Appendix D3.2: Ecological Systems Natural Resources Reports and Correspondence

2020 Wetland Delineation Report

Milepost 44.54 to 55.48
Tier 8 Project, Joliet Subdivision, SPCSL 1A (HSR), Will County, Illinois

Wetland Delineation Report

January 2021

Union Pacific Railroad Company

Milepost 44.54 to 55.48 Tier 8 Project, Joliet Subdivision, SPCSL 1A (HSR) Will County, Illinois

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Executive Summary

Union Pacific Railroad Company is evaluating the potential for construction of a second main track, adjacent to the mainline track, along the Joliet Subdivision between Mileposts (MP) 44.54 to 55.48 in Will County, Illinois. The Joliet Subdivision, which stretches from the Village of Elwood to the City of Braidwood, is a major thoroughfare for industrial and commercial transportation. The wetland delineation included an Environmental Survey Corridor on either side of the mainline track to include proposed work such as grade crossing improvements, bridge improvements, and new track construction.

Thirty-nine wetlands and eight watercourses were identified in the 163-acre Environmental Survey Corridor between September 9th and 17th, 2020. A total of 29 potentially jurisdictional wetlands (18.35 acres) and eight potentially jurisdictional watercourses (3.89 acres and 9,156 linear feet) were identified within the Environmental Survey Corridor. Of the jurisdictional aquatic resources identified in the Environmental Survey Corridor, quality ranged from low to high, with the majority being low quality resources. This report describes delineated resources, provides delineation maps, and presents representative site photographs.

The delineation results and conclusions presented in this report are considered preliminary, pending verification by the U.S. Army Corps of Engineers Regulatory Branch.

Contents

Acronyms and Abbreviations

DFIRM	Digital Flood Insurance Rate Map
ESC	Environmental Survey Corridor
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FQA	Floristic Quality Assessment
FQI	Floristic Quality Index
HSR	High Speed Rail
HUC	Hydrologic Unit Code
Jacobs	Jacobs Engineering Group Inc.
MP	Milepost
NHD	National Hydrography Dataset
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OHWM	ordinary high-water mark
Olsson	Olsson Associates
ROW	right-of-way
UPRR	Union Pacific Railroad Company
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WSS	Web Soil Survey

1. Introduction

This report presents the findings of the wetland delineation conducted on behalf of Union Pacific Railroad Company (UPRR) at the Tier 8 portion of the SPCSL 1A High Speed Rail (HSR) Project between Chicago, Illinois and St. Louis, Missouri (hereafter referred to as the Tier 8 Project) along the Joliet Subdivision in Will County, Illinois.

UPRR is evaluating the potential for construction of a second main track, adjacent to the mainline track, along the Joliet Subdivision, which stretches from the Village of Elwood to the City of Braidwood. The Joliet Subdivision is a major thoroughfare for industrial and commercial transportation.

The purpose of the Tier 8 Project is to construct approximately 11 miles of second main track adjacent to the existing mainline track (Milepost (MP) 44.54 to 55.48). The Project point-of-beginning is at NW Diagonal Road in the City of Elwood (latitude 41.415030, longitude -88.106443) to the point-of-ending approximately 0.8 mile southeast of the Coal City Road crossing in the City of Wilmington (latitude 41.290097, longitude -88.179299).

The wetland delineation Environmental Survey Corridor (ESC) (approximately 163 acres) includes the north/south trending railway corridor, the railway right-of-way (ROW), additional ROW, and temporary construction easements. The landscape surrounding the Project consists of rural agricultural, residential, developed industrial areas, the Midewin National Tallgrass Prairie nature preserve, and the Abraham Lincoln National Cemetery. A previous wetland delineation was completed by Olsson Associates (Olsson) in October 2014. The 2020 wetland delineation was conducted by Jacobs to identify any potential environmental changes that could have occurred in the past six years and verify previously collected data.

This report identifies and describes aquatic resources within the ESC in support of Clean Water Act Sections 401 and 404 permitting. This report facilitates the following efforts:

1) Avoiding or minimizing impacts to aquatic resources during the design process
2) Documenting aquatic resource survey area determinations for review by regulatory authorities
3) Providing early indications of known sensitive species and historic/cultural properties within the ESC

The delineation results and conclusions presented in this report are considered preliminary, pending verification by the U.S. Army Corps of Engineers (USACE) Regulatory Branch.

2. Location

The Project is located along the Joliet Subdivision from MP 44.54 to MP 55.48 between the Village of Elwood and the City of Braidwood, in Will County, Illinois (Figure 1). The north-south oriented State Highway 53 parallels the tracks. The project area is located within the U.S. Geological Survey (USGS) 7.5-minute Elwood and Wilmington quadrangle within the Grant Creek watershed (071200040904) and the City of Wilmington-Kankakee River watershed (071200011806).

The northern end of the project area is near Joliet, Illinois, and can be accessed as follows:

- From Joliet, drive south on IL-53 S approximately 9 miles.
- Turn right onto Mississippi Ave. and continue to the intersection of the railroad track.

The southern end of the project area is near Joliet, Illinois, and can be accessed as follows:

- From Joliet, drive west on I- 80 W.
- Take the exit onto I-55 S and drive approximately 16 miles.
- Take the exit onto IL-129/Washington St. and continue to where Highway 53 intersects the railroad track.

Access to the UPRR ESC and ROW may be obtained directly from UPRR prior to access. UPRR railway safety protocol requires a UPRR safety escort on all UPRR property.

3. Methods

Jacobs scientists conducted an aquatic resources field survey from September 9 through September 17, 2020. The field survey was limited to the ESC (163 acres) that corresponds with the UPRR existing and proposed ROW boundary and temporary construction access. The following subsections describe the field sampling procedures and methods used to determine and map aquatic resources within the ESC. Site-specific information reviewed during the pre-field investigation and collected during, or produced from, the field survey is provided in the appendices and figures. The following appendices and figures are provided:

- Appendix A Figures
- Appendix B Wetland Determination Data Forms
- Appendix C Photographs
- Appendix D List of Plant Species Observed
- Appendix E Floristic Quality Index
- Appendix F Stream Assessment Forms

3.1 Pre-field Investigation

General information on climate, vegetation, soils, hydrology, and existing wetlands was reviewed before the field survey. Data sources included USGS topographic maps, National Wetlands Inventory (NWI) (U.S. Fish and Wildlife Service [USFWS], 2020) and National Hydrography Dataset (NHD) maps (USGS, 2020), Digital Flood Insurance Rate Maps (DFIRM) (Federal Emergency Management Agency [FEMA], 2015), regional and local precipitation records, and Web Soil Survey (U.S. Department of Agriculture [USDA]- Natural Resources Conservation Service [NRCS], 2020).

3.2 Field Survey

3.2.1 Method for Delineating Wetlands

The survey method for identifying wetlands followed 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). These methods use three criteria (vegetation, soils, and hydrology) to determine the presence of wetlands.

At each sample point, plant species were identified, and percent cover was visually estimated and recorded. Dominant plant species included the most abundant species whose cumulative cover accounted for more than 50 percent of the total cover, as well as any one species that accounted for at least 20 percent of the total vegetative cover. Strata that contained less than five (5) percent cover were not considered in the dominance test. The wetland indicator status for plant species was determined using the National Wetland Plant List (Lichvar et al., 2016). Wetland hydrology was determined from direct observation of soil saturation and inundation or other indicators. Soil characterization was determined from direct observation of soils between 0 and 24 inches below ground surface.

A previous wetland delineation was completed by Olsson in October 2014. The 2020 wetland delineation was conducted to identify any potential environmental changes that could have occurred in the past six years and verify previously collected data. If wetland boundaries, vegetation, and hydrology remained relatively unchanged, previous data sheets were used and the Floristic Quality Assessment (FQA) was updated. The FQA is used to assess the native vegetative quality for an area and was calculated for each wetland.

Onsite photographs, a list of plant species observed, and the wetland determination data forms can be seen in **Appendices B, C, and D** respectively.

Aquatic resources within the ESC were mapped using Trimble R1 global positioning systems with subfoot accuracy.

3.2.2 Method for Delineating Non-tidal Stream Boundaries

Within non-tidal waters, in the absence of adjacent wetlands, the extent of USACE jurisdiction is defined by the ordinary high-water mark (OHWM). In 33 *Code of Federal Regulations* 328.3, the OHWM is defined as the "line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, or the presence of litter and debris" (Environmental Laboratory, 1987). Generally, the USACE considers the OHWM to be the elevation to which water flows at a 2-year frequency (for example, 50 years out of 100 years). Typically, the OHWM is indicated by the presence of a defined streambed with bank shelving, but may also include flow lines; sediment deposition or scour; and mineral staining, salt deposits, or deep or surficial cracking.

Within the ESC, the OHWM indicators were identified and mapped in the field. The OHWM indicators were recorded, and the average width and depth of the OHWM channels were documented. Measured field data were compared with aerial photographs to refine and adjust the OHWM boundaries. Photographs of the channels are provided in **Appendix C**.

4. Existing Conditions and Results

4.1 Soils

The soils series within the ESC were identified using the Web Soil Survey online database (USDA-NRCS, 2020). These data sources indicate the Project is underlain 28 soil classifications. Soil types and their respective distributions within the ESC are summarized in the table below and included in Figure 2.

Soil Classification Number and Name	Prime Farmland?	Hydric Soil?	Soil Description
67A Harpster Silty Clay Loam, 0 – 2 percent slopes	Yes, where drained	Yes	Poorly drained, moderate permeability
93C2 Rodman Gravelly Loam, 4 – 6 percent slopes, eroded	No	No	Excessively drained, rapid permeability
98B Ade Loamy Fine Sand, 1 – 6 percent slopes	No	No	Somewhat excessively drained, rapid permeability
102A La Hoque Loam, 0 – 2 percent slopes	Yes	No	Somewhat poorly drained, moderate permeability
125A Selma Loam, 0 – 2 percent slopes	Yes, where drained	Yes	Poorly drained, moderately rapid permeability
146B Elliott Silt Loam, 2 – 4 percent slopes	Yes	No	Somewhat poorly drained, moderately slow permeability
150B Onarga Fine Sandy Loam, 2 – 5 percent slopes	Yes	No	Moderately well drained, moderate permeability
150C2 Onarga Fine Sandy Loam, 5 – 10 percent slopes, eroded	Yes	No	Moderately well drained, moderate permeability
151A Ridgeville Fine Sandy Loam, 0 – 2percent slopes	Yes	No	Somewhat poorly drained, moderately rapid permeability
201A Gilford Fine Sandy Loam, 0 – 2 percent slopes	Yes, where drained	Yes	Poorly drained, moderate to rapid permeability
223C2 Varna Silt Loam, 4 – 6 percent slopes, eroded	Yes	No	Somewhat poorly drained, moderately slow permeability
232A Ashkum Silty Clay Loam, 0 – 2 percent slopes	Yes, where drained	Yes	Poorly drained, moderately slow permeability
298B Beecher Silt Loam, 2 – 4 percent slopes	Yes	No	Somewhat poorly drained, slow permeability
298B2 Beecher Silt Loam, 2 – 4 percent slopes, eroded	Yes	No	Somewhat poorly drained, slow permeability
369A Waupecan Silt Loam, 0 – 2 percent slopes	Yes	No	Well drained, rapid permeability
369B Waupecan Silt Loam, 2 – 4 percent slopes	Yes	No	Well drained, rapid permeability
440C2 Jasper Loam, 5 – 10 percent slopes, eroded	Yes	No	Well drained, moderate permeability
513A Granby Fine Sandy Loam, 0 – 2 percent slopes	No	Yes	Poorly drained, moderately rapid permeability
523A Dunham Silty Clay Loam, 0 – 2 percent slopes	Yes, where drained	Yes	Poorly drained, moderately rapid permeability

Soil Classification Number and Name	Prime Farmland?	Hydric Soil?	Soil Description
526A Grundelein Silt Loam, 0 – 2 percent slopes	Yes	No	Somewhat poorly drained, moderately rapid permeability
530C2 Ozaukee Silt Loam, 4 – 6 percent slopes, eroded	Yes	No	Moderately well drained, slow permeability
531C2 Markham Silt Loam, 4 – 6 percent slopes, eroded	Yes	No	Moderately well drained, slow permeability
741B Oakville Fine Sand, 1 – 6 percent slopes	No	No	Excessively drained, rapid permeability
741D Oakville Fine Sand, 6 – 12 percent slopes	No	No	Excessively drained, rapid permeability
741F Oakville Fine Sand, 20 – 30 percent slopes	No	No	Excessively drained, rapid permeability
1067A Harpster Silty Clay Loam, Undrained, 0 – 2 percent slopes	No	Yes	Poorly drained, moderate permeability
1201A Gilford Fine Sandy Loam, Undrained, 0 – 2 percent slopes	No	Yes	Poorly drained, moderately rapid permeability
3314A Joliet Silt Loam, 0 – 2 percent slopes, frequently flooded	No	Yes	Poorly drained, slow permeability

4.2 Problematic Soils

The survey boundaries consisted of the area approximately 50 feet on either side of the existing railroad track. The railroad embankment consists of rock fill, ballast, extending 10 to 20 feet on either side of the railroad track. The amount of rock fill contained in the railroad ballast impacted the ability to dig soil pits. In many locations, a pit could not be dug or was limited in depth due to the rock material. The majority of the survey boundaries have historically been disturbed from grading and constructing the railroad. Highway 53 also runs parallel to the survey boundary for a couple miles that exacerbate the disturbances. The majority of soil profiles found in the ESC consisted of dark brown, loam fill in the upland and wetland areas. Because of these human disturbances, it was common for wetland soils to lack hydric indicators.

4.3 Vegetation and Land Use

All species observed in each wetland area were recorded to determine the FQA. The FQA is an assessment of the vegetation quality of wetland plant communities determined by the Coefficient of Conservation, a numerical value from 1 to 10 that is applied to each plant species in a local flora (Taft, 1997). The Floristic Quality Index (I) is calculated from the weighted average of the Coefficient of Conservation to provide more insight into plant species quality and abundance. Species lists from data forms are provided with individual wetland summaries in **Appendix D**.

The landscape surrounding the Project consists of rural agricultural, residential, developed industrial areas, the Midewin National Tallgrass Prairie nature preserve, and the Abraham Lincoln National Cemetery. The Project is located in a portion of the Midewin National Tallgrass Prairie natural reserve that used to be the Joliet ammunition plant. It is a protected area operated by the US Forest Service and the largest tallgrass prairie restoration site in the Chicago region.

4.4 Hydrology

The Project is located within the Grant Creek watershed (071200040904), the Prairie Creek watershed (071200011808), and the City of Wilmington-Kankakee River watershed (071200011806) (U.S. Environmental Protection Agency [EPA], 2015). The Kankakee River is listed as an impaired waterbody for

Fish and Shellfish Consumption and Grant Creek is listed as an impaired waterbody for aquatic life that cross the ESC. Forked Creek is classified as being in good condition.

The majority of the Project is within DFIRM *Zone X-Area of Minimal Flood Hazard.* Additional DFIRM areas within the Project include *Zone AE- Special Flood Hazard Area within the Regulatory Floodway* and *Zone A- Special Flood Hazard Area Without Base Flood Elevation* (FEMA, 2020).

Specifically, The Hitts Siding Prairie Nature Reserve is to the west of W038 and is classified as Zone A-- *Special Flood Hazard Area Without Base Flood Elevation.* The Kankakee River and Forked Creek are classified as Zone AE- *Special Flood Hazard Area within the Regulatory Floodway.* Near North River Road, S005 and S006 and associated wetlands are within a classified Zone A. Prairie Creek and associated wetlands, S004 and W020, W017, Grant Creek and W014, S001 and associated wetlands W010 and W015, are within Zone A.

Local hydrology is influenced by the railroad embankment. These waterways and the project area have been heavily influenced by past alterations.

4.5 Aquatic Resources

Thirty-nine (39) wetland complexes and eight watercourses were identified during the delineation field surveys conducted September 9 through 17, 2020. A total of 29 potentially jurisdictional wetlands (18.35 acres) and eight (8) potentially jurisdictional watercourses (3.89 acres and 9,156 linear feet) were identified within the ESC. Each aquatic resource is described in the following subsections and summarized in Tables 4-1 and 4-2. An aquatic resource delineation map is included as Figure 3 in **Appendix A**. Wetland Determination Data Form sheets are included in **Appendix B**. Corresponding photographs are included in **Appendix C**. Stream Assessment Forms are included in **Appendix F**.

Twenty-nine of the wetlands and all watercourses identified during the delineation are likely considered jurisdictional based on the Navigable Waters Protection Rule issued by the Department of the Army, Corps of Engineers, Department of Defense; and Environmental Protection Agency (EPA) on April 21, 2020. Wetlands determined to be non-jurisdictional do not directly abut a jurisdictional water and are hydrologically isolated. Additional details are provided in the descriptions below.

4.6 Wetlands

Thirty-nine (39) areas met the three mandatory criteria for wetlands (hydrophytic vegetation, hydrology, and hydric soils) as outlined in the Delineation Manual (Environmental Laboratory, 1987). Twenty-nine (29) are potentially jurisdictional wetlands. All wetland areas are summarized in Table 4-1, described in detail below, and wetland data forms and photographs can be seen in **Appendices B and C**, respectively.

Olsson delineation datasheets were used if the wetland boundaries and vegetation was similar to the originally delineated wetlands in Olsson's report. This guidance was from an email corresponding with the Chicago Regional USACE Office on September 10, 2020. Jacobs verified Olsson's previously collected data. If an area no longer met wetland hydrology, vegetation, or soils criteria, the previously documented wetland was not documented in the 2020 delineation.

Table 4-1. Potential Jurisdictional Wetlands Summary

Count	ID	Cowardin Classification[a]	Acreage within ESC[b]	Jurisdictional Status[c]
1	W001	PEM	0.09	Likely non-jurisdictional
2	W002	PSS	0.36	Likely non-jurisdictional
3	W003	PEM	0.10	Likely non-jurisdictional
4	W004	PEM	0.04	Likely non-jurisdictional
5	W005	PFO	0.03	Likely non-jurisdictional
6	W006	PEM	0.00	Likely non-jurisdictional

Table 4-1. Potential Jurisdictional Wetlands Summary

Count	ID	Cowardin Classification[a]	Acreage within ESC[b]	Jurisdictional Status[c]
7	W007	PEM	0.09	Likely Jurisdictional
8	W008	PFO	0.12	Likely Jurisdictional
9	W009	PSS	0.01	Likely Jurisdictional
10	W010	PEM	0.59	Likely Jurisdictional
11	W011	PEM	0.11	Likely Jurisdictional
12	W012	PEM	0.13	Likely Jurisdictional
13	W013	PEM	0.04	Likely Jurisdictional
14	W014	PFO	0.88	Likely Jurisdictional
15	W015	PEM	0.22	Likely Jurisdictional
16	W016	PEM	0.11	Likely Jurisdictional
17	W017	PEM	0.20	Likely Jurisdictional
18	W018	PEM	0.01	Likely non-jurisdictional
19	W019	PEM	0.05	Likely Jurisdictional
20	W020	PEM/PSS	0.29	Likely Jurisdictional
21	W021	PEM	0.09	Likely Jurisdictional
22	W022	PEM	2.55	Likely Jurisdictional
23	W023	PEM	1.04	Likely Jurisdictional
24	W024	PEM	0.16	Likely Jurisdictional
25	W025	PEM	0.58	Likely Jurisdictional
26	W026	PEM	0.48	Likely Jurisdictional
27	W027	PEM	0.13	Likely non-jurisdictional
28	W028	PEM	0.00	Likely Jurisdictional
29	W029	PFO	0.16	Likely non-jurisdictional
30	W030	PEM	1.21	Likely Jurisdictional
31	W031	PEM	0.12	Likely Jurisdictional
32	W032	PEM	4.94	Likely Jurisdictional
33	W033	PEM	0.25	Likely Jurisdictional
34	W034	PEM	3.06	Likely Jurisdictional
35	W035	PEM	0.60	Likely Jurisdictional
36	W036	PEM	0.25	Likely Jurisdictional
37	W037	PEM	0.06	Likely Jurisdictional
38	W038	PEM	0.01	Likely non-jurisdictional
39	W039	PEM	0.12	Likely Jurisdictional
TOTAL			**19.28**	-

[a] Cowardin, 1979.
[b] Acreage rounded to the nearest 0.01 acre.
[c] Jurisdictional status is the opinion of the Jacobs investigator and should be considered preliminary until concurrence by USACE is obtained.

The following are descriptions for each potentially jurisdictional wetland identified within the survey boundary. Wetland photographs are included in **Appendix C**.

W001 (Figure 3, Sheet 1) is a PEM wetland located in the railroad ditch. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). North of the data point, there was approximately

3-inches of standing water. Vegetation observed within the sample plot included the dominant species of cottonwood *(Populus deltoides)* and sandbar willow (*Salix interior)* in the sapling/shrub stratum, common reed (*Phragmites australis*) and sawtooth sunflower (*Helianthus grosseserratus)* in the herb stratum, and met the dominance test and prevalence index indicators.

The soil profile within the sample plot consisted of 78% 2.5Y 3/1 clay loam with 2 percent abundance of 2.5YR 4/8 concentrations in the matrix from 0 to 8 inches, and 20% 10YR 5/4 clay loam in the remaining matrix. Refusal was hit at 8 inches due to railroad ballast. The soil profile within the sample plot meets the hydric soil indicator of redox dark surface (F6).

The jurisdictional status of wetland W001 was evaluated in accordance with the Navigable Water Protection Rule (The Navigable Waters Protection Rule, 2020). Wetland W001 does not abut any jurisdictional waters as defined in the 2020 Navigable Waters Protection Rule. Furthermore, there is not a direct hydrologic connection to any jurisdictional waters.

W002 (Figure 3, Sheets 1 and 2) is a PSS wetland located in the railroad ditch. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of silver maple (*Acer saccharinum)* and white mulberry (*Morus alba*) in the sapling/shrub stratum, great ragweed (*Ambrosia trifida*) and sawtooth sunflower in the herb stratum, and met the dominance test and prevalence index indicators.

The soil profile within the sample plot consisted of 78% 10YR 6/1 clay loam with 2 percent abundance of 5YR 4/6 concentrations in the matrix from 0 to 9 inches, 10% 10YR 5/8, and 10% 2.5YR 5/1 in the remaining matrix. Refusal was hit at 9 inches because of the railroad ballast. The soil profile within the sample plot meets hydric soil indicator of redox dark surface (F6).

The jurisdictional status of wetland W002 was evaluated in accordance with the Navigable Water Protection Rule (The Navigable Waters Protection Rule, 2020). Wetland W002 does not abut any jurisdictional waters as defined in the 2020 Navigable Waters Protection Rule. Furthermore, there is not a direct hydrologic connection to any jurisdictional waters.

W003 (Figure 3, Sheet 1) is a PEM wetland that continues west past the survey boundary into an NWI PEMAf wetland. This NWI wetland appears to be isolated with no hydrological connections. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of narrow-leaf cattail (*Typha angustifolia*) and common reed in the herb stratum and met the rapid test, dominance test and prevalence index indicators.

The soil profile within the sample plot consisted of 10YR 2/1 loam from 0 to 10 inches. Refusal was hit at 10 inches because of the railroad ballast. The soil profile displays a problematic hydric soil due to historic disturbance and fill from railroad construction.

The jurisdictional status of wetland W003 was evaluated in accordance with the Navigable Water Protection Rule (The Navigable Waters Protection Rule, 2020). Wetland W003 does not abut any jurisdictional waters as defined in the 2020 Navigable Waters Protection Rule. Furthermore, there is not a direct hydrologic connection to any jurisdictional waters.

W004 (Figure 3, Sheet 2) is a PEM wetland located in the railroad ditch. W004 appears to be an equalizer culvert as the water pools in the area and does not drain offsite. Hydrology indicators included high water table (A2), saturation (A3), geomorphic position (D2), and the FAC-neutral test (D5). Vegetation observed within the sample plot included the common reed in the herb stratum, and met the rapid test, dominance test and prevalence index indicators.

The soil profile at the sample plot consisted of 100% 10YR 2/1 loam from 0 to 2 inches, 90% 10YR 2/1 from 2 to 6 inches with 5 percent abundance of 10YR 5/6 concentrations in the matrix and 5 percent concentrations of Gley1 6/10GY concentrations in the matrix. The soil profile within the sample plot meets the hydric soil indicator of redox dark surface (F6).

The jurisdictional status of wetland W004 was evaluated in accordance with the Navigable Water Protection Rule (The Navigable Waters Protection Rule, 2020). Wetland W004 does not abut any jurisdictional waters as defined in the 2020 Navigable Waters Protection Rule. Furthermore, there is not a direct hydrologic connection to any jurisdictional waters.

W005 (Figure 3, Sheet 4) is a PFO wetland at the bottom of the slope of a railroad track west of the survey boundary. Hydrology indicators included drift deposits (B3), geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of hackberry (*Celtis occidentalis*) in the tree stratum, green ash (*Fraxinus pennsylvanica)* in the sapling/shrub stratum, and common reed, reed canary grass (*Phalaris arundinacea*), and sawtooth sunflower in the herb stratum, and met the dominance test and prevalence index indicators.

The soil profile within the sample plot consisted of 10YR 2/1 loam from 0 to 8 inches. Large roots were hit at 8 inches. The soil profile displays a problematic hydric soil due to historic disturbance and fill from railroad construction.

The jurisdictional status of wetland W005 was evaluated in accordance with the Navigable Water Protection Rule (The Navigable Waters Protection Rule, 2020). Wetland W005 does not abut any jurisdictional waters as defined in the 2020 Navigable Waters Protection Rule. Furthermore, there is not a direct hydrologic connection to any jurisdictional waters.

W006 (Figure 3, Sheet 4) is a PEM wetland that extends east past the survey boundary. W006 is located in a small depressional area between the railroad tracks and Highway 53. Hydrology indicators included saturation visible on aerial imagery (C9), geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of broad-leaf cattail (*Typha latifolia)* in the herb stratum and met the rapid test, dominance test and prevalence index indicators.

The soil profile within the sample plot consisted of 10YR 2/1 loam from 0 to 2 inches. Fiber utility lines traversing through wetland prevented a soil pit being dug. Soil is assumed to display hydric indicators based upon vegetation and hydrology indicators.

The jurisdictional status of wetland W006 was evaluated in accordance with the Navigable Water Protection Rule (The Navigable Waters Protection Rule, 2020). Wetland W006 does not abut any jurisdictional waters as defined in the 2020 Navigable Waters Protection Rule. Furthermore, there is not a direct hydrologic connection to any jurisdictional waters.

W007 (Figure 3, Sheet 4) is a PEM wetland located in a steep ditch between Highway 53 and the existing railroad tracks. W007 is connected via culvert to W015 which drains to S001, an unnamed tributary to Grant Creek. Hydrology indicators included thin muck surface (C7), geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of common reed and switchgrass (*Panicum virgatum)* in the herb stratum and met the dominance test and prevalence index indicators.

The soil profile at the sample plot consisted of 100% 10YR 2/1 muck from 0 to 1 inch, and 98% 10YR 2/1 clay with 2 percent abundance of 7.5YR 5/6 concentrations in the matrix from 1 to 12 inches. The soil profile at the sample plot meets the hydric soil indicators of 2 cm muck (A10) and redox dark surface (F6).

W008 (Figure 3, Sheet 4) is a PFO wetland that extends to the west past the survey boundary where it transitions to a PEM1 wetland. This PEM area is a natural area and has a sign posted that read “Natural Area: this area consists of federally protected wetlands and natural areas. Any disturbance to this area is strictly prohibited by the Clean Water Act" (**Appendix C**). W008 drains via culvert to S001, which eventually drains to Grant Creek. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of cottonwood in the tree stratum, and poison ivy (*Toxicodendron radicans)* and tussock sedge (*Carex stricta*) in the herb stratum and met the dominance test and prevalence index indicators.

The soil profile within the sample plot consisted of 100% 10YR 2/1 loam from 0 to 10 inches. Large roots were hit at 10 inches from surrounding cottonwood trees. The soil profile displays a problematic hydric soil due to historic disturbance and fill from railroad construction.

W009 (Figure 3, Sheet 4) is a PSS wetland that extends west past the survey boundary and connects with the PEM natural area connected to W008. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of cottonwood in the tree stratum, autumn olive (*Elaeagnus umbellate)* in the sapling/shrub stratum, and common reed in the herb stratum, and met the dominance test index indicator.

The soil profile at the sample pot consisted of 100% 10YR 2/1 loam from 0 to 5 inches, 80% 10YR 2/1 loam with 20 percent abundance 10YR 5/4 concentrations in the matrix from 5 to 12 inches, and 100% 10YR 2/2 loam from 15 to 20 inches. The soil profile at the sample plot meets the hydric soil indicator of redox dark surface (F6).

W010 (Figure 3, Sheets 4 and 5) is a PEM wetland that includes the riparian wetlands associated with S001. W010 drains into S001, an unnamed tributary that flows into Grant Creek. Hydrology indicators included saturation (A3), geomorphic position (D2), and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of Morrow's honeysuckle (*Lonicera morrowii)* in the sapling/shrub stratum, reed canary grass and spotted ladysthumb (*Polygonum persicaria syn. Persicaria maculosa*) in the herb stratum, and met the dominance test and prevalence index indicators.

The soil profile within the sample plot consisted of 100% 10YR 2/1 loam from 0 to 10 inches and 100% 10YR 2/1 clay loam from 10 to 14 inches. The soil profile displays a problematic hydric soil due to historic disturbance and fill from railroad construction.

W011 (Figure 3, Sheet 5) is a PEM wetland that extends west past the survey boundary. W011 is connected to W012 via culvert. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of tussock sedge in the herb stratum and met the rapid test, dominance test and prevalence index indicators. W011 is in a topographical depression that is connected to a culvert underneath the railroad tracks.

The soil profile at the sample pot consisted of 98% 10YR 2/1 clay with 2 percent abundance of 5YR 4/6 concentrations in the matrix from 0 to 14 inches. The soil profile at the sample plot meets the hydric soil indicator of redox dark surface (F6).

W012 (Figure 3, Sheet 5) is a PEM wetland between the railroad tracks and Highway 53. W012 appears to drain via culvert underneath Highway 53 to the east and eventually connect with Grant Creek. Hydrology indicators included surface water (A1), high water table (A2), saturation (A3), geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of sandbar willow in the sapling/shrub stratum, common reed in the herb stratum, and met the dominance test and prevalence index indicators.

The soil profile at the sample plot consisted of 100% 10YR 2/1 silty clay loam from 0 to 8 inches, 97% 10YR 2/1 silty clay loam with 3 percent abundance of 10YR 5/4 concentrations in the matrix from 8 to 12 inches, and 100% 10YR 2/1 silty clay loam from 12 to 20 inches. The soil profile at the sample plot meets the hydric soil indicator of redox dark surface (F6).

W013 (Figure 3, Sheet 6) is a PEM wetland that is located in a ditch along Highway 53. For safety concerns, field staff visually assessed the wetland by windshield survey to confirm the wetlands' existence. Data was adopted from a previous wetland delineation conducted by Olsson. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of reed canary grass in the herb stratum, and riverbank grape (*Vitis riparia*) in the woody vine stratum and met the rapid test, dominance test and prevalence index indicators.

