ILLINOIS
Illinois Natural History Survey
PRAIRIE RESEARCH INSTITUTE

WETLAND
DETERMINATION REPORT

# Hamilton Road Extension – Addendum A
# McLean County, Illinois

IDOT Sequence Number: 20248A

Prepared by:
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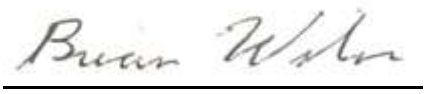
and Brad Zercher

**INHS/IDOT Wetland Science Program**

September 2018

**Project Summary**

A wetland survey was conducted for proposed work on the Hamilton Road Extension – Addendum A in McLean County, Illinois. All potential wetlands within the specified project area were examined. One site met the three criteria of a wetland established in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* (U.S. Army Corps of Engineers [USACE] 2010) and was, therefore, determined to be a wetland. This report is an addendum to a previously submitted report (Nieset et al. 2017); the single wetland site in this report was partially delineated in the original report and is numbered identically. Summary information regarding the wetland determination site is presented in the wetland project report. Wetland determination forms are found in Appendix A and a wetland plant species list is included in Appendix B. Wetland boundaries were recorded using a Trimble Global Navigation Satellite System (GNSS). The spatial data have been digitally uploaded to the Illinois Site Assessment Tracking System (https://frostycap.isgs.illinois.edu/authenticate/login.asp). Locations of determination sites were overlaid on a digital aerial orthophoto using ArcGIS; the resulting figure is included in Appendix C. Additional maps and figures are also included in Appendix C

Signed:  Date: September 12, 2018

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*Cover Photo: Facing northwest from near Sampling Point 1A, overlooking Wetland Site 1.*

# Hamilton Road Extension – Addendum A
# McLean County, Illinois

## Introduction

A wetland survey was conducted on August 29 and September 11, 2018, for the proposed work on the Hamilton Road Extension – Addendum A in McLean County, Illinois. This work is an addendum to a previously submitted report by the Illinois Natural History Survey (INHS) (Nieset et al. 2017); site numbering is consistent with the previous report. Construction work will consist of regrading the existing drainage ditch along the west side of the abandoned railroad line.

## Methods

All potential wetlands within the specified study area were examined. Characteristics of vegetation, soils, hydrology, and topography were evaluated during field investigation and on-site wetland determination. Locations of observation points for wetland determinations were selected based on plant community borders and topographic changes. The following sources were examined while surveying the project corridor to determine wetland locations and boundaries: aerial photographs; U.S. Geological Survey topographic map (Bloomington East 7.5 minute quadrangle); National Wetlands Inventory (NWI) website (USFWS 2017); the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987); the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* (USACE 2010); the USDA-NRCS *Official Series Descriptions*; and the USDA-NRCS *Web Soil Survey*. Positional inaccuracies are known to occur with downloaded sources of digital data listed above. As presented on maps and figures in this report, data can be shifted from their actual position when compared to modern aerial photography.

Wetland determinations were conducted using definitions and guidelines established in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* (USACE 2010). Data from these determinations were recorded on U.S. Army Corps of Engineers' Wetland Determination Data Forms – Midwest Region (Appendix A); a data form was completed for each wetland sampling point. All potential wetlands, including all areas mapped as wetlands by the NWI, were described using at least one sampling point. Results of these determinations are summarized in the following text. Adjacent upland areas were also investigated; forms were not completed for these areas. Comprehensive plant species lists were compiled for each wetland site and are presented in Appendix B.

Wetland location data were recorded using a Trimble Global Navigation Satellite System (model GeoExplorer 6000 Series GeoXT), with a presumed accuracy of +/- 0.5 m under optimal field conditions. Spatial data were digitally uploaded to the Illinois Site Assessment Tracking System (https://frostycap.isgs.illinois.edu/authenticate/login.asp). Locations of determination sites were overlaid on a digital aerial orthophoto and approximate area was determined for each

wetland site using ArcGIS Pro 2.1 software (ESRI 2017). Resulting areas are calculated in acres, reported to two decimal places. Site location, with respect to the nearest road, was measured from the edge of the pavement and is reported to the nearest foot.

