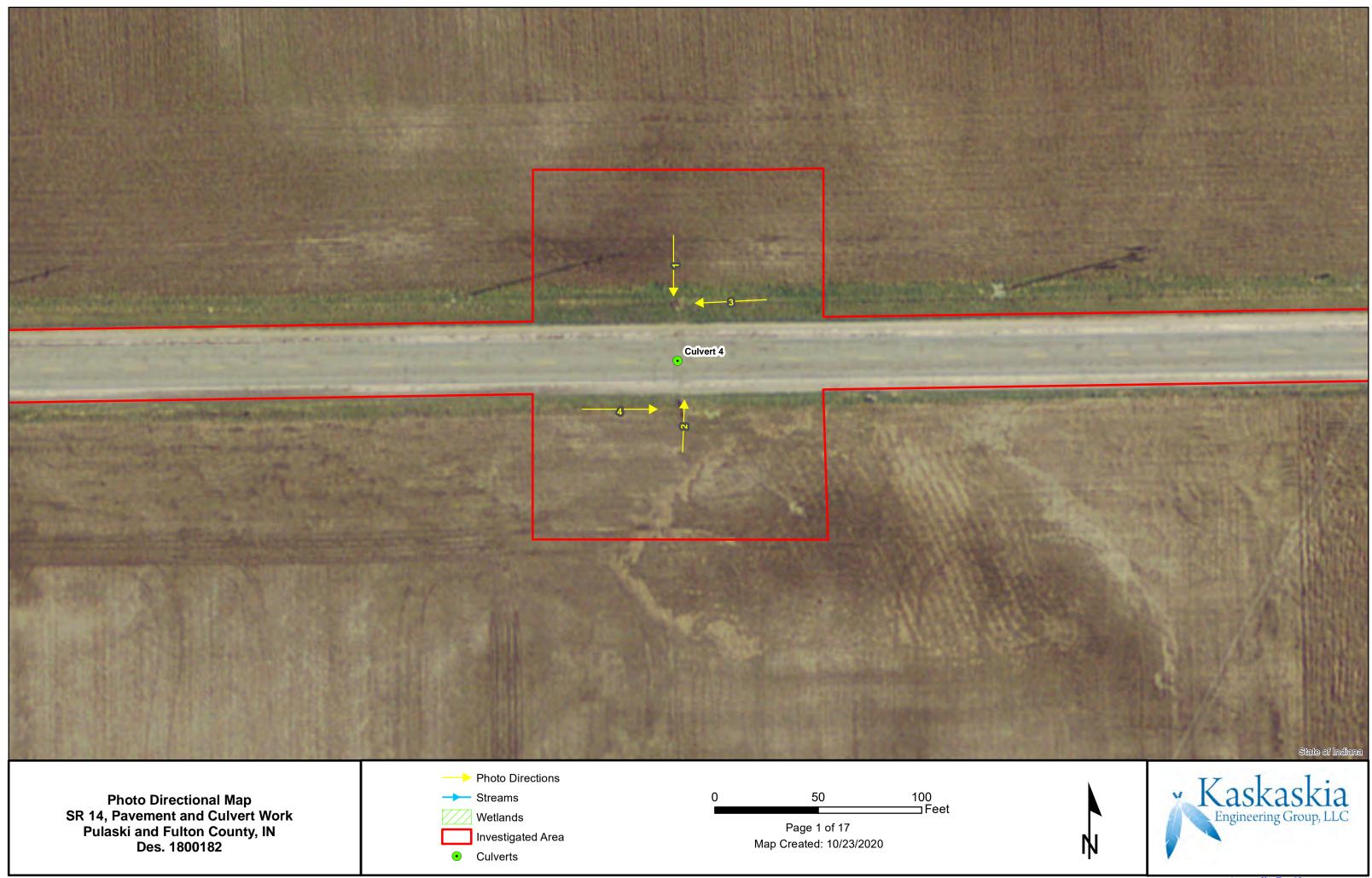


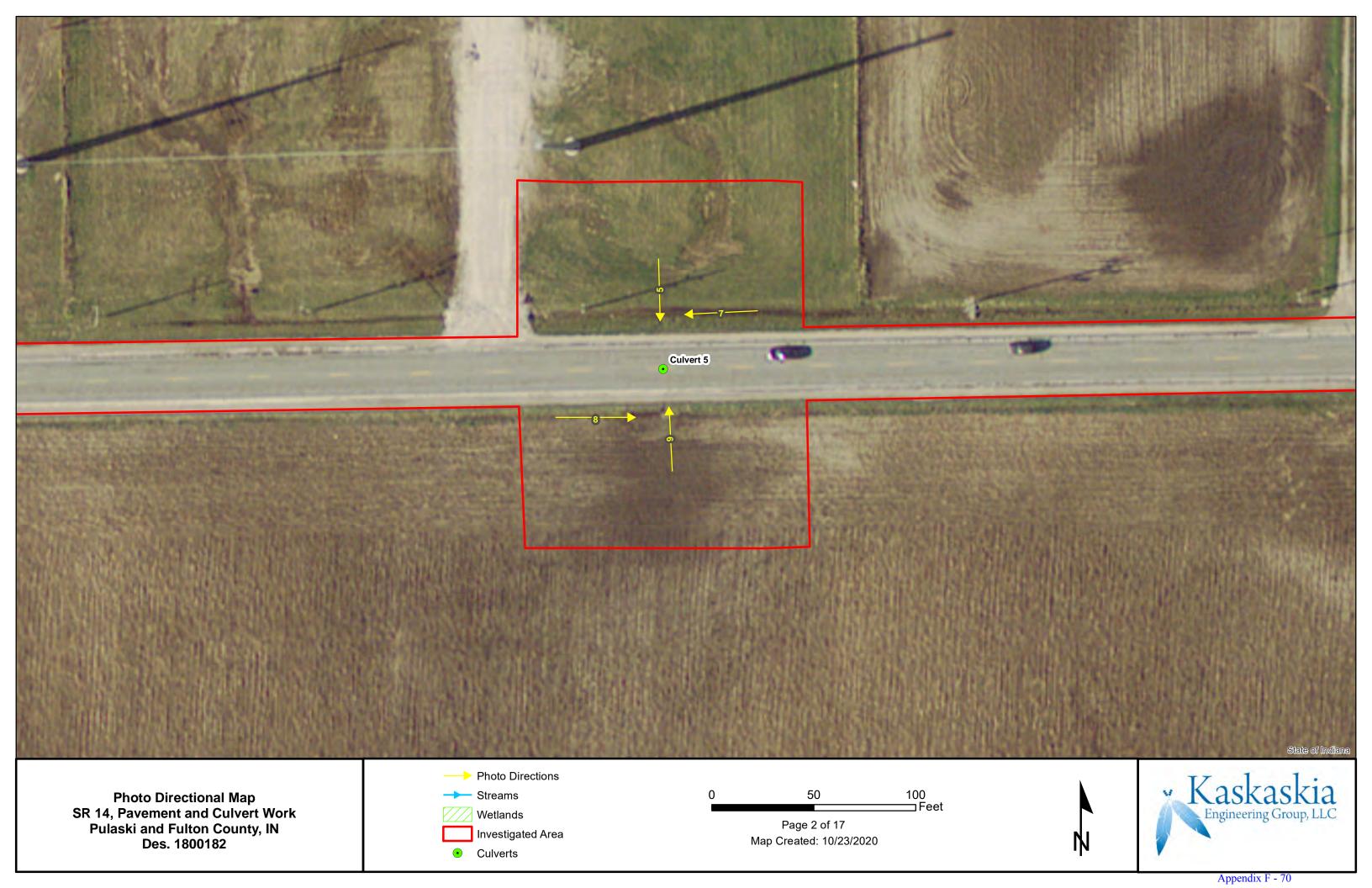
- \circ Wetland Data Point
- Culverts

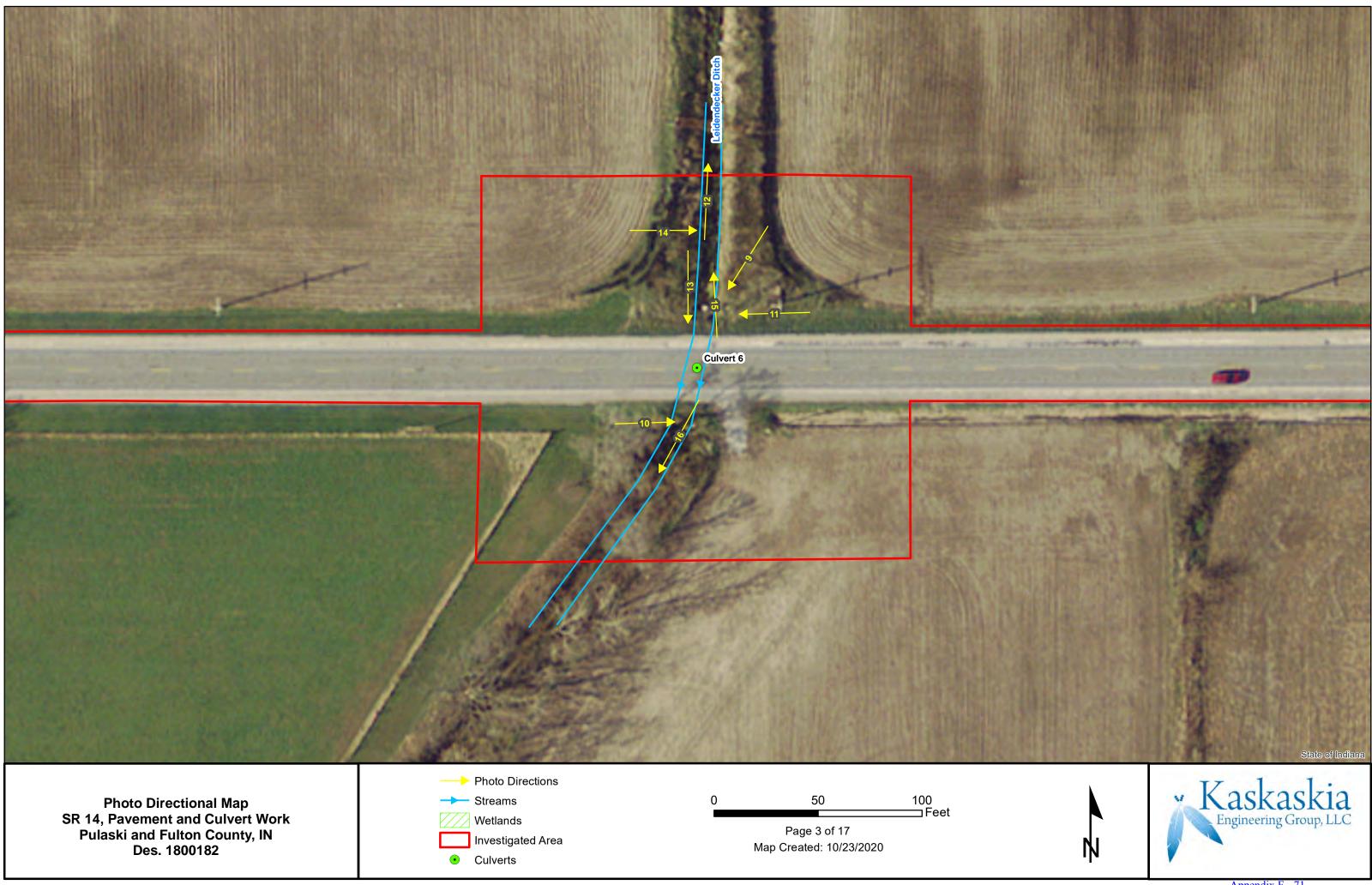


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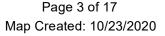




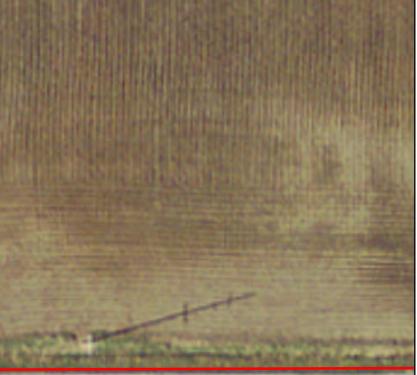


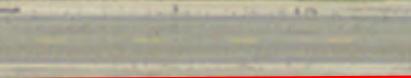






| | and the office of the second | Culvert 7 | |
|--|--|---|--|
| | | | 「「「「「」」」」」」」」」」」」」」」」」」」」」」」」」」」」」」」」」 |
| | | | ころうちんちち |
| Photo Directional Map SR 14, Pavement and Culvert Work Pulaski and Fulton County, IN Des. 1800182 | Photo Directions Streams Wetlands Investigated Area Culverts | 0 50 100 Feet Page 4 of 17 Map Created: 10/23/2020 | |