The soil profile at the sample plot consisted of 10YR 3/1 loam from 0 to 18 inches. The soil profile displays a problematic hydric soil due to historic disturbance and fill from railroad construction.

W014 (Figure 3, Sheet 6) is a PFO wetland that surrounds S002 (Grant Creek) and is connected to an NWI PFO complex. W014 is located beneath a very steep embankment from the railroad tracks to the west towards the survey boundary. Hydrology indicators included saturation visible on aerial imagery (C9) and geomorphic position (D2). Vegetation observed within the sample plot included the dominant species of black walnut (*Juglans nigra)* in the tree stratum, honeysuckle and green ash in the sapling/shrub stratum, and reed canary grass and black snakeroot (*Sanicula odorata)* in the herb stratum, and met the dominance test indicator.

The soil profile at the sample plot consisted of 10YR 2/1 clay loam from 0 to 7 inches and 10YR 4/4 clay from 7 to 12 inches. The soil profile displays a problematic hydric soil due to historic disturbance and fill from railroad construction.

W015 (Figure 3, Sheets 4 and 5) is a PEM wetland that is located in a ditch between the railroad tracks and Highway 53. W015 drains into S001, an unnamed tributary that flows into Grant Creek. Hydrology indicators

included high water table (A2), saturation (A3), geomorphic position (D2), and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of common reed and switchgrass in the herb stratum and met the dominance test and prevalence index indicators.

The soil profile at the sample plot consisted of 10YR 2/2 clay loam from 0 to 6 inches, and 10YR 2/2 clay loam with 10 percent abundance of Gley 1 7/N concentrations in the matrix from 6 to 9 inches. The soil profile at the sample plot meets the hydric soil indicator of redox dark surface (F6).

W016 (Figure 3, Sheet 9) is a PEM wetland located in the railroad ditch. W016 is hydrologically connected via culvert to W021 and S004, which drains to Prairie Creek. Hydrology indicators included surface water (A1), high water table (A2), saturation (A3), geomorphic position (D2), and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of common reed in the herb stratum and met the rapid test, dominance test and prevalence index indicators. W016 is located in a shallow ditch within the railroad ballast area. Refusal was hit at 0 inches because of the railroad ballast.

W017 (Figure 3, Sheets 7 and 8) is a PEM wetland located in the railroad ditch. W017 is connected to a culvert that flows under Highway 53 and a narrow ballast conveyance way adjacent to the existing railroad tracks that flows south towards W016. Hydrology indicators included high water table (A2), saturation (A3), geomorphic position (D2), and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of narrowleaf cattail and reed canary grass in the herb stratum and met the rapid test, dominance test and prevalence index indicators.

The soil profile at the sample plot consisted of 2.5YR 2.5/1 silty loam from 0 to 14 inches with 20 percent abundance of 2.5YR 3/6 concentrations in the matrix. The soil profile at the sample plot meets the hydric soil indicators of redox dark surface (F6) and hydrogen sulfide (A4).

W018 (Figure 3, Sheet 7) is a PEM wetland located in the railroad ditch. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of honeysuckle and cottonwood in the sapling/shrub stratum, common reed in the herb stratum, and met the dominance test and prevalence index indicators.

Refusal was hit at 0 inches because of the railroad ballast. Soil is assumed to display hydric indicators based upon vegetation and hydrology indicators.

The jurisdictional status of wetland W018 was evaluated in accordance with the Navigable Water Protection Rule (The Navigable Waters Protection Rule, 2020). Wetland W018 does not abut any jurisdictional waters as defined in the 2020 Navigable Waters Protection Rule. Furthermore, there is not a direct hydrologic connection to any jurisdictional waters.

W019 and W019b (Figure 3, Sheet 11) is a PEM wetland adjacent to Prairie Creek. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of green ash in the sapling/shrub stratum, reed canary grass in the herb stratum, and met the dominance test and prevalence index indicators. W019 is east of a larger PEM wetland complex outside the survey boundary that was delineated in a previous wetland delineation survey conducted by Olsson. W019b is a riparian wetland associated with S003 (Prairie Creek).

The soil profile at the sample plot consisted of 50% 10YR 2/1 loam and 50% 2.5YR 5/4 loam in the matrix from 0 to 3 inches, 100% 10YR 2/1 loam from 3 to 10 inches in the matrix, and 100% 10YR 2/2 clay loam from 10 to 12 inches. The soil profile displays a problematic hydric soil due to historic disturbance and fill from railroad construction.

W019c (Figure 3, Sheet 11) is a PEM wetland within S003 (Prairie Creek). Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of reed canary grass in the herb stratum and met the dominance test and prevalence index indicators.

The soil profile at the sample plot consisted of 10YR 4/2 sand from 0 to 16 inches.

W020a (Figure 3, Sheets 9 and 10) is a PEM wetland that transitions into waterbody S004, which drains to Prairie Creek. W020a is located in a ditch between the existing railroad tracks and Highway 53. Hydrology indicators included surface water (A1), high water table (A2), saturation (A3), geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of

reed canary grass in the herb stratum and met the rapid test, dominance test and prevalence index indicators.

W020a is in close proximity to Highway 53 and field staff minimized their time in the wetland depression due to safety concerns such as small pebbles being kicked up from passing vehicles. No soil pit was dug due to close proximity to Highway 53. W020a follows an NHD unnamed tributary. Because of this, it can be suspected that W020a has consistently been saturated enough to display hydric indicators if a soil pit was dug.

W020b (Figure 3, Sheet 10) is a PEM wetland adjacent to S004. S004 drains to Prairie Creek. This wetland was visually assessed because of restricted access. A taut barbed wire fence runs parallel to the railroad tracks, specifically on the west side of S004. A photo of the inaccessible area is shown in **Appendix C**. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of reed canary grass in the herb stratum and met the rapid test, dominance test and prevalence index indicators. No soil pit could be taken in the wetland area that did not overlap with S004.

W021 (Figure 3, Sheet 9) is a PEM wetland located in a ditch between the existing railroad tracks and Highway 53. W021 is hydrologically connected via culvert to S004, which drains to Prairie Creek. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of white mulberry and elderberry (*Sambucus nigra)* in the sapling/shrub stratum, reed canary grass in the herb stratum, and met the dominance test and prevalence index indicators.

The soil profile at the sample plot consisted of 10YR 2/1 clay loam from 0 to 4 inches. Railroad ballast was hit at 4 inches. Soils are assumed to display hydric indicators based upon vegetation and hydrology wetland indicators.

W022 (Figure 3, Sheets 13, 14, 15 and 16) is a PEM wetland that transitions between PEM, PSS, and being inundated along the west side of the existing railroad tracks. In locations where W022 is delineated to the survey boundary, W022 extends west past the survey boundary into a larger NWI PFO complex. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of reed canary grass and cordgrass (*Spartina pectinata)* in the herb stratum and met the dominance test and prevalence index indicators. Outside the sample plot, sandbar willow was the dominant species in the sapling/shrub stratum.

The soil profile at the sample plot consisted of 100% 10YR 3/1 clay from 0 to 20 inches. The soil lacks hydric indicators. The soil profile displays a problematic hydric soil due to historic disturbance and fill from railroad construction.

W022b (Figure 3, Sheets 12 and 13) is a PEM wetland that extends west past the survey boundary to a larger NWI PEMc complex. W022b is a sparsely vegetated muddy area with scattered wetland vegetation. Hydrology indicators included saturation (A3), sparsely vegetated concave surface (B8), surface soil cracks (B6), geomorphic position (D2), and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of blue flag iris (*Iris virginica)* and yellow nutsedge *(Cyperus esculentus)* in the herb stratum and met the dominance test and prevalence index indicators.

The soil profile at the sample plot consisted of 10YR 2/1 muck from 0 to 3 inches, and 10YR 2/1 mucky loam/clay with 5 percent abundance of 7.5YR 5/6 concentrations in the matrix from 3 to 12 inches. The soil profile at the sample plot meets the hydric soil indicators of 2cm muck (A10) and redox dark surface (F6).

W023 (Figure 3, Sheets 13, 14, 15 and 16) is a PEM wetland and borders each bank of S005. S005 appears to eventually drain into S006, which is an unnamed tributary to the Kankakee River. Hydrology indicators included saturation (A3), geomorphic position (D2), and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of green ash, hackberry, and American elm (*Ulmus Americana*) in the sapling/shrub stratum, tussock sedge, spotted ladysthumb, and reed canary grass in the herb stratum, and met the dominance test and prevalence index indicators.

The soil profile at the sample plot consisted of 100% 10YR 2/2 organic mat from 0 to 4 inches, 100% 10YR 4/2 sand from 4 to 5 inches, and 100% 10YR 2/2 silt loam from 5 to 14 inches. The soil lacks hydric indicators. The soil profile displays a problematic hydric soil due to historic disturbance and fill from railroad construction.

W024 (Figure 3, Sheets 12 and 13) is a PEM wetland that drains into S005. S005 appears to eventually drain into S006, which is an unnamed tributary to the Kankakee River. Hydrology indicators included saturation visible on aerial imagery (C9), geomorphic position (D2), and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of water plantain (*Alisma subcordatum*) and spotted ladysthumb in the herb stratum and met the rapid test, dominance test and prevalence index indicators. Soil assumed to display hydric indicators based on frequent inundation from S005.

W025 (Figure 3, Sheet 16) is a PEM wetland that S006 runs perpendicular through. S006 is an unnamed tributary to the Kankakee River. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of sandbar willow in the sapling/shrub stratum, reed canary grass and rough barnyard grass (*Echinochloa muricata*) in the herb stratum and met the rapid test, dominance test and prevalence index indicators.

The soil profile at the sample plot consisted of 50% 10YR 4/4 clay with 50% percent abundance of 5YR 2.5/1 concentrations in the matrix from 0 to 12 inches. The soil lacks hydric indicators. The soil profile displays a problematic hydric soil due to historic disturbance and fill from railroad construction. Previous wetland delineation conducted by Olsson did not display any hydric indicators either.

W026 (Figure 3, Sheets 16 and 17) is a PEM wetland running parallel to the existing railroad and appears to drain into S006, which is an unnamed tributary to the Kankakee River. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of cordgrass in the herb stratum, and poison ivy in the woody vine stratum, and met the dominance test and prevalence index indicators.

A soil pit could not be dug because of the railroad ballast at 0 inches. Soils are assumed to display hydric indicators based upon vegetation and hydrology wetland indicators.

W027 (Figure 3, Sheet 17) is a PEM wetland located in the railroad ditch. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of sandbar willow in the sapling/shrub stratum, narrowleaf cattail, *carex sp*., and reed canary grass in the herb stratum, and met the dominance test and prevalence index indicators.

A soil pit could not be dug because of the railroad ballast at 0 inches. Soils are assumed to display hydric indicators based upon vegetation and hydrology wetland indicators.

The jurisdictional status of wetland W027 was evaluated in accordance with the Navigable Water Protection Rule (The Navigable Waters Protection Rule, 2020). Wetland W027 does not abut any jurisdictional waters as defined in the 2020 Navigable Waters Protection Rule. Furthermore, there is not a direct hydrologic connection to any jurisdictional waters.

W028 (Figure 3, Sheet 25) is a PEM wetland that extends west of the ESC from Coal City Road south for 0.65-mile into larger PFO/PEM wetland complex. Only a small portion (less than 0.00 acre) protruded into the ESC. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of common reed in the herb stratum and met the dominance test and prevalence index indicators. Soil data was adopted from a previous wetland delineation conducted by Olsson, which included a larger survey area. The soil profile at the sample plot consisted of 10YR 2/1 sandy clay from 0 to 12 inches and 10YR 4/1 sandy clay from 12 to 16 inches. The soil lacks hydric indicators. The soil profile displays a problematic hydric soil due to historic disturbance and fill from railroad construction.

W029 (Figure 3, Sheet 26) is a PFO wetland located between the railroad embankment and Highway 53. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of Sycamore (*Platanus occidentalis*) and silver maple in the tree stratum, red cedar (*Juniperus virginiana)* sapling/shrub stratum, and common reed in the herb stratum, and met the dominance test and prevalence index indicators.

The soil profile at the sample plot consisted of 10YR 2/1 organic layer from 0 to 3 inches, 10YR 2/1 loam from 3 to 12 inches. The soil lacks hydric indicators. The soil profile displays a problematic hydric soil due to historic disturbance and fill from railroad construction. Previous wetland delineation conducted by Olsson did not display any hydric indicators either.

The jurisdictional status of wetland W029 was evaluated in accordance with the Navigable Water Protection Rule (The Navigable Waters Protection Rule, 2020). Wetland W029 does not abut any jurisdictional waters as defined in the 2020 Navigable Waters Protection Rule and appears to be isolated. Furthermore, there is not a direct hydrologic connection to any jurisdictional waters.

W030 (Figure 3, Sheets 25 and 26) is a PEM wetland that parallels the railroad track and Highway 53. W030 is likely connected to a large wetland complex to the west (W028). Hydrology indicators included saturation (A3), geomorphic position (D2), and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of common reed in the herb stratum and met the rapid test, dominance test and prevalence index indicators.

The soil profile at the sample plot consisted of 10YR 2/1 organic layer from 0 to 7 inches, 10YR 3/1 silty clay from 7 to 10 inches, and 10YR 3/2 silty clay from 10 to 15 inches. The soil lacks hydric indicators. The soil profile displays a problematic hydric soil due to historic disturbance and fill from railroad construction.

W031 (Figure 3, Sheet 25) is a PEM wetland. W031 appears to drain via culverts into W028, which is connected to a large wetland complex to the west. Hydrology indicators included high water table (A2), saturation (A3), geomorphic position (D2), and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of cordgrass in the herb stratum and met the rapid test, dominance test and prevalence index indicators.

The soil profile at the sample plot consisted of 10YR 3/1 organic layer from 0 to 8 inches. The water table was at 8 inches. Soil assumed to display hydric indicators based upon inundation and vegetation and hydrology indicators.

W032 (Figure 3, Sheets 21, 22, 23, 24, and 25) is a PEM wetland that parallels the railroad track. W032 likely drains east via culverts along Baltimore Street to the Kankakee River. Two datasheets were taken along this linear wetland. W032a data sheet's hydrology indicators included saturation (A3), geomorphic position (D2), and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of common reed and dark-green bulrush (*Scirpus atrovirens)* in the herb stratum and met the rapid test, dominance test and prevalence index indicators. **W032b** datasheet's hydrology indicators included high water table (A2), saturation (A3), geomorphic position (D2), and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of green ash in the sapling/shrub stratum, common reed in the herb stratum, and met the rapid test, dominance test and prevalence index indicators.

The soil profile at the sample plot consisted of 10YR 3/1 loam from 0 to 8 inches and 10YR 3/1 clay loam with 2 percent abundance of 10YR 4/6 concentrations in the matrix from 8 to 12 inches. The soil profile at the sample plot meets the hydric soil indicator of redox dark surface (F6).

W033 (Figure 3, Sheet 24) is a PEM wetland. W033 likely is connected to an NWI PFO wetland complex to the west that is likely connected with an unnamed NHD stream. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of green ash in the sapling/shrub stratum, common reed in the herb stratum, and met the rapid test, dominance test and prevalence index indicators.

The soil profile at the sample plot consisted of 10YR 2/1 sandy loam from 0 to 14 inches. The soil lacks hydric indicators. The soil profile displays a problematic hydric soil due to historic disturbance and fill from railroad construction.

W034 (Figure 3, Sheets 21, 22, 23, and 24) is a PEM wetland. W034 parallels the railroad track and likely drains east via culverts along Baltimore Street to the Kankakee River. W034 also abuts NWI PFO wetlands to the west that are likely connected with an unnamed NHD stream. On the ESC boundary, W034 transitions into a forested (PFO) or scrub-scrub (PSS) areas. W034 encompasses a "natural area" that has been planted with native grasses and wildflowers by ComEd Inc. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of cottonwood in the tree stratum, common reed, yellow nutsedge, and field horsetail (*Equisetum arvense)* in the herb stratum, riverbank grape in the woody vine stratum, and met the

dominance test and prevalence index indicators. A small area outside the sample plot consists of mature silver maples and common reed.

The soil profile at the sample plot consisted of 10YR 2/2 clay loam from 0 to 14 inches. The soil lacks hydric indicators. The soil profile displays a problematic hydric soil due to historic disturbance and fill from railroad construction.

W035 (Figure 3, Sheets 20 and 21) is a PEM wetland. W035 likely drains northeast to the Kankakee River through culverts and ditches along the railroad track. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of reed canary grass in the herb stratum and met the rapid test, dominance test and prevalence index indicators.

The soil profile at the sample plot consisted of 10YR 4/2 sandy loam from 0 to 19 inches and 10YR 7/2 fine sand from 19 to 22 inches. The soil lacks hydric indicators. The soil profile displays a problematic hydric soil due to historic disturbance and fill from railroad construction.

W036 (Figure 3, Sheets 20 and 21) is a PEM wetland. W036 likely drains northeast to the Kankakee River through culverts and ditches along the railroad track. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of silver maple and elderberry in the sapling/shrub stratum, reed canary grass in the herb stratum, riverbank grape and poison ivy in the woody vine stratum, and met the dominance test and prevalence index indicators.

A soil pit could not be dug because of the railroad ballast at 0 inches. Soils are assumed to display hydric indicators based upon vegetation and hydrology wetland indicators.

W037 (Figure 3, Sheet 20) is a PEM wetland. W037 likely drains northeast to the Kankakee River through culverts and ditches along the railroad track. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of cordgrass and common reed in the herb stratum, riverbank grape in the woody vine stratum, and met the rapid test, dominance test and prevalence index indicators.

The soil profile at the sample plot consisted of 10YR 2/1 loam with 5 percent abundance of 10YR 5/6 concentrations in the matrix and 5 percent abundance of Gley 1 6/N concentrations in the matrix from 0 to 10 inches. Refusal was hit at 10 inches due to rocks. The soil profile at the sample plot meets the hydric soil indicator of redox dark surface (F6).

W038 (Figure 3, Sheet 18) is a PEM wetland. Hydrology indicators included geomorphic position (D2) and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of common reed in the herb stratum, riverbank grape in the woody vine stratum, and met the rapid test, dominance test and prevalence index indicators.

The soil profile at the sample plot consisted of 10YR 4/2 sandy loam from 0 to 12 inches and 50% 10YR 4/2 sandy loam and 50% 10YR 3/1 in the matrix from 12 to 20 inches. The soil lacks hydric indicators. The soil profile displays a problematic hydric soil due to historic disturbance and fill from railroad construction.

The jurisdictional status of wetland W038 was evaluated in accordance with the Navigable Water Protection Rule (The Navigable Waters Protection Rule, 2020). Wetland W038 does not abut any jurisdictional waters as defined in the 2020 Navigable Waters Protection Rule and appears to be isolated. Furthermore, there is not a direct hydrologic connection to any jurisdictional waters.

W039 (Figure 3, Sheets 17 and 18) is a PEM wetland that runs parallel to the existing railroad tracks in a narrow ditch that eventually drains to Forked Creek. Hydrology indicators included surface water (A1), high water table (A2), saturation (A3), geomorphic position (D2), and the FAC-neutral test (D5). Vegetation observed within the sample plot included the dominant species of narrowleaf cattail in the herb stratum and met the rapid test, dominance test and prevalence index indicators.

Refusal was hit at 0 inches because of the railroad ballast throughout wetland. Soils are assumed to display hydric indicators based upon vegetation and hydrology wetland indicators and apparent inundation.

4.7 Watercourses

Eight (8) watercourse features were identified within the ESC. These potentially jurisdictional systems are summarized in Table 4-2, described in detail below, and can be seen in **Appendix F**.

Table 4-2. Potential Jurisdictional Watercourses Summary

Count	ID, Name	Flow Regime, Cowardin Classification[a]	Length within ESC (linear feet)[b]	Area within ESC (acres)[c]	HUC-8	Jurisdictional Status[d]
1	S001, Unnamed	Intermittent, R4SBC	558	0.05	07120004	Likely
2	S002, Grant Creek	Intermittent, R4SBC	259	0.07	07120004	Likely
3	S003, Prairie Creek	Perennial, R4SBCF	161	0.18	07120001	Likely
4	S004, Unnamed	Intermittent, R4SBC	1,014	0.28	07120001	Likely
5	S005, Unnamed	Intermittent, R4SBC	6,845	1.92	07120001	Likely
6	S006, Unnamed	Intermittent, R4SBC	119	0.04	07120001	Likely
7	S007, Forked Creek	Perennial, R2UB1H	101	0.23	07120001	Likely
8	S008, Kankakee River	Perennial, R2UB1H	99	1.12	07120001	Likely
		TOTAL	**9,156**	**3.89**		

[a] Cowardin, 1979.
R2UB1H = Riverine, Lower Perennial, Unconsolidated Bottom, Cobble-Gravel, Permanently Flooded
R4SB3F = Riverine, Intermittent, Streambed, Cobble-Gravel, Semi-permanently Flooded
R4SBC = Riverine, Intermittent, Stream Bed, Seasonally Flooded
[b] Linear feet rounded to the nearest foot. Existing culverts are excluded.
[c] Acreage rounded to the nearest 0.01 acre. Existing culverts are excluded.
[d] Jurisdictional status is the opinion of the Jacobs investigator and should be considered preliminary until concurrence by USACE is obtained.

The following are descriptions for each watercourse feature identified within the ESC. Watercourse photographs are included in **Appendices C and F**.

S001 (Figure 3, Sheets 4 and 5) is a low-quality trackside stream/ditch that flows south along the west side of the existing railroad and is an unnamed NHD tributary. The apparent flow regime is intermittent. The OHWM width is approximately 8 feet and OHWM height approximately 2 feet. Water depth was approximately 12 inches at the time of the survey. The water was turbid at the time of the survey. The dominant substrate is mud. The stream channel of S001 has historically been altered/channelized from the construction of the railroad. Riparian edges are mostly comprised of invasive species and likely to provide low quality aquatic habitat.

S002 (Grant Creek) (Figure 3, Sheet 6) is a moderate-quality stream that flows west, perpendicular to the existing railroad. The apparent flow regime is intermittent. The OHWM width is approximately 12 feet and OHWM height ranges from approximately 0.5 to 4 feet. Water depth was approximately 3 inches at the time of the survey. The water was slightly turbid at the time of the survey. The dominant substrate is cobble. The stream channel displays severe erosion on the south bank. W014 floodplain wetland surrounds S002.

S003 (Prairie Creek) (Figure 3, Sheet 11) is a moderate-quality stream that flows southwest, perpendicular to the existing railroad. The apparent flow regime is perennial. The OHWM width is approximately 60 feet and OHWM height is 1.5 feet. Water depth was approximately 12 inches at the time of the survey. The water was clear at the time of the survey. The dominant substrate is cobble. Prairie Creek is comprised of a braided channel with in-stream emergent plants and in-stream elevated wetlands. The riparian banks of Prairie Creek are comprised of invasive species such as *Phalaris arundinacea*.

S004 (Figure 3, Sheets 9 and 10) is a moderate-quality stream that flows south along the west side of the existing railroad into an NHD unnamed tributary, perpendicular to the existing railroad. The apparent flow regime is intermittent. The OHWM width ranges from approximately 8 to 15 feet and OHWM height is approximately 0.5 feet. Water depth was approximately 3 inches at the time of the survey. The water was slightly turbid at the time of the survey. The dominant substrate is cobble and silt. The stream channel is also comprised of organic debris including leaf litter and tree branches. The bed and banks show erosion lacking a riparian edge.

S004 flows south into an NHD unnamed tributary that could not be mapped because of a barbed wire fence running perpendicular to the existing railroad. The unnamed stream flows west from underneath the existing tracks via a culvert. Visually, this stream was assessed, and it is estimated that the OHWM width is approximately 6 feet and OHWM height is approximately 0.5 feet. Water depth was approximately 6 inches at the time of the survey. The water was slightly turbid at the time of the survey. The dominant substrate is cobble and silt.

S005 (Figure 3, Sheets 13, 14, 15, and 16) is a low-quality stream that flows south along the east side of the existing railroad. The apparent flow regime is intermittent. The OHWM width is approximately 15 feet and OHWM height is 1 foot. Water depth was approximately 20 inches at the time of the survey. The water was turbid at the time of the survey. The dominant substrate is gravel and silt. The stream channel of S005 lacks point bars, and bankfull benches and has historically been channelized along the entire transect. The stream channel within the transect has been historically straightened and channelized to accommodate the railroad and embankment along the entire transect. Natural stream pattern and sinuosity have not recovered.

S006 (Figure 3, Sheet 16) is a moderate-quality stream that flows west, perpendicular to the existing railroad and is an unnamed NHD tributary. The apparent flow regime is intermittent. The OHWM width ranges from approximately 11 to 30 feet and OHWM height is approximately 0.5 feet. Water depth was approximately 18 inches at the time of the survey. The water was turbid at the time of the survey. The dominant substrate is silt. Riparian edges are mostly comprised of invasive species and likely to provide low quality aquatic habitat.

S007 (Forked Creek) (Figure 3, Sheets 18 and 19) is a moderate-quality stream that flows west, perpendicular to the existing railroad. The apparent flow regime is perennial. The OHWM width is approximately 100 feet, and OHWM height is approximately 1 foot. Water depth was approximately 12 inches at the time of survey. The water was slightly turbid at the time of the survey. The dominant substrates are cobble and silt. The banks underneath the existing railroad bridge are lined with rocks and lacking a riparian buffer.

S008 (Kankakee River) (Figure 3, Sheets 19 and 20) moderate-quality river that flows west, perpendicular to the existing railroad. The apparent flow regime is perennial. The OHWM width is approximately 450 feet, and OHWM height ranges from approximately 2 to 4 feet. Water depth was approximately 24 inches at the time of survey. The dominant substrates are cobble and sand. Mussels are known to occur in this stretch of the river and the water was clear at the time of the survey. The surrounding area appears to regularly flood; however, at the time of the survey the water level was low. The banks underneath the existing railroad bridge are lined with rocks and lack a significant riparian buffer.

4.8 Uplands

Upland areas within the ESC included the existing railroad embankment, surrounding agricultural land, scrub-shrub, and forested land. Dominant species within forested lands surveyed included white mulberry (*Morus alba*), red mulberry (*Morus rubra*), black walnut, black locust (*Robinia pseudoacacia*), silver maple, and green ash. Dominant species within scrub-shrub uplands included elderberry, sumac, buckthorn, and honeysuckle species. Dominant species within upland herbaceous layers included giant ragweed, goldenrod, thistles, foxtails, switchgrass, and barnyard grasses. Soils in upland areas ranged from loam to clay-loam and often included imported material such as gravel and railroad ballast. Wetland hydrology indicators were rarely met within upland areas surveyed. In all cases, upland areas observed lacked at least one of the three parameters necessary to indicate an area is a wetland.

4.9 Floristic Quality Assessment

An FQA is conducted by generating a list of plant species in wetland areas during the growing season. A Floristic Quality Index (FQI) is used to assess the native vegetative quality for an area and was calculated for each wetland. Generally, a score between 1 and 19 indicates low native vegetation quality while a score between 20 and 35 indicates a high-quality area. The calculated total FQIs ranged between 0 and 10.6, with the majority around 5. Wetlands in this area display low vegetative quality that can most likely be attributed to the area being historically graded and disturbed from the railroad.

The total Mean C value is also used to assess the native vegetative quality with values over 3.5 considered high quality aquatic resources. The total Mean C value includes all documented species while the native Mean C value only includes native species. The calculated total Mean C values ranged from 0 to 3.2 and the calculated native Mean C values ranged from 0 to 4.4. Six wetlands scored above a 3.5 for native Mean C and no wetlands scored above a 3.5 for total Mean C meaning vegetation quality is considered low to medium quality based on the Mean C values. Consistent with technical guidance from the USFWS Chicago Field Office[1], areas where the Native FQI is less than 20 or the native Mean C is less than 3.5 indicate wetland areas that are not high quality. The six wetlands whose native Mean C was higher than a 3.5 but total Mean C was not, could indicate a slightly higher vegetation quality in those areas.