Each native plant species was assigned a "coefficient of conservatism" (C) (Taft et al. 1997), a subjective rating of species fidelity to undegraded natural communities, ranging from zero to ten. Conservative species - those more likely to be found in "pristine" natural areas - were assigned high numbers, whereas non-conservative species - those that occur in anthropogenically disturbed areas - were given lower numbers. Non-native species and those not identifiable to species level were not assigned a rating. The Floristic Quality Index (FQI) is computed as FQI = (mean C) X (√N), where mean C is the mean coefficient of conservatism for all native plant species at a site and N is the total number of native plant species at the site. In very general terms, higher FQI values for plant communities indicate more similarity to "pristine" natural areas, as compared to those communities with lower FQI values. Botanical nomenclature follows *Vascular Flora of Illinois* (Mohlenbrock 2002), while wetland indicator status for each species follows *National Wetland Plant List, version 3.3* (USACE 2016, Lichvar et al. 2016).

**Wetland Determination Site Summary**

**Site Number: 3**

Community type: **Wet shrubland/wet meadow/marsh**

National Wetlands Inventory code**: PFO1A (temporarily flooded, broad-leaved deciduous, forested, palustrine wetland), R4SBC (seasonally flooded, streambed, intermittent, riverine wetland) and U (upland)**

Site location: **Approximately 15 and 31 feet west of the abandoned Norfolk and Southern Railroad Line**

Hydrophytic Vegetation? **Yes** Hydric Soils? **Yes** Wetland Hydrology? **Yes**

Is this site a wetland? **Yes**

Area of site occurring within the project corridor: **0.86 acre**

Total site area: **Undetermined**

Mean Coefficient of Conservatism (mean C): **2.3** Floristic Quality Index (FQI): **17.8**

Additional remarks: **A small portion of this site was identified as Wetland Site 3 in the original Hamilton Road Extension report (Nieset et al. 2017).**

**Stream Description**

No streams were found within the project area. Although a seasonally flooded, streambed, intermittent, riverine wetland (R4SBC) was identified in the National Wetlands Inventory as present in the corridor, this channel lacked water and was completely covered with terrestrial, hydrophytic vegetation; it was therefore, mapped as wetland and included in Wetland Site 3. This project occurs within the USGS 8-Digit Hydrologic Unit Code (HUC): 07130009 (Salt).

**Threatened/Endangered Species and Natural Communities of Special Interest**

No species listed as threatened or endangered federally or in Illinois were found during our wetland survey within the project corridor. Also, no natural communities of special interest were noted.

**Literature Cited**

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U.S. Army Corps of Engineers. 2016. National Wetland Plant List, version 3.3 (http://rsgisias.crrel.usace.army.mil/nwpl_static/index.html). U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH.

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U. S. Fish and Wildlife Service. 2017. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. http://www.fws.gov/wetlands/

# APPENDIX A

## Wetland Determination Forms

# WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Hamilton Road Extension Addendum A City/County: McLean Sampling Date 8/29/2018

Applicant/Owner: IDOT District 5 State: IL Sampling Point 1A

Investigator(s): Wilm, Wiesbrook, Grauer-Gray, Carr Section, Township, Range: Sec. 15, T23N, R2E

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

Slope (%): 0-2 Lat: 40.45460 Long: -88.97555 Datum: NAD 83

Soil Map Unit Name: NRCS mapped as Sable SICL, 0-2% slopes; revised to Aquents NWI classification: PFO1A

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

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

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 | **Is the Sampled Area within a Wetland?** | **Yes** |
| Hydric Soil Present? | Yes | | |
| Wetland Hydrology Present? | Yes | | |

Remarks: Community type is marsh.