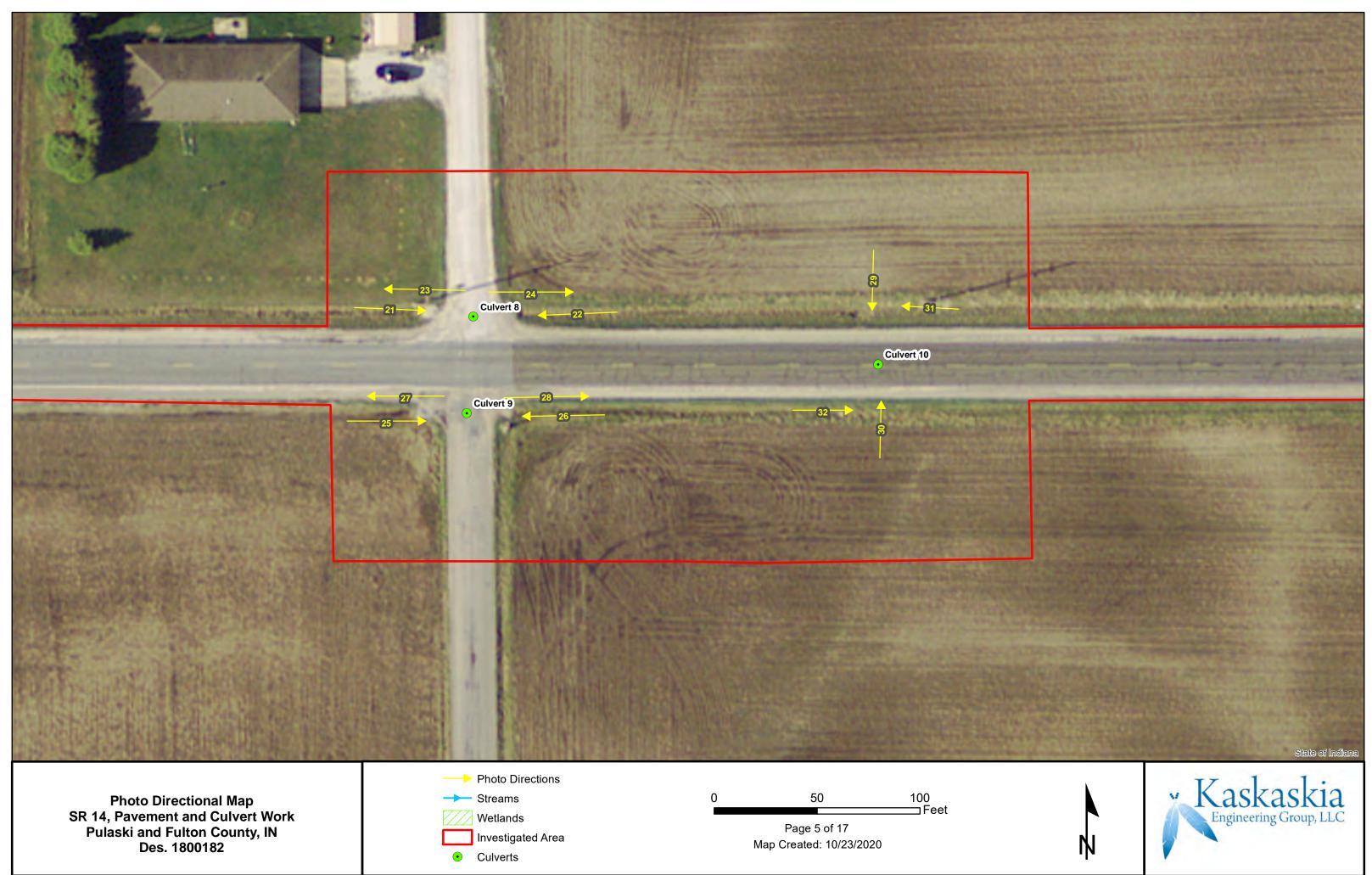


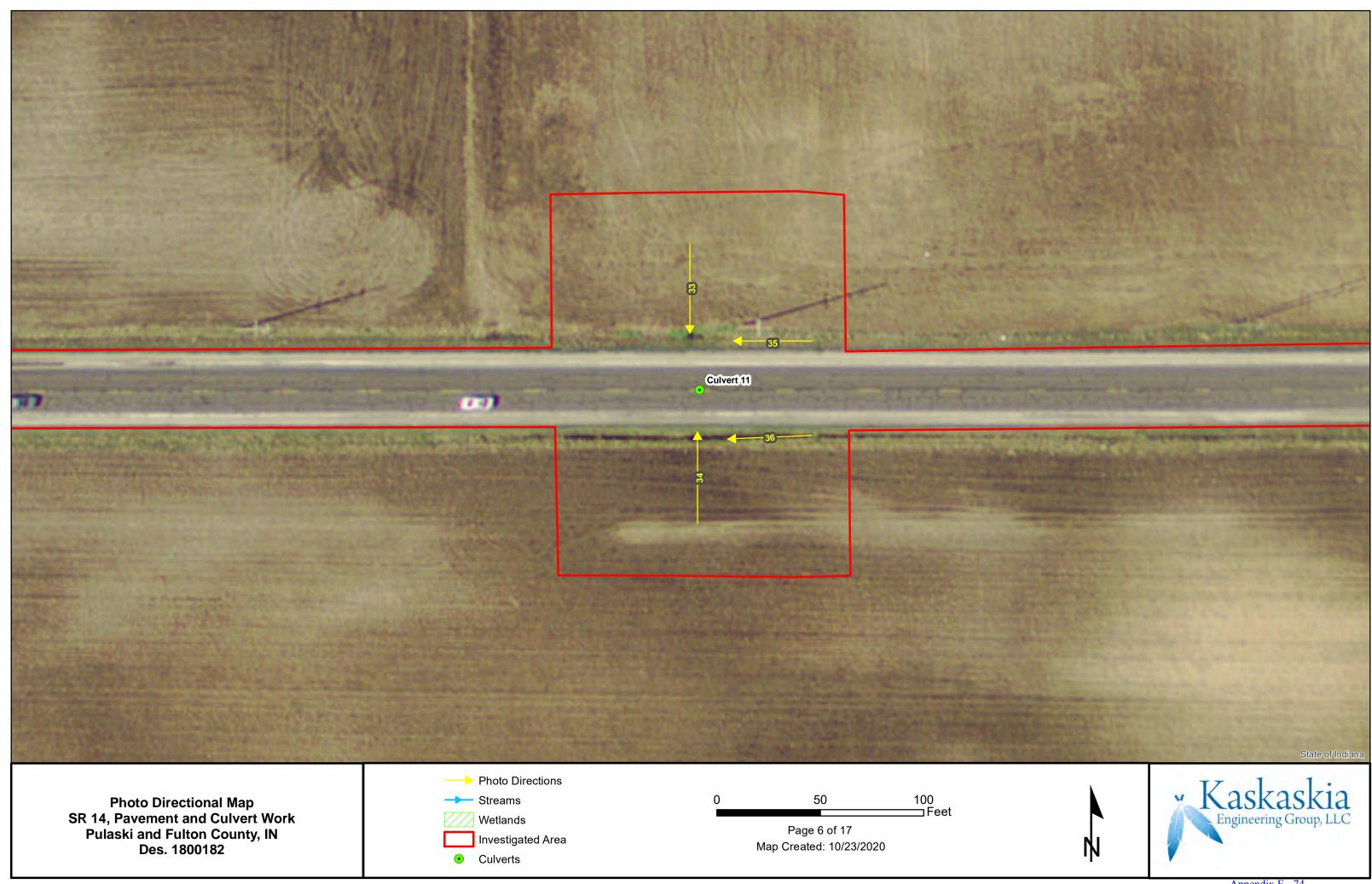


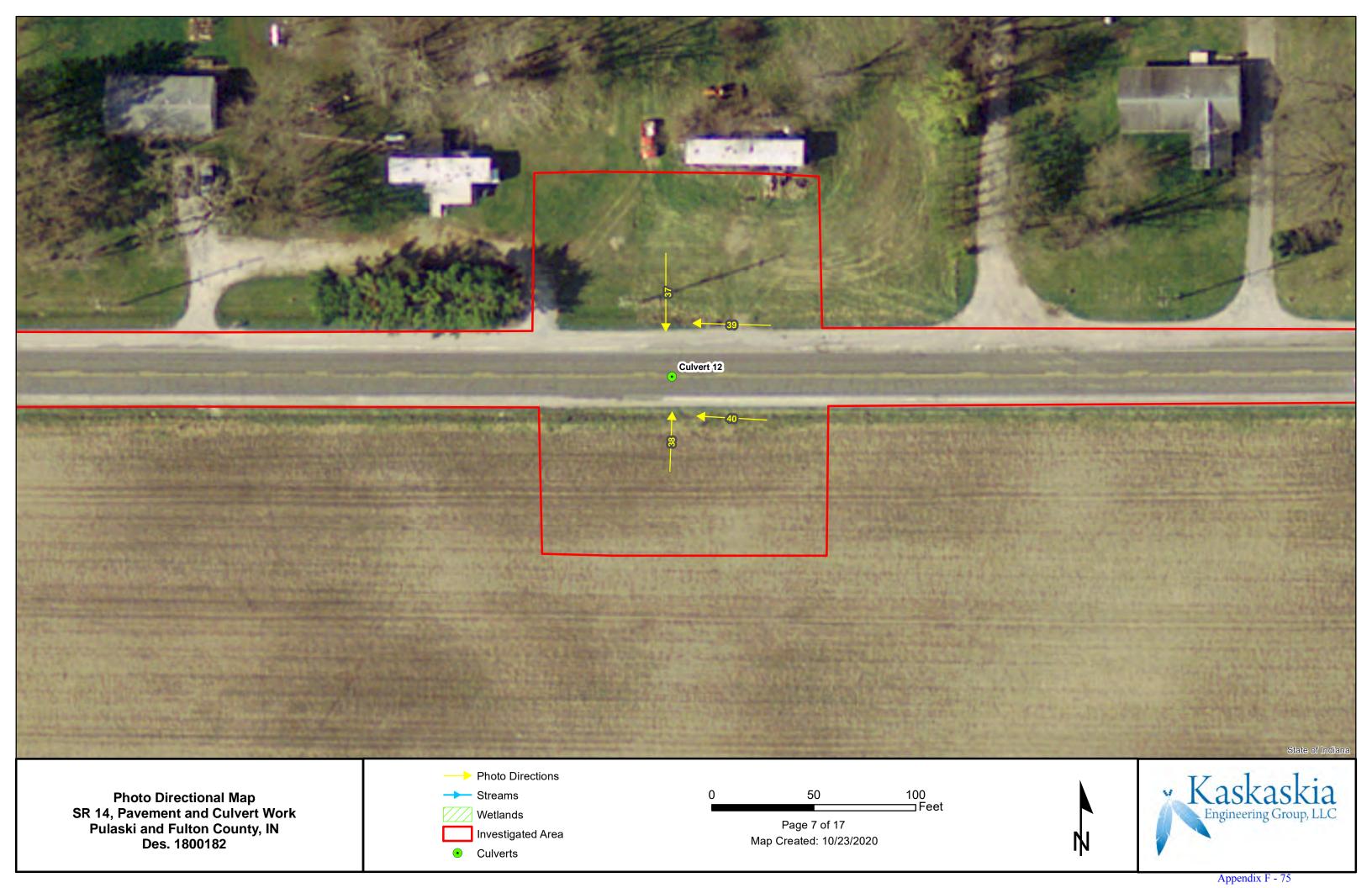
State of Indiana

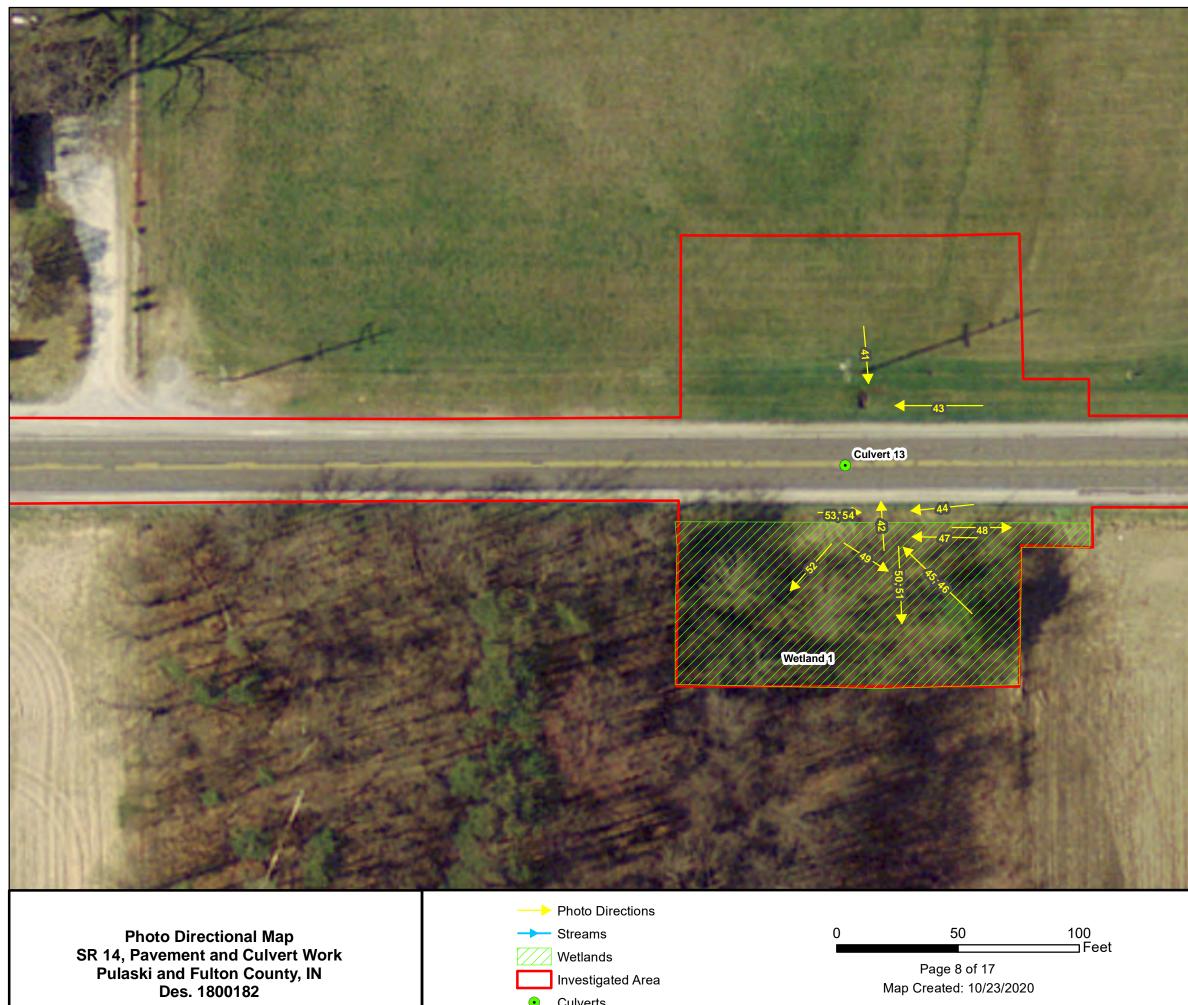


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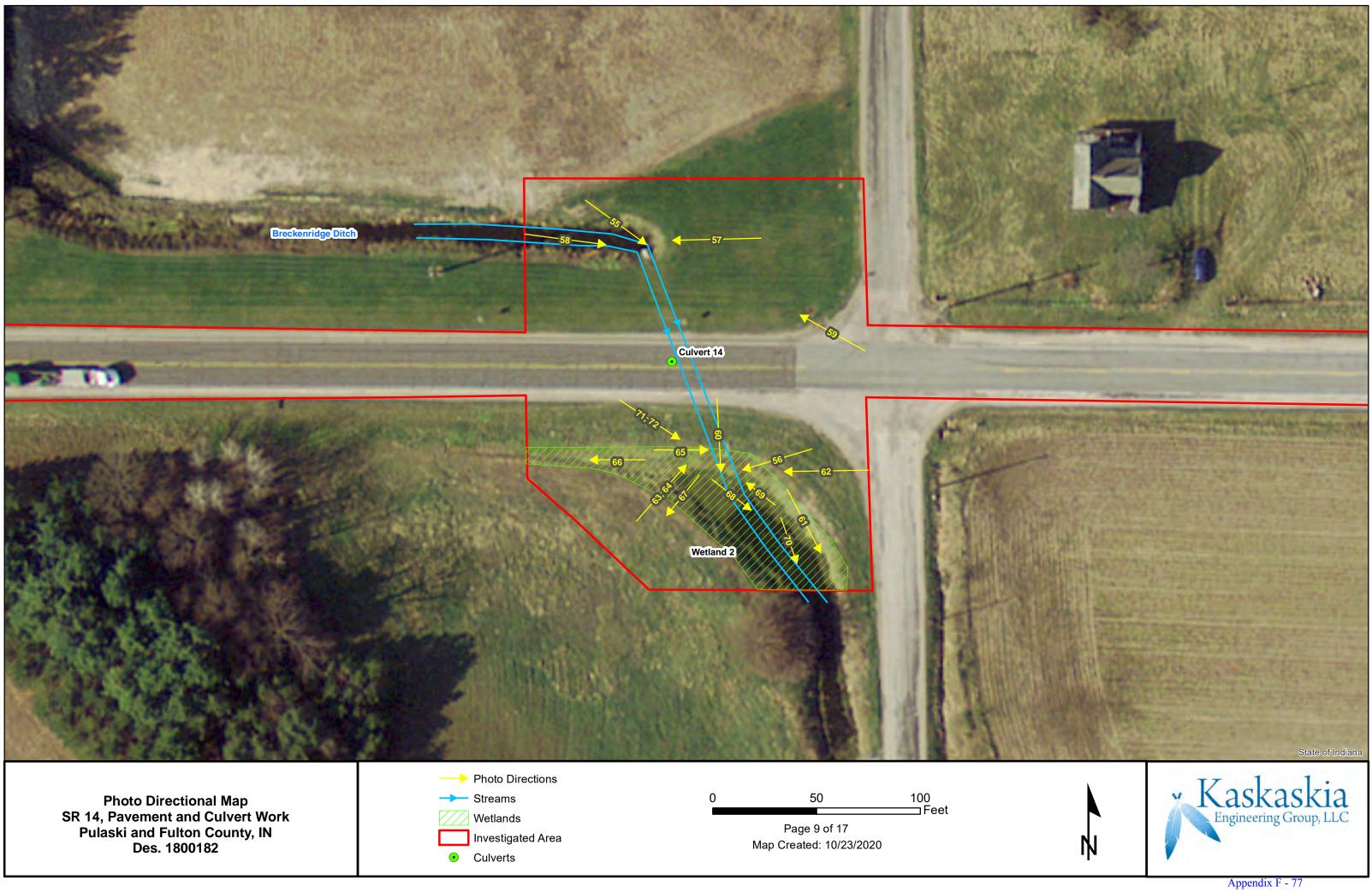


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|---|----------|
| • | Culverts |