[1] https://www.fws.gov/midwest/endangered/section7/s7process/plants/FQA.html

5. References

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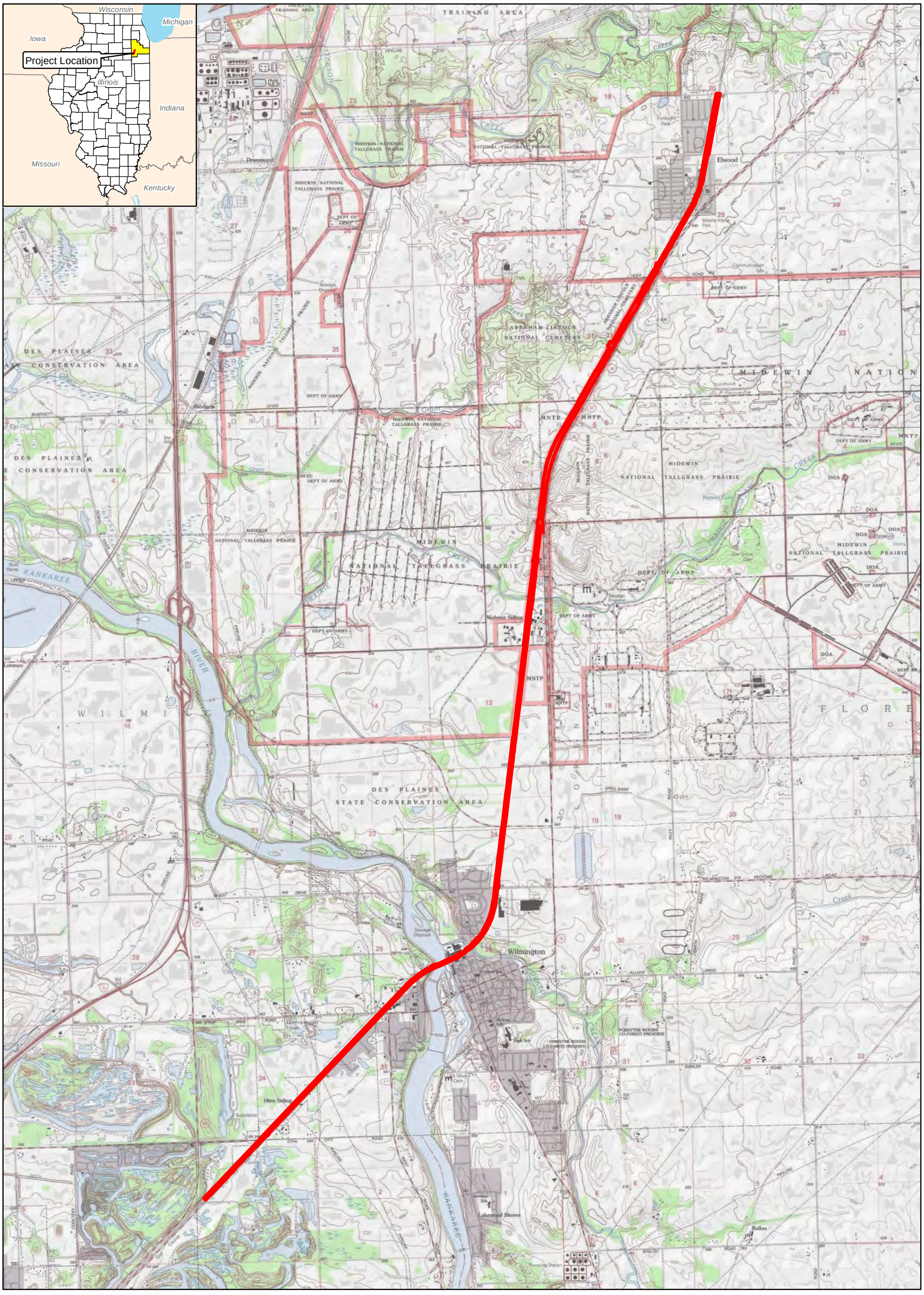
Appendix A
Figures



Legend

Environmental Survey Corridor

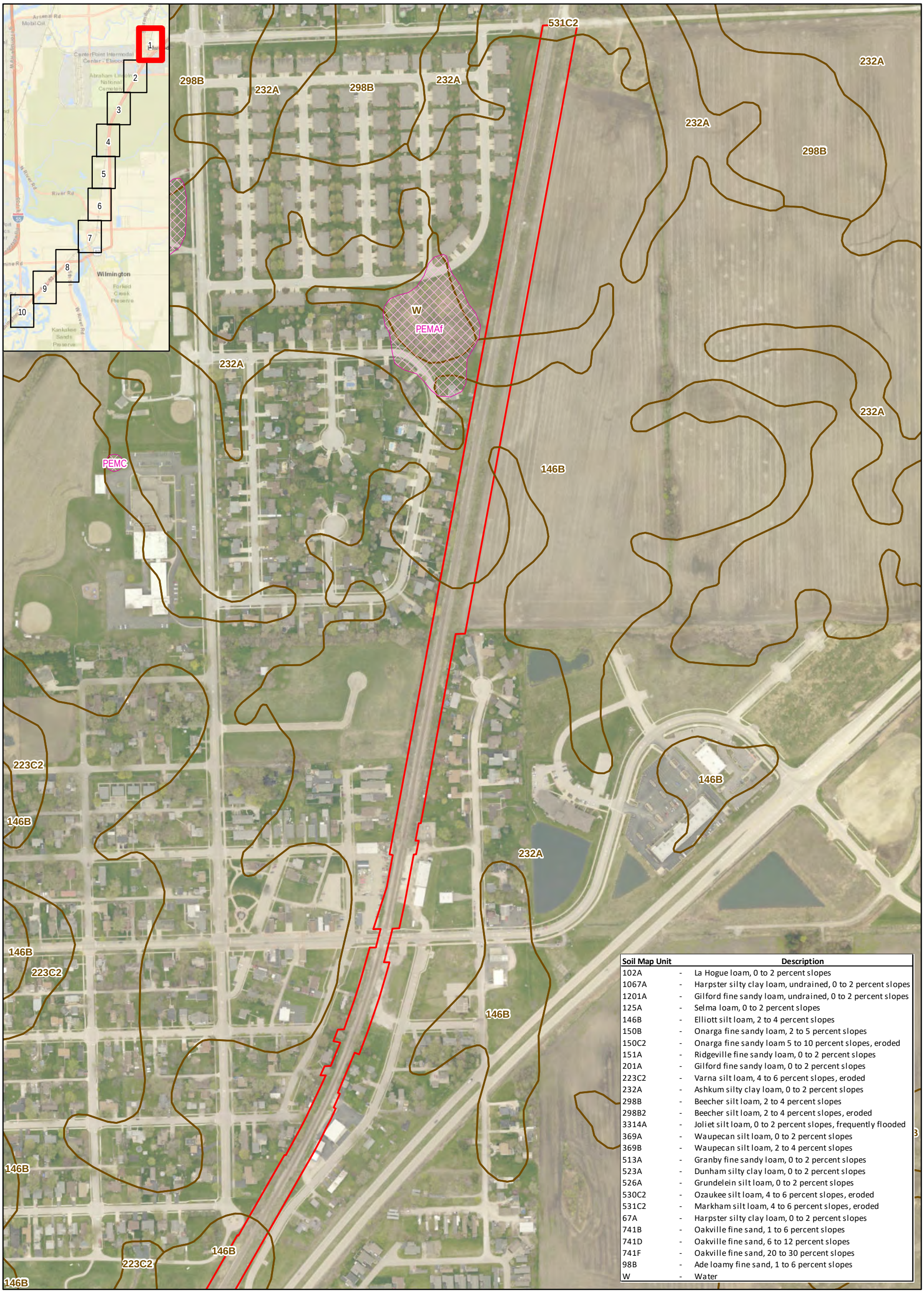
N

0 2,000 4,000 8,000

Feet

Figure 1
Location Map
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: USGS 7.5 Minute Topographic Quadrangles:
Channahon, IL
Elwood, IL
Wilmington, IL
Symerton, IL



Soil Map Unit		Description
102A	-	La Hogue loam, 0 to 2 percent slopes
1067A	-	Harpster silty clay loam, undrained, 0 to 2 percent slopes
1201A	-	Gilford fine sandy loam, undrained, 0 to 2 percent slopes
125A	-	Selma loam, 0 to 2 percent slopes
146B	-	Elliott silt loam, 2 to 4 percent slopes
150B	-	Onarga fine sandy loam, 2 to 5 percent slopes
150C2	-	Onarga fine sandy loam 5 to 10 percent slopes, eroded
151A	-	Ridgeville fine sandy loam, 0 to 2 percent slopes
201A	-	Gilford fine sandy loam, 0 to 2 percent slopes
223C2	-	Varna silt loam, 4 to 6 percent slopes, eroded
232A	-	Ashkum silty clay loam, 0 to 2 percent slopes
298B	-	Beecher silt loam, 2 to 4 percent slopes
298B2	-	Beecher silt loam, 2 to 4 percent slopes, eroded
3314A	-	Joliet silt loam, 0 to 2 percent slopes, frequently flooded
369A	-	Waupecan silt loam, 0 to 2 percent slopes
369B	-	Waupecan silt loam, 2 to 4 percent slopes
513A	-	Granby fine sandy loam, 0 to 2 percent slopes
523A	-	Dunham silty clay loam, 0 to 2 percent slopes
526A	-	Grundelein silt loam, 0 to 2 percent slopes
530C2	-	Ozaukee silt loam, 4 to 6 percent slopes, eroded
531C2	-	Markham silt loam, 4 to 6 percent slopes, eroded
67A	-	Harpster silty clay loam, 0 to 2 percent slopes
741B	-	Oakville fine sand, 1 to 6 percent slopes
741D	-	Oakville fine sand, 6 to 12 percent slopes
741F	-	Oakville fine sand, 20 to 30 percent slopes
98B	-	Ade loamy fine sand, 1 to 6 percent slopes
W	-	Water

Legend

- NHD Stream
- NWI Wetland
- Soil Map Unit
- Environmental Survey Corridor

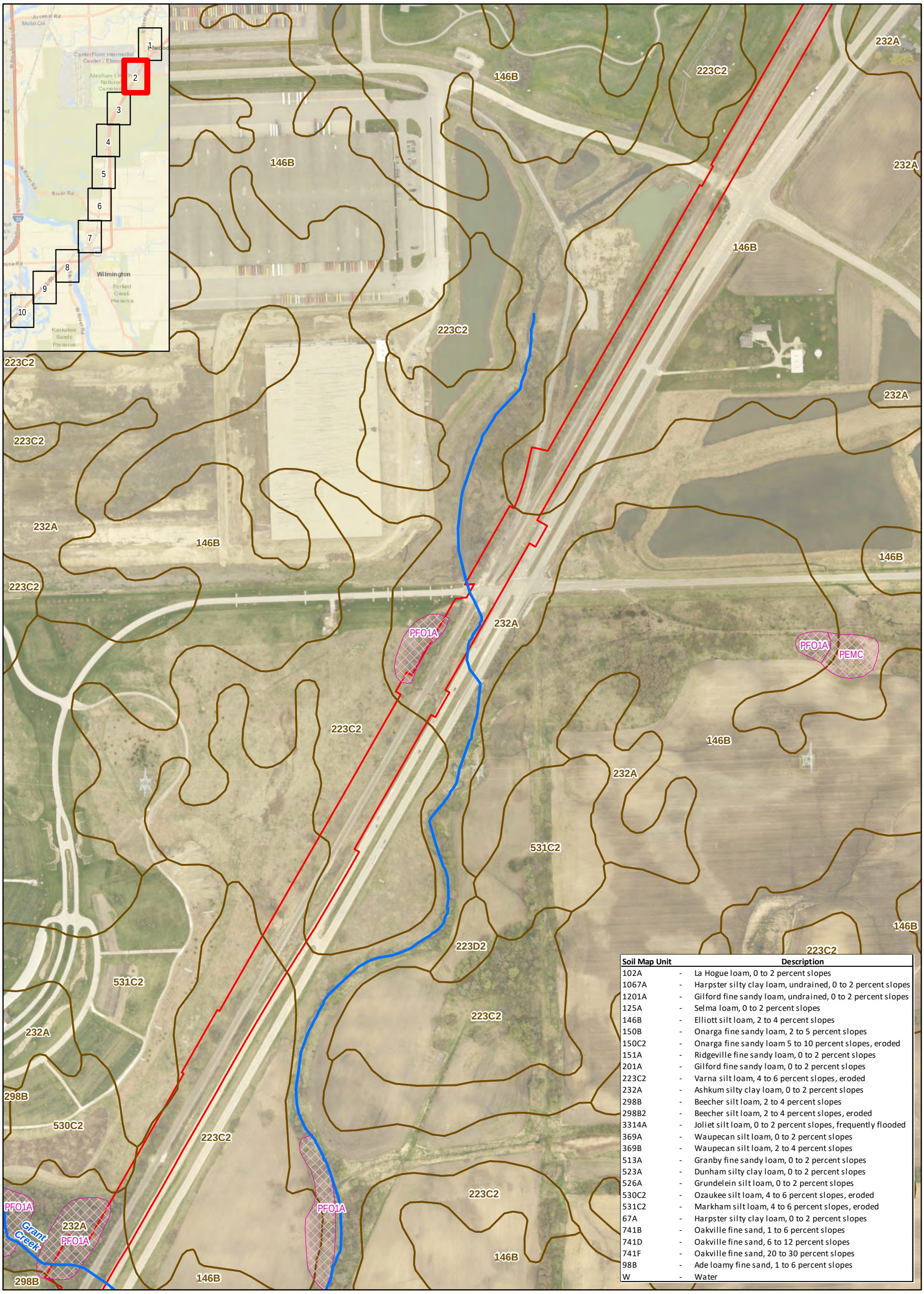
N

0 200 400 800

Feet

Figure 2
National Wetlands Inventory, National Hydrography Dataset and Soils Map (Grid 1 of 10)
Tier 8 Elwood to Braidwood
Will County, IL

National Wetlands Inventory: https://www.fws.gov/wetlands/data/Data-Download.html
National Hydrography Dataset: https://viewer.nationalmap.gov/basic/?basemap=b1&category=nhd&title=NHD%20View#/
Soils: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
Imagery Source: ESRI World Imagery online mapping service



Legend

- NHD Stream
- NWI Wetland
- Soil Map Unit
- Environmental Survey Corridor

N

0 200 400 800

Feet

Figure 2
National Wetlands Inventory, National Hydrography Dataset and Soils Map (Grid 2 of 10)
Tier 8 Elwood to Braidwood
Will County, IL

National Wetlands Inventory: https://www.fws.gov/wetlands/data/Data-Download.html
National Hydrography Dataset: https://viewer.nationalmap.gov/basic/?basemap=b1&category=nhd&title=NHD%20View#/
Soils: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
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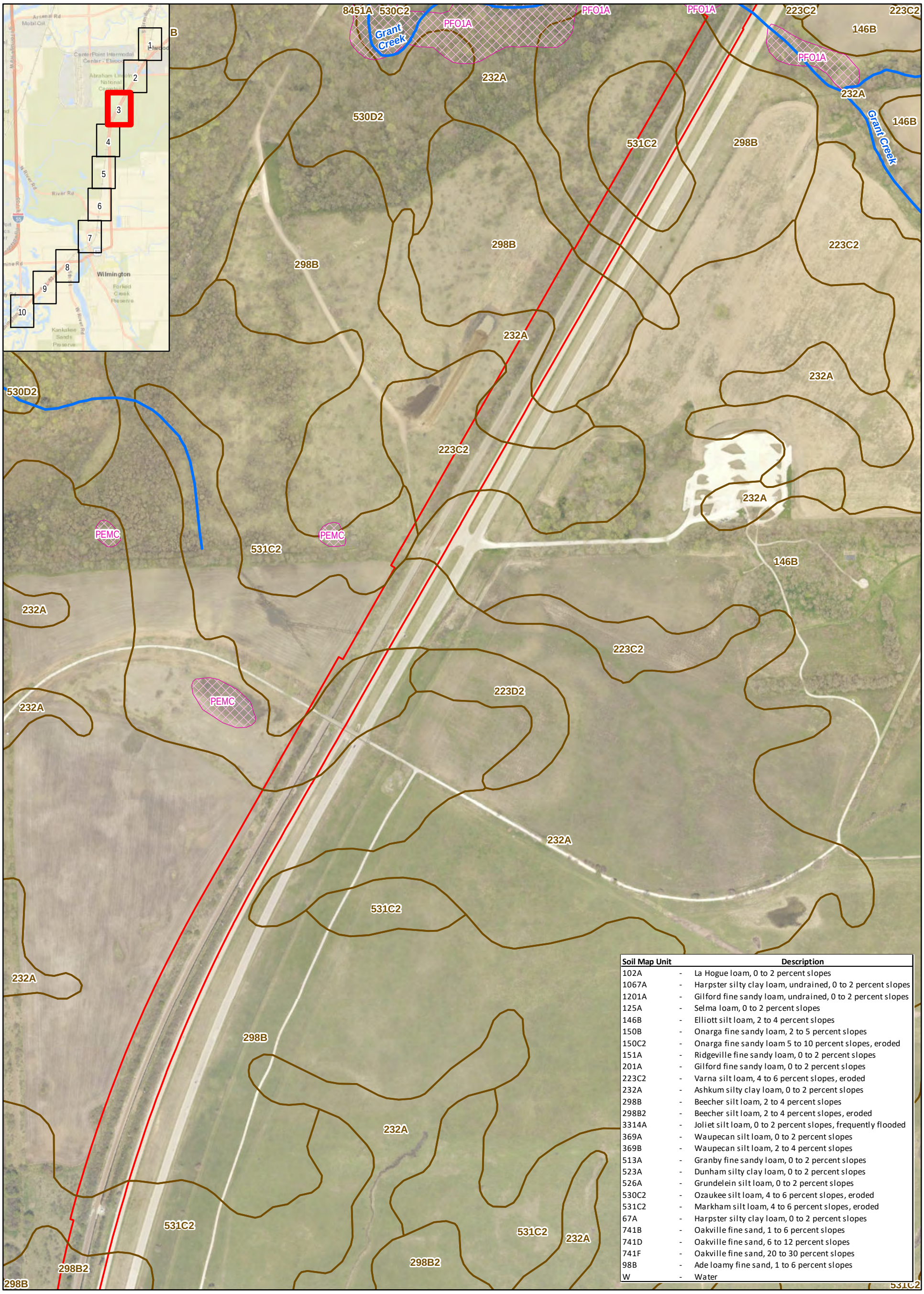


Soil Map Unit		Description
102A	-	La Hogue loam, 0 to 2 percent slopes
1067A	-	Harpster silty clay loam, undrained, 0 to 2 percent slopes
1201A	-	Gilford fine sandy loam, undrained, 0 to 2 percent slopes
125A	-	Selma loam, 0 to 2 percent slopes
146B	-	Elliott silt loam, 2 to 4 percent slopes
150B	-	Onarga fine sandy loam, 2 to 5 percent slopes
150C2	-	Onarga fine sandy loam 5 to 10 percent slopes, eroded
151A	-	Ridgeville fine sandy loam, 0 to 2 percent slopes
201A	-	Gilford fine sandy loam, 0 to 2 percent slopes
223C2	-	Varna silt loam, 4 to 6 percent slopes, eroded
232A	-	Ashkum silty clay loam, 0 to 2 percent slopes
298B	-	Beecher silt loam, 2 to 4 percent slopes
298B2	-	Beecher silt loam, 2 to 4 percent slopes, eroded
3314A	-	Joliet silt loam, 0 to 2 percent slopes, frequently flooded
369A	-	Waupecan silt loam, 0 to 2 percent slopes
369B	-	Waupecan silt loam, 2 to 4 percent slopes
513A	-	Granby fine sandy loam, 0 to 2 percent slopes
523A	-	Dunham silty clay loam, 0 to 2 percent slopes
526A	-	Grundelein silt loam, 0 to 2 percent slopes
530C2	-	Ozaukee silt loam, 4 to 6 percent slopes, eroded
531C2	-	Markham silt loam, 4 to 6 percent slopes, eroded
67A	-	Harpster silty clay loam, 0 to 2 percent slopes
741B	-	Oakville fine sand, 1 to 6 percent slopes
741D	-	Oakville fine sand, 6 to 12 percent slopes
741F	-	Oakville fine sand, 20 to 30 percent slopes
98B	-	Ade loamy fine sand, 1 to 6 percent slopes
W	-	Water

Legend

- NHD Stream
- NWI Wetland
- Soil Map Unit
- Environmental Survey Corridor

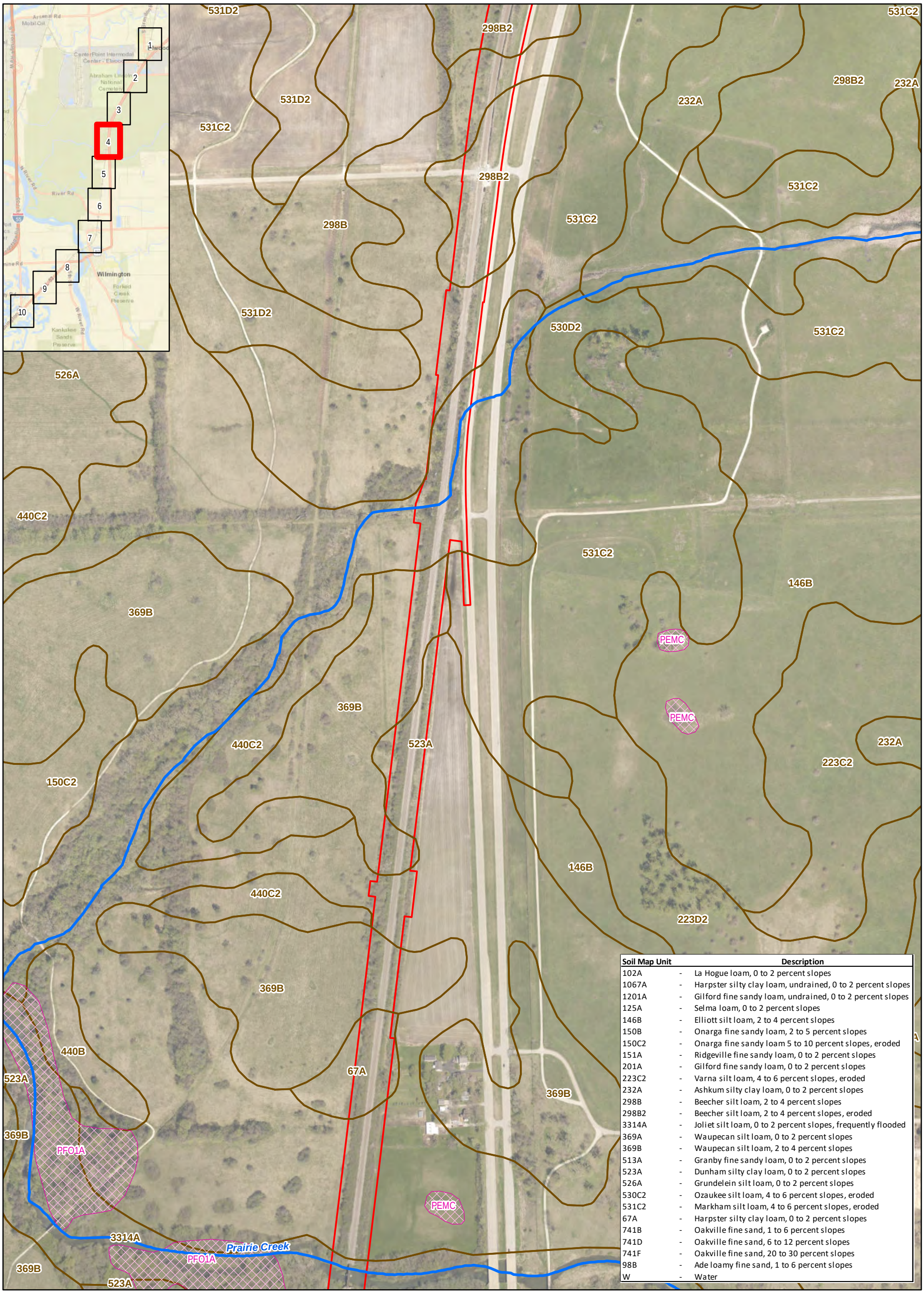
N

0 200 400 800

Feet

Figure 2
National Wetlands Inventory, National Hydrography Dataset and Soils Map (Grid 3 of 10)
Tier 8 Elwood to Braidwood
Will County, IL

National Wetlands Inventory: https://www.fws.gov/wetlands/data/Data-Download.html
National Hydrography Dataset: https://viewer.nationalmap.gov/basic/?basemap=b1&category=nhd&title=NHD%20View#/
Soils: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
Imagery Source: ESRI World Imagery online mapping service



Soil Map Unit		Description
102A	-	La Hogue loam, 0 to 2 percent slopes
1067A	-	Harpster silty clay loam, undrained, 0 to 2 percent slopes
1201A	-	Gilford fine sandy loam, undrained, 0 to 2 percent slopes
125A	-	Selma loam, 0 to 2 percent slopes
146B	-	Elliott silt loam, 2 to 4 percent slopes
150B	-	Onarga fine sandy loam, 2 to 5 percent slopes
150C2	-	Onarga fine sandy loam 5 to 10 percent slopes, eroded
151A	-	Ridgeville fine sandy loam, 0 to 2 percent slopes
201A	-	Gilford fine sandy loam, 0 to 2 percent slopes
223C2	-	Varna silt loam, 4 to 6 percent slopes, eroded
232A	-	Ashkum silty clay loam, 0 to 2 percent slopes
298B	-	Beecher silt loam, 2 to 4 percent slopes
298B2	-	Beecher silt loam, 2 to 4 percent slopes, eroded
3314A	-	Joliet silt loam, 0 to 2 percent slopes, frequently flooded
369A	-	Waupecan silt loam, 0 to 2 percent slopes
369B	-	Waupecan silt loam, 2 to 4 percent slopes
513A	-	Granby fine sandy loam, 0 to 2 percent slopes
523A	-	Dunham silty clay loam, 0 to 2 percent slopes
526A	-	Grundelein silt loam, 0 to 2 percent slopes
530C2	-	Ozaukee silt loam, 4 to 6 percent slopes, eroded
531C2	-	Markham silt loam, 4 to 6 percent slopes, eroded
67A	-	Harpster silty clay loam, 0 to 2 percent slopes
741B	-	Oakville fine sand, 1 to 6 percent slopes
741D	-	Oakville fine sand, 6 to 12 percent slopes
741F	-	Oakville fine sand, 20 to 30 percent slopes
98B	-	Ade loamy fine sand, 1 to 6 percent slopes
W	-	Water

Legend

- NHD Stream
- NWI Wetland
- Soil Map Unit
- Environmental Survey Corridor

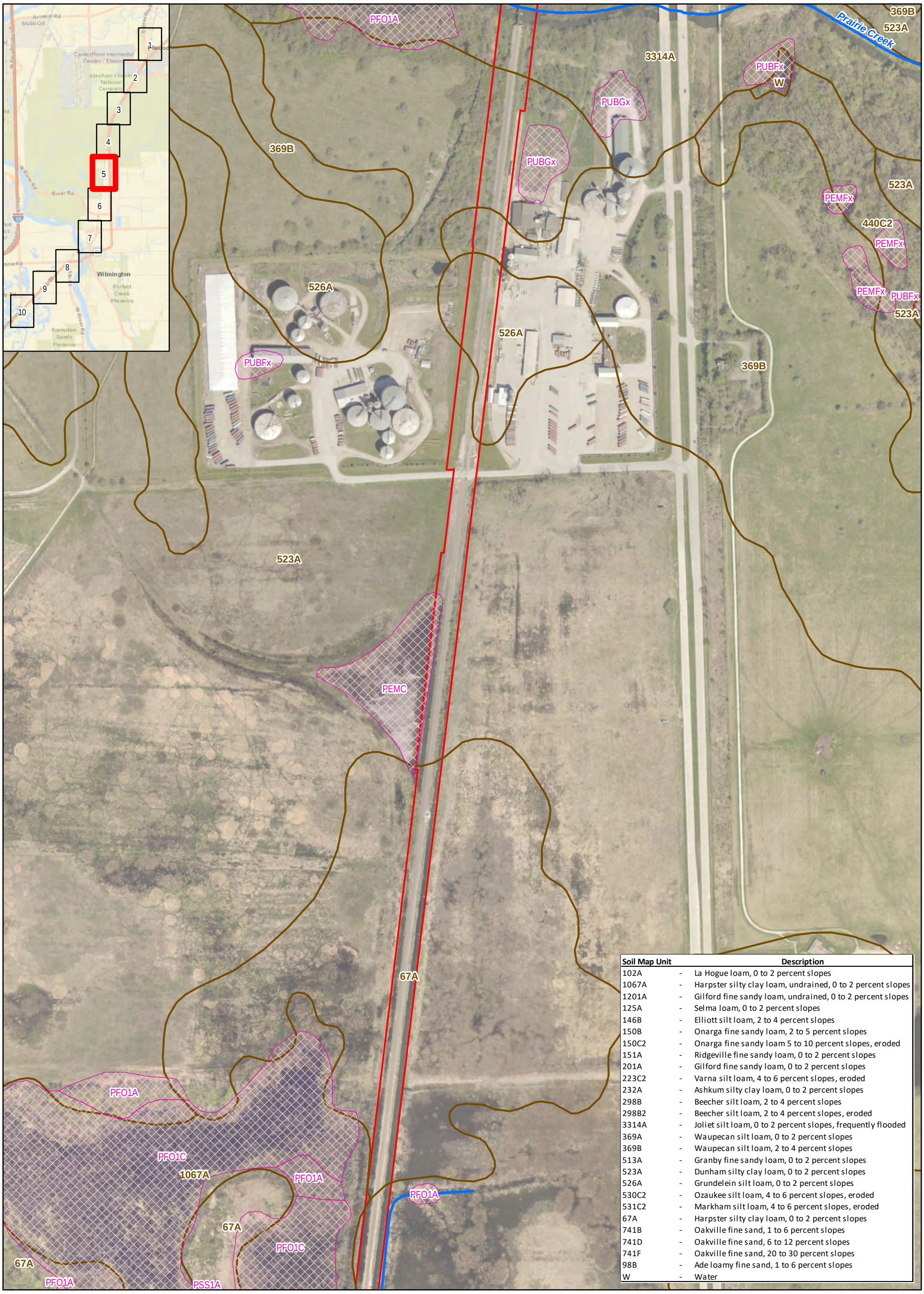
N

0 200 400 800

Feet

Figure 2
National Wetlands Inventory, National Hydrography Dataset and Soils Map (Grid 4 of 10)
Tier 8 Elwood to Braidwood
Will County, IL

National Wetlands Inventory: https://www.fws.gov/wetlands/data/Data-Download.html
National Hydrography Dataset: https://viewer.nationalmap.gov/basic/?basemap=b1&category=nhd&title=NHD%20View#/
Soils: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
Imagery Source: ESRI World Imagery online mapping service



Soil Map Unit		Description
102A	-	La Hogue loam, 0 to 2 percent slopes
1067A	-	Harpster silty clay loam, undrained, 0 to 2 percent slopes
1201A	-	Gilford fine sandy loam, undrained, 0 to 2 percent slopes
125A	-	Selma loam, 0 to 2 percent slopes
146B	-	Elliott silt loam, 2 to 4 percent slopes
150B	-	Onarga fine sandy loam, 2 to 5 percent slopes
150C2	-	Onarga fine sandy loam 5 to 10 percent slopes, eroded
151A	-	Ridgeville fine sandy loam, 0 to 2 percent slopes
201A	-	Gilford fine sandy loam, 0 to 2 percent slopes
223C2	-	Varna silt loam, 4 to 6 percent slopes, eroded
232A	-	Ashkum silty clay loam, 0 to 2 percent slopes
298B	-	Beecher silt loam, 2 to 4 percent slopes
298B2	-	Beecher silt loam, 2 to 4 percent slopes, eroded
3314A	-	Joliet silt loam, 0 to 2 percent slopes, frequently flooded
369A	-	Waupecan silt loam, 0 to 2 percent slopes
369B	-	Waupecan silt loam, 2 to 4 percent slopes
513A	-	Granby fine sandy loam, 0 to 2 percent slopes
523A	-	Dunham silty clay loam, 0 to 2 percent slopes
526A	-	Grundelein silt loam, 0 to 2 percent slopes
530C2	-	Ozaukee silt loam, 4 to 6 percent slopes, eroded
531C2	-	Markham silt loam, 4 to 6 percent slopes, eroded
67A	-	Harpster silty clay loam, 0 to 2 percent slopes
741B	-	Oakville fine sand, 1 to 6 percent slopes
741D	-	Oakville fine sand, 6 to 12 percent slopes
741F	-	Oakville fine sand, 20 to 30 percent slopes
98B	-	Ade loamy fine sand, 1 to 6 percent slopes
W	-	Water