## VEGETATION - Use scientific names of plants.

| | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| **Tree Stratum** (Plot size: 30 ft radius) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 0 = Total Cover | | |
| **Sapling/Shrub Stratum** (Plot size: 15 ft radius) | | | |
| 1. *Fraxinus lanceolata* | 20 | Yes | FACW |
| 2. *Salix nigra* | 5 | Yes | OBL |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 25 = Total Cover | | |
| **Herb Stratum** (Plot size: 5 ft radius) | | | |
| 1. *Phalaris arundinacea* | 90 | Yes | FACW |
| 2. *Typha latifolia* | 20 | No | OBL |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| | 110 = Total Cover | | |
| **Woody Vine Stratum** (Plot size: 30 ft radius) | | | |
| 1. | | | |
| 2. | | | |
| | 0 = Total Cover | | |

**Dominance Test worksheet:**

Number of Dominant Species That are OBL, FACW, or FAC: _____ (A)

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

Percent of Dominant Species That are OBL, FACW, or FAC: _____ (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | Multiply by: |
|---|---|
| OBL species | x 1 = |
| FACW species | x 2 = |
| FAC species | x 3 = |
| FACU species | x 4 = |
| UPL species | x 5 = |
| Column Totals (A) | (B) |

Prevalence Index = B/A =

**Hydrophytic Vegetation Indicators**

- [x] 1-Rapid Test for Hydrophytic Vegetation
- [ ] 2-Dominance Test is >50%
- [ ] 3-Prevalence Index is < or =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**

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

## SOIL

Sampling Point: 1A

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

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox Features % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-3 | 10YR 2/1 | 99 | 10YR 4/6 | 1 | C | M | SIL | |
| 3-11 | 10YR 4/2 | 90 | 7.5YR 4/6 | 8 | C | M | CL | |
| 3-11 | | | 10YR 3/1 | 2 | | | | |
| 11-12 | N 2.5/ | 100 | | | | | SIL/SICL | |

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

**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ 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)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ 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**

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 is 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? No Depth (inches): _____

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

**Wetland Hydrology Present?** **Yes**

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

Remarks:

# WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Hamilton Road Extension Addendum A City/County: McLean Sampling Date 9/11/2018

Applicant/Owner: IDOT District 5 State: IL Sampling Point 1B

Investigator(s): Wilm and Wiesbrook Section, Township, Range: Sec. 15, T23N, R2E

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

Slope (%): 0 Lat: 40.45288 Long: -88.97312 Datum: NAD 83

Soil Map Unit Name: NRCS mapped as Ipava SIL, revised to Aquent NWI classification: U

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

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

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 | **Is the Sampled Area within a Wetland?** | **Yes** |
| Hydric Soil Present? | Yes | | |
| Wetland Hydrology Present? | Yes | | |

Remarks: Community type is wet shrubland.

## VEGETATION - Use scientific names of plants.

| | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| **Tree Stratum** (Plot size: 30 ft radius) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 0 = Total Cover | | |
| **Sapling/Shrub Stratum** (Plot size: 15 ft radius) | | | |
| 1. *Salix interior* | 65 | Yes | FACW |
| 2. *Fraxinus lanceolata* | 10 | No | FACW |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 75 = Total Cover | | |
| **Herb Stratum** (Plot size: 5 ft radius) | | | |
| 1. *Typha angustifolia* | 40 | Yes | OBL |
| 2. *Phalaris arundinacea* | 30 | Yes | FACW |
| 3. *Apocynum cannabinum* | 8 | No | FAC |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| | 78 = Total Cover | | |
| **Woody Vine Stratum** (Plot size: 30 ft radius) | | | |
| 1. | | | |
| 2. | | | |
| | 0 = Total Cover | | |

**Dominance Test worksheet:**

Number of Dominant Species That are OBL, FACW, or FAC: _____ (A)

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

Percent of Dominant Species That are OBL, FACW, or FAC: _____ (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | | x 1 = | |
| FACW species | | x 2 = | |
| FAC species | | x 3 = | |
| FACU species | | x 4 = | |
| UPL species | | x 5 = | |
| Column Totals | (A) | | (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators**

- [x] 1-Rapid Test for Hydrophytic Vegetation
- [ ] 2-Dominance Test is >50%
- [ ] 3-Prevalence Index is < or =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**