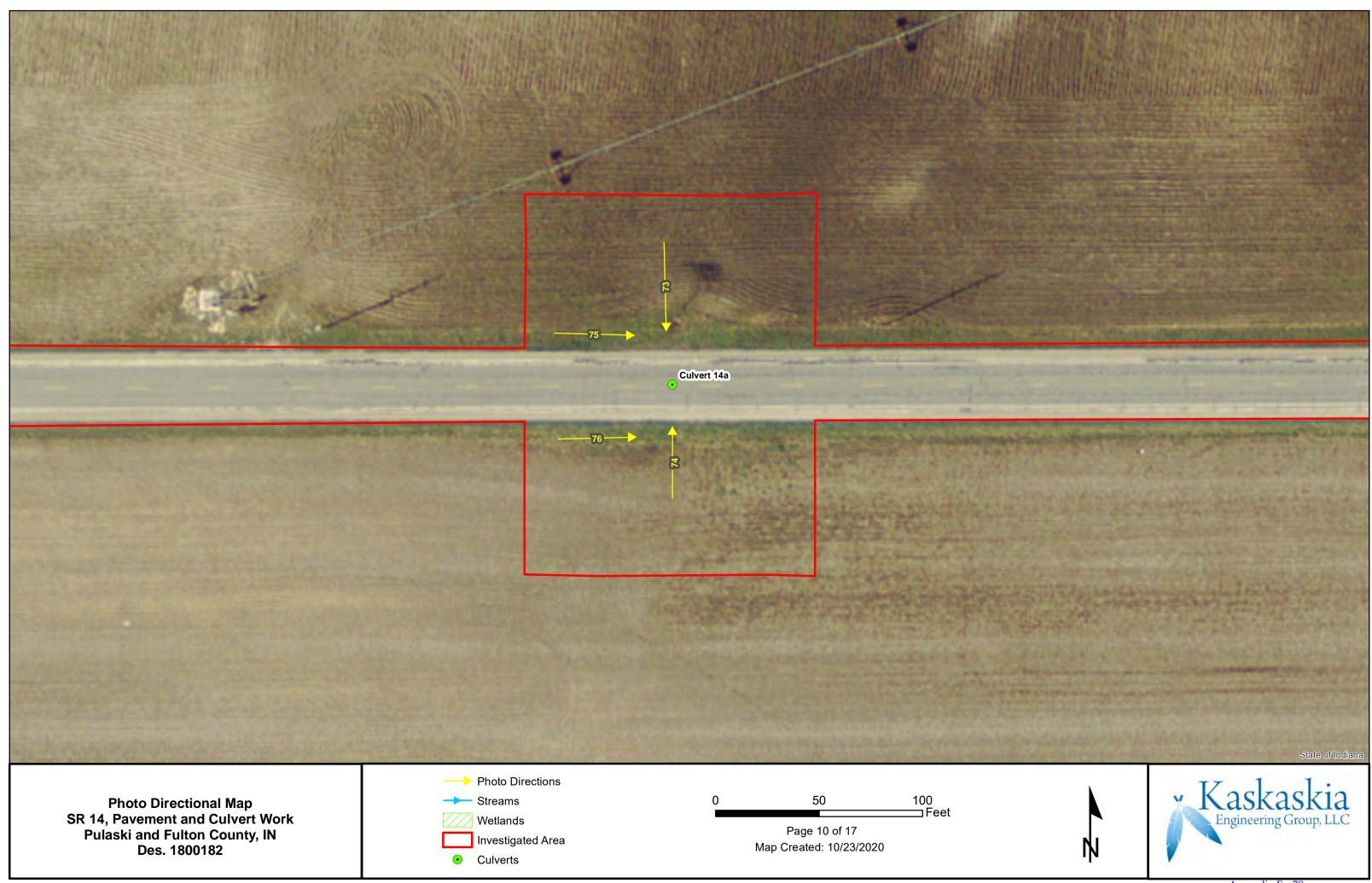
State of Indiana

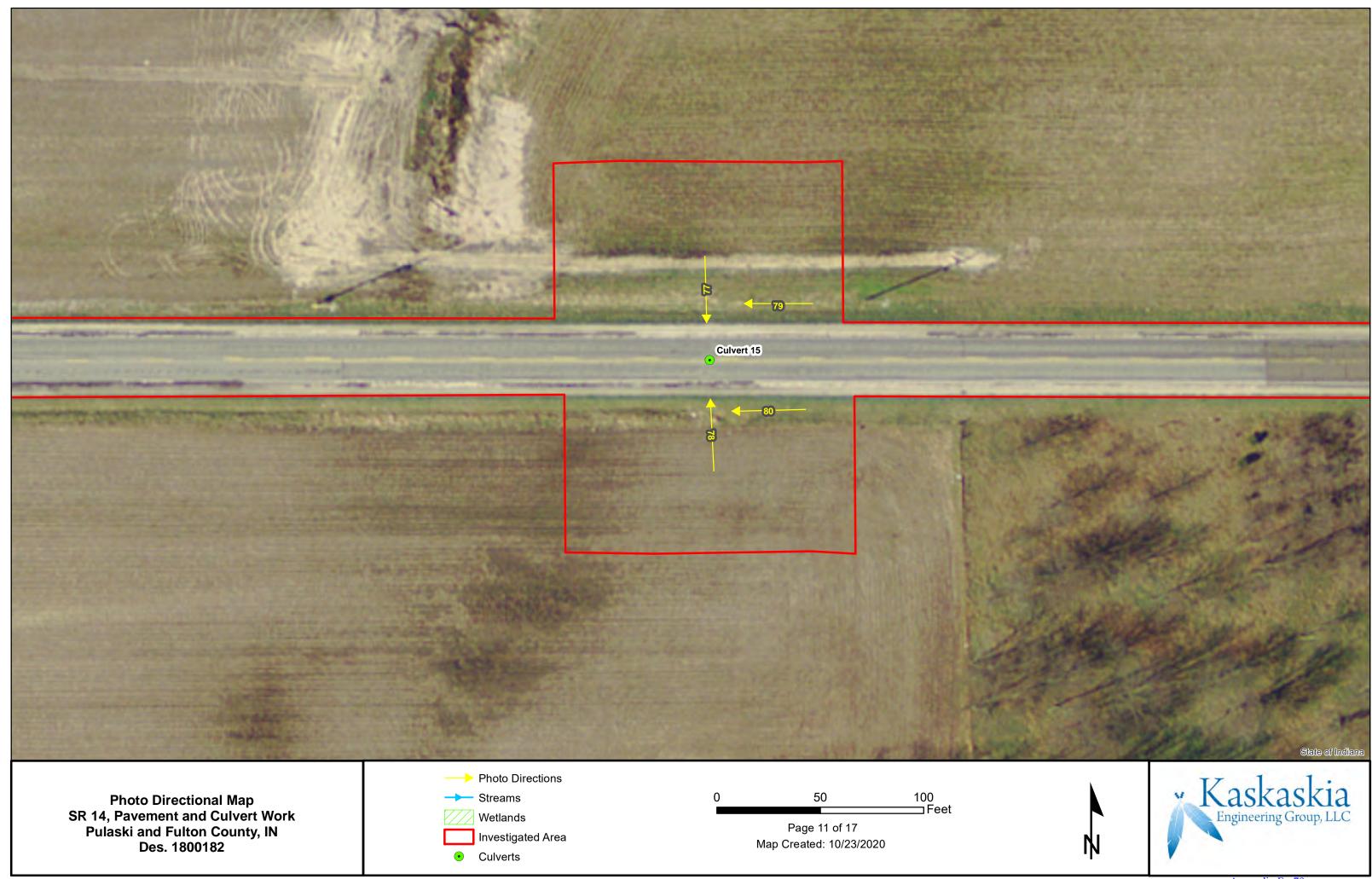


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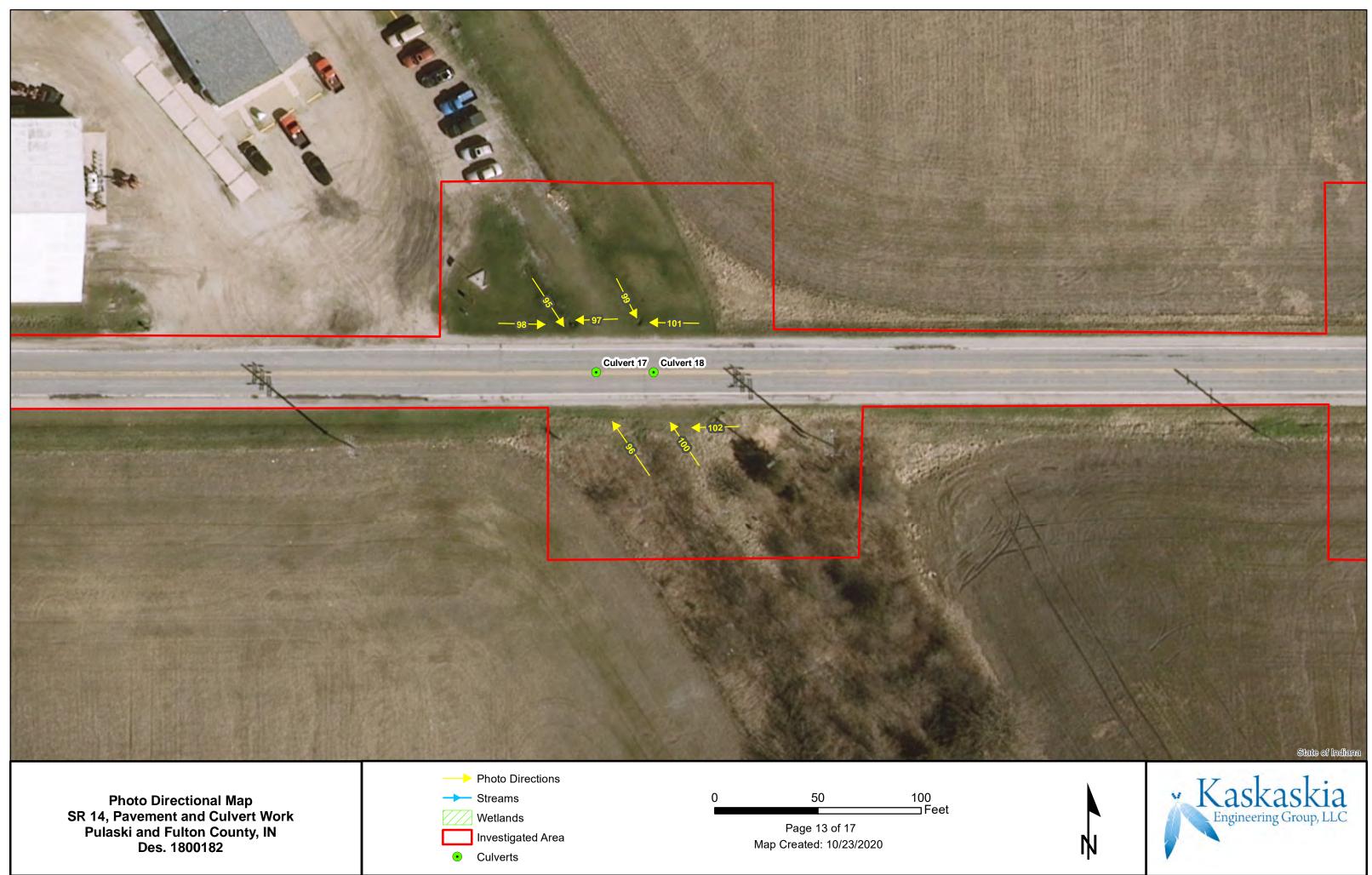