Legend

- NHD Stream
- NWI Wetland
- Soil Map Unit
- Environmental Survey Corridor

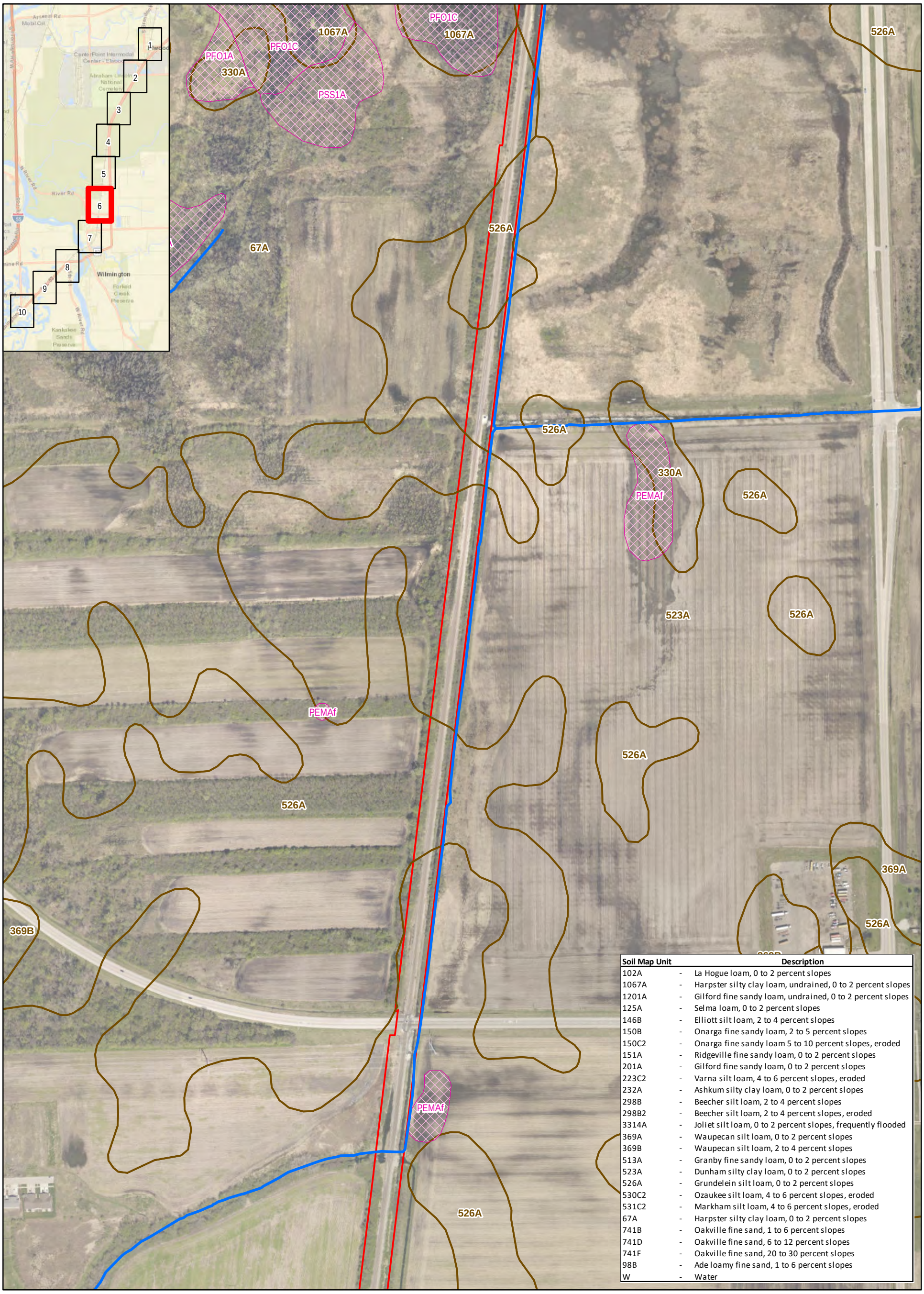
N

0 200 400 800

Feet

Figure 2
National Wetlands Inventory, National Hydrography Dataset and Soils Map (Grid 5 of 10)
Tier 8 Elwood to Braidwood
Will County, IL

National Wetlands Inventory: https://www.fws.gov/wetlands/data/Data-Download.html
National Hydrography Dataset: https://viewer.nationalmap.gov/basic/?basemap=b1&category=nhd&title=NHD%20View#/
Soils: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
Imagery Source: ESRI World Imagery online mapping service



Soil Map Unit		Description
102A	-	La Hogue loam, 0 to 2 percent slopes
1067A	-	Harpster silty clay loam, undrained, 0 to 2 percent slopes
1201A	-	Gilford fine sandy loam, undrained, 0 to 2 percent slopes
125A	-	Selma loam, 0 to 2 percent slopes
146B	-	Elliott silt loam, 2 to 4 percent slopes
150B	-	Onarga fine sandy loam, 2 to 5 percent slopes
150C2	-	Onarga fine sandy loam 5 to 10 percent slopes, eroded
151A	-	Ridgeville fine sandy loam, 0 to 2 percent slopes
201A	-	Gilford fine sandy loam, 0 to 2 percent slopes
223C2	-	Varna silt loam, 4 to 6 percent slopes, eroded
232A	-	Ashkum silty clay loam, 0 to 2 percent slopes
298B	-	Beecher silt loam, 2 to 4 percent slopes
298B2	-	Beecher silt loam, 2 to 4 percent slopes, eroded
3314A	-	Joliet silt loam, 0 to 2 percent slopes, frequently flooded
369A	-	Waupecan silt loam, 0 to 2 percent slopes
369B	-	Waupecan silt loam, 2 to 4 percent slopes
513A	-	Granby fine sandy loam, 0 to 2 percent slopes
523A	-	Dunham silty clay loam, 0 to 2 percent slopes
526A	-	Grundelein silt loam, 0 to 2 percent slopes
530C2	-	Ozaukee silt loam, 4 to 6 percent slopes, eroded
531C2	-	Markham silt loam, 4 to 6 percent slopes, eroded
67A	-	Harpster silty clay loam, 0 to 2 percent slopes
741B	-	Oakville fine sand, 1 to 6 percent slopes
741D	-	Oakville fine sand, 6 to 12 percent slopes
741F	-	Oakville fine sand, 20 to 30 percent slopes
98B	-	Ade loamy fine sand, 1 to 6 percent slopes
W	-	Water

Legend

- NHD Stream
- NWI Wetland
- Soil Map Unit
- Environmental Survey Corridor

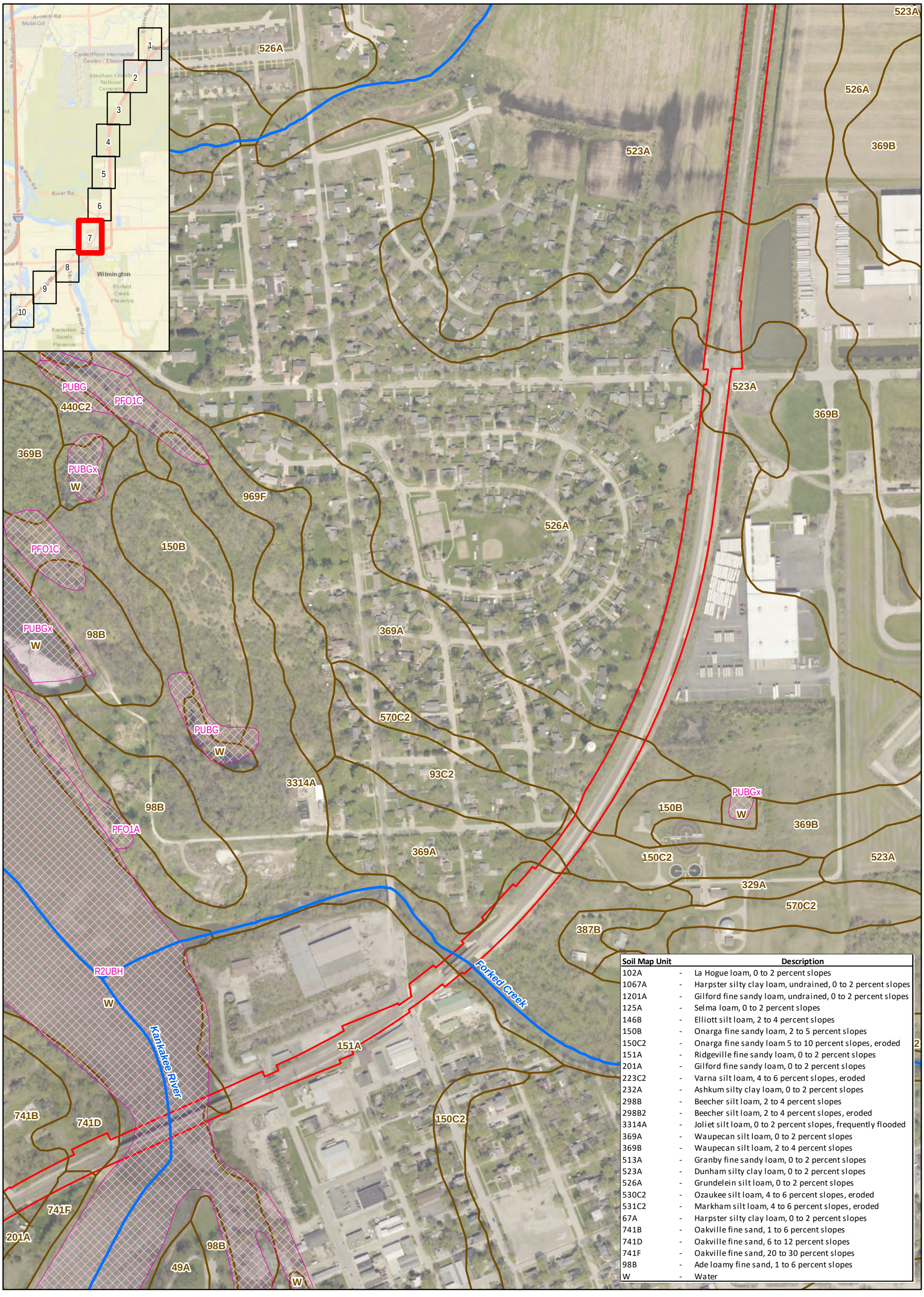
N

0 200 400 800

Feet

Figure 2
National Wetlands Inventory, National Hydrography Dataset and Soils Map (Grid 6 of 10)
Tier 8 Elwood to Braidwood
Will County, IL

National Wetlands Inventory: https://www.fws.gov/wetlands/data/Data-Download.html
National Hydrography Dataset: https://viewer.nationalmap.gov/basic/?basemap=b1&category=nhd&title=NHD%20View#/
Soils: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
Imagery Source: ESRI World Imagery online mapping service



Soil Map Unit		Description
102A	-	La Hogue loam, 0 to 2 percent slopes
1067A	-	Harpster silty clay loam, undrained, 0 to 2 percent slopes
1201A	-	Gilford fine sandy loam, undrained, 0 to 2 percent slopes
125A	-	Selma loam, 0 to 2 percent slopes
146B	-	Elliott silt loam, 2 to 4 percent slopes
150B	-	Onarga fine sandy loam, 2 to 5 percent slopes
150C2	-	Onarga fine sandy loam 5 to 10 percent slopes, eroded
151A	-	Ridgeville fine sandy loam, 0 to 2 percent slopes
201A	-	Gilford fine sandy loam, 0 to 2 percent slopes
223C2	-	Varna silt loam, 4 to 6 percent slopes, eroded
232A	-	Ashkum silty clay loam, 0 to 2 percent slopes
298B	-	Beecher silt loam, 2 to 4 percent slopes
298B2	-	Beecher silt loam, 2 to 4 percent slopes, eroded
3314A	-	Joliet silt loam, 0 to 2 percent slopes, frequently flooded
369A	-	Waupecan silt loam, 0 to 2 percent slopes
369B	-	Waupecan silt loam, 2 to 4 percent slopes
513A	-	Granby fine sandy loam, 0 to 2 percent slopes
523A	-	Dunham silty clay loam, 0 to 2 percent slopes
526A	-	Grundelein silt loam, 0 to 2 percent slopes
530C2	-	Ozaukee silt loam, 4 to 6 percent slopes, eroded
531C2	-	Markham silt loam, 4 to 6 percent slopes, eroded
67A	-	Harpster silty clay loam, 0 to 2 percent slopes
741B	-	Oakville fine sand, 1 to 6 percent slopes
741D	-	Oakville fine sand, 6 to 12 percent slopes
741F	-	Oakville fine sand, 20 to 30 percent slopes
98B	-	Ade loamy fine sand, 1 to 6 percent slopes
W	-	Water

Legend

- NHD Stream
- NWI Wetland
- Soil Map Unit
- Environmental Survey Corridor

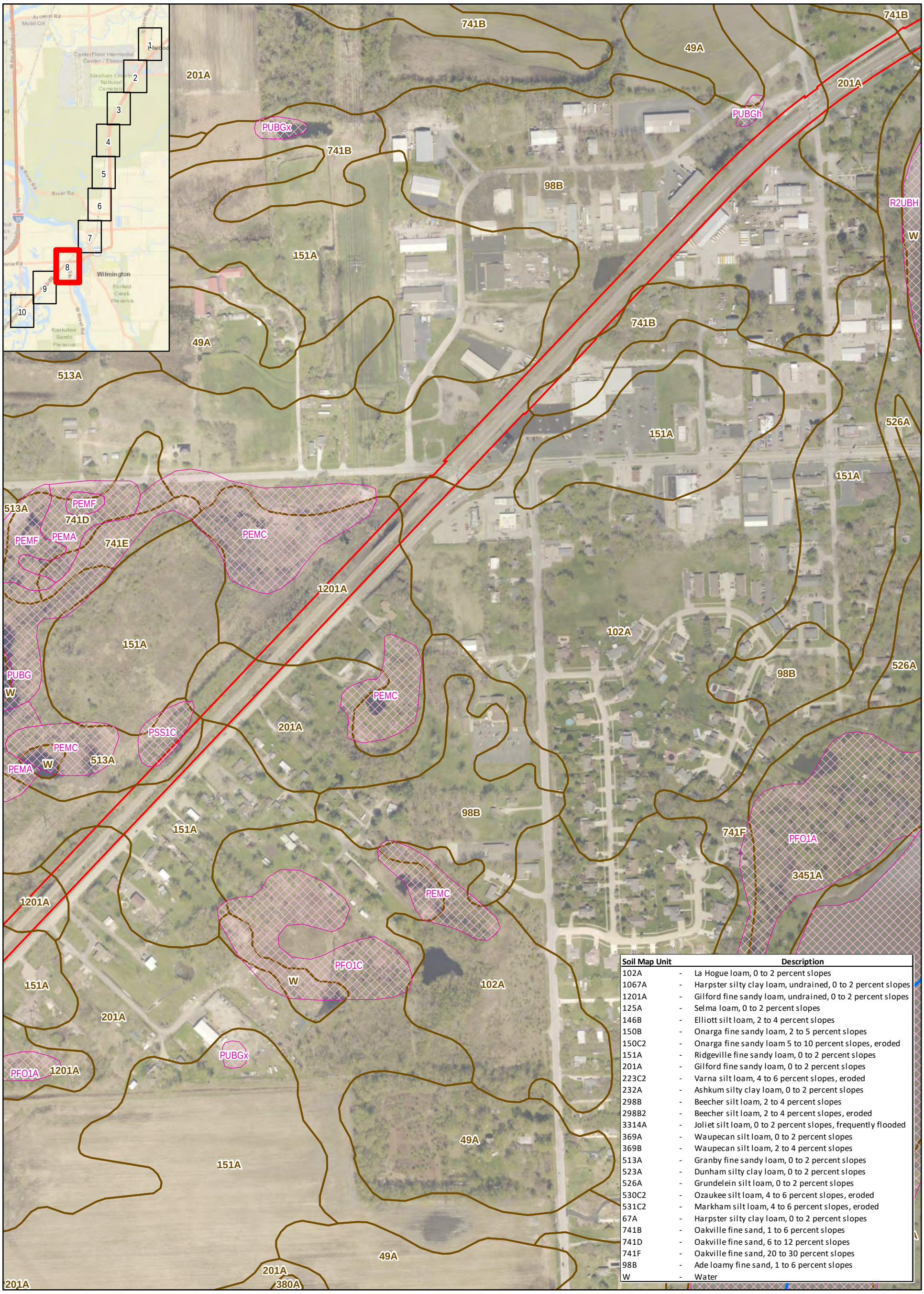
N

0 200 400 800

Feet

Figure 2
National Wetlands Inventory, National Hydrography Dataset and Soils Map (Grid 7 of 10)
Tier 8 Elwood to Braidwood
Will County, IL

National Wetlands Inventory: https://www.fws.gov/wetlands/data/Data-Download.html
National Hydrography Dataset: https://viewer.nationalmap.gov/basic/?basemap=b1&category=nhd&title=NHD%20View#/
Soils: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
Imagery Source: ESRI World Imagery online mapping service



Soil Map Unit		Description
102A	-	La Hogue loam, 0 to 2 percent slopes
1067A	-	Harpster silty clay loam, undrained, 0 to 2 percent slopes
1201A	-	Gilford fine sandy loam, undrained, 0 to 2 percent slopes
125A	-	Selma loam, 0 to 2 percent slopes
146B	-	Elliott silt loam, 2 to 4 percent slopes
150B	-	Onarga fine sandy loam, 2 to 5 percent slopes
150C2	-	Onarga fine sandy loam 5 to 10 percent slopes, eroded
151A	-	Ridgeville fine sandy loam, 0 to 2 percent slopes
201A	-	Gilford fine sandy loam, 0 to 2 percent slopes
223C2	-	Varna silt loam, 4 to 6 percent slopes, eroded
232A	-	Ashkum silty clay loam, 0 to 2 percent slopes
298B	-	Beecher silt loam, 2 to 4 percent slopes
298B2	-	Beecher silt loam, 2 to 4 percent slopes, eroded
3314A	-	Joliet silt loam, 0 to 2 percent slopes, frequently flooded
369A	-	Waupecan silt loam, 0 to 2 percent slopes
369B	-	Waupecan silt loam, 2 to 4 percent slopes
513A	-	Granby fine sandy loam, 0 to 2 percent slopes
523A	-	Dunham silty clay loam, 0 to 2 percent slopes
526A	-	Grundelein silt loam, 0 to 2 percent slopes
530C2	-	Ozaukee silt loam, 4 to 6 percent slopes, eroded
531C2	-	Markham silt loam, 4 to 6 percent slopes, eroded
67A	-	Harpster silty clay loam, 0 to 2 percent slopes
741B	-	Oakville fine sand, 1 to 6 percent slopes
741D	-	Oakville fine sand, 6 to 12 percent slopes
741F	-	Oakville fine sand, 20 to 30 percent slopes
98B	-	Ade loamy fine sand, 1 to 6 percent slopes
W	-	Water

Legend

- NHD Stream
- NWI Wetland
- Soil Map Unit
- Environmental Survey Corridor

N

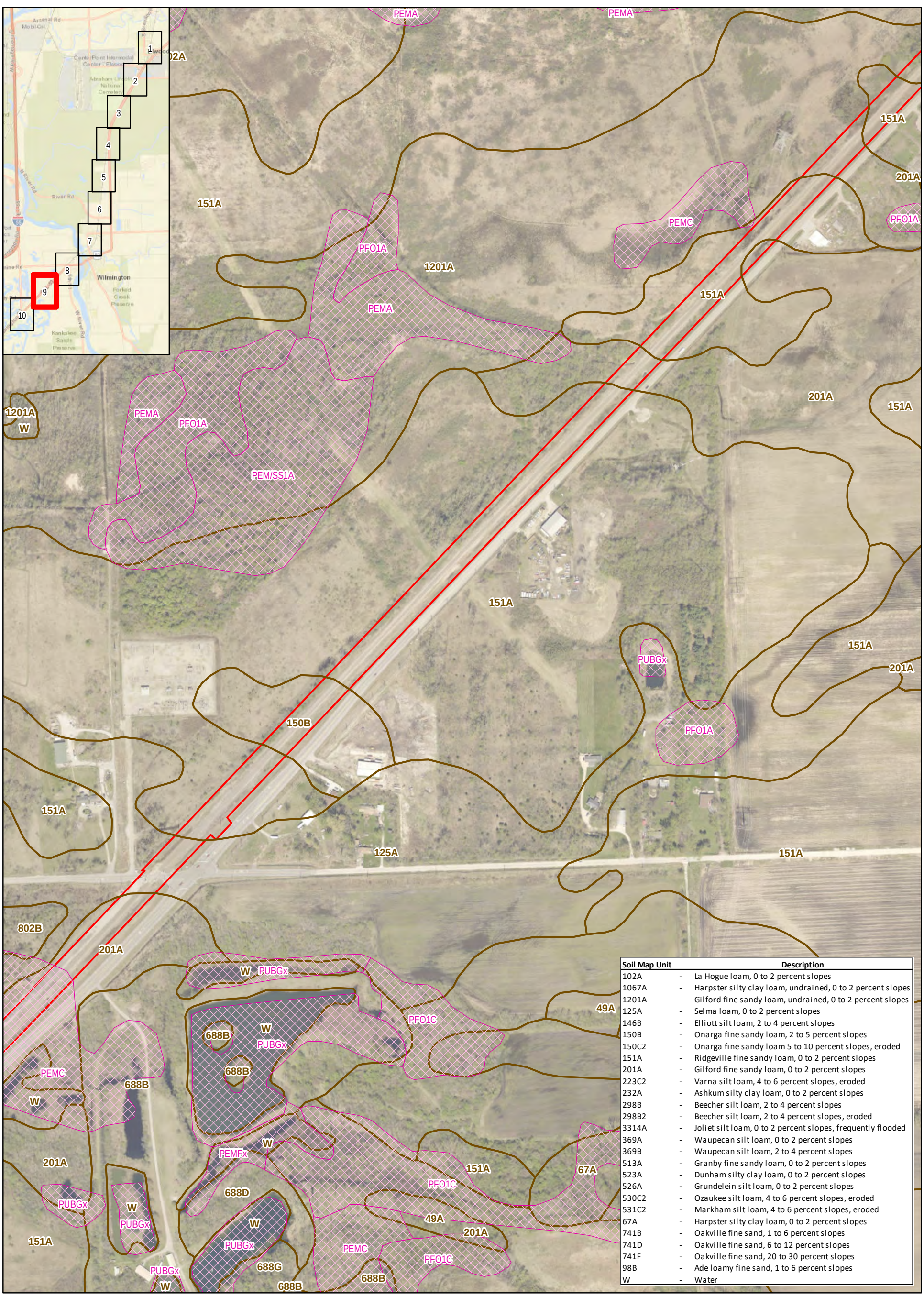
0 200 400 800

Feet

Figure 2
National Wetlands Inventory, National Hydrography Dataset and Soils Map (Grid 8 of 10)
Tier 8 Elwood to Braidwood
Will County, IL

National Wetlands Inventory: https://www.fws.gov/wetlands/data/Data-Download.html
National Hydrography Dataset: https://viewer.nationalmap.gov/basic/?basemap=b1&category=nhd&title=NHD%20View#/
Soils: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
Imagery Source: ESRI World Imagery online mapping service

Jacobs



Soil Map Unit		Description
102A	-	La Hogue loam, 0 to 2 percent slopes
1067A	-	Harpster silty clay loam, undrained, 0 to 2 percent slopes
1201A	-	Gilford fine sandy loam, undrained, 0 to 2 percent slopes
125A	-	Selma loam, 0 to 2 percent slopes
146B	-	Elliott silt loam, 2 to 4 percent slopes
150B	-	Onarga fine sandy loam, 2 to 5 percent slopes
150C2	-	Onarga fine sandy loam 5 to 10 percent slopes, eroded
151A	-	Ridgeville fine sandy loam, 0 to 2 percent slopes
201A	-	Gilford fine sandy loam, 0 to 2 percent slopes
223C2	-	Varna silt loam, 4 to 6 percent slopes, eroded
232A	-	Ashkum silty clay loam, 0 to 2 percent slopes
298B	-	Beecher silt loam, 2 to 4 percent slopes
298B2	-	Beecher silt loam, 2 to 4 percent slopes, eroded
3314A	-	Joliet silt loam, 0 to 2 percent slopes, frequently flooded
369A	-	Waupecan silt loam, 0 to 2 percent slopes
369B	-	Waupecan silt loam, 2 to 4 percent slopes
513A	-	Granby fine sandy loam, 0 to 2 percent slopes
523A	-	Dunham silty clay loam, 0 to 2 percent slopes
526A	-	Grundelein silt loam, 0 to 2 percent slopes
530C2	-	Ozaukee silt loam, 4 to 6 percent slopes, eroded
531C2	-	Markham silt loam, 4 to 6 percent slopes, eroded
67A	-	Harpster silty clay loam, 0 to 2 percent slopes
741B	-	Oakville fine sand, 1 to 6 percent slopes
741D	-	Oakville fine sand, 6 to 12 percent slopes
741F	-	Oakville fine sand, 20 to 30 percent slopes
98B	-	Ade loamy fine sand, 1 to 6 percent slopes
W	-	Water

Legend

- NHD Stream
- NWI Wetland
- Soil Map Unit
- Environmental Survey Corridor

N

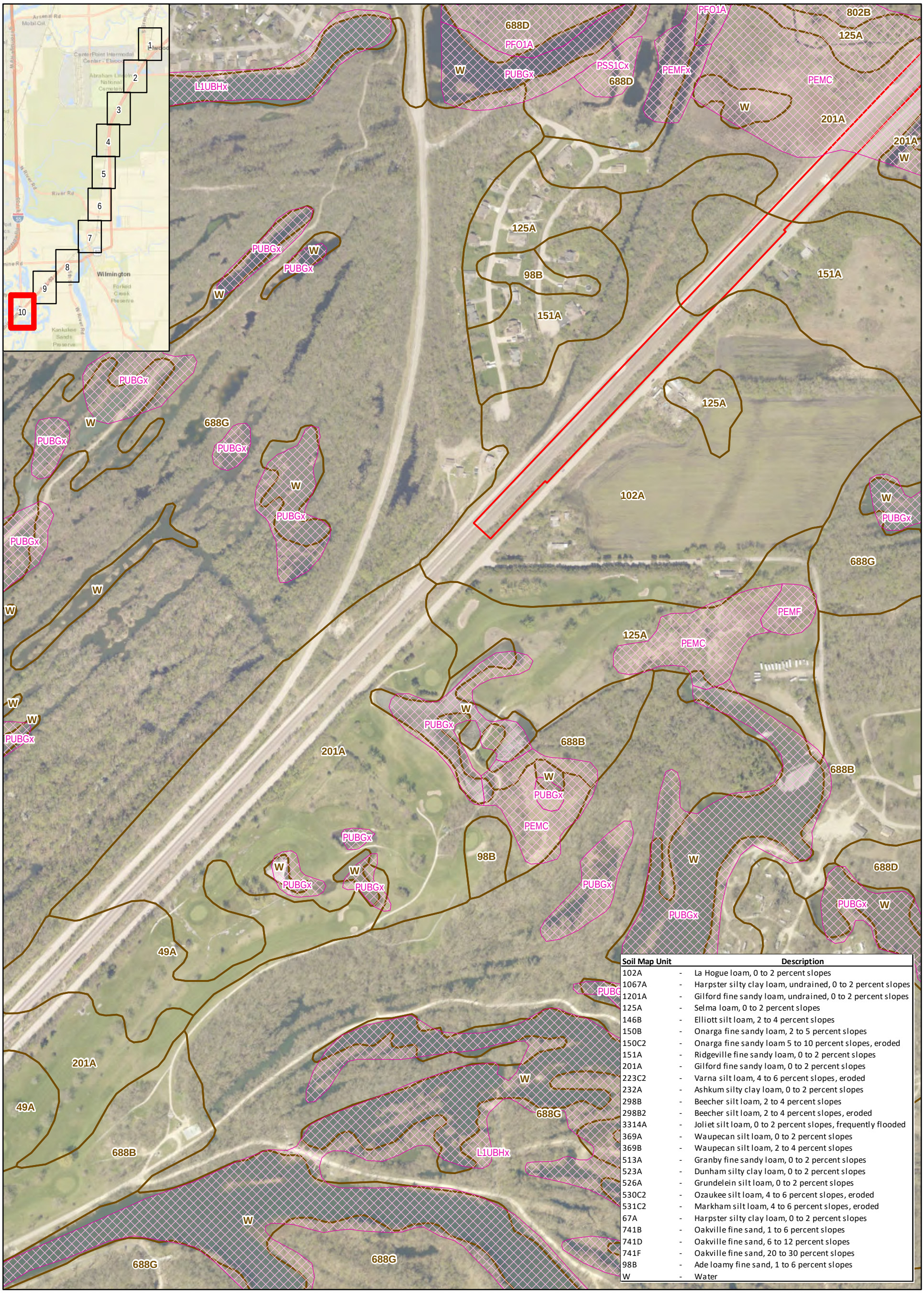
0 200 400 800

Feet

Figure 2
National Wetlands Inventory, National Hydrography Dataset and Soils Map (Grid 9 of 10)
Tier 8 Elwood to Braidwood
Will County, IL

National Wetlands Inventory: https://www.fws.gov/wetlands/data/Data-Download.html
National Hydrography Dataset: https://viewer.nationalmap.gov/basic/?basemap=b1&category=nhd&title=NHD%20View#/
Soils: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
Imagery Source: ESRI World Imagery online mapping service

Jacobs



Legend

- NHD Stream
- NWI Wetland
- Soil Map Unit
- Environmental Survey Corridor

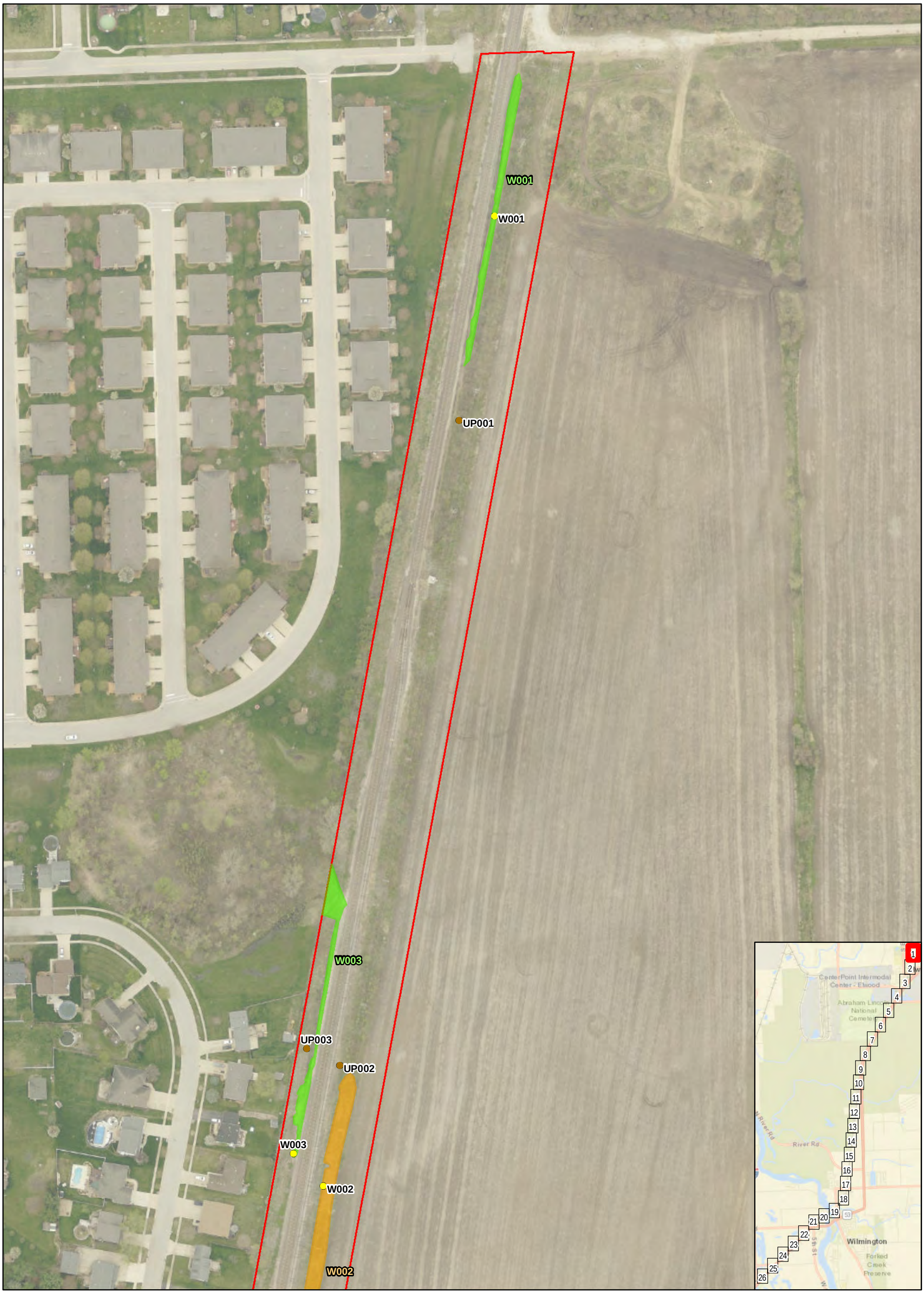
N

0 200 400 800

Feet

Figure 2
National Wetlands Inventory, National Hydrography Dataset and Soils Map (Grid 10 of 10)
Tier 8 Elwood to Braidwood
Will County, IL