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

## SOIL

Sampling Point: 1B

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

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox Features % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-3 | 2.5Y 3/2 | 95 | 2.5Y 5/6 | 5 | C | M | SIL | |
| 3-6 | 10YR 2/1 | 98 | 7.5YR 4/4 | 2 | C | M | SICL | |
| 6-9 | 10YR 4/1 | 97 | 7.5YR 4/4 | 3 | C | M | SICL | |
| 9-12 | 2.5Y 5/1 | 95 | 10YR 5/6 | 5 | C | M | SICL | |

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

**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ 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)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ 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**

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 is 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? No Depth (inches): _____

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

**Wetland Hydrology Present?** **Yes**

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

Remarks:

# APPENDIX B

## Wetland Plant Species List

**Project Title: Hamilton Road Addendum A** **Sequence No: 20248A**

**Site 1 - Wet shrubland/wet meadow/marsh**

| Scientific Name | Common Name | Strata | Wetland Indicator Status | Coefficient of Conservatism |
|---|---|---|---|---|
| ***Fraxinus lanceolata*** | **green ash** | H**S**T | FACW | 2 |
| ***Phalaris arundinacea**** | **reed canary grass** | **H** | FACW | - |
| ***Salix interior*** | **sandbar willow** | H**S** | FACW | 1 |
| ***Typha angustifolia**** | **narrow-leaved cattail** | **H** | OBL | - |
| *Acalypha rhomboidea* | three-seeded mercury | H | FACU | 0 |
| *Acer saccharinum* | silver maple | HST | FACW | 1 |
| *Acorus sp.* | sweet flag | H | OBL | - |
| *Alisma subcordatum* | common water plantain | H | OBL | 2 |
| *Ambrosia artemisiifolia* | common ragweed | H | FACU | 0 |
| *Ambrosia trifida* | giant ragweed | H | FAC | 0 |
| *Ampelamus albidus* | blue vine | H | FAC | 1 |
| *Antenoron virginianum* | Virginia knotweed | H | FAC | 3 |
| *Apocynum cannabinum* | dogbane | H | FAC | 2 |
| *Apocynum sibiricum* | Indian hemp | H | FAC | 2 |
| *Asclepias incarnata* | swamp milkweed | H | OBL | 4 |
| *Aster lanceolatus* | panicled aster | H | FAC | 3 |
| *Aster lateriflorus* | side-flowering aster | H | FACW | 2 |
| *Bidens aristosa* | swamp marigold | H | FACW | 1 |
| *Bidens frondosa* | common beggar's ticks | H | FACW | 1 |
| *Boehmeria cylindrica* | false nettle | H | OBL | 3 |
| *Calystegia sepium* | American bindweed | H | FAC | 1 |
| *Carex cristatella* | crested oval sedge | H | FACW | 3 |
| *Carex frankii* | bristly cattail sedge | H | OBL | 4 |
| *Carex hystericina* | porcupine sedge | H | OBL | 6 |
| *Carex sp.* | sedge | H | - | - |
| *Carex vulpinoidea* | brown fox sedge | H | FACW | 3 |
| *Cicuta maculata* | water hemlock | H | OBL | 4 |
| *Cirsium vulgare** | bull thistle | H | FACU | - |
| *Cyperus esculentus* | field nut sedge | H | FACW | 0 |
| *Daucus carota** | Queen Anne's lace | H | UPL | - |
| *Echinochloa muricata* | spiny barnyard grass | H | OBL | 0 |
| *Erechtites hieracifolia* | fireweed | H | FAC | 2 |
| *Festuca arundinacea** | tall fescue | H | FACU | - |
| *Galium aparine* | annual bedstraw | H | FACU | 0 |
| *Glechoma hederacea** | ground ivy | H | FACU | - |
| *Helenium autumnale* | sneezeweed | H | FACW | 3 |
| *Impatiens capensis* | spotted touch-me-not | H | FACW | 2 |
| *Iris shrevei* | southern blue flag | H | OBL | 5 |
| *Juncus dudleyi* | Dudley's rush | H | FACW | 4 |
| *Leersia oryzoides* | rice cut grass | H | OBL | 3 |
| *Leersia virginica* | white grass | H | FACW | 4 |
| *Lobelia siphilitica* | great blue lobelia | H | OBL | 4 |