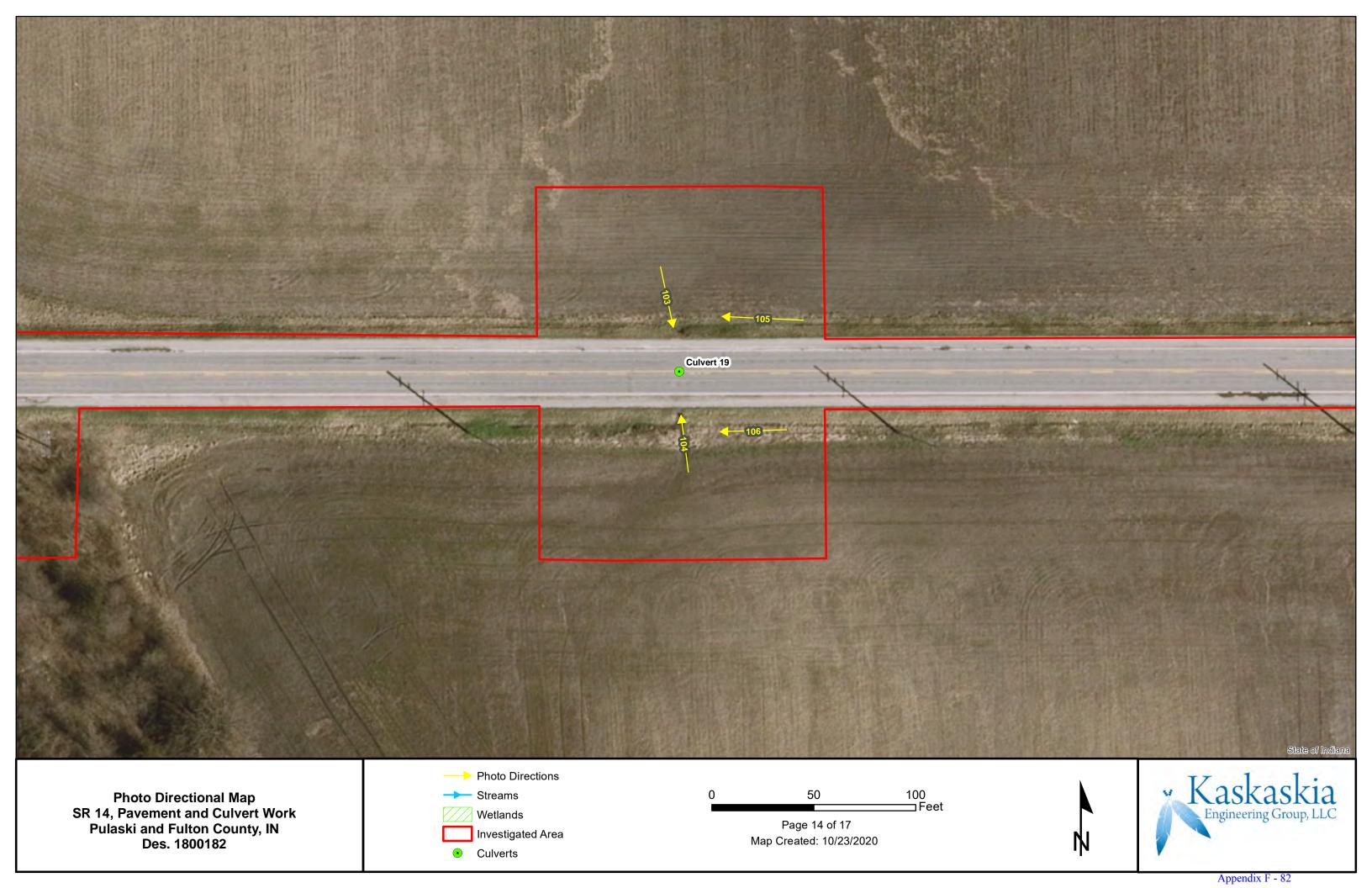


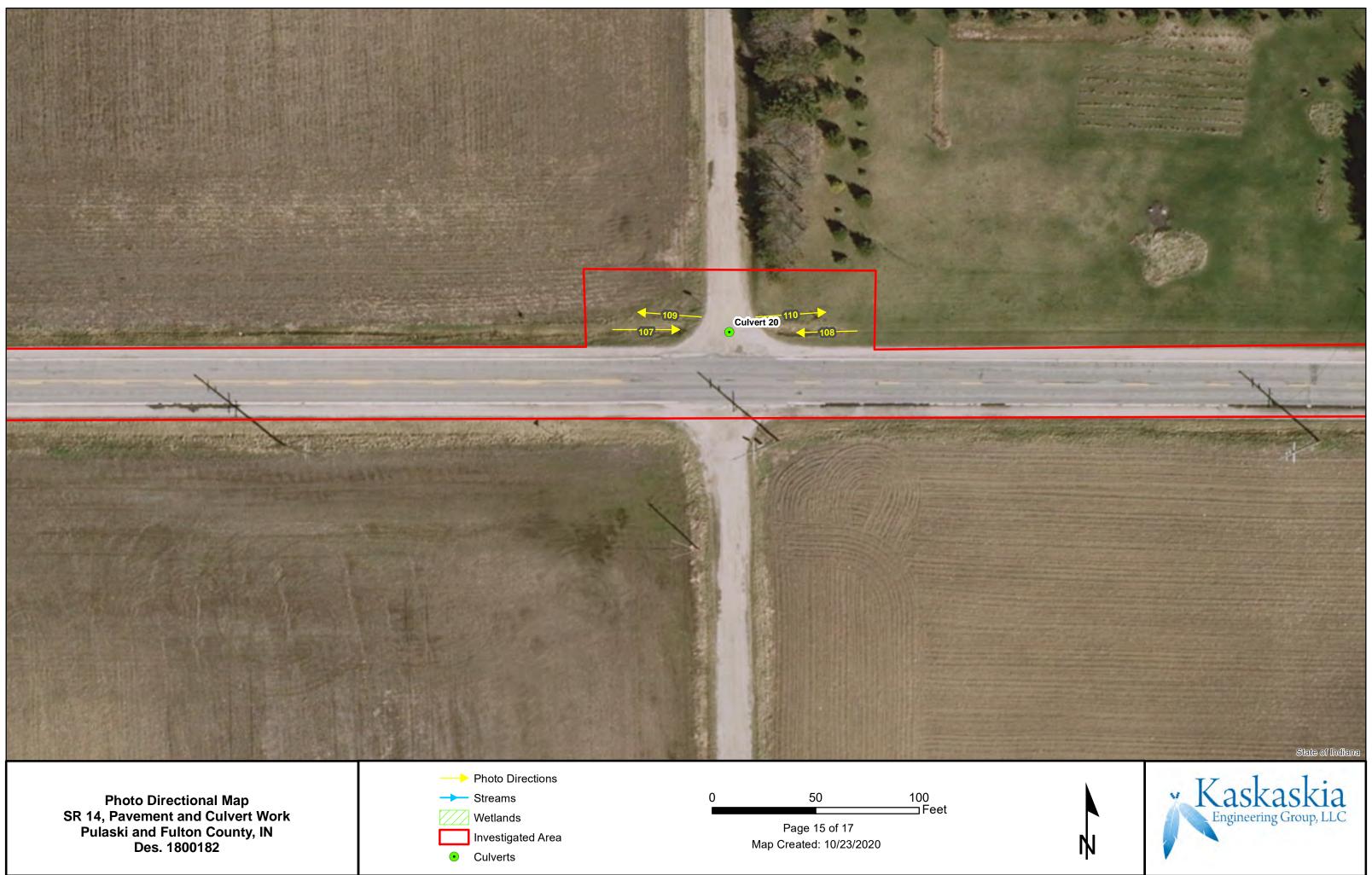




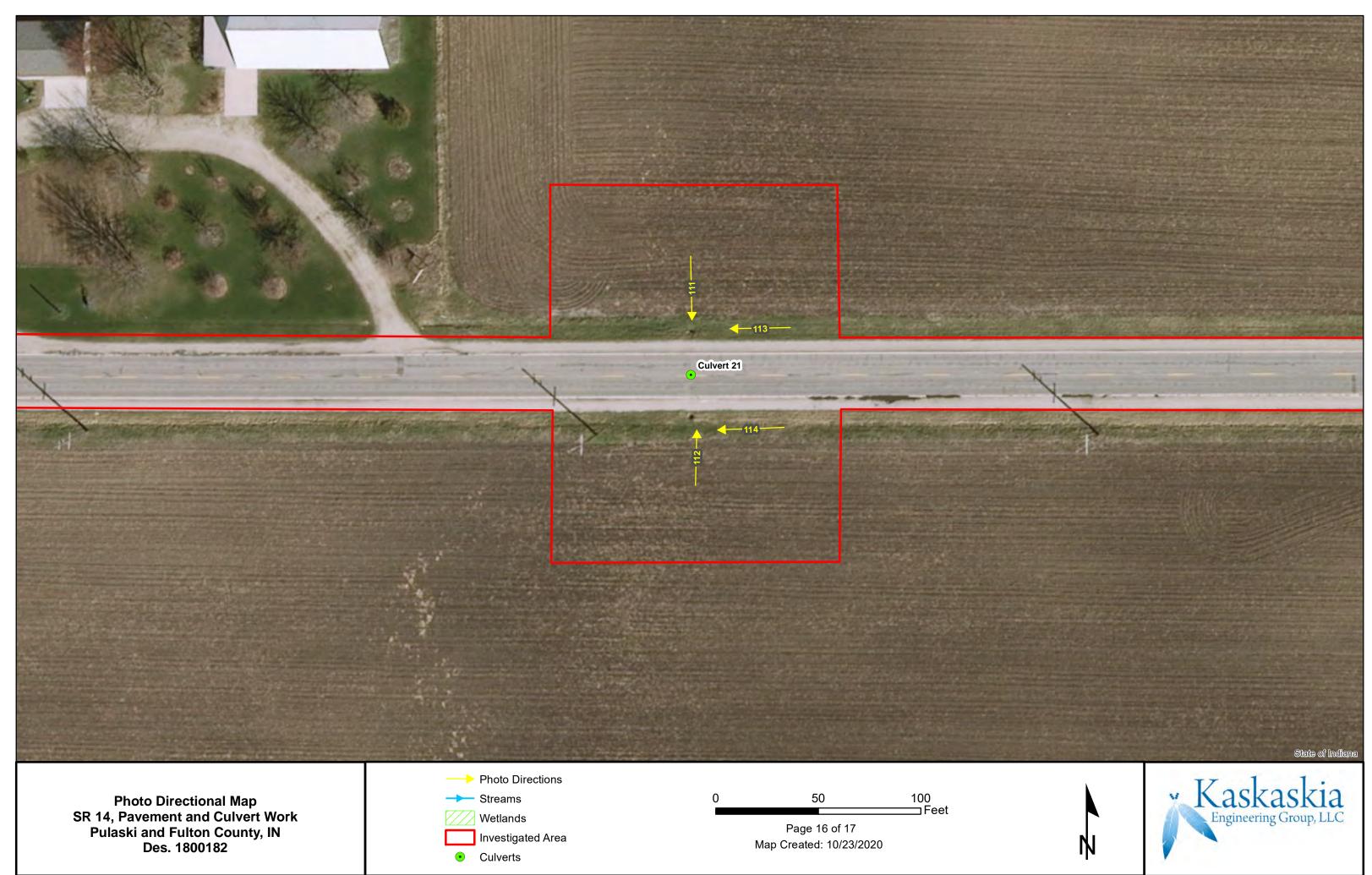


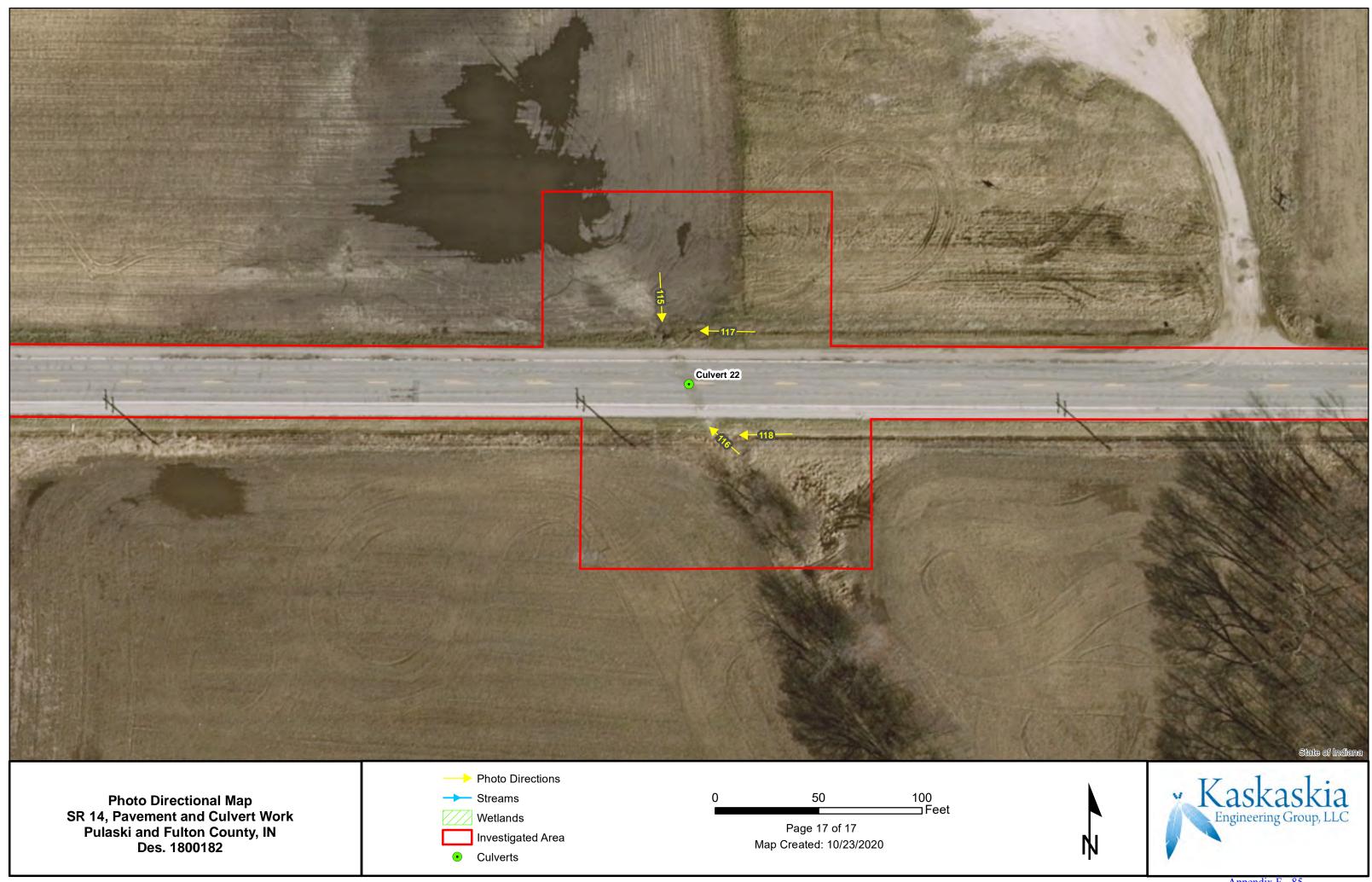






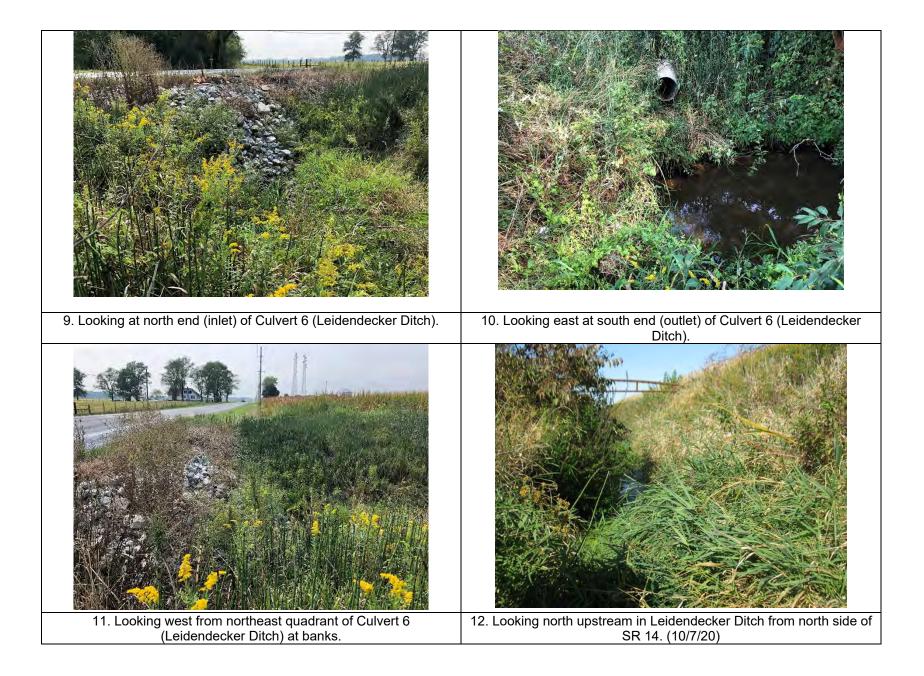








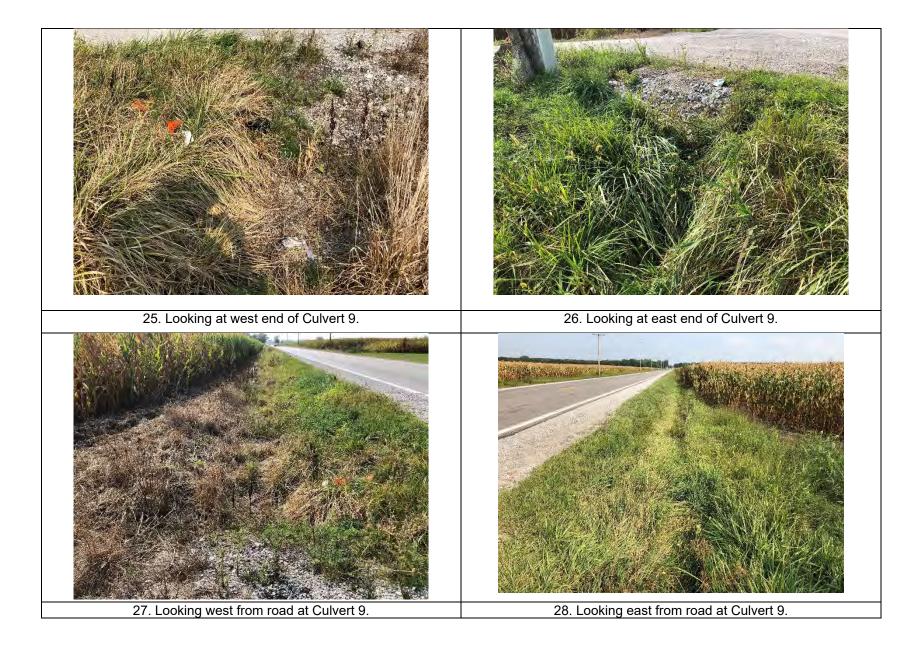




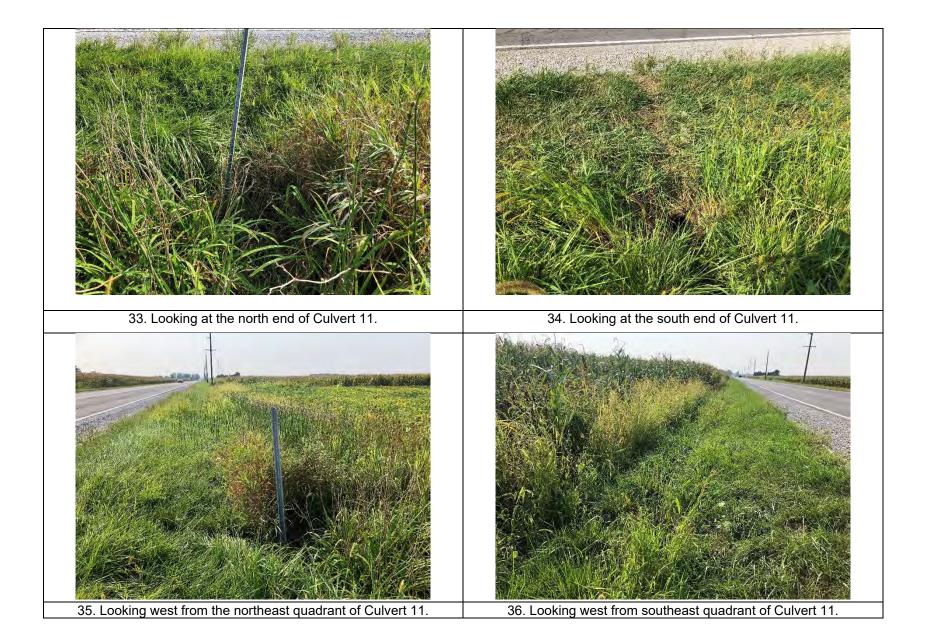






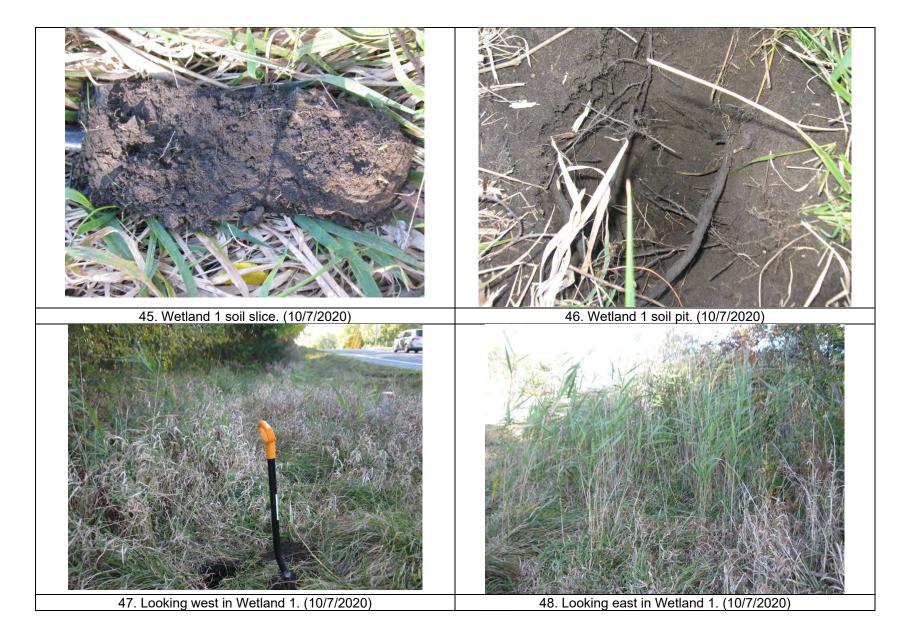








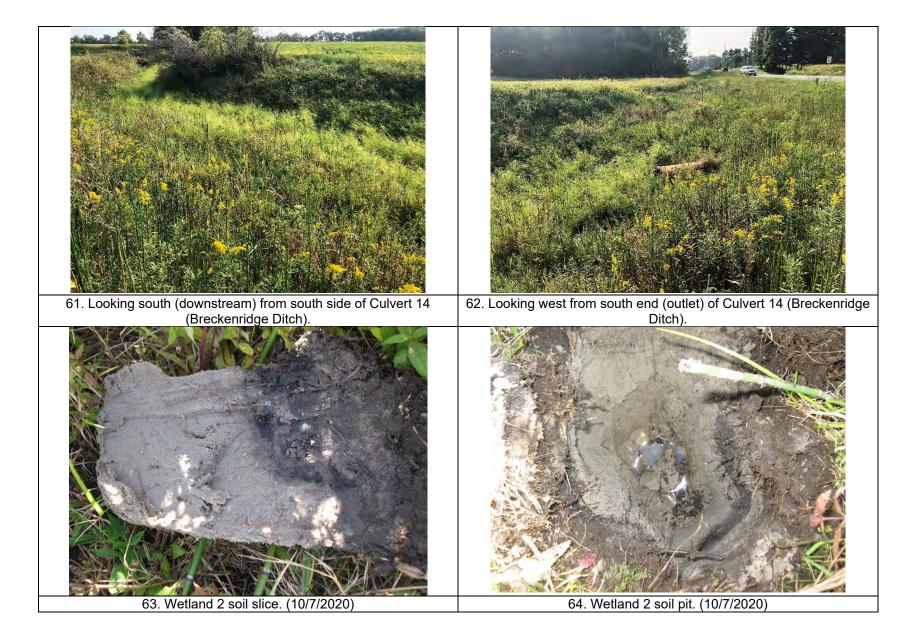


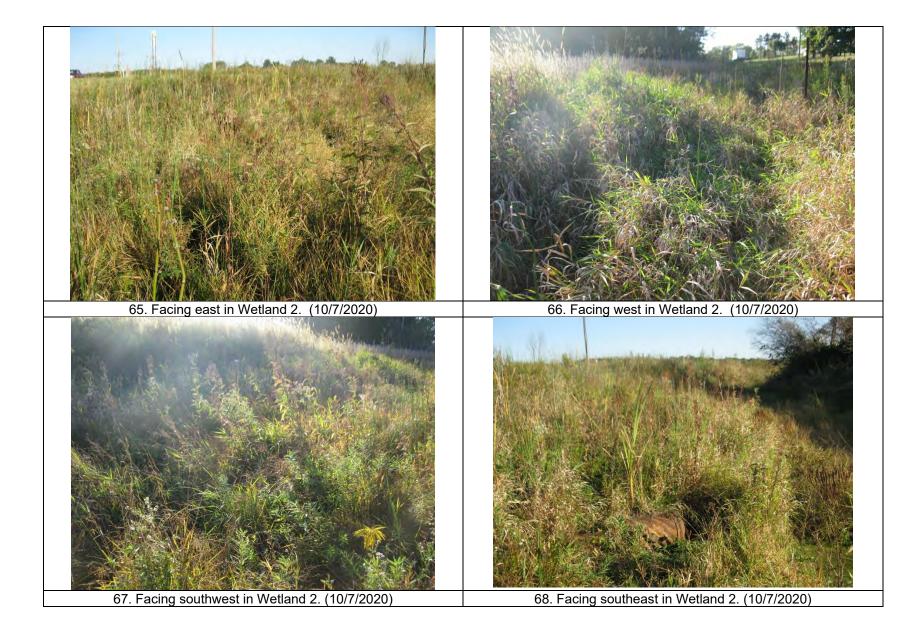


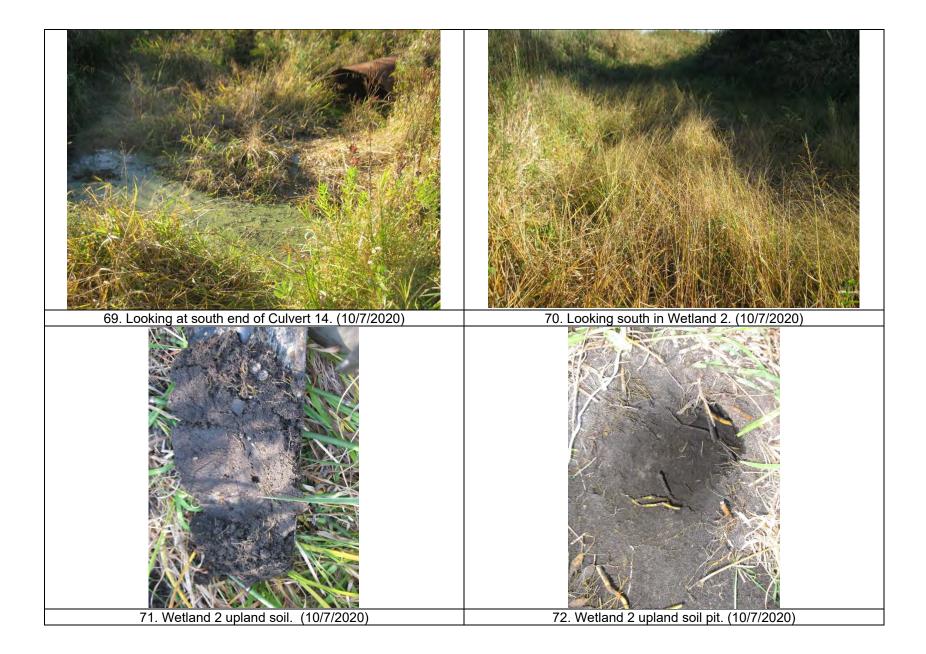


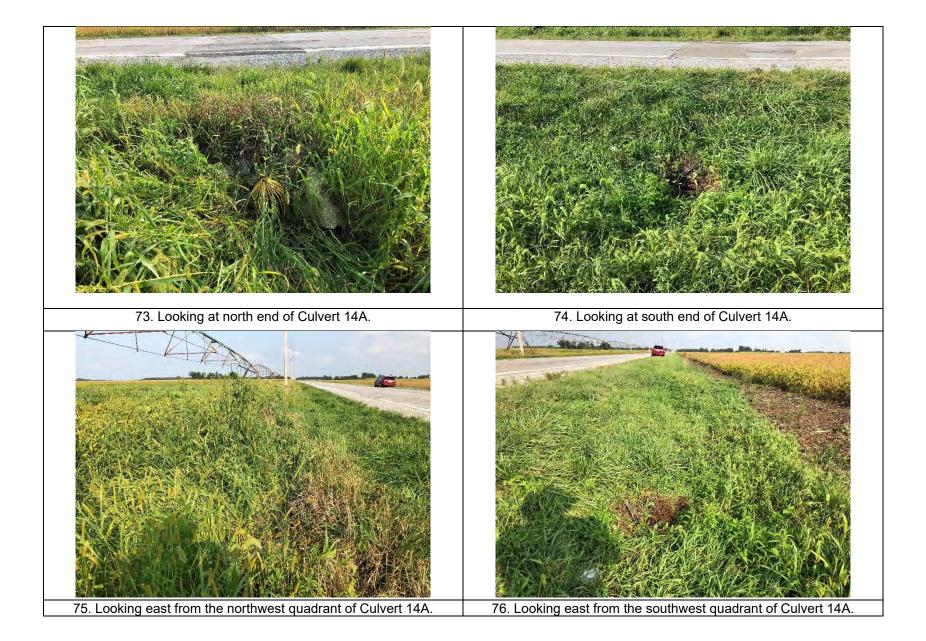






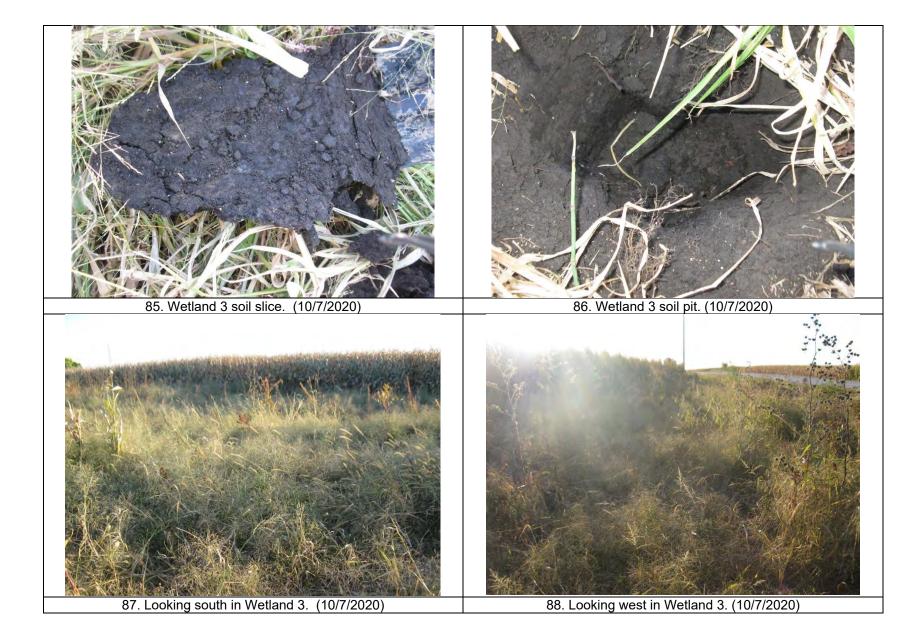












Appendix F - 107

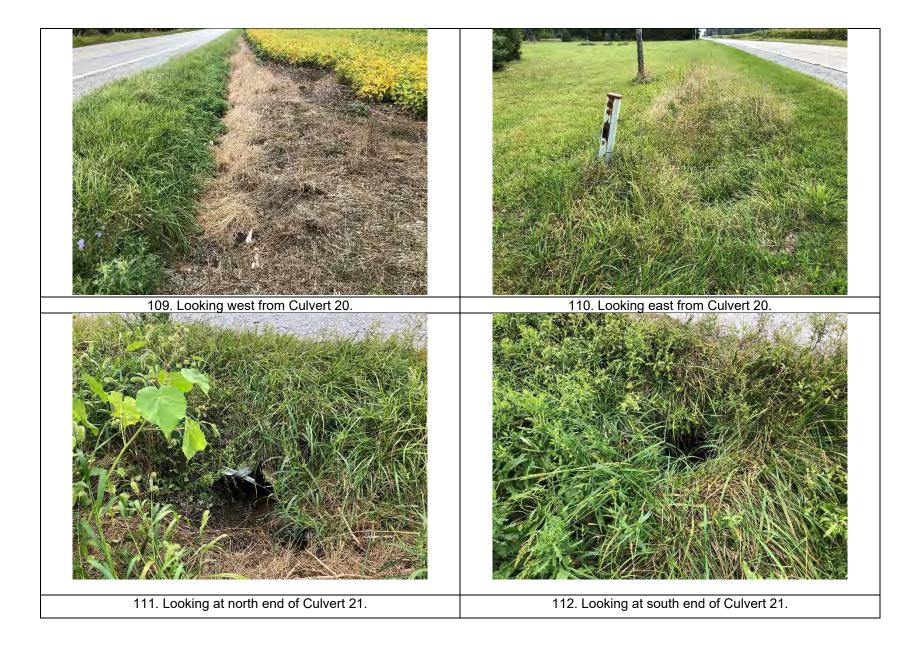


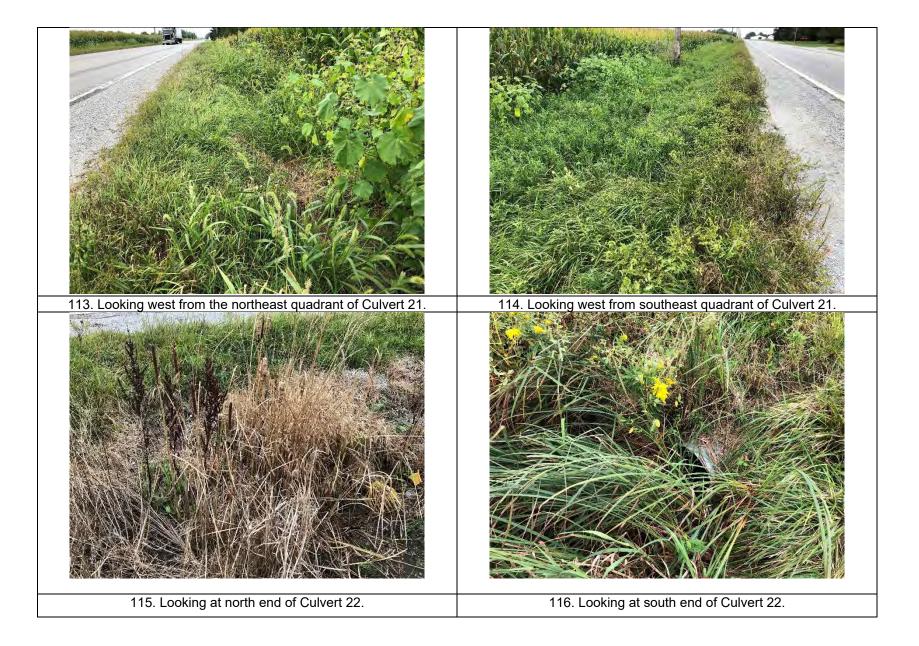


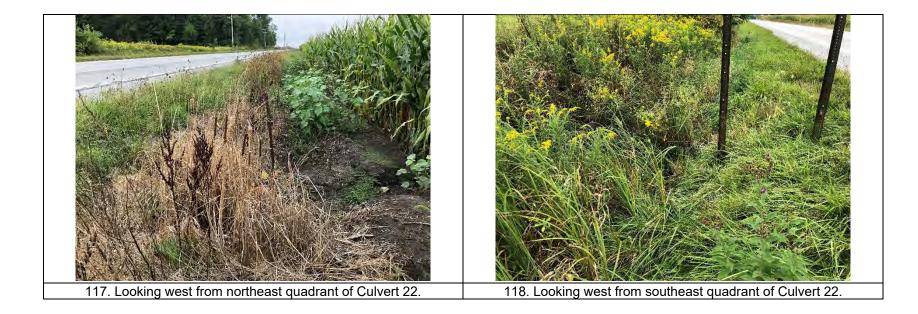












| Project/Site: SR 14 - Culvert 13 | City/County: Pulaski Cour | nty | Sampling Date: 10/7/2020 |
|--|---------------------------|------------------------|--------------------------|
| Applicant/Owner: INDOT | | State: IN | Sampling Point: 13-1 |
| Investigator(s): V. Flynn/K. Bollmann | Section, Township, Range: | Section 16, T30N | , R1W |
| Landform (hillslope, terrace, etc.): terrace | Local relief (cond | ave, convex, none): | none |
| Slope (%): 0 Lat: 41.055608 | Long: -86.529618 | | Datum: NAD 83 |
| Soil Map Unit Name: Goodell-Gilford fine sandy loams, 0 to 1 p | percent slopes (GmnA) | NWI classific | ation: <u>N</u> /A |
| Are climatic / hydrologic conditions on the site typical for this time of ye | ear? Yes No _X | _ (If no, explain in R | emarks.) |
| Are Vegetation, Soil, or Hydrology significantly | | nal Circumstances" p | resent? Yes X No |
| Are Vegetation, Soil, or Hydrology naturally pro | oblematic? (If needed | l, explain any answei | rs in Remarks.) |
| | | | |

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

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

Remarks:

Previous 3 month period was drier than average based on rainfall data near Winamac 2SSE weather station from 1971-2020 (AgACIS, 2020)