National Wetlands Inventory: https://www.fws.gov/wetlands/data/Data-Download.html
National Hydrography Dataset: https://viewer.nationalmap.gov/basic/?basemap=b1&category=nhd&title=NHD%20View#/
Soils: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
Imagery Source: ESRI World Imagery online mapping service



Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300
Feet

Figure 3
Delineation Map (Grid 1 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

W002

UP004

W004

W004

Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300

Feet

Figure 3
Delineation Map (Grid 2 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

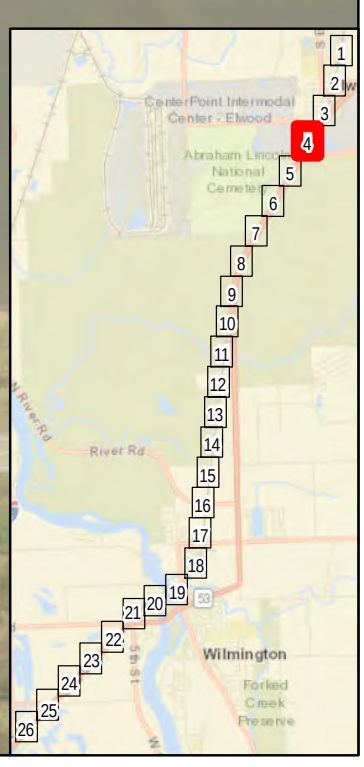
0 75 150 300

Feet

Figure 3
Delineation Map (Grid 3 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

UP006
W006
UP005
W005
W005
W009
W009
UP009
UP008
W008
W008
W007
UP007
W007
W008
UP010
S001
W010
W015
W010



Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300

Feet

Figure 3
Delineation Map (Grid 4 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

W010
S001
W015
UP010
W015
S001
UP011
W011
W011
UP012
W012
W012
CenterPoint Intermodal Center - Elwood
Abraham Lincoln National Cemetery
River Rd
Wilmington
Forked Creek Preserve
1
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26

Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300

Feet

Figure 3
Delineation Map (Grid 5 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

W014
W014
S002
S002
UP013
W013
W013
UP014
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6
7
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21
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23
24
25
26
CenterPoint Intermodal Center - Elwood
Abraham Lincoln National Cemetery
River Rd
Wilmington
Forked Creek Preserve
53

Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

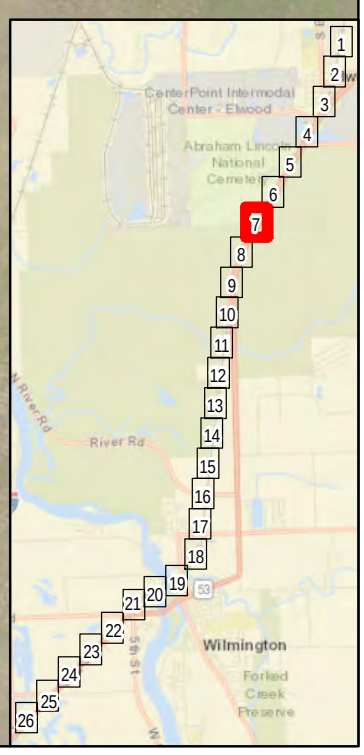
0 75 150 300

Feet

Figure 3
Delineation Map (Grid 6 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

UP018
W018
W018
UP017
W017
W017



Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

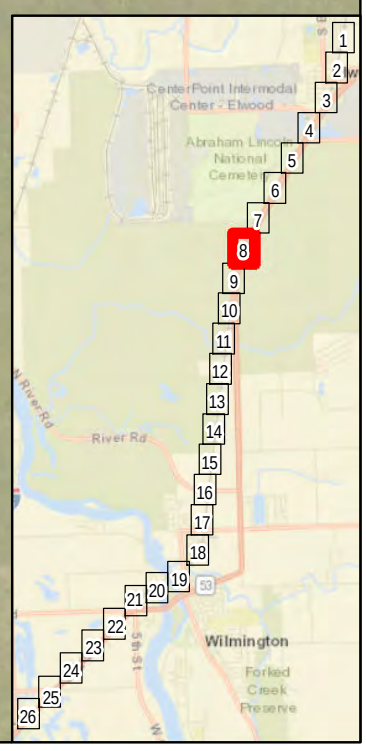
0 75 150 300

Feet

Figure 3
Delineation Map (Grid 7 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

W017



Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300

Feet

Figure 3
Delineation Map (Grid 8 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

W016

W016

W021

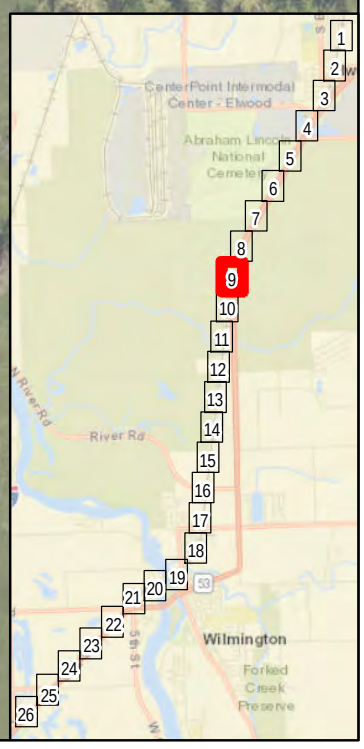
W021

UP021

S004

UP020a

W020a



Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

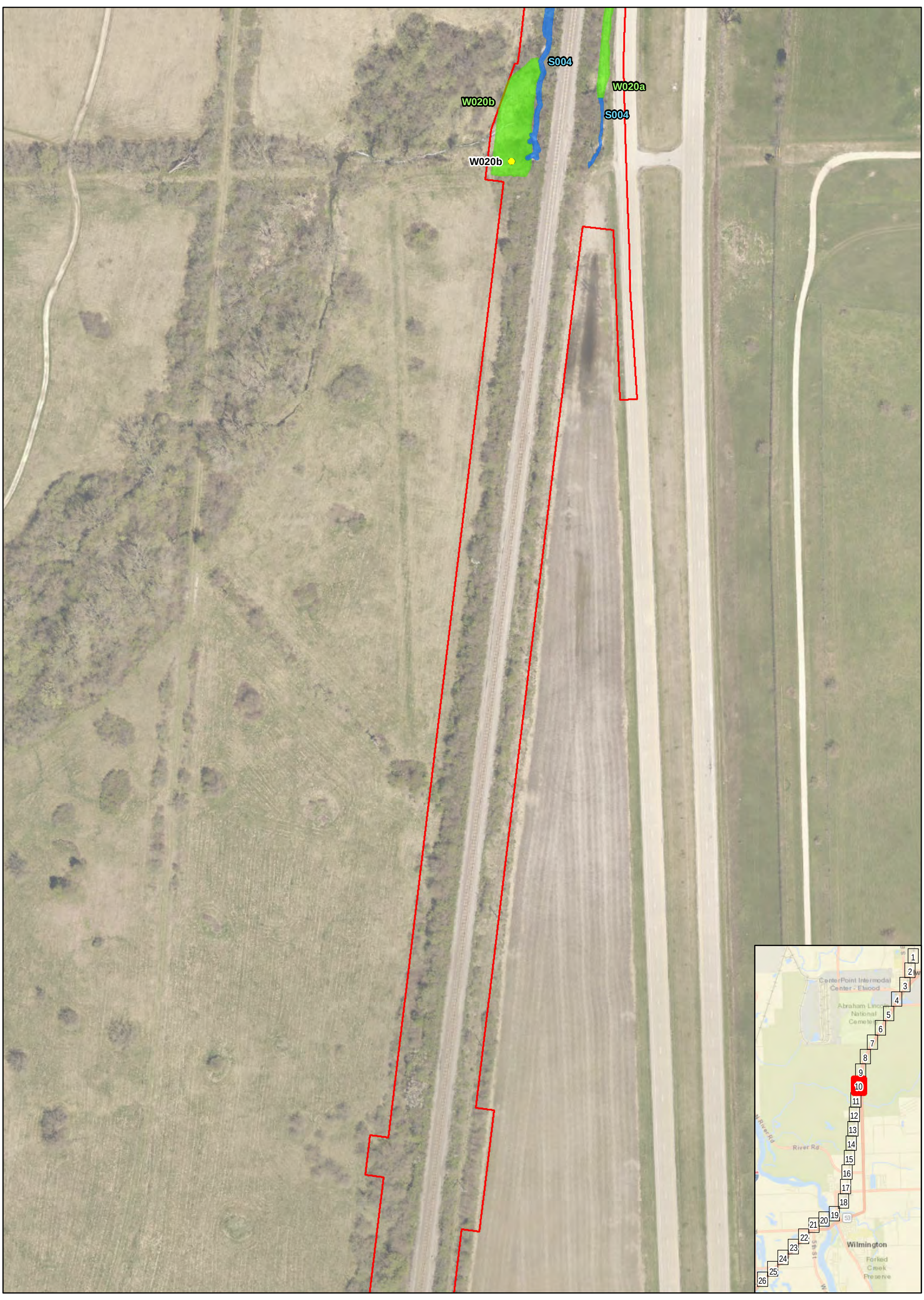
N

0 75 150 300

Feet

Figure 3
Delineation Map (Grid 9 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service



Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300

Feet

Figure 3
Delineation Map (Grid 10 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

W019c
W019c
S003
W019b
W019
W019
Wilmington
Forked Creek Preserve
River Rd
CenterPoint Intermodal Center - Elwood
Abraham Lincoln National Cemetery

Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

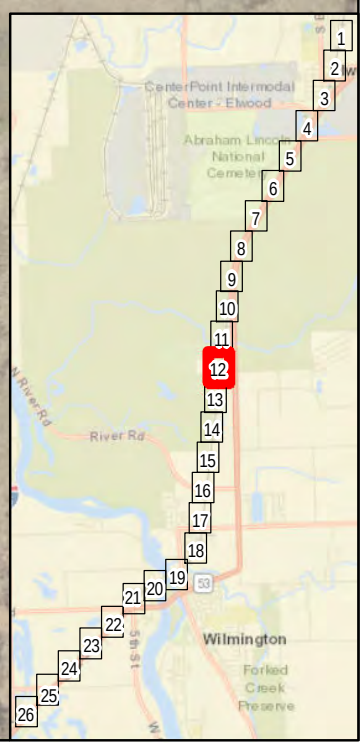
0 75 150 300
Feet

Figure 3
Delineation Map (Grid 11 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

W024

W022b



Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300

Feet

Figure 3
Delineation Map (Grid 12 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

W022b
W024
W024
W022b
UP022
S005
W023
W022
Center Point Intermodal Center - Elwood
Abraham Lincoln National Cemetery
River Rd
N River Rd
Wilmington
Forked Creek Preserve
53
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Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300
Feet

Figure 3
Delineation Map (Grid 13 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

W022
W023
S005
UP022
S005
W023
CenterPoint Intermodal Center - Elwood
Abraham Lincoln National Cemetery
River Rd
Wilmington
Forked Creek Preserve
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Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300
Feet

Figure 3
Delineation Map (Grid 14 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

W023
W022
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S005
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W022
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26
Center Point Intermodal Center - Elwood
Abraham Lincoln National Cemetery
River Rd
N River Rd
Wilmington
Forked Creek Preserve
53
S Main St

Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300
Feet

Figure 3
Delineation Map (Grid 15 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

S005
W022
UP023
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S006
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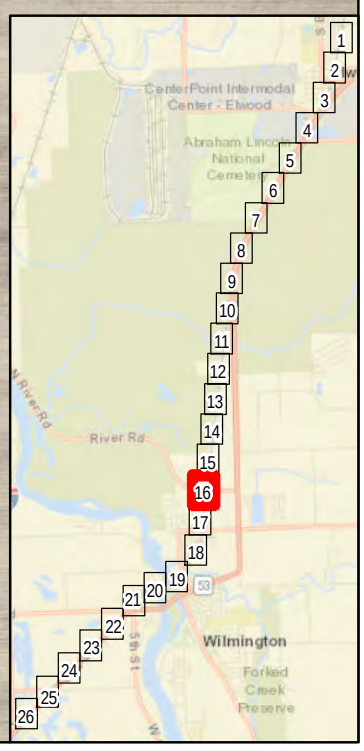
UP025
W026



Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300
Feet

Figure 3
Delineation Map (Grid 16 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

Jacobs

W027
W026
W027
W026
W027
W026
UP026
W039
W039

Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300
Feet

Figure 3
Delineation Map (Grid 17 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

Jacobs

UP039
W039
UP038
W038
W038
S007
Center Point Intermodal Center - Elwood
Abraham Lincoln National Cemetery
River Rd
Wilmington
Forked Creek Preserve
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Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300
Feet

Figure 3
Delineation Map (Grid 18 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

S007

S008

Center Point Intermodal Center - Elwood

Abraham Lincoln National Cemetery

River Rd

Wilmington

Forked Creek Preserve

Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300

Feet

Figure 3
Delineation Map (Grid 19 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

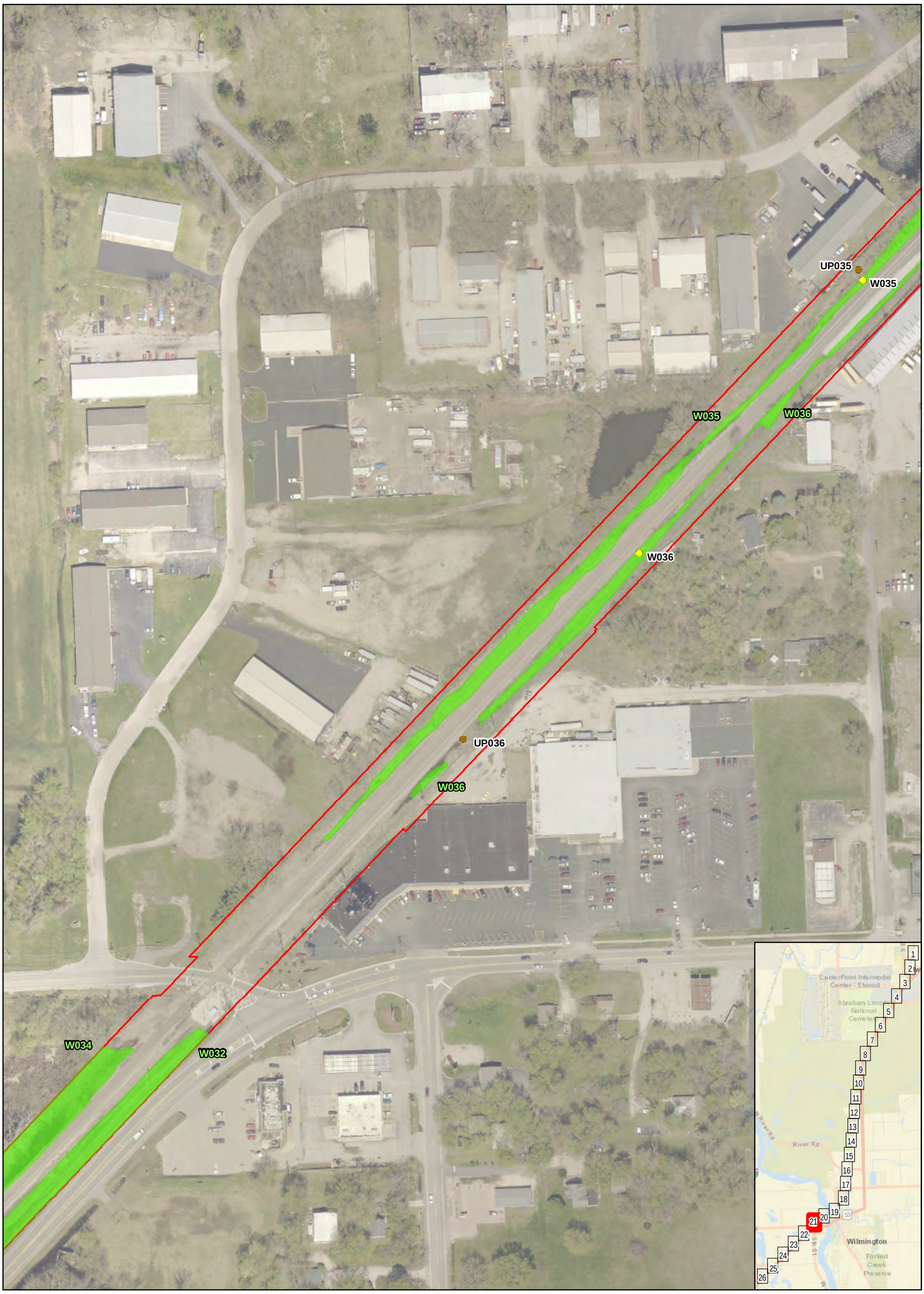
N

0 75 150 300

Feet

Figure 3
Delineation Map (Grid 20 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service



Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300
Feet

Figure 3
Delineation Map (Grid 21 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

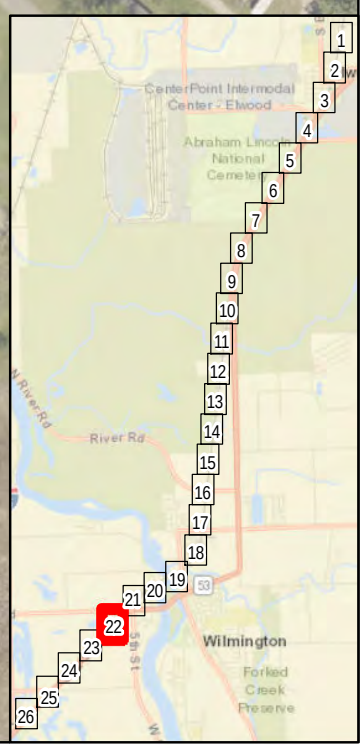
Imagery Source: ESRI World Imagery online mapping service

W034

W032

W032

W034



Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300

Feet

Figure 3
Delineation Map (Grid 22 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

W034
W034
W032
W034
W034
UP034
W034
W032

Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

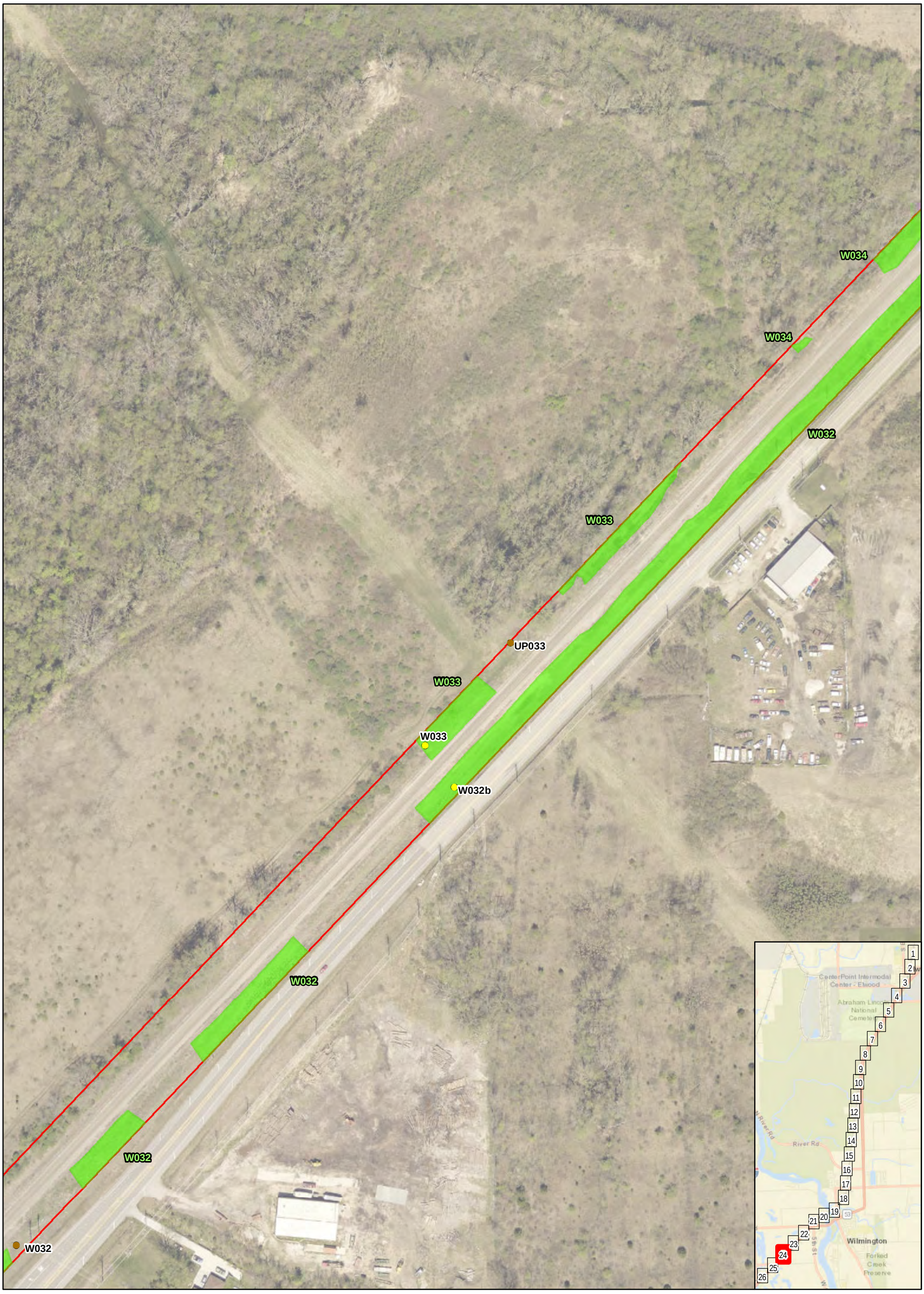
- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300
Feet

Figure 3
Delineation Map (Grid 23 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service



Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300

Feet

Figure 3
Delineation Map (Grid 24 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

UP031
W031
W031
W032a
W032
W028
W030
W030
W030

Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300

Feet

Figure 3
Delineation Map (Grid 25 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

W030

W030

W029

W029

W029

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

CenterPoint Intermodal Center - Elwood
Abraham Lincoln National Cemetery
River Rd
N River Rd
Wilmington
Forked Creek Preserve

Legend

- Upland Data Point
- Wetland Data Point
- Delineated Stream
- Environmental Survey Corridor

Delineated Wetland

- Palustrine Emergent Persistent Wetland
- Palustrine Forested Broad-leaved Deciduous Wetland
- Palustrine Scrub-Shrub Persistent Wetland

N

0 75 150 300
Feet

Figure 3
Delineation Map (Grid 26 of 26)
Tier 8 Elwood to Braidwood
Will County, IL

Imagery Source: ESRI World Imagery online mapping service

Appendix B
Wetland Delineation Forms

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-09-20

Applicant/Owner: UPRR State: IL Sampling Point: W001

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S20, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 2 Lat: 41°24'51.31"N Long: 88°06'23.09"W Datum: UTM83

Soil Map Unit Name: 531C2-Markham silt loam, 4 to 6 percent slopes, eroded NWI classification: None

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

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

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Populus deltoides*	10	Yes	FAC
2. *Salix interior*	3	Yes	FACW
3.			
4.			
5.			
	13 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	60	Yes	FACW
2. *Scirpus atrovirens*	20	No	OBL
3. *Helianthus grosseserratus*	25	Yes	FACW
4. *Solidago canadensis*	5	No	FACU
5. *Setaria pumila*	2	No	FAC
6. *Cyperus esculentus*	7	No	FACW
7. *Typha angustifolia*	3	No	OBL
8. *Prunella vulgaris*	1	No	FAC
9. *Setaria faberi*	1	No	FACU
10.			
	124 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1. *Vitis riparia*	1	No	FACW
2.			
	1 =Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	23	x 1 =	23
FACW species	96	x 2 =	192
FAC species	13	x 3 =	39
FACU species	6	x 4 =	24
UPL species	0	x 5 =	0
Column Totals:	138 (A)		278 (B)

Prevalence Index = B/A = 2.01

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: W001

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	2.5Y 3/1	78	2.5YR 4/8	2	C	M	Loamy/Clayey	Prominent redox concentrations
	10YR 5/4	20						

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: Railroad Embankment

Depth (inches): 8

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

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:

Rained night prior; there is a flooded area in the northern portion of the wetland. Ground has surface soil cracks in flooded area.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-09-20

Applicant/Owner: UPRR State: IL Sampling Point: UP001

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S20, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): convex

Slope (%): 15 Lat: 41°24'53.83"N Long: 88°06'22.60"W Datum: UTM83

Soil Map Unit Name: 531C2-Markham silt loam, 4 to 6 percent slopes, eroded NWI classification: None

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

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

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

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

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

Remarks:
Upland point to W001; on slope of railroad right-of-way between ditch and agricultural field

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica*	40	Yes	FACW
2.			
3.			
4.			
5.			
	40	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Sambucus nigra*	50	Yes	FAC
2. *Rhus glabra*	20	Yes	UPL
3. *Lonicera tatarica*	20	Yes	FACU
4. *Rhamnus cathartica*	5	No	FAC
5.			
	95	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Ribes missouriense*	3	Yes	UPL
2. *Ageratina altissima*	2	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	5	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	55	x 3 =	165
FACU species	22	x 4 =	88
UPL species	23	x 5 =	115
Column Totals:	140 (A)		448 (B)

Prevalence Index = B/A = 3.20

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: UP001

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

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

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: Railroad embankment

Depth (inches): 5

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

Remarks:

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

Dark brown fill, dry and crumbly.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-09-20

Applicant/Owner: UPRR State: IL Sampling Point: W002

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S20, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 2 Lat: 41°24'38.14"N Long: 88°06'26.51"W Datum: UTM83

Soil Map Unit Name: 232A-Ashkum silty clay loam, 0 to 2 percent slopes NWI classification: None

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

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

Remarks:
PSS wetland. Soil and topography historically disturbed due to railroad construction.
W002 is a linear low lying ditch filled in with vegetation comprised of FAC and FACW shrubs and saplings.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Acer saccharinum*	10	Yes	FACW
2. *Morus alba*	3	Yes	FAC
3.			
4.			
5.			
	13 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Solidago canadensis*	5	No	FACU
2. *Ambrosia trifida*	20	Yes	FAC
3. *Helianthus grosseserratus*	25	Yes	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	50 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1. *Vitis riparia*	2	No	FACW
2.			
	2 =Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	37	x 2 =	74
FAC species	23	x 3 =	69
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	65 (A)		163 (B)

Prevalence Index = B/A = 2.51

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: W002

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 3/1	78	5YR 4/6	2	C	M	Loamy/Clayey	Prominent redox concentrations
	10YR 5/8	10						
	2.5YR 5/1	10						

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: Railroad Embankment

Depth (inches): 9

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

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-09-20

Applicant/Owner: UPRR State: IL Sampling Point: UP002

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S20, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): None

Slope (%): 15 Lat: 41°17'24.44"N Long: 88°10'30.55"W Datum: UTM83

Soil Map Unit Name: 232A-Ashkum silty clay loam, 0 to 2 percent slopes NWI classification: None

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

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

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

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

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

Remarks:

Upland point to W002. Vegetation transitions to more dominant upland species in linear ditch.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Ulmus americana*	40	Yes	FACW
2.			
3.			
4.			
5.			
	40	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Sambucus nigra*	50	Yes	FAC
2. *Rhus glabra*	20	Yes	UPL
3.			
4.			
5.			
	70	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Rubus idaeus*	2	No	FACU
2. *Ambrosia trifida*	5	Yes	FAC
3. *Ribes missouriense*	2	No	UPL
4. *Bromus inermis*	5	Yes	FACU
5. *Setaria faberi*	5	Yes	FACU
6.			
7.			
8.			
9.			
10.			
	19	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1. *Vitis riparia*	2	No	FACW
2.			
	2	=Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	42	x 2 =	84
FAC species	55	x 3 =	165
FACU species	12	x 4 =	48
UPL species	22	x 5 =	110
Column Totals:	131 (A)		407 (B)

Prevalence Index = B/A = 3.11

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: UP002

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1	100					Sandy	loamy sand
12-14	10YR 2/1	100					Loamy/Clayey	soil turns to clay/loam

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

Dark brown fill, dry and crumbly.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-09-20

Applicant/Owner: UPRR State: IL Sampling Point: W003

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S20, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 2 Lat: 41°24'36.23"N Long: 88°06'27.49"W Datum: UTM83

Soil Map Unit Name: 146B-Elliott silt loam, 2 to 4 percent slopes NWI classification: None

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

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

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	30	Yes	FACW
2. *Ambrosia trifida*	15	No	FAC
3. *Helianthus grosseserratus*	15	No	FACW
4. *Solidago canadensis*	5	No	FACU
5. *Typha angustifolia*	30	Yes	OBL
6. *Symphyotrichum ericoides*	20	No	FACU
7.			
8.			
9.			
10.			
	115	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	45	x 2 =	90
FAC species	15	x 3 =	45
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column Totals:	115 (A)		265 (B)

Prevalence Index = B/A = 2.30

Hydrophytic Vegetation Indicators:

x 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: W003

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: Railroad Embankment

Depth (inches): 10

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

Remarks:

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

Soil presumed hydric due to strong vegetative indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

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

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

Remarks:

Low area, topography

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-09-20

Applicant/Owner: UPRR State: IL Sampling Point: UP003

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S20, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): convex

Slope (%): 0 Lat: 41°24'35.82"N Long: 88°06'27.85"W Datum: UTM83

Soil Map Unit Name: 146B-Elliott silt loam, 2 to 4 percent slopes NWI classification: None

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

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

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

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

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

Remarks:
Upland point to W003. Elevated topography above low lying ditch.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Rhus glabra*	20	Yes	UPL
2.			
3.			
4.			
5.			
	20 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Rubus idaeus*	5	No	FACU
2. *Ambrosia trifida*	60	Yes	FAC
3. *Solidago canadensis*	1	No	FACU
4. *Bromus inermis*	60	Yes	FACU
5. *Aster sp.*	1	No	
6.			
7.			
8.			
9.			
10.			
	127 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1. *Vitis riparia*	4	No	FACW
2.			
	4 =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	4	x 2 =	8
FAC species	60	x 3 =	180
FACU species	66	x 4 =	264
UPL species	20	x 5 =	100
Column Totals:	150 (A)		552 (B)

Prevalence Index = B/A = 3.68

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No X

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

SOIL

Sampling Point: UP003

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 2/1	100					Sandy	loamy sand