(Species list continues on following page)

**Site 1 - Wet shrubland/wet meadow/marsh (continued)**

| Scientific Name | Common Name | Strata | Wetland Indicator Status | Coefficient of Conservatism |
|---|---|---|---|---|
| *Lonicera maackii** | Amur honeysuckle | HS | UPL | - |
| *Lycopus americanus* | common water horehound | H | OBL | 3 |
| *Lycopus virginicus* | bugle weed | H | OBL | 5 |
| *Melilotus sp.** | sweet clover | H | D | - |
| *Mentha arvensis var. villosa* | wild mint | H | FACW | 4 |
| *Monarda fistulosa* | wild bergamot | H | FACU | 4 |
| *Panicum capillare* | old witch grass | H | FAC | 0 |
| *Panicum dichotomiflorum* | fall panicum | H | FACW | 0 |
| *Persicaria lapathifolia* | curttop lady's thumb | H | FACW | 0 |
| *Persicaria pensylvanica* | pinkweed | H | FACW | 1 |
| *Persicaria punctata* | smartweed | H | OBL | 3 |
| *Persicaria vulgaris** | lady's thumb | H | FACW | - |
| *Phragmites australis** | common reed | H | FACW | - |
| *Phyla lanceolata* | fog fruit | H | OBL | 1 |
| *Poa pratensis** | Kentucky blue grass | H | FAC | - |
| *Populus deltoides* | eastern cottonwood | HT | FAC | 2 |
| *Ribes americanum* | wild black currant | HS | FACW | 5 |
| *Rubus occidentalis* | black raspberry | HS | UPL | 2 |
| *Rudbeckia laciniata* | wild golden glow | H | FACW | 3 |
| *Rumex crispus** | curly dock | H | FAC | - |
| *Salix nigra* | black willow | ST | OBL | 3 |
| *Schoenoplectus tabernaemontani* | soft-stem bulrush | H | OBL | 4 |
| *Scirpus atrovirens* | dark green rush | H | OBL | 4 |
| *Scirpus pendulus* | red bulrush | H | OBL | 3 |
| *Sida spinosa** | prickly sida | H | FACU | - |
| *Solidago canadensis* | Canada goldenrod | H | FACU | 1 |
| *Solidago gigantea* | late goldenrod | H | FACW | 3 |
| *Toxicodendron radicans* | poison ivy | HW | FAC | 1 |
| *Typha latifolia* | broad-leaved cattail | H | OBL | 1 |
| *Verbena urticifolia* | white vervain | H | FAC | 3 |
| *Verbesina alternifolia* | wingstem | H | FACW | 4 |
| *Vitis riparia* | riverbank grape | HW | FACW | 2 |
| *Xanthium strumarium* | cocklebur | H | FAC | 0 |

*Non-native species **Bolded species is dominant in the denoted stratum** Mean C = 2.3