VEGETATION – Use scientific names of plants.

| | Absolute | Dominant | Indicator | Dominance Test worksheet: |
|---|------------|-------------|-----------|---|
| Tree Stratum (Plot size: <u>30 ft. diam.</u>) | % Cover | Species? | Status | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: 2 (A) |
| 2 | | | | |
| | | | | Total Number of Dominant Species Across All Strata: 3 (B) |
| 3 | | | | Species Across All Strata: <u>3</u> (B) |
| 4 | · | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: 67 (A/B) |
| | | = Total Cov | /er | |
| Sapling/Shrub Stratum (Plot size: 15 ft. diam) | | | | Prevalence Index worksheet: |
| 1 | | | | Total % Cover of:Multiply by: |
| 2 | | | | OBL species x 1 = |
| 3. | | | | FACW species x 2 = |
| | | | | FAC species x 3 = |
| 4 | | | | FACU species x 4 = |
| 5 | | | | |
| Herb Stratum (Plot size: 5 ft. diam.) | | = Total Cov | /er | UPL species x 5 = |
| 1. Phalaris arundinacea | 60 | Y | FACW | Column Totals: (A) (B) |
| | · <u> </u> | | | |
| 2. Schedonorus arundinaceus | 20 | <u>Y</u> | FACU | Prevalence Index = B/A = |
| 3. Phragmites australis | | Y | FACW | Hydrophytic Vegetation Indicators: |
| 4 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 5 | | | | \overline{X} 2 - Dominance Test is >50% |
| 6 | | | | 3 - Prevalence Index is ≤3.0 ¹ |
| | | | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 7 | | | | data in Remarks or on a separate sheet) |
| 8 | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 9 | · | | | |
| 10 | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 15 ft diam | 100 | = Total Cov | /er | be present, unless disturbed or problematic. |
| Woody Vine Stratum (Plot size: 15 ft. diam.) | | | | |
| 1 | | | | Hydrophytic |
| 2 | | | | Vegetation |
| | | = Total Cov | /er | Present? Yes X No |
| Remarks: (Include photo numbers here or on a separate s | | | | 1 |
| | , | | | |
| | | | | |
| | | | | |