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

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

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

Remarks:

Topography, on top of toe slope

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-09-20

Applicant/Owner: UPRR State: IL Sampling Point: W004

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S29, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 2 Lat: 41°24'19.046"N Long: 88°06'31.911"W Datum: UTM83

Soil Map Unit Name: 232A-Ashkum silty clay loam, 0 to 2 percent slopes NWI classification: None

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

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

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	80	Yes	FACW
2. *Ambrosia trifida*	10	No	FAC
3. *Verbascum thapsus*	15	No	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	105 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	15	x 5 =	75
Column Totals:	105 (A)		265 (B)

Prevalence Index = B/A = 2.52

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: W004

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 2/1	100						Loam
2-6	10YR 2/1	90	Gley1 6/10GY	5	c	m		Loam
			10YR 5/6	5	c	m		Prominent redox concentrations

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

Soil data adopted from previous Olsson Associates wetland delineation. High pressure pipeline marker in wetland, instructed not to excavate.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes X	No ___	Depth (inches): 6
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-09-20

Applicant/Owner: UPRR State: IL Sampling Point: UP004

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S29, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): none

Slope (%): 0 Lat: 41°24'23.14"N Long: 88° 6'30.68"W Datum: UTM83

Soil Map Unit Name: 232A-Ashkum silty clay loam, 0 to 2 percent slopes NWI classification: None

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

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

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

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

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

Remarks:
Upland point to W004. W004 in slight depression, UP004 located where topography and vegetation change.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Rubus idaeus*	90	Yes	FACU
2. *Ambrosia trifida*	10	No	FAC
3. *Chamaesyce prostrata*	5	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	105	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	95	x 4 =	380
UPL species	0	x 5 =	0
Column Totals:	105 (A)		410 (B)

Prevalence Index = B/A = 3.90

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No X

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

SOIL

Sampling Point: UP004

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

High pressure pipeline marker, instructed not to excavate

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: W005

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S29, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 2 Lat: 41°23'46.23"N Long: 88° 6'52.83"W Datum: UTM83

Soil Map Unit Name: 146B-Elliott silt loam, 2 to 4 percent slopes NWI classification: none

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

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

Remarks:
PFO wetland. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Celtis occidentalis*	50	Yes	FAC
2.			
3.			
4.			
5.			
	50	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Fraxinus pennsylvanica*	50	Yes	FACW
2.			
3.			
4.			
5.			
	50	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	30	Yes	FACW
2. *Phalaris arundinacea*	30	Yes	FACW
3. *Setaria faberi*	2	No	FACU
4. *Helianthus grosseserratus*	20	Yes	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	82	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	130	x 2 =	260
FAC species	50	x 3 =	150
FACU species	2	x 4 =	8
UPL species	0	x 5 =	0
Column Totals:	182 (A)		418 (B)

Prevalence Index = B/A = 2.30

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: W005

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: thick roots

Depth (inches): 8

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

Remarks:

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

Soil lacking hydric indicators due to historic disturbance and fill from railroad construction. Soils presumed hydric due to strong vegetation indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: UP005

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S29, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): none

Slope (%): 0 Lat: 41°23'46.23"N Long: 88° 6'52.83"W Datum: UTM83

Soil Map Unit Name: 146B-Elliott silt loam, 2 to 4 percent slopes NWI classification: none

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

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

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

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

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

Remarks:
Upland point to W005 located on toeslope of adjacent berm. Old silt fence at bottom of slope.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Lonicera morrowii*	80	Yes	FACU
2.			
3.			
4.			
5.			
	80 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Rubus idaeus*	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	10 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	90 (A)		360 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: UP005

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

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

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: Railroad embankment

Depth (inches): 10

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

Remarks:

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

Toeslope of adjacent railroad

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: W006

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S29, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 1 Lat: 41°23'48.99"N Long: 88° 6'49.20"W Datum: UTM83

Soil Map Unit Name: 146B-Elliott silt loam, 2 to 4 percent slopes NWI classification: None

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

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

Remarks:
PEM wetland. Majority of wetland outside survey boundary.
Soil and topography historically disturbed due to railroad construction and Highway 53 right-of-way.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Dipsacus fullonum*	20	No	FACU
2. *Typha latifolia*	75	Yes	OBL
3. *Helianthus grosseserratus*	5	No	FACW
4. *Spartina sp.*	2	No	
5. *Ambrosia trifida*	4	No	FAC
6. *Polygonum persicaria*	10	No	FACW
7.			
8.			
9.			
10.			
	116 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	75	x 1 =	75
FACW species	15	x 2 =	30
FAC species	4	x 3 =	12
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	114 (A)		197 (B)

Prevalence Index = B/A = 1.73

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: W006

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

Fiber and pipeline utilities prevented excavation for soil pit; presumed hydric due to strong vegetative indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

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

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

Remarks:

Depression along road right-of-way

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: UP006

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S29, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): convex

Slope (%): 0 Lat: 41°23'49.34"N Long: 88° 6'49.43"W Datum: UTM83

Soil Map Unit Name: 146B-Elliott silt loam, 2 to 4 percent slopes NWI classification: None

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

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

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

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

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

Remarks:

Upland point to W006. Upland vegetation along railroad right-of-way.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Dipsacus fullonum*	50	Yes	FACU
2. *Ambrosia trifida*	20	No	FAC
3. *Solidago canadensis*	5	No	FACU
4. *Poa pratensis*	25	Yes	FAC
5. *Asclepias syriaca*	1	No	FACU
6. *Setaria faberi*	2	No	FACU
7.			
8.			
9.			
10.			
	103 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	45	x 3 =	135
FACU species	58	x 4 =	232
UPL species	0	x 5 =	0
Column Totals:	103 (A)		367 (B)

Prevalence Index = B/A = 3.56

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: UP006

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: Railroad embankment

Depth (inches): 0

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

Remarks:

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

Railroad embankment

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

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

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

Remarks:

Topography, on top of toe slope

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: W007

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S30,T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 10 Lat: 41°23'35.618"N Long: 88°06'59.887"W Datum: UTM83

Soil Map Unit Name: 232A-Ashkum silty clay loam, 0 to 2 percent slopes NWI classification: None

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

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

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction and Highway 53 road right-of-way.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	50	Yes	FACW
2. *Typha latifolia*	5	No	OBL
3. *Panicum virgatum*	50	Yes	FAC
4. *Scirpus atrovirens*	5	No	OBL
5. *Cyperus esculentus*	1	No	FACW
6. *Spartina sp.*	7	No	
7.			
8.			
9.			
10.			
	118	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	51	x 2 =	102
FAC species	50	x 3 =	150
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	111 (A)		262 (B)

Prevalence Index = B/A = 2.36

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: W007

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1	10YR 2/1	100					Muck	
1-12	10YR 2/1	98	7.5YR 5/6	2	C	PL	Mucky Loam/Clay	Prominent redox concentrations

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: UP007

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S30,T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): convex

Slope (%): 10 Lat: 41°23'35.62"N Long: 88°06'59.89"W Datum: UTM83

Soil Map Unit Name: 232A-Ashkum silty clay loam, 0 to 2 percent slopes NWI classification: None

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

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

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

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

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

Remarks:

Upland point to W007 located on topeslope of railroad embankment leading into ditch (W007).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Asclepias syriaca*	1	No	FACU
2. *Ambrosia trifida*	1	No	FAC
3. *Setaria faberi*	95	Yes	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	97	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	1	x 3 =	3
FACU species	96	x 4 =	384
UPL species	0	x 5 =	0
Column Totals:	97 (A)		387 (B)

Prevalence Index = B/A = 3.99

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: UP007

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: Railroad embankment

Depth (inches): 0

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

Remarks:

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

Railroad embankment

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: W008

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S29, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 1 Lat: 41°23'37.18"N Long: 88° 7'0.75"W Datum: UTM83

Soil Map Unit Name: 146B-Elliott silt loam, 2 to 4 percent slopes NWI classification: None

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

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

Remarks:
PFO wetland. Wetland extends past survey boundary to the west into a designated natural area that is PEM. Sign posted reading "Natural Area: this area consists of federally protected wetlands and natural areas. Any disturbance to this area is strictly prohibited by the Clean Water Act"

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus deltoides*	70	Yes	FAC
2.			
3.			
4.			
5.			
	70	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Carex stricta*	90	Yes	OBL
2. *Toxicodendron radicans*	25	Yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	115	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	90	x 1 =	90
FACW species	0	x 2 =	0
FAC species	95	x 3 =	285
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	185 (A)		375 (B)

Prevalence Index = B/A = 2.03

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: W008

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: Roots
Depth (inches): 10

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

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

Soil lacking hydric indicators due to historic disturbance and fill from railroad; soil presumed hydric due to strong vegetation indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: UP008

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S29, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): Convex

Slope (%): 5 Lat: 41°23'38.36"N Long: 88° 6'59.05"W Datum: UTM83

Soil Map Unit Name: 146B-Elliott silt loam, 2 to 4 percent slopes NWI classification: None

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

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

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

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

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

Remarks:
Upland point to W008. Area transitions to upland vegetation and is slightly sloped towards wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Lonicera morrowii*	10	Yes	FACU
2. *Rosa multiflora*	5	Yes	FACU
3.			
4.			
5.			
	15	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Helianthus grosseserratus*	15	Yes	FACW
2. *Cirsium vulgare*	12	Yes	FACU
3. *Setaria faberi*	25	Yes	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	52	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	52	x 4 =	208
UPL species	0	x 5 =	0
Column Totals:	67 (A)		238 (B)

Prevalence Index = B/A = 3.55

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No X

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

SOIL

Sampling Point: UP008

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: Ballast

Depth (inches): 0

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

Remarks:

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Rocks within soil; soil presumed non-hydric due to topography and vegetation

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:

Upland on slope of 5%

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: W009

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S29, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 3 Lat: 41°23'39.761"N Long: 88°06'58.558"W Datum: UTM83

Soil Map Unit Name: 146B-Elliott silt loam, 2 to 4 percent slopes NWI classification: None

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

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

Remarks:
PSS wetland connected to culvert underneath railroad. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus deltoides*	20	Yes	FAC
2.			
3.			
4.			
5.			
	20	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Elaeagnus umbellata*	50	Yes	UPL
2. *Salix interior*	5	No	FACW
3. *Morus alba*	10	No	FAC
4.			
5.			
	65	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	90	Yes	FACW
2. *Spartina sp.*	10	No	
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	95	x 2 =	190
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	50	x 5 =	250
Column Totals:	175 (A)		530 (B)

Prevalence Index = B/A = 3.03

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: W009

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 2/1	100					Loamy/Clayey	Loam
5-12	10YR 2/1	80	10YR 5/4	20	c	m		Distinct redox concentrations
12-20	10YR 2/2	100						Loam

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

Soil data adopted from previous Olsson wetland delineation.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: UP009

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S29, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): convex

Slope (%): 5 Lat: 41°23'39.76"N Long: 8°06'58.55"W Datum: UTM83

Soil Map Unit Name: 146B-Elliott silt loam, 2 to 4 percent slopes NWI classification: None

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

Hydric Soil Present? Yes ____ No x

Wetland Hydrology Present? Yes ____ No X

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

Remarks:

Upland point to W009 on toeslope of railroad embankment

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Bromus tectorum*	75	Yes	UPL
2. *Spartina sp.*	5	No	
3. *Setaria faberi*	8	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	88 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	8	x 4 =	32
UPL species	75	x 5 =	375
Column Totals:	83 (A)		407 (B)

Prevalence Index = B/A = 4.90

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: UP009

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: railroad embankment

Depth (inches): 0

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

Remarks:

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Railroad embankment, rock fill

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: W010

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S31, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 1 Lat: 41°23'34.24"N Long: 88°07'02.05"W Datum: UTM83

Soil Map Unit Name: 232A-Ashkum silty clay loam, 0 to 2 percent slopes NWI classification: PFOa

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

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

Remarks:
PEM wetland. Soil and topography historically disturbed due to roadway and railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Fraxinus pennsylvanica*	5	No	FACW
2. *Lonicera morrowii*	50	Yes	FACU
3.			
4.			
5.			
	55 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phalaris arundinacea*	50	Yes	FACW
2. *Parthenocissus quinquefolia*	7	No	FACU
3. *Rubus idaeus*	2	No	FACU
4. *Polygonum persicaria*	15	Yes	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	74 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	0	x 3 =	0
FACU species	59	x 4 =	236
UPL species	0	x 5 =	0
Column Totals:	129 (A)		376 (B)

Prevalence Index = B/A = 2.91

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: W010

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/1	100					Loamy/Clayey	Loam
10-14	10YR 2/1	100					Loamy/Clayey	Clay loam

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

Soil lacking hydric indicators due to historic human disturbance in area. Soil presumed hydric based on vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? Yes x No ___ Depth (inches): 10

(includes capillary fringe)

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: UP010

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S31, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): None

Slope (%): 0 Lat: 41°23'34.13"N Long: 88° 7'3.77"W Datum: UTM83

Soil Map Unit Name: 232A-Ashkum silty clay loam, 0 to 2 percent slopes NWI classification: None

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

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

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

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

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

Remarks:
Upland point to W010. Flat area where vegetation transitions from reed canary grass to upland species.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Elaeagnus umbellata*	8	Yes	UPL
2.			
3.			
4.			
5.			
	8 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Daucus carota*	5	No	UPL
2. *Helianthus grosseserratus*	18	Yes	FACW
3. *Solidago canadensis*	50	Yes	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	73 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	18	x 2 =	36
FAC species	0	x 3 =	0
FACU species	50	x 4 =	200
UPL species	13	x 5 =	65
Column Totals:	81 (A)		301 (B)

Prevalence Index = B/A = 3.72

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No X

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

SOIL

Sampling Point: UP010

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/1	100					Loamy/Clayey	Loam
10-14	10YR 2/1	100					Loamy/Clayey	Clay Loam

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: W011

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S20, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 0 Lat: 41°23'19.51"N Long: 88° 7'11.65"W Datum: UTM83

Soil Map Unit Name: 232A-Ashkum silty clay loam, 0 to 2 percent slopes NWI classification: None

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

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

Remarks:
PEM wetland. Topographical depression along right-of-way. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Carex stricta*	100	Yes	OBL
2. *Polygonum persicaria*	5	No	FACW
3. *Typha latifolia*	5	No	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	110 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	105	x 1 =	105
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	110 (A)		115 (B)

Prevalence Index = B/A = 1.05

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: W011

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 2/1	98	5YR 4/6	2	c	m	Loamy/Clayey	clay

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: UP011

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S31, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): none

Slope (%): 0 Lat: 41°23'18.32"N Long: 88° 7'13.31"W Datum: UTM83

Soil Map Unit Name: 232A-Ashkum silty clay loam, 0 to 2 percent slopes NWI classification: None

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No X

Hydric Soil Present? Yes ____ No x

Wetland Hydrology Present? Yes ____ No X

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

Remarks:

Upland point to W011. UP011 upslope of depressional area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Morus alba*	5	Yes	FAC
2.			
3.			
4.			
5.			
	5 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Rubus idaeus*	30	Yes	FACU
2. *Carex stricta*	20	No	OBL
3. *Solidago canadensis*	70	Yes	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	120 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1. *Vitis riparia*	5	Yes	FACW
2.			
	5 =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	5	x 2 =	10
FAC species	5	x 3 =	15
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	130 (A)		445 (B)

Prevalence Index = B/A = 3.42

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: UP011

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1	100					Loamy/Clayey	Loamy sand
12-14	7.5YR 3/2	100					Loamy/Clayey	Loam

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: W012

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S31, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 3 Lat: 41°23'19.47"N Long: 88°07'12.03"W Datum: UTM83

Soil Map Unit Name: 232A-Ashkum silty clay loam, 0 to 2 percent slopes NWI classification: None

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

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

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Salix interior*	10	Yes	FACW
2.			
3.			
4.			
5.			
	10 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	70	Yes	FACW
2. *Solidago canadensis*	10	No	FACU
3. *Sambucus nigra*	5	No	FAC
4. *Helianthus grosseserratus*	5	No	FACW
5. *Symphyotrichum ericoides*	1	No	FACU
6.			
7.			
8.			
9.			
10.			
	91 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	85	x 2 =	170
FAC species	5	x 3 =	15
FACU species	11	x 4 =	44
UPL species	0	x 5 =	0
Column Totals:	101 (A)		229 (B)

Prevalence Index = B/A = 2.27

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: W012

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 2/1	100					Loamy/Clayey	Silty Clay Loam
8-12	10YR 2/1	97	10YR 5/4	3	C	M	Loamy/Clayey	Silty Clay Loam
12-20	10YR 2/1	100					Loamy/Clayey	Silty Clay Loam

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

Soil data adopted from previous Olsson wetland delineation.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes x No ___ Depth (inches): 0

Water Table Present? Yes x No ___ Depth (inches): 0

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

(includes capillary fringe)

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

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

Remarks:

Standing water at east border of wetland

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: UP012

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S31, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 0 Lat: 41°23'23.08"N Long: 88°07'08.86"W Datum: UTM83

Soil Map Unit Name: 223C2-Varna silt loam, 4 to 6 percent slopes NWI classification: None

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

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

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

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

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

Remarks:

Upland point to W012 located on toeslope of railroad embankment.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Rubus idaeus*	30	Yes	FACU
2. *Sambucus nigra*	20	Yes	FAC
3. *Ambrosia artemisiifolia*	20	Yes	FACU
4. *Helianthus grosseserratus*	25	Yes	FACW
5. *Setaria pumila*	3	No	FAC
6.			
7.			
8.			
9.			
10.			
	98	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	23	x 3 =	69
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	98 (A)		319 (B)

Prevalence Index = B/A = 3.26

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: UP012

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/1	100					Loamy/Clayey	Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

Soil data adopted from previous Olsson wetland delineation.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: W013

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S31, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 3 Lat: 41°23'04.52"N Long: 88°07'23.28"W Datum: UTM83

Soil Map Unit Name: 232A-Ashkum silty clay loam, 0 to 2 percent slopes NWI classification: None

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes X No ____

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

Remarks:
PEM wetland. Wetland data form adopted from previous Olsson wetland delineation. Visually confirmed wetland presence on Sept.10, 2020. Soil and topography historically disturbed due to railroad construction. Wetland drains to culvert structure 47.30.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Phalaris arundinacea*	70	Yes	FACW
2. *Ambrosia trifida*	10	No	FAC
3. *Sambucus nigra*	10	No	FAC
4. *Asclepias syriaca*	5	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	95	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1. *Vitis riparia*	10	Yes	FACW
2.			
	10	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	20	x 3 =	60
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	105 (A)		240 (B)

Prevalence Index = B/A = 2.29

Hydrophytic Vegetation Indicators:

x 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: W013

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/1	100					Loamy/Clayey	Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

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

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

Soil data adopted from previous Olsson wetland delineation. Soils assumed hydric due to a presence of hydrohpytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: W014

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S31, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 1 Lat: 41°23'6.11"N Long: 88° 7'23.75"W Datum: UTM83

Soil Map Unit Name: 232A-Ashkum silty clay loam, 0 to 2 percent slopes NWI classification: PFO1A

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

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

Remarks:
Railroad is elevated in this area and W014 is located below a very steep, almost 30 foot railroad embankment. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica*	5	No	FACW
2. *Juglans nigra*	40	Yes	FACU
3. *Carya cordiformis*	5	No	FACU
4.			
5.			
	50	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Lonicera japonica*	25	Yes	FACU
2. *Fraxinus pennsylvanica*	8	Yes	FACW
3.			
4.			
5.			
	33	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Pilea pumila*	5	No	FACW
2. *Sanicula odorata*	30	Yes	FAC
3. *Hackelia virginiana*	2	No	FACU
4. *Parthenocissus quinquefolia*	1	No	FACU
5. *Phalaris arundinacea*	50	Yes	FACW
6.			
7.			
8.			
9.			
10.			
	88	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	68	x 2 =	136
FAC species	30	x 3 =	90
FACU species	73	x 4 =	292
UPL species	0	x 5 =	0
Column Totals:	171 (A)		518 (B)

Prevalence Index = B/A = 3.03

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: W014

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 2/1	100					Loamy/Clayey	Clay Loam
7-12	10YR 4/4	100					Loamy/Clayey	Clay

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

Soil potentially lacking hydric indicators due to historic disturbance and fill from railroad construction.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: UP014

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S31, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): none

Slope (%): 0 Lat: 41°23'4.37"N Long: 88° 7'25.14"W Datum: UTM83

Soil Map Unit Name: 232A-Ashkum silty clay loam, 0 to 2 percent slopes NWI classification: None

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

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

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

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

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

Remarks:
Upland point to low area surrounding Grant Creek. Topography slightly elevated on either side of W014.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Lonicera morrowii*	50	Yes	FACU
2.			
3.			
4.			
5.			
	50	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Xanthium strumarium*	5	No	FAC
2. *Hackelia virginiana*	80	Yes	FACU
3. *Poa sp.*	20	No	
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	105	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	130	x 4 =	520
UPL species	0	x 5 =	0
Column Totals:	135 (A)		535 (B)

Prevalence Index = B/A = 3.96

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: UP014

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/1	100					Sandy	Loamy sand
6-14	10YR 3/1	100					Loamy/Clayey	Clay Loam

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: W015

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S31, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 1 Lat: 41°23'30.69"N Long: 88°07'03.53"W Datum: UTM83

Soil Map Unit Name: 232A-Ashkum silty clay loam, 0 to 2 percent slopes NWI classification: None

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes X No ____

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

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction and Highway 53 road right-of-way.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	50	Yes	FACW
2. *Typha latifolia*	5	No	OBL
3. *Panicum virgatum*	50	Yes	FAC
4. *Scirpus atrovirens*	5	No	OBL
5. *Cyperus esculentus*	1	No	FACW
6. *Spartina sp.*	7	No	
7.			
8.			
9.			
10.			
	118	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	51	x 2 =	102
FAC species	50	x 3 =	150
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	111 (A)		262 (B)

Prevalence Index = B/A = 2.36

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: W015

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/2	100					Loamy/Clayey	Clay loam
6-9	10YR 2/2	90	Gley1 7/N	10	C	M		Clay loam

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: water

Depth (inches): 9

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

Remarks:

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

Soil data adopted from previous Olsson wetland delineation.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (inches): ___		
Water Table Present?	Yes x	No ___	Depth (inches): 9		
Saturation Present? (includes capillary fringe)	Yes x	No ___	Depth (inches): 2	**Wetland Hydrology Present?**	**Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-10-20

Applicant/Owner: UPRR State: IL Sampling Point: UP007/UP015

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S30,T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): convex

Slope (%): 10 Lat: 41°23'35.62"N Long: 88°06'59.89"W Datum: UTM83

Soil Map Unit Name: 232A-Ashkum silty clay loam, 0 to 2 percent slopes NWI classification: None

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

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

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

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

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

Remarks:
Upland point to W007 and W015 located on toeslope of railroad embankment leading into ditch (W007). W007 and W015 are connected via a culvert and have similar upland vegetation and topography.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Asclepias syriaca*	1	No	FACU
2. *Ambrosia trifida*	1	No	FAC
3. *Setaria faberi*	95	Yes	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	97	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	1	x 3 =	3
FACU species	96	x 4 =	384
UPL species	0	x 5 =	0
Column Totals:	97 (A)		387 (B)

Prevalence Index = B/A = 3.99

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No X

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

SOIL

Sampling Point: UP007/UP015

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: Railroad embankment

Depth (inches): 0

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

Remarks:

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

Railroad embankment, rock fill

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-11-20

Applicant/Owner: UPRR State: IL Sampling Point: W016

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S6, T33N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 5 Lat: 41°22'9.55"N Long: 88° 8'1.14"W Datum: UTM83

Soil Map Unit Name: 298B2-Beecher silt loam, 2 to 4 percent slopes, eroded NWI classification: None

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

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

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	95	Yes	FACW
2. *Lobelia siphilitica*	1	No	OBL
3. *Setaria faberi*	4	No	FACU
4. *Echinochloa muricata*	4	No	OBL
5.			
6.			
7.			
8.			
9.			
10.			
	104	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	95	x 2 =	190
FAC species	0	x 3 =	0
FACU species	4	x 4 =	16
UPL species	0	x 5 =	0
Column Totals:	104 (A)		211 (B)

Prevalence Index = B/A = 2.03

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: W016

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: Railroad embankment

Depth (inches): 0

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

Remarks:

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

Railroad ballast preventing soil pit

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes x No ___ Depth (inches): 0

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

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

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

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

Remarks:

Drainage ditch with 0 to 3 inches of water present.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-11-20

Applicant/Owner: UPRR State: IL Sampling Point: W017

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S6,T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 2 Lat: 41°22'39.98"N Long: 88° 7'42.41"W Datum: UTM83

Soil Map Unit Name: Markham silt loam, 4 to 6 percent slopes, eroded NWI classification: none

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

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

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction and Highway 53 road right-of-way. Wetland is connected to culvert underneath Highway 53.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	15	No	FACW
2. *Typha angustifolia*	25	Yes	OBL
3. *Rubus idaeus*	3	No	FACU
4. *Dipsacus fullonum*	1	No	FACU
5. *Sonchus oleraceus*	1	No	FACU
6. *Alisma subcordatum*	5	No	OBL
7. *Phalaris arundinacea*	30	Yes	FACW
8. *Convolvulus arvensis*	1	No	UPL
9. *Solidago canadensis*	2	No	FACU
10.			
	83	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1. *Vitis riparia*	1	No	FACW
2.			
	1	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	46	x 2 =	92
FAC species	0	x 3 =	0
FACU species	7	x 4 =	28
UPL species	1	x 5 =	5
Column Totals:	84 (A)		155 (B)

Prevalence Index = B/A = 1.85

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: W017

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	2.5YR 2.5/1	80	2.5YR 3/6	20	C	M	Loamy/Clayey	Silty loam

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

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

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (inches): ___
Water Table Present?	Yes x	No ___	Depth (inches): 12
Saturation Present? (includes capillary fringe)	Yes x	No ___	Depth (inches): 12

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-11-20

Applicant/Owner: UPRR State: IL Sampling Point: UP017

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S6, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): None

Slope (%): 10 Lat: 41°22'40.60"N Long: 88° 7'42.03"W Datum: UTM83

Soil Map Unit Name: Markham silt loam, 4 to 6 percent slopes, eroded NWI classification: None

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

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

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

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

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

Remarks:

Upland point to W017. Elevated area between railroad and Highway 53.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Lonicera morrowii*	70	Yes	FACU
2. *Rhus glabra*	25	Yes	UPL
3.			
4.			
5.			
	95 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	15	Yes	FACW
2. *Parthenocissus quinquefolia*	2	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	17 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	72	x 4 =	288
UPL species	25	x 5 =	125
Column Totals:	112 (A)		443 (B)

Prevalence Index = B/A = 3.96

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No X

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

SOIL

Sampling Point: UP017

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: Roots

Depth (inches): 12

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

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-11-20

Applicant/Owner: UPRR State: IL Sampling Point: W018

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S6,T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 1 Lat: 41°22'42.68"N Long: 88° 7'41.43"W Datum: UTM83

Soil Map Unit Name: Elliott silt loam, 2 to 4 percent slopes NWI classification: None

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

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

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Lonicera morrowii*	15	Yes	FACU
2. *Populus deltoides*	15	Yes	FAC
3.			
4.			
5.			
	30 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	90	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1. *Vitis riparia*	1	No	FACW
2.			
	1 =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	91	x 2 =	182
FAC species	15	x 3 =	45
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	121 (A)		287 (B)

Prevalence Index = B/A = 2.37

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: W018

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: Railroad embankment

Depth (inches): 0

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

Remarks:

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

Railroad embankment, rock fill. Based on hydric vegetation and hydrology, it is assumed soil would exhibit a hydric soil indicator

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-11-20

Applicant/Owner: UPRR State: IL Sampling Point: UP018

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S6, T34N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): none

Slope (%): 0 Lat: 41°22'43.42"N Long: 88° 7'39.74"W Datum: UTM83

Soil Map Unit Name: Elliott silt loam, 2 to 4 percent slopes NWI classification: None

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

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

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

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

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

Remarks:
Upland point to W018; W018 in a slight depression along railroad.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Lonicera morrowii*	25	Yes	FACU
2. *Elaeagnus umbellata*	25	Yes	UPL
3.			
4.			
5.			
	50	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Solidago canadensis*	15	Yes	FACU
2. *Setaria faberi*	15	Yes	FACU
3. *Cirsium arvense*	6	No	FACU
4. *Helianthus grosseserratus*	10	Yes	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	46	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	61	x 4 =	244
UPL species	25	x 5 =	125
Column Totals:	96 (A)		389 (B)

Prevalence Index = B/A = 4.05

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: UP018

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if observed):

Type: Railroad embankment

Depth (inches): 0

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

Remarks:

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

Railroad embankment, rock fill

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-11-20

Applicant/Owner: UPRR State: IL Sampling Point: W019

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S12, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 0 Lat: 41°21'15.06"N Long: 88° 8'9.69"W Datum: UTM83

Soil Map Unit Name: 3314A-Joliet silt loam, 0 to 2 percent slopes, frequently flooded NWI classification: None

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

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

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction. Railroad embankment is very steep in this area.
Larger wetland complex east of survey boundary delineated by Olsson; larger wetland complex displayed the hydric soil indicator F6.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Fraxinus pennsylvanica*	5	Yes	FACW
2.			
3.			
4.			
5.			
	5 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phalaris arundinacea*	100	Yes	FACW
2. *Symphyotrichum ericoides*	2	No	FACU
3. *Convolvulus arvensis*	1	No	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	103 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	105	x 2 =	210
FAC species	0	x 3 =	0
FACU species	2	x 4 =	8
UPL species	1	x 5 =	5
Column Totals:	108 (A)		223 (B)

Prevalence Index = B/A = 2.06

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

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

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

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

SOIL

Sampling Point: W019

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/1	50	2.5YR 5/4	50	C	M	Loamy/Clayey	Loam
3-10	10YR 2/1	100					Loamy/Clayey	
10-12	10YR 2/2	100					Loamy/Clayey	Clay loam

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Soil lacking hydric indicators due to historic disturbance and fill from railroad elevation change.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? Yes ___ No x Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

depression in topography, observed frogs

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-11-20

Applicant/Owner: UPRR State: IL Sampling Point: W019b/W019c

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S12, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 0-2 Lat: 41°21'16.84"N Long: 88° 8'10.76"W Datum: UTM83

Soil Map Unit Name: 3314A-Joliet silt loam, 0 to 2 percent slopes, frequently flooded NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes x	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Wetlands associated with Prairie Creek; emergent fringe wetlands along right and left banks. Data adopted from previous Olsson wetland delineation.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Phalaris arundinacea*	100	Yes	FACW
2. *Fraxinus pennsylvanica*	5	No	FACW
3. *Asclepias syriaca*	3	No	FACU
4. *Persicaria hydropiper*	2	No	OBL
5.			
6.			
7.			
8.			
9.			
10.			
	110	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	2	x 1 =	2
FACW species	105	x 2 =	210
FAC species	0	x 3 =	0
FACU species	3	x 4 =	12
UPL species	0	x 5 =	0
Column Totals:	110 (A)		224 (B)