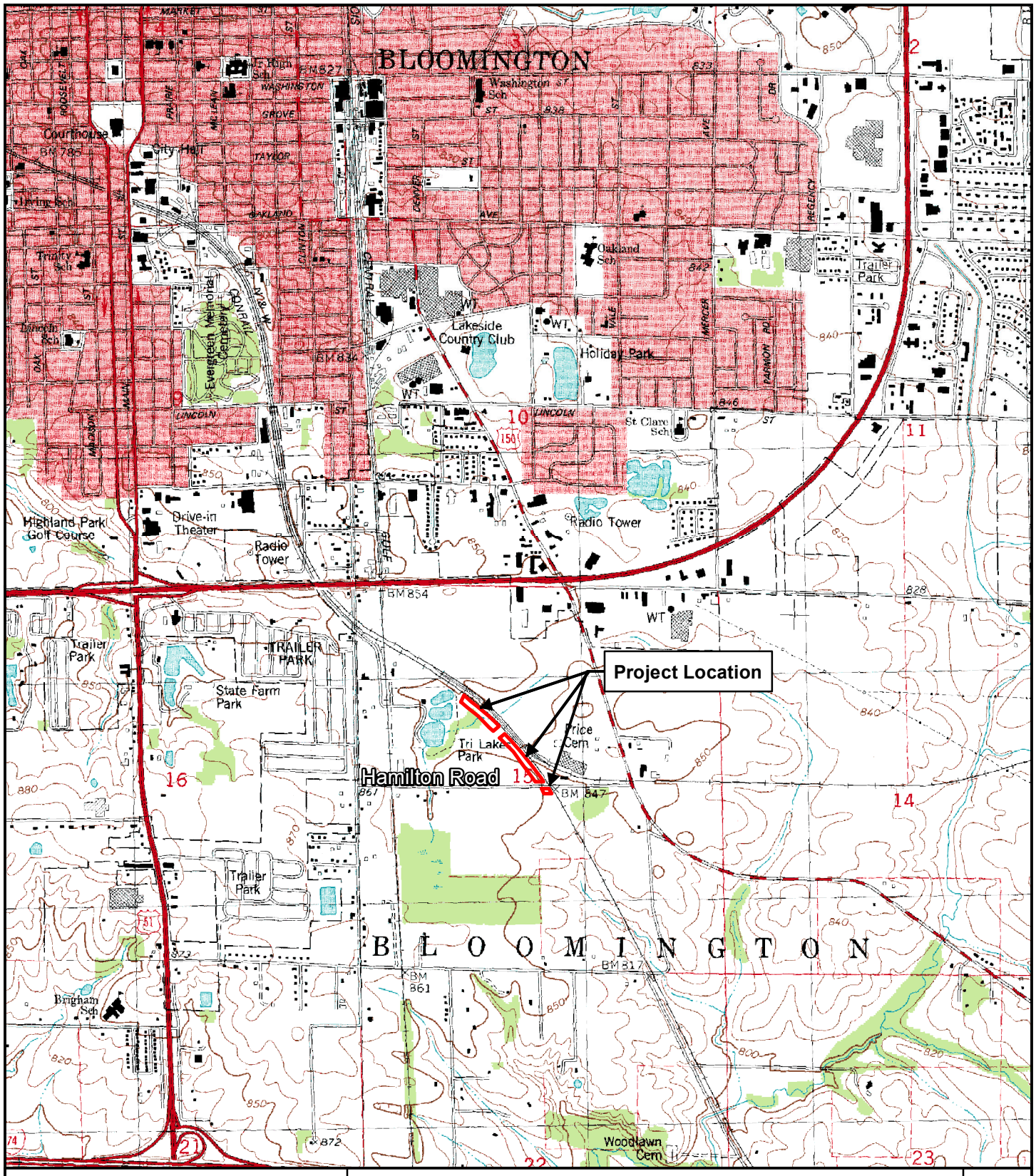
H = Herb, T = Tree, S = Sapling/Shrub, W = Woody Vine FQI = 17.8

When possible, the wetland indicator status has been determined for taxa identified only to the genus level (D = non-hydrophytic; H =hydrophytic).

# APPENDIX C

## Figures

**Figure 1 – Project Location Map**
**Figure 2 – National Wetlands Inventory Map**
**Figure 3 – Wetland Determination Map**