Midwest Region - Version 2.0

| Depth | Matrix | | Red | ox Featur | es | | | |
|--|--|----------------|--|---|--|------------------|---|--|
| (inches) | Color (moist) | % | Color (moist) | % | | Loc ² | Texture | Remarks |
| 0-10 1 | 0 YR 2/2 | 100 | | | | | SL | |
| 10-20 1 | 0 YR 2/1 | 95 1 | 0 YR 4/6 | 5 | С | PL | SL | |
| | | | | | | | | |
| Type: C=Conc Hydric Soil Ind | entration, D=Deple | etion, RM=R | educed Matrix, N | /IS=Maske | d Sand Gr | ains. | | n: PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils ³ : |
| Thick Dark Sandy Muc | edon (A2) c (A3) Sulfide (A4) ayers (A5) | | Sandy Strippo Loamy Loamy Deplet Redox Deplet | Gleyed M ed Matrix Dark Sur | 5) S6) ineral (F1) latrix (F2) (F3) face (F6) urface (F7) | I | Coast Dark 3 Iron-W Very 5 Other ³ Indicator: wetlan | Prairie Redox (A16) Surface (S7) Manganese Masses (F12) Shallow Dark Surface (TF12) (Explain in Remarks) s of hydrophytic vegetation and hydrology must be present, s disturbed or problematic. |
| | ver (if observed): | / | | | | | | |
| Type: | es): | | _ | | | | Hydric Soi | I Present? Yes XNo |
| | | | | | | | | |
| Remarks: | | | | | | | | |
| | (| | | | | | | |
| YDROLOGY | f logy Indicators: | | | | | | | |
| YDROLOG) Vetland Hydro | | ne is required | : check all that a | apply) | | | Second | ary Indicators (minimum of two require |
| YDROLOG) Vetland Hydro | logy Indicators: ors (minimum of or | ne is required | | apply) | ves (B9) | | | ary Indicators (minimum of two require |
| YDROLOGY Vetland Hydro | logy Indicators: ors (minimum of or ater (A1) | ne is required | | ained Lea | , , | | Sur | |
| YDROLOG Vetland Hydro Primary Indicato Surface Wa High Water | logy Indicators: ors (minimum of or ater (A1) Table (A2) | ne is required | Water-St Aquatic F | ained Lea Fauna (B1 | 3) | | Sur Dra | face Soil Cracks (B6) inage Patterns (B10) |
| YDROLOG Vetland Hydro Primary Indicato Surface Wa High Water Saturation (| logy Indicators: ors (minimum of or ater (A1) Table (A2) (A3) | ne is required | Water-St Aquatic F True Aqu | ained Lea Fauna (B1 atic Plants | 3) s (B14) | | Sur Dra Dry | face Soil Cracks (B6) ainage Patterns (B10) ⁄-Season Water Table (C2) |
| YDROLOG Vetland Hydro Primary Indicato Surface Wa High Water Saturation (Water Mark | logy Indicators: ors (minimum of or ater (A1) Table (A2) (A3) (s (B1) | ne is required | Water-St Aquatic F True Aqu Hydroge | ained Lea Fauna (B1 natic Plants n Sulfide C | 3) s (B14) Odor (C1) | ing Roots (| Sur Dra Dry Cra | face Soil Cracks (B6) ainage Patterns (B10) a-Season Water Table (C2) ayfish Burrows (C8) |
| YDROLOGY Vetland Hydro Primary Indicato Surface Wa High Water Saturation (Water Mark Sediment D | logy Indicators: ors (minimum of or ater (A1) Table (A2) (A3) (A3) (s (B1) Deposits (B2) | ne is required | Water-St Aquatic F True Aqu Hydroger Oxidized | ained Lea Fauna (B1 natic Plants n Sulfide C Rhizosph | 3) s (B14) Odor (C1) eres on Liv | ing Roots (| Sur Dra Dry Cra C3) Sat | face Soil Cracks (B6) ainage Patterns (B10) r-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) |
| YDROLOG Vetland Hydro Primary Indicato Surface Wa High Water Saturation (Water Mark Sediment D Drift Depos | logy Indicators: ors (minimum of or ater (A1) Table (A2) (A3) (A3) (A3) (A3) (A2) (A2) (A2) (A2) (A2) (A2) (A2) (A2 | ne is required | Uter-St Aquatic F True Aqu Hydroged Oxidized | ained Lea Fauna (B1 Iatic Plants n Sulfide C Rhizosph e of Reduc | 3) s (B14) Odor (C1) eres on Liv red Iron (C4 | 4) | Sur Dra Dry Cra C3) Sat Stu | face Soil Cracks (B6) ainage Patterns (B10) v-Season Water Table (C2) ayfish Burrows (C8) auration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) |
| YDROLOG Netland Hydro Primary Indicato Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposi Algal Mat o | logy Indicators: ors (minimum of or ater (A1) Table (A2) (A3) (A3) (s (B1) Deposits (B2) its (B3) r Crust (B4) | ne is required | Water-St Aquatic F True Aqu Hydroged Oxidized Presence Recent In | ained Lea Fauna (B1 natic Plants n Sulfide C Rhizosph of Reduc ron Reduc | 3) s (B14) Odor (C1) eres on Liv eed Iron (C4 tion in Tille | | C3) <u>X</u> Geo | face Soil Cracks (B6) ainage Patterns (B10) r-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) omorphic Position (D2) |
| YDROLOG Netland Hydro Primary Indicato Surface Wa High Water Saturation (Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi | logy Indicators: ors (minimum of or ater (A1) Table (A2) (A3) (A3) (s (B1) Deposits (B2) its (B3) r Crust (B4) its (B5) | | Water-St Aquatic F True Aqu Hydrogen Oxidized Presence Recent In Thin Muc | ained Lea Fauna (B1 atic Plants n Sulfide C Rhizosph e of Reduc ron Reduc ck Surface | 3) s (B14) Odor (C1) eres on Liv eed Iron (C4 tion in Tille (C7) | 4) | C3) <u>X</u> Geo | face Soil Cracks (B6) ainage Patterns (B10) v-Season Water Table (C2) ayfish Burrows (C8) auration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) |
| YDROLOG Vetland Hydro Primary Indicato Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposi Algal Mat o Iron Deposi Inundation | logy Indicators: ors (minimum of or ater (A1) Table (A2) (A3) (A3) (s (B1) Deposits (B2) its (B3) r Crust (B4) | nagery (B7) | Water-St Aquatic F Aquatic F Hydrogen Oxidized Presence Recent In Gauge o | ained Lea Fauna (B1 natic Plants n Sulfide C Rhizosph of Reduc ron Reduc | 3) s (B14) Odor (C1) eres on Liv red Iron (C4 tion in Tille (C7) a (D9) | 4) | C3) <u>X</u> Geo | face Soil Cracks (B6) ainage Patterns (B10) r-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) omorphic Position (D2) |

| , , , | · · · · — | (] | | |
|--|--------------------------|--------------------------------------|----------------------------|----------|
| Field Observations: | | | | |
| Surface Water Present? | | Depth (inches): | | |
| Water Table Present? | Yes No _X | Depth (inches): | | |
| Saturation Present? (includes capillary fringe) | Yes No _X | Depth (inches): | Wetland Hydrology Present? | Yes X No |
| Describe Recorded Data (st | ream gauge, monitoring w | vell, aerial photos, previous inspec | tions), if available: | |
| Remarks: | | | | |
| | | | | |
| | | | | |
| | | | | |

| Project/Site: SR 14 - Culvert 13 | City/County: Pulaski Cour | nty | Sampling Date: 10/7/2020 |
|--|---------------------------|------------------------|--------------------------|
| Applicant/Owner: INDOT | | | Sampling Point: 13-2 |
| Investigator(s): V. Flynn/K. Bollmann | Section, Township, Range: | S16, T30N, R1W | |
| Landform (hillslope, terrace, etc.): hillslope | | ave, convex, none): | |
| Slope (%): <u>30</u> Lat: <u>41.055624</u> | Long: -86.529616 | | Datum: NAD 87 |
| Soil Map Unit Name: Goodell-Gilford fine sandy loams, 0 to 1 p | percent slopes (GmnA) | NWI classific | ation: N/A |
| Are climatic / hydrologic conditions on the site typical for this time of ye | ear? Yes No _X | _ (If no, explain in R | emarks.) |
| Are Vegetation, Soil, or Hydrology significantly | | nal Circumstances" p | resent? Yes X No |
| Are Vegetation, Soil, or Hydrology naturally pro- | oblematic? (If needed | , explain any answe | rs in Remarks.) |
| | | | |

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

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

Remarks:

Previous 3 month period was drier than average based on rainfall data near Winamac 2SSE weather station from 1971-2020 (AgACIS, 2020)

VEGETATION – Use scientific names of plants.

| 30 ft diam | Absolute | | Indicator | Dominance Test worksheet: |
|---|----------|------------|-----------|---|
| Tree Stratum (Plot size: <u>30 ft. diam.</u>) | % Cover | Species? | Status | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: _1 (A) |
| 2 | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: 2 (B) |
| 4. | | | | |
| | | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: 50 (A/B) |
| Sapling/Shrub Stratum (Plot size: 15 ft. diam.) | | = Total Co | ver | Prevalence Index worksheet: |
| | | | | Total % Cover of: Multiply by: |
| 1 | | | | $\begin{array}{c} \hline \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \\ \\ \hline \\ \\ \\ \hline \\ \\ \\ \\ \hline \\ \\ \\ \\ \\ \hline \\ \\ \\ \\ \\ \hline \\$ |
| 2 | | | | |
| 3 | | | | FACW species 50 $x = 100$ |
| 4 | | | | FAC species 0 $x 3 = 0$ |
| 5 | | | | FACU species _50 x 4 = _200 |
| Eft diam | | = Total Co | ver | UPL species x 5 = |
| Herb Stratum (Plot size: 5 ft, diam.) | | | | Column Totals: <u>100</u> (A) <u>300</u> (B) |
| 1. Phalaris arundinacea | 50 | Y | FACW | |
| 2. Schedonorus arundinaceus | 50 | Υ | FACU | Prevalence Index = B/A = _3 |
| 3 | | | | Hydrophytic Vegetation Indicators: |
| 4 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| 5 | | | | 2 - Dominance Test is >50% |
| 6 | | | | X 3 - Prevalence Index is ≤3.0 ¹ |
| | | | | 4 - Morphological Adaptations ¹ (Provide supporting |
| 7 | | | | data in Remarks or on a separate sheet) |
| 8 | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 9 | · | | | |
| 10 | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 15 ft, diam | 100 | = Total Co | ver | be present, unless disturbed or problematic. |
| <u>Woody Vine Stratum</u> (Plot size: <u>15 ft. diam.</u>) | | | | |
| 1 | · | | | Hydrophytic |
| 2 | · | | | Vegetation Present? Yes No |
| | | = Total Co | ver | |
| Remarks: (Include photo numbers here or on a separate s | sheet.) | | | |
| | | | | |
| | | | | |

Midwest Region - Version 2.0

| Depth <u>N</u> (inches) Color (m | <u>/atrix</u> oist)% | <u></u> | Texture | Remarks |
|---|--|--|---|--|
| 0-8 10 YR 4/2 | | | SL | Gravelly, fill |
| | | | | |
| ype: C=Concentration, | D=Depletion, RM=R | educed Matrix, MS=Masked Sand Grains. | | PL=Pore Lining, M=Matrix. |
| lydric Soil Indicators: | | | Indicators | for Problematic Hydric Soils ³ : |
| Histosol (A1) | | Sandy Gleyed Matrix (S4) | | Prairie Redox (A16) |
| Histic Epipedon (A2) | | Sandy Redox (S5) | | urface (S7) |
| Black Histic (A3) | | Stripped Matrix (S6) | | anganese Masses (F12) |
| _ Hydrogen Sulfide (A4 | | Loamy Mucky Mineral (F1) | | hallow Dark Surface (TF12) |
| _ Stratified Layers (A5) | | Loamy Gleyed Matrix (F2) | Other (| Explain in Remarks) |
| 2 cm Muck (A10) Depleted Below Dark | Surface (A11) | Depleted Matrix (F3) Redox Dark Surface (F6) | | |
| Thick Dark Surface (/ | . , | Depleted Dark Surface (F7) | ³ Indicators | of hydrophytic vegetation and |
| Sandy Mucky Minera | , | Redox Depressions (F8) | | d hydrology must be present, |
| 5 cm Mucky Peat or I | () | <u> </u> | | disturbed or problematic. |
| estrictive Layer (if obs | . , | | | |
| contouve Layer (II Obs | | | | |
| | | | | Present? Yes No |
| Type: Depth (inches): | | | Hydric Soil | |
| Type: Depth (inches): | | _ | Hydric Soil | |
| Туре: | iches | _ | Hydric Soil | |
| Type: Depth (inches): Remarks: | iches | | Hydric Soil | |
| Type: Depth (inches): Remarks: | iches | | Hydric Soil | |
| Type: Depth (inches): emarks: | iches | | Hydric Soil | |
| Type: Depth (inches): emarks: ravel and rock at 8 in | | | Hydric Soil | |
| Type: Depth (inches): emarks: ravel and rock at 8 in | cators: | d; check all that apply) | | |
| Type: Depth (inches): emarks: ravel and rock at 8 in /DROLOGY | cators: | d; check all that apply) | <u>Seconda</u> | rry Indicators (minimum of two require ace Soil Cracks (B6) |
| Type: Depth (inches): emarks: ravel and rock at 8 in /DROLOGY /etland Hydrology Indi- rimary Indicators (minim | cators: um of one is require | | <u>Seconda</u> | ry Indicators (minimum of two require |
| Type: Depth (inches): emarks: ravel and rock at 8 in /DROLOGY /etland Hydrology Indii rimary Indicators (minim Surface Water (A1) | cators: um of one is require | Water-Stained Leaves (B9) | <u>Seconda</u> Surf Drai | iry Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) |
| Type: Depth (inches): emarks: ravel and rock at 8 in /DROLOGY /etland Hydrology Indi- rimary Indicators (minim Surface Water (A1) High Water Table (A2 | cators: um of one is require | Water-Stained Leaves (B9) Aquatic Fauna (B13) | <u>Seconda</u> Surf Drai Dry- | ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) |
| Type: Depth (inches): emarks: ravel and rock at 8 in //DROLOGY //etland Hydrology India rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) | cators: um of one is require 2) | Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) | <u>Seconda</u> Surf Drai Dry- Cray | iry Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) |
| Type: Depth (inches): emarks: ravel and rock at 8 in //DROLOGY /etland Hydrology India rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) | cators: um of one is require 2) | Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) | <u>Seconda</u> <u>Suff</u> <u>Drai</u> <u>Dry-</u> <u>Cray</u> C3) <u>Satu</u> | ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) /fish Burrows (C8) |
| Type: Depth (inches): emarks: ravel and rock at 8 in //DROLOGY //etland Hydrology Indi- rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B | cators: um of one is require 2) 32) | Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C | <u>Seconda</u> Surf Drai Dry- Cray C3)Satu Stur | rry Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) iration Visible on Aerial Imagery (C9) |
| Type: Depth (inches): emarks: ravel and rock at 8 in //DROLOGY //etland Hydrology Indii rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) | cators: um of one is require 2) 32) | Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C Presence of Reduced Iron (C4) | <u>Seconda</u> Surf Drai Dry- Cray C3)Satu Stur Geo | rry Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) /fish Burrows (C8) uration Visible on Aerial Imagery (C9) ited or Stressed Plants (D1) |

| — | | | | |
|--|--------------------------|--------------------------------------|----------------------------|--------|
| Sparsely Vegetated Cor | ncave Surface (B8) | Other (Explain in Remarks) | | |
| Field Observations: | | | | |
| Surface Water Present? | | 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 |
| Describe Recorded Data (str | ream gauge, monitoring w | vell, aerial photos, previous inspec | tions), if available: | |
| Remarks: | | | | |
| | | | | |
| | | | | |
| | | | | |

| Project/Site: SR 14 - Culvert 14 | City/County: Pulaski Cour | nty | Sampling Date: 10/7/2020 |
|--|---------------------------|----------------------|--------------------------|
| Applicant/Owner: INDOT | | State: IN | Sampling Point: 14-1 |
| Investigator(s): V. Flynn/K. Bollmann | Section, Township, Range: | S16, T30N, R1W | |
| Landform (hillslope, terrace, etc.): terrace | | ave, convex, none): | |
| Slope (%): 2 Lat: 41.055532 | Long: -86.526351 | | Datum: NAD 87 |
| Soil Map Unit Name: Brookston loam, 0 to 1 percent slopes (B | uuA) | NWI classific | ation: N/A |
| Are climatic / hydrologic conditions on the site typical for this time of ye | ear? Yes No X | (If no, explain in R | emarks.) |
| Are Vegetation, Soil, or Hydrology significantly | disturbed? Are "Norm | al Circumstances" p | resent? Yes 🔀 No |
| Are Vegetation, Soil, or Hydrology naturally pr | oblematic? (If needed | , explain any answei | s in Remarks.) |
| | | | |

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

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

Remarks:

Previous 3 month period was drier than average based on rainfall data near Winamac 2SSE weather station from 1971-2020 (AgACIS, 2020)

VEGETATION - Use scientific names of plants.