Prevalence Index = B/A = 2.04

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W019b/W019c

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	100					Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Soil data adopted from previous Olsson wetland delineation. Soil assumed hydric based on strong vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-11-20

Applicant/Owner: UPRR State: IL Sampling Point: W020a

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S1, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 5 Lat: 41°21'51.66"N Long: 88° 8'3.87"W Datum: UTM83

Soil Map Unit Name: 523A Dunham silty clay loam, 0-2% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No 0

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. Wetland vegetation filled in ditch along Highway 53 that leads to S004
Soil and topography historically disturbed due to railroad construction and Highway 53 road right-of-way.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Allium sp.*	2	No	
2. *Scirpus atrovirens*	8	No	OBL
3. *Alisma subcordatum*	8	No	OBL
4. *Phalaris arundinacea*	40	Yes	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	58 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	16	x 1 =	16
FACW species	40	x 2 =	80
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	56 (A)		96 (B)

Prevalence Index = B/A = 1.71

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W020a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

No soil pit due to close proximity to Highway 53, safety concern being down in the ditch. Previous Olsson wetland delineation did not document soils either. Assume hydric soil indicators are present based on hydric vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- x High Water Table (A2)
- x Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes x	No ___	Depth (inches):	2
Water Table Present?	Yes x	No ___	Depth (inches):	0
Saturation Present? (includes capillary fringe)	Yes x	No ___	Depth (inches):	0

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-11-20

Applicant/Owner: UPRR State: IL Sampling Point: W020b

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S1, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 0-2 Lat: 41°21'49.58"N Long: 88° 8'5.44"W Datum: UTM83

Soil Map Unit Name: 523A Dunham silty clay loam, 0-2% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks: PEM /PSS wetland. Wetland visually assessed because barbed wire fence paralleling S004 prevented access. Data from previous Olsson wetland delineation incorporated in visual assessment of wetland. Estimated boundaries were: approximately 50' west of track, wetland is approximately 120' by 20' west side of track

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phalaris arundinacea*	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W020b

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

No soil pit taken due to access restraint with barbed wire fence. Based on topography and vegetation, presumed soil would display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-11-20

Applicant/Owner: UPRR State: IL Sampling Point: UP020

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S6, T33N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 0 Lat: 41°21'55.07"N Long: 88°08'03.73"W Datum: UTM83

Soil Map Unit Name: 531C2-Markham silt loam, 4 to 6 percent slopes, eroded NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____ No x	
Wetland Hydrology Present?	Yes ____ No X	

Remarks:
Data sheet adopted from previous Olsson wetland delineation. Visually confirmed 9/11/20.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Morus alba*	20	Yes	FAC
2. *Elaeagnus angustifolia*	10	Yes	FACU
3.			
4.			
5.			
	30 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	50	Yes	FACW
2. *Bromus inermis*	50	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	20	x 3 =	60
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	130 (A)		400 (B)

Prevalence Index = B/A = 3.08

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UP020

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 3/2	100					Loamy/Clayey	Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ True Aquatic Plants (B14)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Gauge or Well Data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Stunted or Stressed Plants (D1)
x Geomorphic Position (D2)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-14-20

Applicant/Owner: UPRR State: IL Sampling Point: W021

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S6, T33N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 8 Lat: 41°21'58.488"N Long: 88°08'03.073"W Datum: UTM83

Soil Map Unit Name: 531C2-Markham silt loam, 4 to 6 percent slopes, eroded NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Morus alba*	20	Yes	FAC
2. *Juniperus virginiana*	8	No	FACU
3. *Sambucus nigra*	20	Yes	FAC
4.			
5.			
	48 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Typha latifolia*	15	No	OBL
2. *Lobelia siphilitica*	4	No	OBL
3. *Verbena hastata*	2	No	FACW
4. *Phalaris arundinacea*	65	Yes	FACW
5. *Bidens frondosa*	8	No	FACW
6.			
7.			
8.			
9.			
10.			
	94 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	19	x 1 =	19
FACW species	75	x 2 =	150
FAC species	40	x 3 =	120
FACU species	8	x 4 =	32
UPL species	0	x 5 =	0
Column Totals:	142 (A)		321 (B)

Prevalence Index = B/A = 2.26

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W021

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/1	100					Loamy/Clayey	Clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
_x_ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock fill
Depth (inches): 4

Hydric Soil Present? **Yes** _x_ **No** ___

Remarks:
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Soil data adopted from previous Olsson wetland delineation. Soil assumed to display hydric indicators based on vegetation and hydrology wetland indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ True Aquatic Plants (B14)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Gauge or Well Data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Stunted or Stressed Plants (D1)
_x_ Geomorphic Position (D2)
_X_ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No _x_ Depth (inches): ___
Water Table Present? Yes ___ No _x_ Depth (inches): ___
Saturation Present? Yes ___ No _x_ Depth (inches): ___
(includes capillary fringe)

Wetland Hydrology Present? **Yes** _X_ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-14-20

Applicant/Owner: UPRR State: IL Sampling Point: UP021

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S6, T33N, R10E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): convex

Slope (%): 8 Lat: 41°21'58.48"N Long: 88°08'03.07"W Datum: UTM83

Soil Map Unit Name: 531C2-Markham silt loam, 4 to 6 percent slopes, eroded NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No X

Hydric Soil Present? Yes ____ No x

Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:

Upland point to W021. UP021 located on toeslope of railroad.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Lonicera sp.*	80	Yes	FACU
2.			
3.			
4.			
5.			
	80 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Ambrosia trifida*	30	Yes	FAC
2. *Bromus inermis*	15	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	45 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	95	x 4 =	380
UPL species	0	x 5 =	0
Column Totals:	125 (A)		470 (B)

Prevalence Index = B/A = 3.76

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UP021

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Railroad embankment

Depth (inches): 0

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Railroad ballast

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (inches): ___
Water Table Present?	Yes ___	No x	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No x	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-14-20

Applicant/Owner: UPRR State: IL Sampling Point: W022a

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S24, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 2 Lat: 41°19'42.19"N Long: 88°08'25.98"W Datum: UTM83

Soil Map Unit Name: 523A-Dunham silty clay loam, 0 to 2 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phalaris arundinacea*	65	Yes	FACW
2. *Carex sp.*	10	No	FAC
3. *Spartina pectinata*	20	Yes	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	95 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	85	x 2 =	170
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	95 (A)		200 (B)

Prevalence Index = B/A = 2.11

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W022a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 3/1	100					Loamy/Clayey	Clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Soil data adopted from previous Olsson wetland delineation. Soil lacking hydric indicators due to historic disturbance and fill from railroad construction.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-14-20

Applicant/Owner: UPRR State: IL Sampling Point: W022b

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S , T N, R E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 0 Lat: 41°20'44.30"N Long: 88° 8'16.06"W Datum: UTM83

Soil Map Unit Name: Harpster silty clay loam, 0 to 2 percent slopes NWI classification: PEMc

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. Large mud flat with scattered wetland vegetation

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Iris virginica*	8	Yes	OBL
2. *Cyperus esculentus*	15	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	23 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	8	x 1 =	8
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	23 (A)		38 (B)

Prevalence Index = B/A = 1.65

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W022b

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/1	100					Muck	
3-12	10YR 2/1	95	7.5YR 5/6	5	c	m	Mucky Loam/Clay	

[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)
- X 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ? Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- x Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- x Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- x Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (inches): ___	
Water Table Present?	Yes ___	No x	Depth (inches): ___	
Saturation Present? (includes capillary fringe)	Yes x	No ___	Depth (inches): 0	**Wetland Hydrology Present?** **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Large mud flat

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-14-20

Applicant/Owner: UPRR State: IL Sampling Point: UP022

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S24, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): None

Slope (%): 0 Lat: 41°20'13.98"N Long: 88° 8'21.13"W Datum: UTM83

Soil Map Unit Name: Grundelein silt loam, 0 to 2 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No x	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Upland point to W022a and W002b where vegetation changes.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Lonicera sp.*	40	Yes	FACU
2. *Rhamnus cathartica*	15	Yes	FAC
3.			
4.			
5.			
	55 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Parthenocissus quinquefolia*	15	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	15 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	15	x 3 =	45
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	70 (A)		265 (B)

Prevalence Index = B/A = 3.79

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UP022

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/1	100					Loamy/Clayey	Clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Soil data adopted from previous Olsson wetland delineation

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (inches): ___
Water Table Present?	Yes ___	No x	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No x	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-14-20

Applicant/Owner: UPRR State: IL Sampling Point: W023

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S24, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 1 Lat: 41°19'51.57"N Long: 88° 8'23.36"W Datum: UTM83

Soil Map Unit Name: Grundelein silt loam, 0 to 2 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes x	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction. W023 runs parallel to man-made canal S005

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Fraxinus pennsylvanica*	6	Yes	FACW
2. *Celtis occidentalis*	5	Yes	FAC
3. *Ulmus americana*	5	Yes	FACW
4.			
5.			
	16 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Carex stricta*	10	Yes	OBL
2. *Cynoglossum virginianum*	1	No	UPL
3. *Polygonum persicaria*	10	Yes	FACW
4. *Phalaris arundinacea*	20	Yes	FACW
5. *Verbena hastata*	2	No	FACW
6. *Rubus idaeus*	5	No	FACU
7. *Sagittaria latifolia*	5	No	OBL
8.			
9.			
10.			
	53 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1. *Vitis riparia*	2	No	FACW
2.			
	2 =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	45	x 2 =	90
FAC species	5	x 3 =	15
FACU species	5	x 4 =	20
UPL species	1	x 5 =	5
Column Totals:	71 (A)		145 (B)

Prevalence Index = B/A = 2.04

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W023

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/2	100					Peat	Organic mat
4-5	10YR 4/2	100					Sandy	Sand
5-14	10YR 2/2	100					Loamy/Clayey	Silt Loam

[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)
- X 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Soil lacking hydric indicators due to historic disturbance and fill from railroad construction. Soil presumed hydric based on vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- x Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? Yes x No ___ Depth (inches): 12

(includes capillary fringe)

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-14-20

Applicant/Owner: UPRR State: IL Sampling Point: UP023

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S24, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): convex

Slope (%): 0 Lat: 41°19'59.36"N Long: 88° 8'22.34"W Datum: UTM83

Soil Map Unit Name: Grundelein silt loam, 0 to 2 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No X

Hydric Soil Present? Yes ____ No x

Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:

Upland point to W023. UP023 located on toeslope of railroad embankment.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Robinia pseudoacacia*	30	Yes	FACU
2.			
3.			
4.			
5.			
	30	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Robinia pseudoacacia*	45	Yes	FACU
2.			
3.			
4.			
5.			
	45	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Linaria vulgaris*	3	No	UPL
2. *Rubus idaeus*	15	Yes	FACU
3. *Reynoutria japonica*	3	No	FACU
4. *Solidago canadensis*	5	Yes	FACU
5. *Ambrosia trifida*	5	Yes	FAC
6.			
7.			
8.			
9.			
10.			
	31	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	98	x 4 =	392
UPL species	3	x 5 =	15
Column Totals:	106 (A)		422 (B)
Prevalence Index = B/A =			3.98

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UP023

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Railroad embankment

Depth (inches): 0

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Ballast

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-14-20

Applicant/Owner: UPRR State: IL Sampling Point: W024

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S13, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 2 Lat: 41°20'48.4"N Long: 88°08'14.2"W Datum: UTM83

Soil Map Unit Name: Dunham silty clay loam, 0 to 2 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction. S005 becomes W024.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Polygonum persicaria*	85	Yes	FACW
2. *Alisma subcordatum*	10	No	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	95 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	85	x 2 =	170
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	95 (A)		180 (B)

Prevalence Index = B/A = 1.89

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W024

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Soil presumed hydric based on vegetation and hydrology indicators and inundation from S005.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- x Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (inches): ___
Water Table Present?	Yes ___	No x	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No x	Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-15-20

Applicant/Owner: UPRR State: IL Sampling Point: W025

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S24, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of- Local relief (concave, convex, none): concave

Slope (%): 2 Lat: 41° 19' 34.98 Long: -88° 8' 27.77 Datum: UTM83

Soil Map Unit Name: 523A Dunham silty clay loam, 0-2% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Salix interior*	30	Yes	FACW
2.			
3.			
4.			
5.			
	30 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phalaris arundinacea*	40	Yes	FACW
2. *Echinochloa muricata*	30	Yes	OBL
3. *Phragmites australis*	2	No	FACW
4. *Cyperus esculentus*	8	No	FACW
5. *Alisma subcordatum*	8	No	OBL
6.			
7.			
8.			
9.			
10.			
	88 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	38	x 1 =	38
FACW species	80	x 2 =	160
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	118 (A)		198 (B)

Prevalence Index = B/A = 1.68

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W025

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/4	50	5YR 2.5/1	50	c	m	Loamy/Clayey	Clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Soil lacking hydric indicators due to historic disturbance and fill from railroad construction. Soil presumed hydric based on vegetation and hydrology indicators. Soil data from previous Olsson wetland delineation also did not display hydric indicators: 0-12 inches = 10YR 2/1, 100%, clay. 12-16 inches = 10YR 4/1, 100%, clay.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? Yes ___ No x Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-15-20

Applicant/Owner: UPRR State: IL Sampling Point: UP025

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S24, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): none

Slope (%): 0 Lat: 41°19'32.2"N Long: 88°08'27.9"W Datum: UTM83

Soil Map Unit Name: 523A Dunham silty clay loam, 0-2% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No x	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

Upland point to W025. UP025 located south of W025 and S006 where vegetated changes to upland species.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Celtis occidentalis*	50	Yes	FAC
2.			
3.			
4.			
5.			
	50	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Lonicera morrowii*	100	Yes	FACU
2.			
3.			
4.			
5.			
	100	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Lonicera morrowii*	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	5	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	50	x 3 =	150
FACU species	105	x 4 =	420
UPL species	0	x 5 =	0
Column Totals:	155 (A)		570 (B)

Prevalence Index = B/A = 3.68

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UP025

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/1	100					Loamy/Clayey	Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Roots

Depth (inches): 10

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Soil comprised of thick masses of fine roots and thick roots.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-15-20

Applicant/Owner: UPRR State: IL Sampling Point: W026

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S24, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 2 Lat: 41°19'22.3"N Long: 88°08'28.3"W Datum: UTM83

Soil Map Unit Name: 369B-Waupecan slit loam, 2 to 4 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. S006 runs perpendicular to W026. Data adopted from previous Olsson wetland delineation and verified 9/15/20.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Spartina pectinata*	70	Yes	FACW
2. *Cyperus esculentus*	10	No	FACW
3. *Ambrosia trifida*	10	No	FAC
4. *Hordeum jubatum*	5	No	FAC
5. *Scirpus atrovirens*	5	No	OBL
6.			
7.			
8.			
9.			
10.			
	100	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1. *Toxicodendron radicans*	5	Yes	FAC
2.			
	5	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	80	x 2 =	160
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	105 (A)		225 (B)

Prevalence Index = B/A = 2.14

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W026

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Railroad embankment

Depth (inches): 0

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Ballast fill throughout wetland. Soil assumed to display hydric indicators based upon vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-15-20

Applicant/Owner: UPRR State: IL Sampling Point: UP026

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S24, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): convex

Slope (%): 0 Lat: 41°19'19.6"N Long: 88°08'29.0"W Datum: UTM83

Soil Map Unit Name: 369B-Waupecan slit loam, 2 to 4 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No x	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Upland point to W026. UP026 located on toeslope of railroad embankment. Data adopted from previous Olsson wetland delineation and verified 9/15/20.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Melilotus albus*	30	Yes	FACU
2. *Asclepias syriaca*	20	Yes	FACU
3. *Solanum rostratum*	10	No	UPL
4. *Rubus occidentalis*	10	No	UPL
5. *Bromus inermis*	10	No	FACU
6. *Lactuca virosa*	5	No	UPL
7. *Ambrosia artemisiifolia*	5	No	FACU
8.			
9.			
10.			
	90	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	65	x 4 =	260
UPL species	25	x 5 =	125
Column Totals:	90 (A)		385 (B)

Prevalence Index = B/A = 4.28

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UP026

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Railroad embankment

Depth (inches): 0

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Ballast fill

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-15-20

Applicant/Owner: UPRR State: IL Sampling Point: W027

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S24, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 2-4 Lat: 41°19'42.19"N Long: 88°08'25.98"W Datum: UTM83

Soil Map Unit Name: 523A-Dunham silty clay loam, 0 to 2 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Salix interior*	10	Yes	FACW
2.			
3.			
4.			
5.			
	10 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Polygonum persicaria*	5	No	FACW
2. *Typha angustifolia*	20	Yes	OBL
3. *Rubus idaeus*	5	No	FACU
4. *Tradescantia virginiana*	5	No	UPL
5. *Helianthus grosseserratus*	8	No	FACW
6. *Carex sp.*	10	Yes	FAC
7. *Ambrosia artemisiifolia*	4	No	FACU
8. *Phalaris arundinacea*	15	Yes	FACW
9.			
10.			
	72 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	38	x 2 =	76
FAC species	10	x 3 =	30
FACU species	9	x 4 =	36
UPL species	5	x 5 =	25
Column Totals:	82 (A)		187 (B)

Prevalence Index = B/A = 2.28

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W027

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Railroad embankment

Depth (inches): 0

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Rock fill throughout. Soil assumed to display hydric indicators based upon vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (inches): ___
Water Table Present?	Yes ___	No x	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No x	Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-15-20

Applicant/Owner: UPRR State: IL Sampling Point: W028

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S3, T32N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 5 Lat: 41°17'23.6"N Long: 88°10'46.9"W Datum: UTM83

Soil Map Unit Name: 201A Gilford fine sandy loam, 0-2% slopes NWI classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction. Wetland extends west of survey boundary from Coal City Road south for 0.65 miles into large PFO/PEM wetland complex.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W028

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1	100					Sandy	sandy clay
12-16	10YR 4/1	100						sandy clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Soil data adopted from previous Olsson wetland delineation. Soil lacking hydric indicators due to historic disturbance and fill from railroad construction. Presumed hydric based on vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-15-20

Applicant/Owner: UPRR State: IL Sampling Point: W029

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S3, T32N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 2 Lat: 41°17'01.5"N Long: 88°11'13.2"W Datum: UTM83

Soil Map Unit Name: 102A Lo Hogue loam, 0-2% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PFO wetland. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	40	Yes	FACW
2. *Platanus occidentalis*	50	Yes	FACW
3. *Fraxinus pennsylvanica*	10	No	FACW
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Juniperus virginiana*	5	Yes	FACU
2.			
3.			
4.			
5.			
	5	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	60	Yes	FACW
2. *Lysimachia nummularia*	5	No	FACW
3. *Ageratina altissima*	5	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	70	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1. *Vitis riparia*	2	No	FACW
2.			
	2	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	167	x 2 =	334
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	177 (A)		374 (B)

Prevalence Index = B/A = 2.11

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W029

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/1	100						Organic layer
3-12	10YR 2/1	100					Loamy/Clayey	Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

thick organic soil with fine roots. Soil data from previous Olsson wetland delineation also did not display hydric indicators. 0-4 inches = 10YR 3/1, 100%, silt loam. 4-16 inches = 10YR 3/1 and 10YR 5/4, 50% each, silty clay.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-15-20

Applicant/Owner: UPRR State: IL Sampling Point: W030

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S3, T32N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 4 Lat: 41° 17' 21.3" Long: -88° 10' 48.139" Datum: UTM83

Soil Map Unit Name: 201A Gilford fine sandy loam, 0-2% slopes NWI classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	95	Yes	FACW
2. *Onoclea sensibilis*	3	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	98 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	98	x 2 =	196
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	98 (A)		196 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W030

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 2/1	100						Loam
7-10	10YR 3/1	100						Silty clay
10-15	10YR 3/2	100						Silty clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Soil data adopted from previous Olsson wetland delineation. Soil lacking hydric indicators due to historic disturbance and fill from railroad construction and Highway 53 road right-of-way. Soil presumed hydric due to vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- x Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? Yes x No ___ Depth (inches): 10

(includes capillary fringe)

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-15-20

Applicant/Owner: UPRR State: IL Sampling Point: W031

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S34, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 1 Lat: 41°17'26.70"N Long: 88°10'42.54"W Datum: UTM83

Soil Map Unit Name: 151A-Ridgeville fine sandy loam, 0 to 2 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction. Data adopted from previous Olsson wetland delineation and verified on 9/15/20.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Spartina pectinata*	85	Yes	FACW
2. *Agrostis stolonifera*	10	No	FACW
3. *Setaria faberi*	5	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	95	x 2 =	190
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	100 (A)		210 (B)

Prevalence Index = B/A = 2.10

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W031

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	100						Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Water table

Depth (inches): 8

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Soil adopted from previous Olsson wetland delineation. Soil possibly lacking hydric indicators due to historic disturbance and fill from railroad construction. Soil presumed hydric due to vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (inches): ___
Water Table Present?	Yes x	No ___	Depth (inches): 8
Saturation Present? (includes capillary fringe)	Yes x	No ___	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-15-20

Applicant/Owner: UPRR State: IL Sampling Point: UP031

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S34, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): none

Slope (%): 0 Lat: 41°17'23.23"N Long: 88°10'40.59"W Datum: UTM83

Soil Map Unit Name: 151A-Ridgeville fine sandy loam, 0 to 2 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No x	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Upland point to W031. Upland point located where vegetation species change. Data adopted from previous Olsson wetland delineation and verified on 9/15/20.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Festuca arundinacea*	60	Yes	FACU
2. *Poa pratensis*	30	Yes	FAC
3. *Tripsacum dactyloides*	20	No	FAC
4. *Solidago canadensis*	2	No	FACU
5. *Physalis lanceifolia*	2	No	FAC
6. *Rubus idaeus*	2	No	FACU
7. *Cirsium arvense*	2	No	
8.			
9.			
10.			
	118	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	50	x 3 =	150
FACU species	64	x 4 =	256
UPL species	0	x 5 =	0
Column Totals:	114 (A)		406 (B)

Prevalence Index = B/A = 3.56

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UP031

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 3/1	100						Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

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** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-15-20

Applicant/Owner: UPRR State: IL Sampling Point: W032a

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S34, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 1 Lat: 41°17'26.72"N Long: 88°10'41.00"W Datum: UTM83

Soil Map Unit Name: 125A-Selma loam, 0 to 2 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. Data adopted from previous Olsson wetland delineation and verified on 9/15/20. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	40	Yes	FACW
2. *Scirpus atrovirens*	60	Yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	40	x 2 =	80
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		140 (B)

Prevalence Index = B/A = 1.40

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W032a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	100					Loamy/Clayey	Loam
8-12	10YR 3/1	98	10YR 4/6	2	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Soil data from W032b data point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- x Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? Yes x No ___ Depth (inches): 0

(includes capillary fringe)

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-15-20

Applicant/Owner: UPRR State: IL Sampling Point: W032b

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S34, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 1 Lat: 41°17'35.39"N Long: 88°10'29.36"W Datum: UTM83

Soil Map Unit Name: 151A-Ridgeville fine sandy loam, 0 to 2 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. Data adopted from previous Olsson wetland delineation and verified on 9/15/20. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Fraxinus pennsylvanica*	10	Yes	FACW
2.			
3.			
4.			
5.			
	10 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	70	Yes	FACW
2. *Apocynum cannabinum*	10	No	FAC
3. *Ambrosia trifida*	10	No	FAC
4. *Cirsium arvense*	10	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1. *Vitis riparia*	10	Yes	FACW
2.			
	10 =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	20	x 3 =	60
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	120 (A)		280 (B)

Prevalence Index = B/A = 2.33

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W032b

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	100						Loam
8-12	10YR 3/1	98	10YR 4/6	2	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (inches): ___
Water Table Present?	Yes x	No ___	Depth (inches): 12
Saturation Present? (includes capillary fringe)	Yes x	No ___	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-15-20

Applicant/Owner: UPRR State: IL Sampling Point: UP032

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S34, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): None

Slope (%): 0 Lat: 41°17'28.07"N Long: 88°10'39.53"W Datum: UTM83

Soil Map Unit Name: 151A-Ridgeville fine sandy loam, 0 to 2 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No X

Hydric Soil Present? Yes ____ No x

Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:
Upland point to W032a and W032b. Upland location on toeslope of railroad. Data adopted from previous Olsson wetland delineation and verified on 9/15/20.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Bromus inermis*	30	Yes	FACU
2. *Ambrosia artemisiifolia*	30	Yes	FACU
3. *Poa pratensis*	25	Yes	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	85 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	25	x 3 =	75
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	85 (A)		315 (B)

Prevalence Index = B/A = 3.71

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UP032

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Railroad embankment

Depth (inches): 0

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Unable to dig pit due to ballast.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

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** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-16-20

Applicant/Owner: UPRR State: IL Sampling Point: W033

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S34, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 2 Lat: 41°17'36.2"N Long: 88°10'31.0"W Datum: UTM83

Soil Map Unit Name: 151A-Ridgeville fine sandy loam, 0 to 2 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Fraxinus pennsylvanica*	25	Yes	FACW
2.			
3.			
4.			
5.			
	25 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	50	Yes	FACW
2. *Cirsium arvense*	2	No	FACU
3. *Dipsacus fullonum*	2	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	54 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1. *Vitis riparia*	5	Yes	FACW
2.			
	5 =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	0	x 3 =	0
FACU species	4	x 4 =	16
UPL species	0	x 5 =	0
Column Totals:	84 (A)		176 (B)

Prevalence Index = B/A = 2.10

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W033

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 2/1	100					Sandy	Sandy Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Soil presumed hydric due to vegetation and hydrology indicators. Soil possibly lacking hydric indicators due to historic disturbance and fill from railroad construction.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-16-20

Applicant/Owner: UPRR State: IL Sampling Point: UP033

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S34, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): None

Slope (%): 0 Lat: 41°17'38.3"N Long: 88°10'28.5"W Datum: UTM83

Soil Map Unit Name: 151A-Ridgeville fine sandy loam, 0 to 2 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No x	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

Upland point to W033. UP033 located where vegetation transitions to upland species.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Solidago canadensis*	75	Yes	FACU
2. *Ambrosia artemisiifolia*	8	No	FACU
3. *Rubus idaeus*	3	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	86 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	86	x 4 =	344
UPL species	0	x 5 =	0
Column Totals:	86 (A)		344 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UP033

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1	100					Loamy/Clayey	Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ True Aquatic Plants (B14)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Gauge or Well Data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-16-20

Applicant/Owner: UPRR State: IL Sampling Point: W034

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S35, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): none

Slope (%): 0 Lat: 41°17'50.24"N Long: 88°10'12.65"W Datum: UTM83

Soil Map Unit Name: 151A-Ridgeville fine sandy loam, 0 to 2 percent slopes NWI classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus deltoides*	10	Yes	FAC
2.			
3.			
4.			
5.			
	10	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	20	Yes	FACW
2. *Cyperus esculentus*	15	Yes	FACW
3. *Equisetum arvense*	12	Yes	FAC
4. *Bidens frondosa*	8	No	FACW
5. *Scirpus atrovirens*	8	No	OBL
6. *Lycopus americanus*	8	No	OBL
7. *Solidago canadensis*	8	No	FACU
8.			
9.			
10.			
	79	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1. *Vitis riparia*	5	Yes	FACW
2.			
	5	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	16	x 1 =	16
FACW species	48	x 2 =	96
FAC species	22	x 3 =	66
FACU species	8	x 4 =	32
UPL species	0	x 5 =	0
Column Totals:	94 (A)		210 (B)

Prevalence Index = B/A = 2.23

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W034

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 2/2	100					Loamy/Clayey	Clay Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Soil data adopted from previous Olsson wetland delineation. Soil presumed hydric based on vegetation and hydric indicators. Soil possibly lacking hydric indicators due to historic disturbance and fill from railroad construction.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-16-20

Applicant/Owner: UPRR State: IL Sampling Point: UP034

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S35, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): convex

Slope (%): 0 Lat: 41°17'47.1"N Long: 88°10'16.6"W Datum: UTM83

Soil Map Unit Name: 151A-Ridgeville fine sandy loam, 0 to 2 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No x	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Upland point to W034. Upland located at toeslope of railroad embankment. Data adopted from previous Olsson wetland delineation and verified 9/16/20.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Rhamnus cathartica*	10	Yes	FAC
2. *Rhus glabra*	5	Yes	UPL
3.			
4.			
5.			
	15 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Solidago canadensis*	40	Yes	FACU
2. *Baccharis neglecta*	25	Yes	FAC
3. *Rubus idaeus*	30	Yes	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	95 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	35	x 3 =	105
FACU species	70	x 4 =	280
UPL species	5	x 5 =	25
Column Totals:	110 (A)		410 (B)

Prevalence Index = B/A = 3.73

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UP034

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 4/2	100					Sandy	Sandy Loam
5-12	7.5YR 5/6	50						Sandy Loam
	10YR 4/2	50						Sandy Loam
12-20	10YR 3/2	75						Sandy Loam
	7.5YR 5/6	25						Sandy Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-16-20

Applicant/Owner: UPRR State: IL Sampling Point: W035

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S26, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 4 Lat: 41°18'32.45"N Long: 88°09'21.55"W Datum: UTM83

Soil Map Unit Name: 98B - Ade loamy fine sand, 1 to 6% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction. Data adopted from previous Olsson wetland delineation and boundaries verified 9/16/20.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phalaris arundinacea*	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W035

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-19	10YR 4/2	100					Loamy/Clayey	Loam
19-22	10YR 7/2	100					Sandy	Fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Soil data adopted from previous Olsson wetland delineation. Soil presumed hydric due to vegetation and hydrology indicators. Soil probably lacking hydric indicators due to historic disturbance and fill from railroad construction.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-16-20

Applicant/Owner: UPRR State: IL Sampling Point: UP035

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S26, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): None

Slope (%): 0 Lat: 41°18'30.45"N Long: 88°09'21.52"W Datum: UTM83

Soil Map Unit Name: 98B - Ade loamy fine sand, 1 to 6% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No x	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Upland point to W035. UP035 located upslope of W035.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Poa sp.*	50	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	50 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	50 (A)		200 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UP035

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Soil data adopted from previous Olsson wetland delineation. No soil pit dug due to lack of hydric vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-16-20

Applicant/Owner: UPRR State: IL Sampling Point: W036

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S26, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 1-4 Lat: 41°18'25.31"N Long: 88°09'27.51"W Datum: UTM83

Soil Map Unit Name: 98B-Ade loam fine sand, 1 to 6 perent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction. Data adopted from previous Olsson wetland delineation and verified 9/16/20.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Acer saccharinum*	10	Yes	FACW
2. *Sambucus nigra*	5	Yes	FAC
3.			
4.			
5.			
	15 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	85	Yes	FACW
2. *Phalaris arundinacea*	10	No	FACW
3. *Phytolacca americana*	2	No	FACU
4. *Scirpus pallidus*	2	No	OBL
5. *Onoclea sensibilis*	1	No	FACW
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1. *Vitis riparia*	5	Yes	FACW
2. *Toxicodendron radicans*	5	Yes	FAC
	10 =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	2	x 1 =	2
FACW species	111	x 2 =	222
FAC species	10	x 3 =	30
FACU species	2	x 4 =	8
UPL species	0	x 5 =	0
Column Totals:	125 (A)		262 (B)