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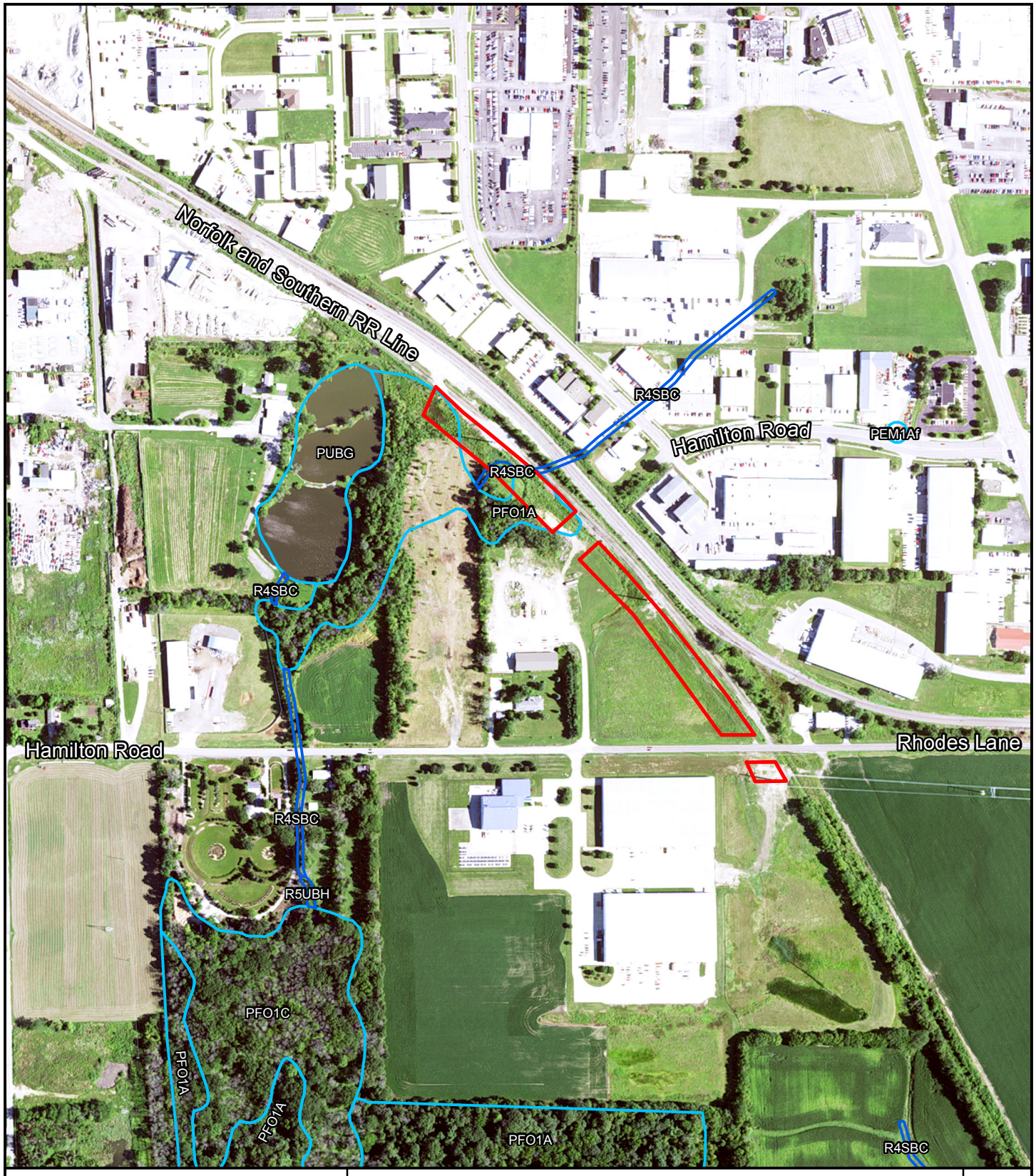
**INHS/IDOT Wetland Science Program**
1816 South Oak Street
Champaign, Illinois 61820

**Figure 1**
**Project Location Map**
**Hamilton Road Extension Addendum A**
**McLean County**

**Seq. No: 20248A**

0 Meters 500 0 Feet 2,000

September 2018

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Champaign, Illinois 61820

**Figure 2**
**National Wetlands Inventory Map**
**Hamilton Road Extension Addendum A**
**McLean County** **Seq. No: 20248A**