| 20 ft diam | Absolute | Dominant | | Dominance Test worksheet: |
|--|----------|-------------|--------|--|
| Tree Stratum (Plot size: <u>30 ft. diam.</u>) | % Cover | Species? | Status | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: (A) |
| 2 | | | | TANK A CONTRACTOR |
| 3 | | | | Total Number of Dominant Species Across All Strata: (B) |
| | | | | |
| 4 | | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: (A/B) |
| Sapling/Shrub Stratum (Plot size: 15 ft. diam.) | | = Total Co | ver | Prevalence Index worksheet: |
| | | | | |
| 1 | | | | Total % Cover of: Multiply by: |
| 2 | | | | OBL species x 1 = |
| 3 | | | | FACW species x 2 = |
| 4 | | | | FAC species x 3 = |
| 5 | | | | FACU species x 4 = |
| | | = Total Co | | UPL species x 5 = |
| Herb Stratum (Plot size: 5 ft. diam.) | | - 10tai 00 | 461 | |
| 1. Juncus effusus | 30 | Y | OBL | Column Totals: (A) (B) |
| 2 Equisetum hymenale | 10 | N | FACW | Prevalence Index = B/A = |
| 3. Verbena hastata | 10 | N | FACW | Hydrophytic Vegetation Indicators: |
| 4. Lythrum salicaria | 5 | N | OBL | X 1 - Rapid Test for Hydrophytic Vegetation |
| 5. Eupatorium perfoliatum | 5 | N | OBL | 2 - Dominance Test is >50% |
| | 2 | N | OBL | |
| 6. Typha latifolia | | | | |
| 7 | | | | 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) |
| 8 | | | | |
| 9 | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 10 | | | | |
| | 62 | = Total Cov | /er | ¹ Indicators of hydric soil and wetland hydrology must |
| Woody Vine Stratum (Plot size: 15 ft. diam.) | | 10101-00 | | be present, unless disturbed or problematic. |
| 1 | | | | Hydrophytic |
| 2. | | | | Vegetation |
| a - | | = Total Co | | Present? Yes X No |
| Remarks: (Include photo numbers here or on a separate | | - 10(a) 00 | | |
| Nomarka. (molude prioto numbera nere or off a separate a | neer.) | | | |
| | | | | |
| | | | | |

| Profile Desci | ription: (Describe | to the dep | pth needed to docu | ment the | indicator | or confirn | n the absence | e of indicators.) |
|----------------|--|-------------|--------------------------|---------------------------|--------------------|------------------|--------------------------|--|
| Depth | Matrix | | | x Feature | | 1 2 | Tation | Deventer |
| (inches) | Color (moist) | % | Color (moist) | % | _Type ¹ | Loc ² | | |
| 0-6 | 10 YR 2/2 | 100 | | | · | | SL | High organics |
| 6-20 | Gley1 6/10Y | 99 | 10 YR 4/6 | | | | <u>S</u> | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | · | | | |
| | | | | | · | | | |
| | | | | | · | | | |
| | | | | | | | | |
| | | oletion, RM | I=Reduced Matrix, M | S=Maske | d Sand Gra | ains. | ² Location | n: PL=Pore Lining, M=Matrix. |
| Hydric Soil I | | | × | | | | | for Problematic Hydric Soils ³ : |
| Histosol (| . , | | X Sandy | - | | | | Prairie Redox (A16) |
| Black His | ipedon (A2) tic (A3) | | | Redox (St d Matrix (\$ | | | | Surface (S7) Ianganese Masses (F12) |
| | n Sulfide (A4) | | | | neral (F1) | | | Shallow Dark Surface (TF12) |
| | Layers (A5) | | | Gleyed M | | | | (Explain in Remarks) |
| 2 cm Mu | ck (A10) | | Deplete | ed Matrix (| F3) | | | |
| | Below Dark Surfac | ce (A11) | | Dark Surfa | • • | | | |
| | rk Surface (A12) | | | | urface (F7) | | | s of hydrophytic vegetation and |
| | ucky Mineral (S1) cky Peat or Peat (S | 2) | Redox | Depressio | ns (F8) | | | nd hydrology must be present, s disturbed or problematic. |
| | ayer (if observed) | , | | | | | | s disturbed of problematic. |
| Type: | | • | | | | | | |
| | hes): | | | | | | Hydric Soi | I Present? Yes <u> </u> |
| Remarks: | | | | | | | | |
| Remarks. | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| HYDROLOG | GY | | | | | | | |
| Wetland Hyd | rology Indicators: | : | | | | | | |
| Primary Indic | ators (minimum of o | one is requ | ired; check all that a | oply) | | | Second | ary Indicators (minimum of two required) |
| Surface \ | Nater (A1) | | Water-Sta | ined Leav | es (B9) | | Sur | face Soil Cracks (B6) |
| High Wat | er Table (A2) | | Aquatic F | auna (B13 |) | | Dra | inage Patterns (B10) |
| 🔀 Saturatio | n (A3) | | True Aqua | atic Plants | (B14) | | $\underline{\times}$ Dry | r-Season Water Table (C2) |
| Water Ma | arks (B1) | | \underline{X} Hydrogen | Sulfide O | dor (C1) | | Cra | yfish Burrows (C8) |
| Sedimen | t Deposits (B2) | | Oxidized | Rhizosphe | eres on Liv | ing Roots | (C3) Sat | uration Visible on Aerial Imagery (C9) |
| Drift Dep | osits (B3) | | | | ed Iron (C4 | , | | nted or Stressed Plants (D1) |
| Algal Mat | t or Crust (B4) | | Recent Ire | on Reduct | ion in Tille | d Soils (Ce | 6) <u>X</u> Ge | omorphic Position (D2) |
| Iron Dep | osits (B5) | | Thin Mucl | | , , | | FA0 | C-Neutral Test (D5) |
| | n Visible on Aerial | | , <u> </u> | | ` ' | | | |
| | Vegetated Concav | e Surface | (B8) Other (Ex | plain in Re | emarks) | | | |
| Field Observ | | | \sim | | | | | |
| Surface Wate | | | No X Depth (in | | | - | | |
| Water Table I | | | No Depth (in | |) | _ | | |
| Saturation Pro | | /es_X_ | No Depth (in | ches): <u>0</u> | | _ Wetl | and Hydrolog | y Present? Yes X No |
| (includes cap | | | | | | | | |
| Describe Rec | orded Data (stream | n gaude, m | ionitoring well, aerial | photos, pi | evious ins | pections) | if available: | |
| Describe Rec | orded Data (stream | n gauge, m | onitoring well, aerial | photos, pi | evious ins | pections), | if available: | |

| Project/Site: SR 14 - Culvert 14 | City/County: Pulaski Coun | ity | Sampling Date: 10/7/2020 |
|--|---------------------------|-----------------------|--------------------------|
| Applicant/Owner: INDOT | | | Sampling Point: 14-2 |
| Investigator(s): V. Flynn/K. Bollmann | Section, Township, Range: | S16, T30N, R1W | |
| Landform (hillslope, terrace, etc.): hillslope | | ave, convex, none): | |
| Slope (%): 15 Lat: 41.055565 | Long: -86.526362 | | Datum: NAD 87 |
| Soil Map Unit Name: Brookston loam, 0 to 1 percent slopes (Br | uuA) | NWI classific | ation: |
| Are climatic / hydrologic conditions on the site typical for this time of ye | ear? Yes No X | (If no, explain in Re | emarks.) |
| Are Vegetation, Soil, or Hydrology significantly | disturbed? Are "Norm | al Circumstances" p | resent? Yes X No |
| Are Vegetation, Soil, or Hydrology naturally pro | oblematic? (If needed, | , explain any answer | rs in Remarks.) |
| | | | |

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

| Hydrophytic Vegetation Present? Hydric Soil Present? | Yes No Yes No | Is the Sampled Area | v | | |
|---|------------------|---------------------|-----|---------------|--|
| Wetland Hydrology Present? | Yes No | within a Wetland? | Yes | _ No <u>X</u> | |

Remarks:

Previous 3 month period was drier than average based on rainfall data near Winamac 2SSE weather station from 1971-2020 (AgACIS, 2020)

VEGETATION – Use scientific names of plants.

| 20 ft diam | Absolute | Dominant | | Dominance Test worksheet: |
|---|----------|-------------|--------|---|
| Tree Stratum (Plot size: <u>30 ft. diam.</u>) | % Cover | Species? | Status | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: 0 (A) |
| 2 | | | | Total Number of Deminent |
| 3 | | | | Total Number of Dominant Species Across All Strata: (B) |
| 4 | | | | |
| | | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: (A/B) |
| Sapling/Shrub Stratum (Plot size: 15 ft. diam.) | | = Total Cov | /er | Prevalence Index worksheet: |
| | | | | |
| 1 | | | | Total % Cover of: Multiply by: |
| 2 | | | | |
| 3 | | | | FACW species 25 x 2 = 50 |
| 4 | | | | FAC species 0 x 3 = 0 |
| 5 | | | | FACU species x 4 =64 |
| | | = Total Cov | /er | UPL species _55 x 5 = _275 |
| Herb Stratum (Plot size: 5 ft. diam.) | | | | Column Totals: <u>121</u> (A) <u>489</u> (B) |
| _{1.} Hemerocallis fulva | 50 | Y | UPL | |
| 2. Solidago canadensis | 40 | Υ | FACU | Prevalence Index = B/A = |
| 3. Euthamia graminifolia | 20 | N | FACW | Hydrophytic Vegetation Indicators: |
| 4. Equisetum hymenale | 5 | N | FACW | 1 - Rapid Test for Hydrophytic Vegetation |
| 5. Daucus carota | 5 | N | UPL | 2 - Dominance Test is >50% |
| 6. Oenothera biennis | 1 | N | FACU | 3 - Prevalence Index is ≤3.0 ¹ |
| 7 | | | | 4 - Morphological Adaptations ¹ (Provide supporting |
| | | | | data in Remarks or on a separate sheet) |
| 8 | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 9 | | | | |
| 10 | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| Woody Vine Stratum (Plot size: 15 ft. diam.) | 121 | = Total Cov | /er | be present, unless disturbed or problematic. |
| | | | | |
| 1 | | | | Hydrophytic |
| 2 | | | | Vegetation Present? Yes No _X |
| | | = Total Cov | /er | |
| Remarks: (Include photo numbers here or on a separate s | sheet.) | | | |
| | | | | |
| | | | | |

| (inches) | Matrix | | Redox Features | _ |
|--|---|--------------|--|---|
| | Color (moist) | | <u>Color (moist)</u> <u>%</u> <u>Type¹</u> Loc ² | |
|)-20 | 10 YR 2/1 | | | _ <u>SL</u> |
| | | | | |
| | | | | |
| | | | | |
| Гуре: С=Сс | oncentration, D=Dep | letion, RM=R | Reduced Matrix, MS=Masked Sand Grains. | ² Location: PL=Pore Lining, M=Matrix. |
| ydric Soil I | | | | Indicators for Problematic Hydric Soils ³ : |
| Histosol | (A1) | | Sandy Gleyed Matrix (S4) | Coast Prairie Redox (A16) |
| Histic Ep | ipedon (A2) | | Sandy Redox (S5) | Dark Surface (S7) |
| Black His | stic (A3) | | Stripped Matrix (S6) | Iron-Manganese Masses (F12) |
| _ Hydroger | n Sulfide (A4) | | Loamy Mucky Mineral (F1) | Very Shallow Dark Surface (TF12) |
| _ | Layers (A5) | | Loamy Gleyed Matrix (F2) | Other (Explain in Remarks) |
| 2 cm Mu | · , | | Depleted Matrix (F3) | |
| | Below Dark Surfac | æ (A11) | Redox Dark Surface (F6) | 2 |
| - | rk Surface (A12) | | Depleted Dark Surface (F7) | ³ Indicators of hydrophytic vegetation and |
| _ , | ucky Mineral (S1) | • | Redox Depressions (F8) | wetland hydrology must be present, |
| | cky Peat or Peat (S | | | unless disturbed or problematic. |
| a a fini a filiva I | .ayer (if observed): | | | |
| | , | | | |
| Туре: | | | | Hydric Soil Present? Yes No X |
| | | | | Hydric Soil Present? Yes No |
| Type: Depth (inc | | | _ | Hydric Soil Present? Yes No |
| Type: Depth (inc | | | | Hydric Soil Present? Yes No |
| Type: Depth (inc | | | | Hydric Soil Present? Yes No |
| Type: Depth (inc | | | | Hydric Soil Present? Yes No |
| Type: Depth (inc | | | | Hydric Soil Present? Yes No |
| Type: Depth (inc emarks: | :hes): | | | Hydric Soil Present? Yes NoX |
| Type: Depth (inc emarks: | :hes): | | | Hydric Soil Present? Yes NoX |
| Type: Depth (inc emarks: DROLOG etland Hyd | GY Irology Indicators: | | d: check all that apply) | Hydric Soil Present? Yes NoX |
| Type: Depth (inc emarks: DROLO(etland Hyd imary Indic | GY Irology Indicators: | | d: check all that apply) Water-Stained Leaves (B9) | |
| Type: Depth (inc emarks: DROLO(etland Hyd imary Indic Surface N | GY Irology Indicators: ators (minimum of c | | | Secondary Indicators (minimum of two requir |
| Type: Depth (inc marks: DROLO(etland Hyd imary Indic Surface V | GY Irology Indicators: ators (minimum of o Water (A1) ter Table (A2) | | Water-Stained Leaves (B9) | Secondary Indicators (minimum of two requir Surface Soil Cracks (B6) |
| Type: Depth (inc emarks: DROLO(etland Hyd imary Indic Surface V High Wat | GY frology Indicators: ators (minimum of c Water (A1) ter Table (A2) on (A3) | | Water-Stained Leaves (B9) Aquatic Fauna (B13) | Secondary Indicators (minimum of two requir Surface Soil Cracks (B6) Drainage Patterns (B10) |
| Type: Depth (inc emarks: DROLOO etland Hyd imary Indic Surface N High Wat Saturatio Water Ma | GY frology Indicators: ators (minimum of c Water (A1) ter Table (A2) on (A3) | | Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) | Secondary Indicators (minimum of two requir Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) |
| Type: Depth (inc emarks: DROLOO etland Hyd imary Indic Surface Ma Saturatio Saturatio Water Ma Sedimen | GY Irology Indicators: ators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) | | Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) | Secondary Indicators (minimum of two requir Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) ts (C3) Saturation Visible on Aerial Imagery (C9 |
| Type: Depth (inc emarks: DROLOO etland Hyd imary Indic Surface M Saturatio Saturatio Water Ma Sedimen Drift Dep | GY Irology Indicators: ators (minimum of c Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) | | Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Root Presence of Reduced Iron (C4) | <u>Secondary Indicators (minimum of two requin</u> Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) ts (C3) Saturation Visible on Aerial Imagery (C9 Stunted or Stressed Plants (D1) |
| Depth (inc emarks: (DROLOO /etland Hyd rimary Indic Surface N High Wat Saturatio Saturatio Water Ma Sedimen Drift Dep Algal Ma | GY Irology Indicators: ators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) | | Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Root | <u>Secondary Indicators (minimum of two requin</u> Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) ts (C3) Saturation Visible on Aerial Imagery (C9 Stunted or Stressed Plants (D1) |

| Sparsely Vegetated Con | cave Surface (| (B8) | Other (Explain in Remarks) | | | | |
|--|----------------|-------------|-------------------------------------|----------------------------|-----|------|----------|
| Field Observations: | | | | | | | |
| Surface Water Present? | Yes | No | Depth (inches): | | | | |
| Water Table Present? | Yes | No | Depth (inches): | | | | |
| Saturation Present? (includes capillary fringe) | Yes | No | Depth (inches): | Wetland Hydrology Present? | Yes | No _ | <u>×</u> |
| Describe Recorded Data (str | eam gauge, m | onitoring w | vell, aerial photos, previous inspe | ections), if available: | | | |
| | | | | | | | |
| Remarks: | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| Project/Site: SR 14 - Culvert 16 | City/County: Fulton County | / | Sampling Date: 10/7/2020 |
|--|----------------------------|-----------------------|--------------------------|
| Applicant/Owner: INDOT | | | Sampling Point: 16-1 |
| Investigator(s): _V. Flynn/K. Bollmann | Section, Township, Range: | 518, T30N, R1E | |
| Landform (hillslope, terrace, etc.): terrace | | ive, convex, none): | none |
| Slope (%): 0 Lat: 41.055106 | Long: -86.455852 | | Datum: NAD 87 |
| Soil Map Unit Name: Arian muck, drained, 0 to 1 percent slope | s (Ad) | NWI classifica | |
| Are climatic / hydrologic conditions on the site typical for this time of ye | | (If no, explain in Re | emarks.) |
| Are Vegetation, Soil, or Hydrology significantly | disturbed? Are "Norma | al Circumstances" p | resent? Yes No X |
| Are Vegetation, Soil, or Hydrology naturally pr | oblematic? (If needed, | explain any answer | s in Remarks.) |
| | | | |

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

| Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? | Yes X No Yes X No Yes X No | ls the Sampled Area within a Wetland? | Yes X | No |
|---|----------------------------------|--|-------|----|
| Demention | | | | |

Remarks:

Agricultural Field-No Row crops planted in this area. Previous 3 month period was drier than average based on rainfall data near Winamac 2SSE weather station from 1971-2020 (AgACIS, 2020)

VEGETATION - Use scientific names of plants.

| 20 ft diam | Absolute | Dominant | Indicator | Dominance Test worksheet: |
|---|----------|-------------|-----------|---|
| Tree Stratum (Plot size: <u>30 ft. diam.</u>) | % Cover | Species? | Status | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: 2 (A) |
| 2 | | | | |
| | | | | Total Number of Dominant |
| 3 | | | | Species Across All Strata: _2 (B) |
| 4 | | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: 100 (A/B) |
| | | = Total Cov | /er | |
| Sapling/Shrub Stratum (Plot size: 15 ft. diam.) | | | | Prevalence Index worksheet: |
| 1. Cornus racemosa | 10 | Υ | FAC | Total % Cover of: Multiply by: |
| 2 | | | | OBL species x 1 = |
| 3 | | | | FACW species x 2 = |
| 4 | | | | FAC species x 3 = |
| 5 | | | | FACU species x 4 = |
| | 10 | = Total Cov | /er | UPL species x 5 = |
| Herb Stratum (Plot size: <u>5 ft. diam.</u>) | | | | Column Totals: (A) (B) |
| 1. Panicum rigidulum | 90 | Y | FACW | |
| 2. Echnochloa crus galli | 20 | N | FACW | Prevalence Index = B/A = |
| 3. Persicaria lapathafolium | 10 | Ν | FACW | Hydrophytic Vegetation Indicators: |
| 4. Abutilon theophrasti | 10 | N | FACU | 1 - Rapid Test for Hydrophytic Vegetation |
| 5. Xanthium strumarium | 10 | N | FAC | 2 - Dominance Test is >50% |
| 6. | | | | 3 - Prevalence Index is ≤3.0 ¹ |
| 7 | | | | 4 - Morphological Adaptations ¹ (Provide supporting |
| | | | | data in Remarks or on a separate sheet) |
| 8 | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 9 | | | | |
| 10 | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 15 ft_diam | 140 | = Total Cov | /er | be present, unless disturbed or problematic. |
| Woody Vine Stratum (Plot size: 15 ft. diam.) | | | | |
| 1 | | | | Hydrophytic |
| 2 | | | | Vegetation |
| | | = Total Cov | | Present? Yes X No |
| Remarks: (Include photo numbers here or on a separate s | heet.) | | | 1 |
| | - | | | |
| | | | | |

US Army Corps of Engineers

| | Matrix | | | dox Featur | | | | |
|--|--|---------------|---|---|--|------------------|---|---|
| (inches) | Color (moist) | % | Color (moist) | %_ | Type ¹ | Loc ² | | Remarks |
| 0-12 | 10 YR 2/2 | 100 | | | | | SiCL | |
| 12-20 | 10 YR 2/2 | 97 5 | YR 3/3 | 3 | <u>C</u> | PL | SiCL | |
| | | | | | | | | |
| Type: C=Cc | ncentration, D=Deple | tion, RM=R | educed Matrix, | MS=Maske | d Sand Gr | ains. | ² Locatio | on: PL=Pore Lining, M=Matrix. |
| Hydric Soil I | ndicators: | | | | | | Indicator | rs for Problematic Hydric Soils ³ : |
| Black His Hydroger Stratified 2 cm Mu | ipedon (A2) stic (A3) n Sulfide (A4) Layers (A5) ck (A10) Below Dark Surface | (A11) | Sand Stripp Loam Loam Deple Redo | y Gleyed N y Redox (S oed Matrix (ny Mucky M ny Gleyed N eted Matrix x Dark Sur | 5) S6) ineral (F1) latrix (F2) (F3) face (F6) | | Dark Iron-I Very Othe | st Prairie Redox (A16) Surface (S7) Manganese Masses (F12) Shallow Dark Surface (TF12) er (Explain in Remarks) |
| | rk Surface (A12) | | | eted Dark S | |) | | ors of hydrophytic vegetation and |
| _ , | ucky Mineral (S1) | | Redo | x Depressi | ons (F8) | | | ind hydrology must be present, |
| | cky Peat or Peat (S3) ayer (if observed): | | | | | | unies | ss disturbed or problematic. |
| Type: | ayer (ii observed). | | _ | | | | Hudria Sa | oil Present? Yes <u>×</u> No |
| . , , , , , , , , , , , , , , , , , , , | | | | | | | Hyunc 30 | |
| Depth (inc | hes): | | | | | | | |
| | hes): | | | | | | 1 | |
| Depth (inc Remarks: | | | | | | | 1 | |
| Depth (inc Remarks: YDROLOG | | | | | | | | |
| Depth (inc Remarks: YDROLO(Vetland Hyd | GY | e is required | I; check all that | apply) | | | <u>Second</u> | dary Indicators (minimum of two required |
| Depth (inc Remarks: YDROLOG Vetland Hyd Primary Indic | GY Irology Indicators: | e is required | | apply) Stained Lea | ves (B9) | | | dary Indicators (minimum of two required |
| Depth (inc Remarks: YDROLOO Vetland Hyd Primary Indic Surface N | GY Irology Indicators: ators (minimum of one | e is required | | Stained Lea | · / | | Su | |
| Depth (inc Remarks: YDROLOO Vetland Hyd 'rimary Indic Surface N | GY Irology Indicators: ators (minimum of one Water (A1) ter Table (A2) | e is required | Water-S Aquatic | Stained Lea | 3) | | Su Dr | urface Soil Cracks (B6) |
| Depth (inc Remarks: YDROLOO Vetland Hyc Primary Indic Surface V High Wat | GY Irology Indicators: ators (minimum of one Water (A1) ter Table (A2) m (A3) | e is required | Water-S Aquatic True Aq | Stained Lea Fauna (B1 | 3) s (B14) | | Su Dr Dr Cr | urface Soil Cracks (B6) rainage Patterns (B10) γ-Season Water Table (C2) rayfish Burrows (C8) |
| Depth (inc Remarks: YDROLOO Vetland Hyd Primary Indic Surface V High Wa Saturatio Saturatio Water Ma | GY Irology Indicators: ators (minimum of one Water (A1) ter Table (A2) m (A3) | e is required | Water-S Aquatic True Aq Hydroge | Stained Lea Fauna (B1 juatic Plant | 3) s (B14) Odor (C1) | ing Roots (| Su Dr Dr Cr C3) Sa | urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) |
| Depth (inc Remarks: YDROLOO Vetland Hyc Primary Indic Surface V High Wa Saturatic Saturatic Water Ma Sedimen | GY Irology Indicators: ators (minimum of one Water (A1) ter Table (A2) in (A3) arks (B1) | e is required | Water-S Aquatic True Aq Hydroge Oxidized | Stained Lea Fauna (B1 Juatic Plant en Sulfide C | 3) s (B14) Odor (C1) eres on Liv | | Su Dr Dr Cr C3) Sa | urface Soil Cracks (B6) rainage Patterns (B10) γ-Season Water Table (C2) rayfish Burrows (C8) |
| Depth (inc Remarks: YDROLOO Vetland Hyd Primary Indic Surface V High Wa Saturatio Water Ma Sedimen Drift Dep | GY Irology Indicators: ators (minimum of one Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) | e is required | Water-S Aquatic True Aq Hydroge Oxidized Presence | Stained Lea Fauna (B1 Juatic Plant en Sulfide (d Rhizosph | 3) s (B14) Odor (C1) eres on Liv red Iron (C4 | 4) | C3) Su Dr Cr C3 Sa X Stu Ge | urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) eomorphic Position (D2) |
| Depth (inc Remarks: YDROLOO Vetland Hyd Primary Indic Surface V High Wat Saturatio Water Ma Saturatio Drift Dep Algal Ma | GY Irology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) | e is required | Water-S Aquatic True Aq Hydroge Oxidizer Presenc Recent | Stained Lea Fauna (B1 Juatic Plant en Sulfide C d Rhizosph ce of Reduc | 3) s (B14) Odor (C1) eres on Liv ed Iron (C4 tion in Tille | 4) | C3) Su Dr Cr C3 Sa X Stu Ge | urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) |
| Depth (inc Remarks: YDROLOO Primary Indic Primary Indic Surface V High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dep Inundatio | GY Irology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) | agery (B7) | Water-S Aquatic True Aq Hydroge Oxidized Presenc Recent Thin Mu Gauge o | Stained Lea Fauna (B1 Juatic Plant en Sulfide C d Rhizosph ce of Reduc Iron Reduc | 3) s (B14) Odor (C1) eres on Liv eed Iron (C4 tion in Tille (C7) a (D9) | 4) | C3) Su Dr Cr C3 Sa X Stu Ge | urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) eomorphic Position (D2) |

| Field Observations: | | | | |
|--|------------------------|-------------------------------------|----------------------------|----------|
| Surface Water Present? | Yes No | Depth (inches): | | |
| Water Table Present? | Yes No _X | | | |
| Saturation Present? (includes capillary fringe) | Yes X No | Depth (inches): 20 | Wetland Hydrology Present? | Yes X No |
| Describe Recorded Data (strea | am gauge, monitoring w | ell, aerial photos, previous inspec | tions), if available: | |
| | | | | |
| Remarks: | | | | |
| | | | | |
| | | | | |
| | | | | |

| Project/Site: SR 14 - Culvert 16 | City/County: Fulton Count | ty | Sampling Date: 10/7/2020 |
|--|---------------------------|------------------------|--------------------------|
| Applicant/Owner: INDOT | | | Sampling Point: 16-2 |
| Investigator(s): V. Flynn/K. Bollmann | Section, Township, Range: | S18, T30N, R1E | |
| Landform (hillslope, terrace, etc.): hillslope | | cave, convex, none): | none |
| Slope (%): 10 Lat: 41.055156 | Long: -86.455833 | | Datum: NAD 87 |
| Soil Map Unit Name: Arian muck, drained, 0 to 1 percent slope | s (Ad) | NWI classific | ation: N/A |
| Are climatic / hydrologic conditions on the site typical for this time of ye | ear? Yes No X | _ (If no, explain in R | emarks.) |
| Are Vegetation, Soil, or Hydrology significantly | disturbed? Are "Norm | nal Circumstances" p | resent? Yes X No |
| Are Vegetation, Soil, or Hydrology naturally pro | oblematic? (If needed | l, explain any answei | rs 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 |
|--|---|
|--|---|

Remarks:

Previous 3 month period was drier than average based on rainfall data near Winamac 2SSE weather station from 1971-2020 (AgACIS, 2020)

VEGETATION – Use scientific names of plants.

| 20 ft diam | Absolute | Dominant | | Dominance Test worksheet: |
|---|----------|-------------|--------|---|
| Tree Stratum (Plot size: <u>30 ft. diam.</u>) | % Cover | Species? | Status | Number of Dominant Species |
| 1 | | | | That Are OBL, FACW, or FAC: _0 (A) |
| 2 | | | | |
| | | | | Total Number of Dominant Species Across All Strata: 1 (B) |
| 3 | | | | Species Across All Strata: [] (B) |
| 4 | | | | Percent of Dominant Species |
| 5 | | | | That Are OBL, FACW, or FAC: 0 (A/B) |
| 15 ft diam | | = Total Cov | /er | |
| Sapling/Shrub Stratum (Plot size: 15 ft. diam.) | | | | Prevalence Index worksheet: |
| 1 | | | | Total % Cover of: Multiply by: |
| 2 | | | | OBL species x 1 = _0 |
| 3 | | | | FACW species $0 	 x 2 = 0$ |
| | | | | |
| 4 | | | | 400 400 |
| 5 | | | | |
| 5 ft diam | | = Total Cov | /er | UPL species $0 \times 5 = 0$ |
| Herb Stratum (Plot size: 5 ft. diam.) | 100 | | | Column Totals: <u>100</u> (A) <u>400</u> (B) |
| 1. Schedonorus arundinaceus | 100 | <u>Y</u> | FACU | 4 |
| 2 | | | | Prevalence Index = B/A = |
| 3 | | | | Hydrophytic Vegetation Indicators: |
| 4 | | | | 1 - Rapid Test for Hydrophytic Vegetation |
| | | | | 2 - Dominance Test is >50% |
| 5 | | | | 3 - Prevalence Index is $\leq 3.0^1$ |
| 6 | | | | |
| 7 | | | | 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) |
| 8 | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 9 | | | | |
| 10 | | | | |
| | | = Total Cov | /er | ¹ Indicators of hydric soil and wetland hydrology must |
| Woody Vine Stratum (Plot size: 15 ft. diam.) | | rotar oor | | be present, unless disturbed or problematic. |
| 1 | | | | Under a la stile |
| | | | | Hydrophytic Vegetation |
| 2 | | | | Present? Yes No X |
| | | = Total Cov | /er | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | |
| | | | | |
| | | | | |
| | | | | |

| Profile Des Depth | cription: (Describe Matrix | to the dep | th needed to document the indicator or confirm Redox Features | m the absence | e of indicators.) | | |
|--|-------------------------------|---------------|--|---|---|--|--|
| (inches) | Color (moist) | % | <u>Color (moist)</u> % Type ¹ Loc ² | Texture | Remarks | | |
| 0-8 | 10 YR 3/2 | 100 | | SiL | | | |
| 8-12 | 10 YR 5/4 | 100 | | SiCL | (fill) | | |
| | | | | | | | |
| | | | | | · | | |
| ¹ Type: C=C | Concentration, D=Dep | pletion, RM= | Reduced Matrix, MS=Masked Sand Grains. | | n: PL=Pore Lining, M=Matrix. | | |
| Hydric Soil | Indicators: | | | Indicators | s for Problematic Hydric Soils ³ : | | |
| Histoso | ol (A1) | | Sandy Gleyed Matrix (S4) | Coast | t Prairie Redox (A16) | | |
| Histic E | pipedon (A2) | | Sandy Redox (S5) | Dark | Surface (S7) | | |
| Black H | listic (A3) | | Stripped Matrix (S6) | | Manganese Masses (F12) | | |
| Hydrogen Sulfide (A4) | | | Loamy Mucky Mineral (F1) | | y Shallow Dark Surface (TF12) | | |
| | ed Layers (A5) | | Loamy Gleyed Matrix (F2) | Other | Other (Explain in Remarks) | | |
| | luck (A10) | (*** | Depleted Matrix (F3) | | | | |
| Depleted Below Dark Surface (A11) | | | Redox Dark Surface (F6) | ³ Indicators of hydrophytic vegetation and | | | |
| Thick Dark Surface (A12) Sandy Mucky Mineral (S1) | | | Depleted Dark Surface (F7) | | etland hydrology must be present, | | |
| _ / | lucky Peat or Peat (S1) | 3) | Redox Depressions (F8) | | s disturbed or problematic. | | |
| | Layer (if observed) | | | unies | s disturbed of problematic. | | |
| Type: | | - | | | × | | |
| | nches): | | | Hydric Soi | il Present? Yes No | | |
| Remarks: | | | | | | | |
| HYDROLO | DGY | | | | | | |
| Wetland Hy | drology Indicators | : | | | | | |
| Primary Ind | icators (minimum of | one is requir | ed; check all that apply) | Second | lary Indicators (minimum of two required) | | |
| Surface | e Water (A1) | | Water-Stained Leaves (B9) | Su | rface Soil Cracks (B6) | | |
| High W | ater Table (A2) | | Aquatic Fauna (B13) | Dra | ainage Patterns (B10) | | |
| Saturat | tion (A3) | | True Aquatic Plants (B14) | Dry | y-Season Water Table (C2) | | |
| Water M | Marks (B1) | | Hydrogen Sulfide Odor (C1) | Cra | ayfish Burrows (C8) | | |
| Sedime | ent Deposits (B2) | | Oxidized Rhizospheres on Living Roots | s (C3) Sat | turation Visible on Aerial Imagery (C9) | | |
| Drift De | eposits (B3) | | Presence of Reduced Iron (C4) | Stu | unted or Stressed Plants (D1) | | |
| Algal M | lat or Crust (B4) | | Recent Iron Reduction in Tilled Soils (C | (6) Ge | omorphic Position (D2) | | |

_ FAC-Neutral Test (D5)

___ Iron Deposits (B5) ____ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7) ___ Gauge or Well Data (D9) ____ Sparsely Vegetated Concave Surface (B8) ____ Other (Explain in Remarks) Field Observations: Yes _____ No X Depth (inches): _ Surface Water Present? Yes _____ No X Depth (inches): _____ Water Table Present? Yes _____ No X Depth (inches): _ Wetland Hydrology Present? Yes ____ No ____ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

- A. REPORT COMPLETION DATE FOR PJD:
- B. NAME AND ADDRESS OF PERSON REQUESTING PJD:
- C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

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

State: County/parish/borough:

City:

Center coordinates of site (lat/long in degree decimal format):

Lat.: Long.:

Universal Transverse Mercator:

Name of nearest waterbody:

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) |
|----------------|----------------------------------|-----------------------------------|--|--|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

- 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 "preconstruction 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: | - |

| Maps | s, plans, plots | or plat submitted by or on behalf of the PJD requestor: |
|----------|---------------------------|--|
| Мар |): | |
| C | office concurs | ared/submitted by or on behalf of the PJD requestor. with data sheets/delineation report. t concur with data sheets/delineation report. Rationale: |
| 🗌 Data | sheets prep | ared by the Corps: |
| Corp | s navigable v | vaters' study: |
| U.S. | Geological S | Survey Hydrologic Atlas: |
| - | SGS NHD da SGS 8 and 1 | ata. 2 digit HUC maps. |
| U.S. | Geological S | urvey map(s). Cite scale & quad name: |
| 🗌 Natu | ral Resource | s Conservation Service Soil Survey. Citation: |
| Natio | nal wetlands | inventory map(s). Cite name: |
| State | local wetlan | d inventory map(s): |
| FEM | A/FIRM map | s: |
| <u> </u> | year Floodpla | in Elevation is:(National Geodetic Vertical Datum of 1929) |
| Phot | ographs: | Aerial (Name & Date): |
| | or | Other (Name & Date): |
| 🗌 Previ | ous determir | nation(s). File no. and date of response letter: |
| Othe | r 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.

Signature and date of Regulatory staff member completing PJD

Krista Bollmann

Signature and date of 10/27/2020 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.