0 Meters 100 0 Feet 500

September 2018

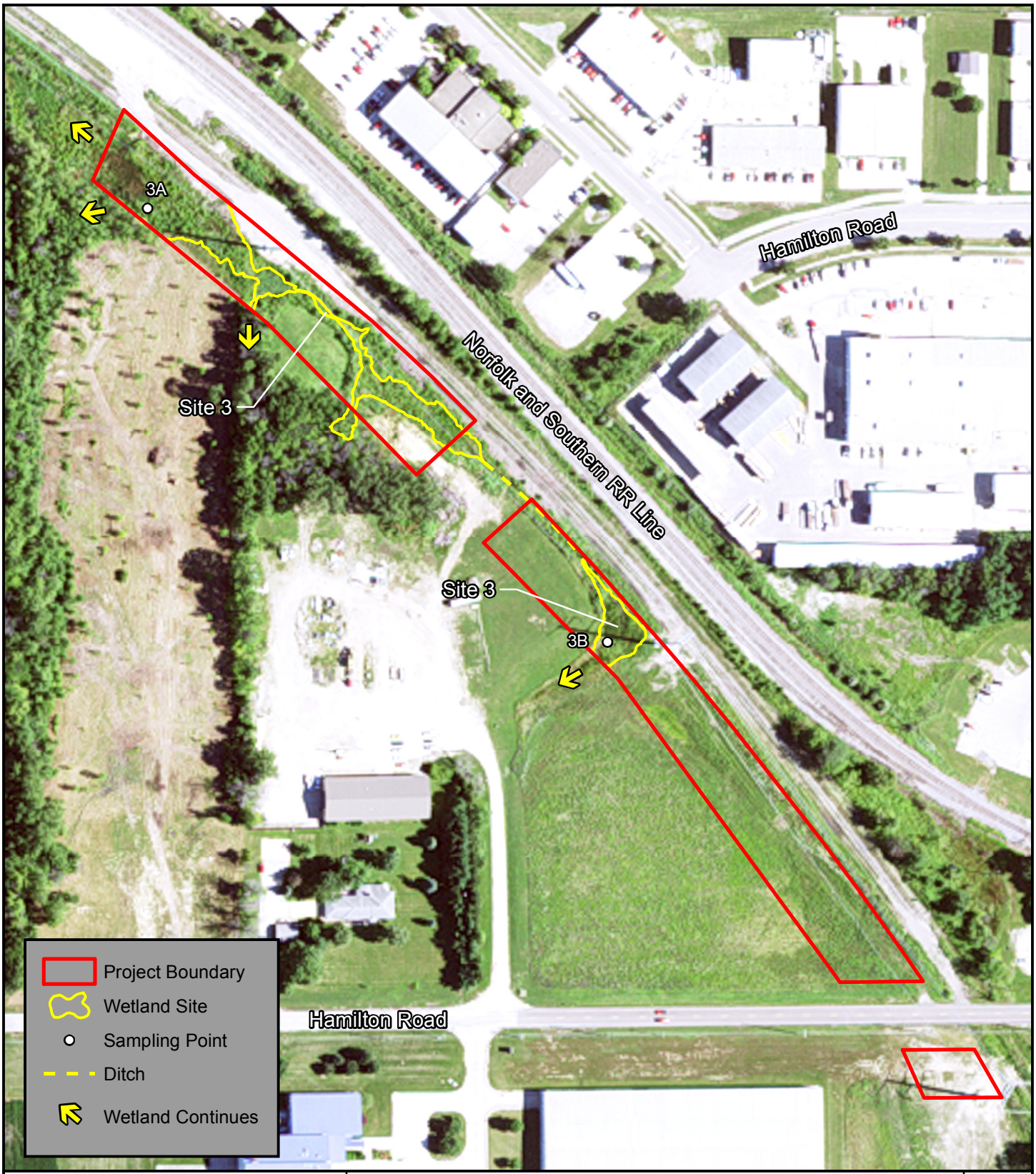


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**Figure 3**
**Wetland Determination Map**
**Hamilton Road Extension Addendum A**
**McLean County**
**Seq. No: 20248A**

Meters 0 50 Feet 0 200

September 2018

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