Prevalence Index = B/A = 2.10

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W036

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Ballast

Depth (inches): 0

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Unable to dig soil pit due to ballast throughout the wetland. Soils assumed to display hydric indicators based upon vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-16-20

Applicant/Owner: UPRR State: IL Sampling Point: UP036

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S26, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): none

Slope (%): 0 Lat: 41°18'21.94"N Long: 88°09'31.07"W Datum: UTM83

Soil Map Unit Name: 98B-Ade loam fine sand, 1 to 6 perent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes x	No ____	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Upland point to W036. UP036 located on toeslope of railroad embankment. Data adopted from previous Olsson wetland delineation and verified 9/16/20.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Poa annua*	80	Yes	FACU
2. *Trifolium pratense*	15	No	FACU
3. *Plantago rugelii*	5	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	95	x 4 =	380
UPL species	0	x 5 =	0
Column Totals:	100 (A)		395 (B)

Prevalence Index = B/A = 3.95

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UP036

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/2	90	10YR 4/6	2	C	M	Sandy	Sandy Loam
	10YR 3/2	8						

[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)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? Yes ___ No x Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-17-20

Applicant/Owner: UPRR State: IL Sampling Point: W037

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S26, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 1-2 Lat: 41°18'32.67"N Long: 88°09'17.53"W Datum: UTM83

Soil Map Unit Name: 98B - Ade loamy fine sand, 1 to 6 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. Data adopted from previous Olsson wetland delineation and verified 9/17/20. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	50	Yes	FACW
2. *Spartina pectinata*	15	Yes	FACW
3. *Carex sp.*	5	No	FAC
4. *Muhlenbergia mexicana*	5	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	75 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1. *Vitis riparia*	5	Yes	FACW
2.			
	5 =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	75	x 2 =	150
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	80 (A)		165 (B)

Prevalence Index = B/A = 2.06

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W037

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/1	90	10YR 5/6	5	C	M		Silt Loam
			Gley 1 6/N	5	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- x Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rocks

Depth (inches): 10

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-17-20

Applicant/Owner: UPRR State: IL Sampling Point: UP037

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S26, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): convex

Slope (%): 1-3 Lat: 41°98'32.58"N Long: 88°09'17.44W Datum: UTM83

Soil Map Unit Name: 98B - Ade loamy fine sand, 1 to 6 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No x	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Upland point to W037. Upland point located on toeslope of railroad embankment. Data adopted from previous Olsson wetland delineation and verified 9/17/20.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Festuca sp.*	30	Yes	FACU
2. *Glechoma hederacea*	20	Yes	FACU
3. *Trifolium repens*	20	Yes	FACU
4. *Taraxacum officinale*	10	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	80	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	80 (A)		320 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UP037

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Railroad embankment

Depth (inches): 0

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Ballast and no soil pit dug due to lack of hydrology indicators and a presence of upland vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (inches): ___
Water Table Present?	Yes ___	No x	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No x	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-17-20

Applicant/Owner: UPRR State: IL Sampling Point: W038

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S25, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 1-2 Lat: 41°18'52.92"N Long: 88°08'38.26"W Datum: UTM83

Soil Map Unit Name: 369A - Waupecan silt loam, 0 to 2% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. Data adopted from previous Olsson wetland delineation and verified on 9/17/20. Soil and topography historically disturbed due to railroad construction.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Phragmites australis*	80	Yes	FACW
2. *Carex sp.*	10	No	FAC
3. *Solidago gigantea*	5	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	95 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1. *Vitis riparia*	5	Yes	FACW
2.			
	5 =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		210 (B)

Prevalence Index = B/A = 2.10

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W038

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/2	100					Sandy	Sandy Loam
12-20	10YR 4/2	50					Sandy	Sandy Loam
	10YR 3/1	50						Sandy Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Soil presumed hydric due to vegetation and hydrology indicators. Soil probably lacking hydric indicators due to historic disturbance and fill from railroad construction.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-17-20

Applicant/Owner: UPRR State: IL Sampling Point: UP038

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S25, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): convex

Slope (%): 0 Lat: 41°18'53.97"N Long: 88°08'37.35"W Datum: UTM83

Soil Map Unit Name: 369A - Waupecan silt loam, 0 to 2% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No x	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Upland point to W038 and located where vegetation changes. Data adopted from previous Olsson wetland delineation and verified on 9/17/20.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Cornus sp.*	45	Yes	FAC
2.			
3.			
4.			
5.			
	45 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Desmanthus illinoensis*	30	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	30 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	45	x 3 =	135
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	75 (A)		255 (B)

Prevalence Index = B/A = 3.40

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UP038

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Railroad embankment

Depth (inches): 0

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

ballast

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? Yes ___ No x Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-17-20

Applicant/Owner: UPRR State: IL Sampling Point: W039

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S26, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): concave

Slope (%): 0 Lat: 41°19'10.7"N Long: 88°08'30.4"W Datum: UTM83

Soil Map Unit Name: 98B - Ade loamy fine sand, 1 to 6 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes x No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
PEM wetland. Soil and topography historically disturbed due to railroad construction. Narrow ditch with standing water comprised of wetland species.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Typha angustifolia*	80	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	80 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	80 (A)		80 (B)

Prevalence Index = B/A = 1.00

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W039

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Ballast

Depth (inches): 0

Hydric Soil Present? **Yes** x **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Soil assumed to display hydric indicators based upon hydric vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- x Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes x	No ___	Depth (inches):	2
Water Table Present?	Yes x	No ___	Depth (inches):	0
Saturation Present? (includes capillary fringe)	Yes x	No ___	Depth (inches):	0

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Tier 8 City/County: Elwood, Will County Sampling Date: 09-17-20

Applicant/Owner: UPRR State: IL Sampling Point: UP039

Investigator(s): G. Pettit and K. Wilson Section, Township, Range: S26, T33N, R9E

Landform (hillside, terrace, etc.): Railroad ditch/right-of-way Local relief (concave, convex, none): convex

Slope (%): 5 Lat: 41°19'01.89"N Long: 88°08'31.78"W Datum: UTM83

Soil Map Unit Name: 98B - Ade loamy fine sand, 1 to 6 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No x	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Upland point to W039. UP039 located upslope of wetland. Data adopted from previous Olsson wetland delineation and confirmed 9/17/20.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Bromus inermis*	80	Yes	FACU
2. *Setaria viridis*	20	Yes	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	20	x 5 =	100
Column Totals:	100 (A)		420 (B)

Prevalence Index = B/A = 4.20

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UP039

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Railroad embankment

Depth (inches): 0

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Ballast

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix C
Photographs

Feature ID:
W001

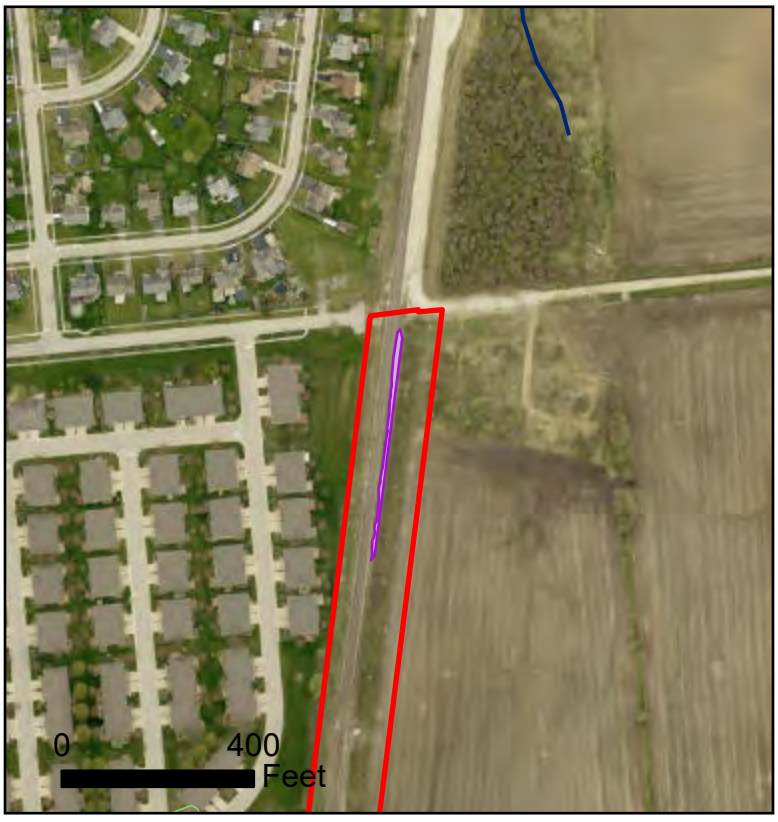
Comment:
W001

Legend

- Wetland
- Wetland
- Survey Area

Feature ID:
W001

Comment:
None

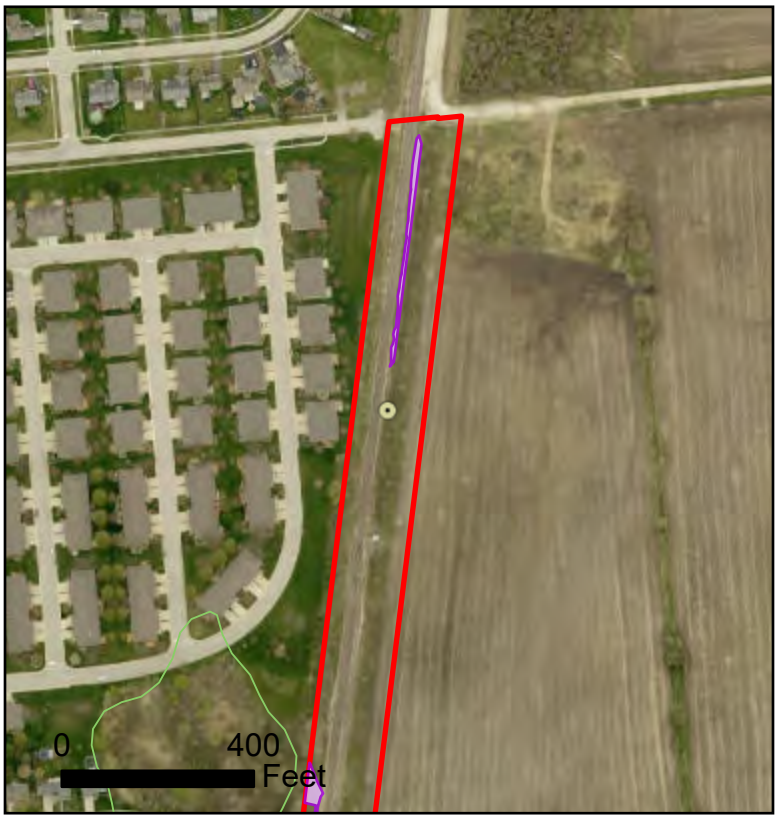


Legend

- Wetland
- Survey Area

Feature ID:
UP001

Comment:
Facing east, restricted layer



Legend

- Upland
- Wetland
- Survey Area

Feature ID:
W002

Comment:
wetland width. Photo facing NE

Legend

- Wetland
- Survey Area

Feature ID:
W002

Comment:
Willow

Legend

- Other
- Wetland
- Survey Area

Feature ID:
Up002

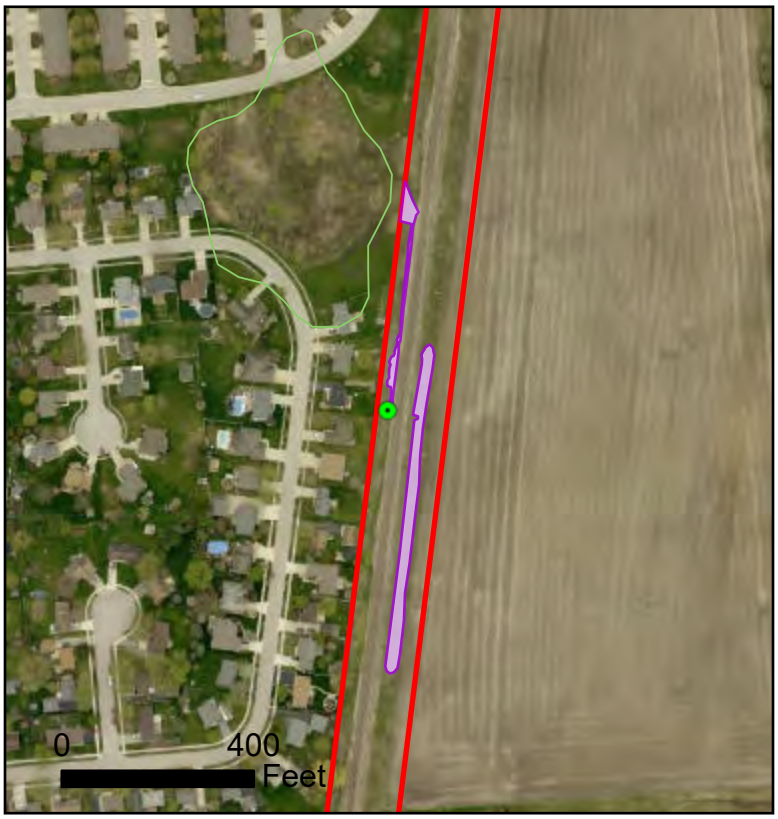
Comment:
Photo facing NE

Legend

- Upland
- Wetland
- Survey Area

Feature ID:
W003

Comment:
Photo facing west and north



Legend

- Wetland
- Wetland
- Survey Area

Feature ID:
W003

Comment:
Facing south

Legend

- Photo
- Wetland
- Survey Area

Feature ID:
W003

Comment:
Fence prevents west boundary. Facing northWest and north

Legend

- Wetland
- Survey Area

Feature ID:
UP003

Comment:
On ridge, photo facing west

Legend

- Upland
- Wetland
- Survey Area

Feature ID: W 0 0 4
Ditch

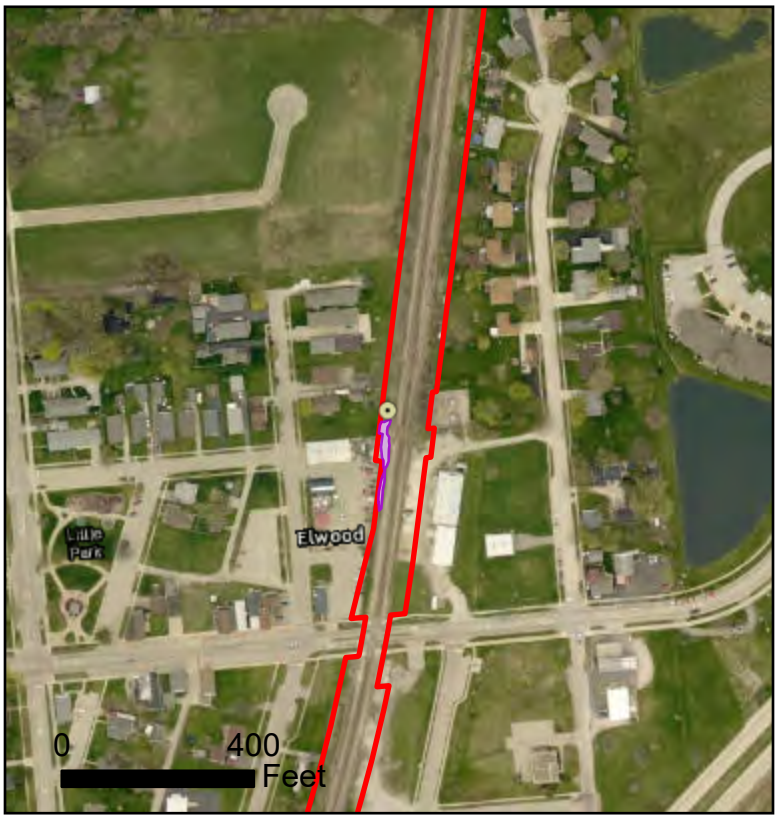
Comment:
Drainage facing south

Legend

- Photo
- Wetland
- Survey Area

Feature ID:
UP004

Comment:
Facing south



Legend

- Upland
- Wetland
- Survey Area

Feature ID:
Culvert W004

Comment:
Facing east and north

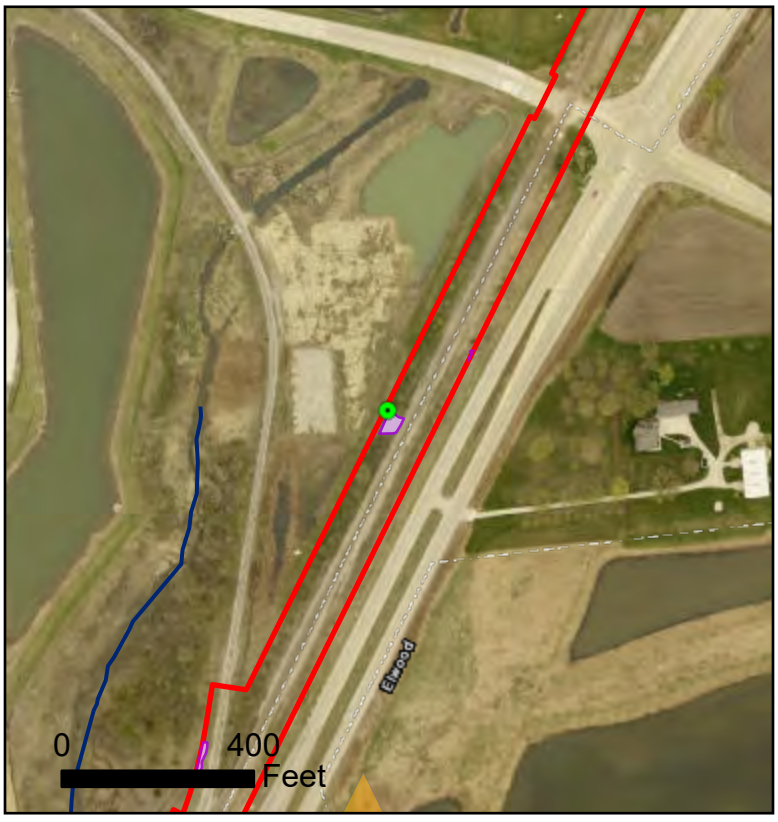
Riprap culvert on east side of railroad tracks connected to W004. Drainage ends at riprap

Legend

- Photo
- Wetland
- Survey Area

Feature ID:
W005

Comment:
PFO with phragmites

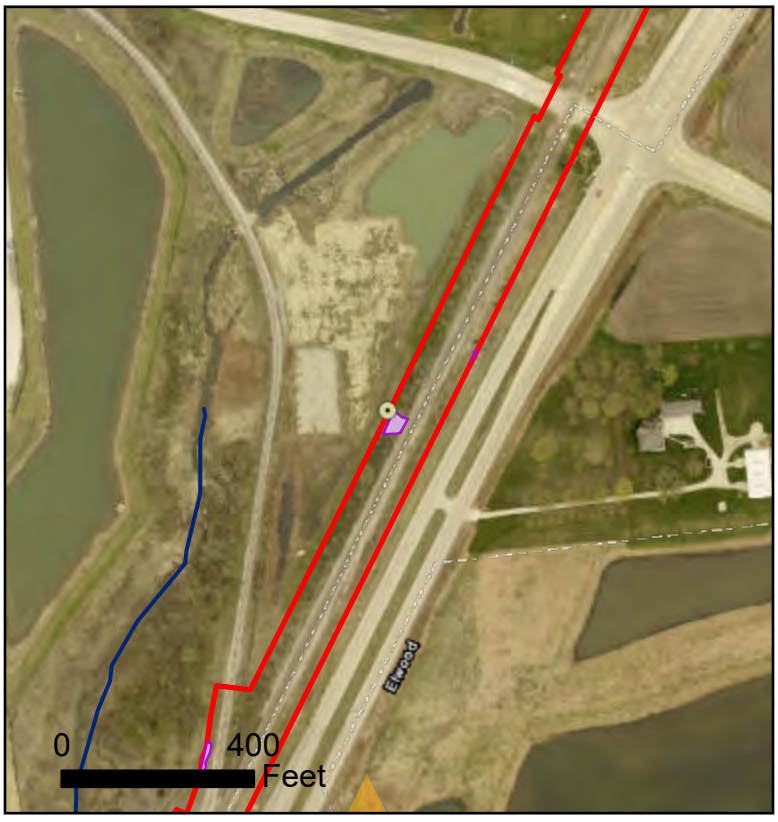


Legend

- Wetland
- Wetland
- Survey Area

Feature ID:
Up005

Comment:
Toeslope of adjacent railroad

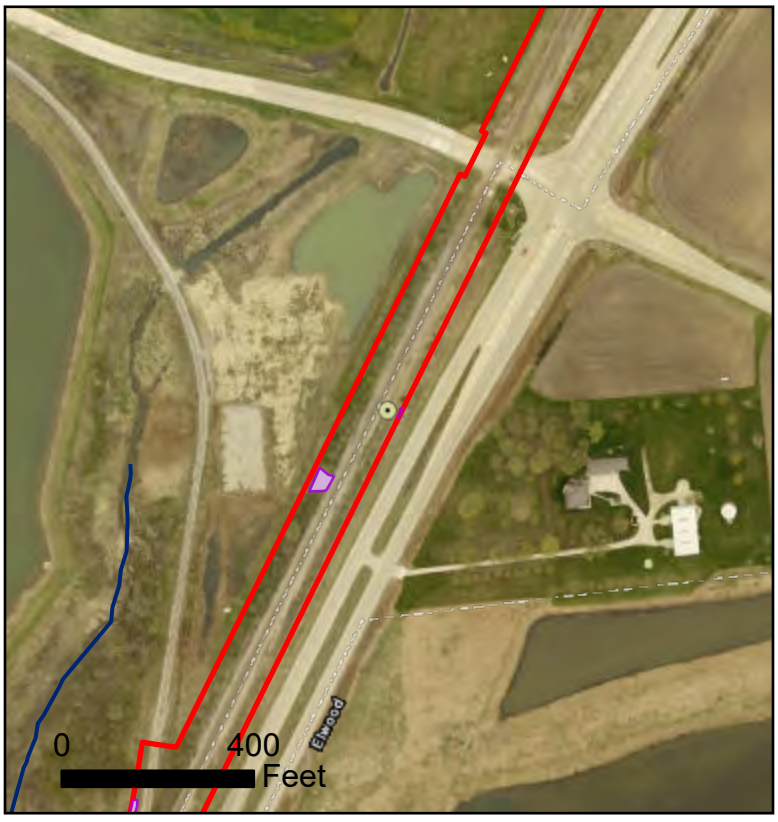


Legend

- Upland
- Wetland
- Survey Area

Feature ID:
UP006 facing northeast

Comment:
None

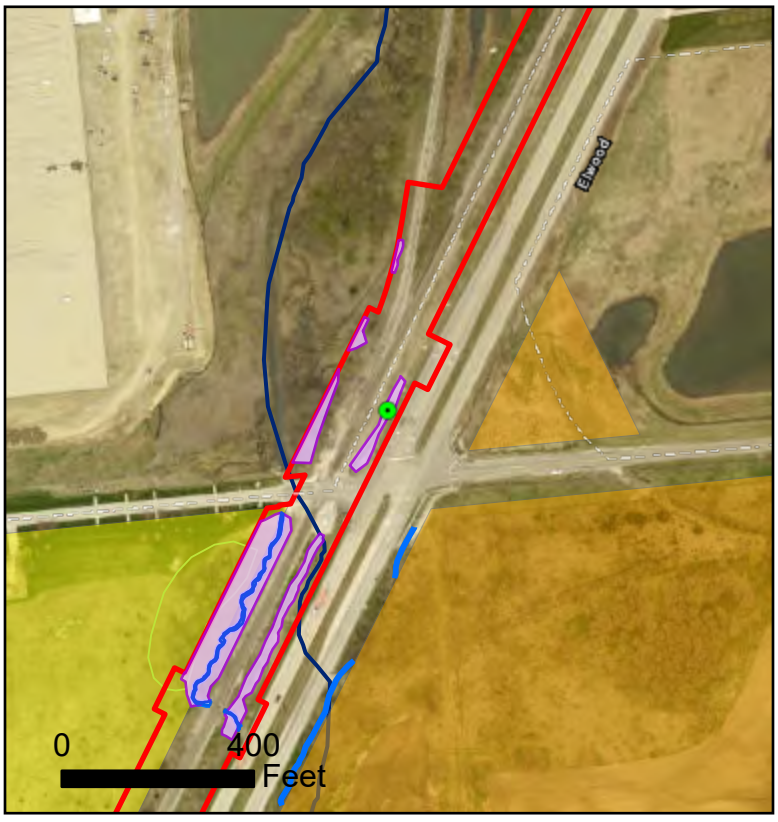


Legend

- Upland
- Wetland
- Survey Area

Feature ID:
W007

Comment:
Culverted ditch

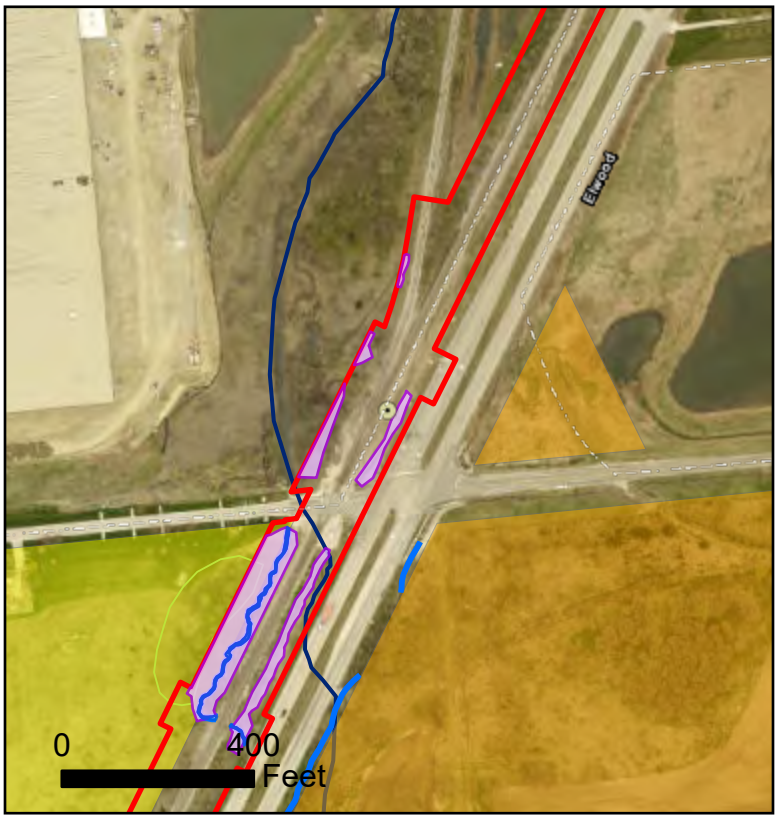


Legend

- Wetland
- Stream
- Wetland
- Survey Area

Feature ID:
UP007

Comment:
None

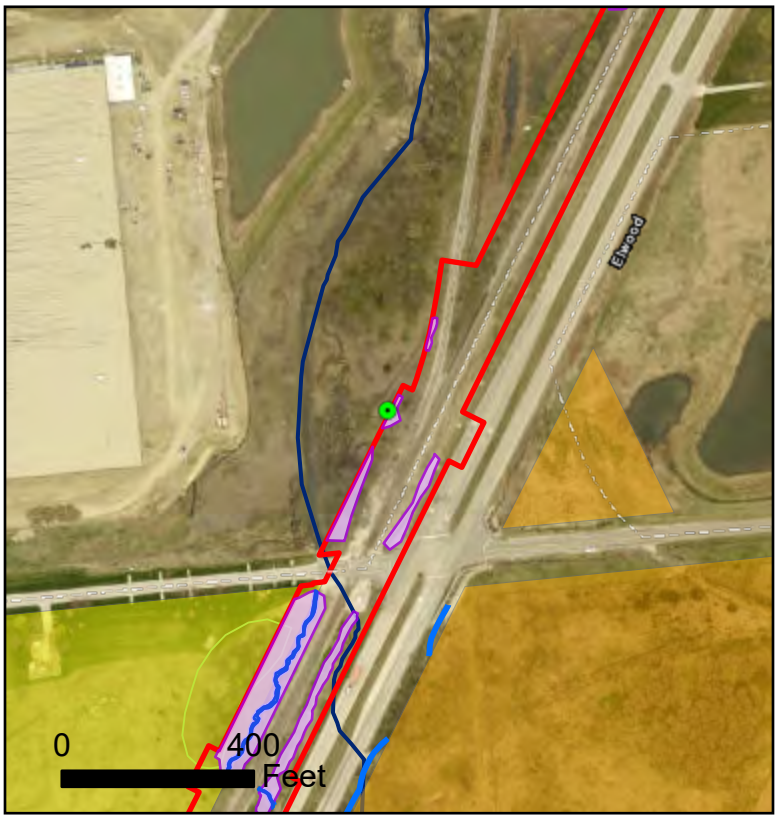


Legend

- Upland
- Stream
- Wetland
- Survey Area

Feature ID:
W008

Comment:
Disturbed soil

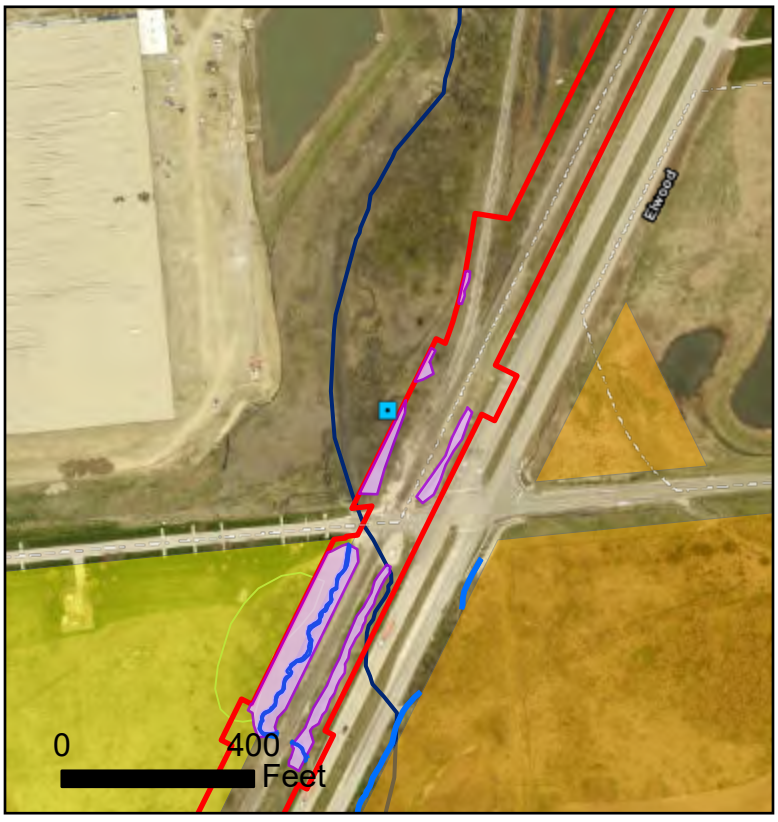


Legend

- Wetland
- Stream
- Wetland
- Survey Area

Feature ID:
Wetland signage

Comment:
Out of survey area but wetlands intrude into survey area

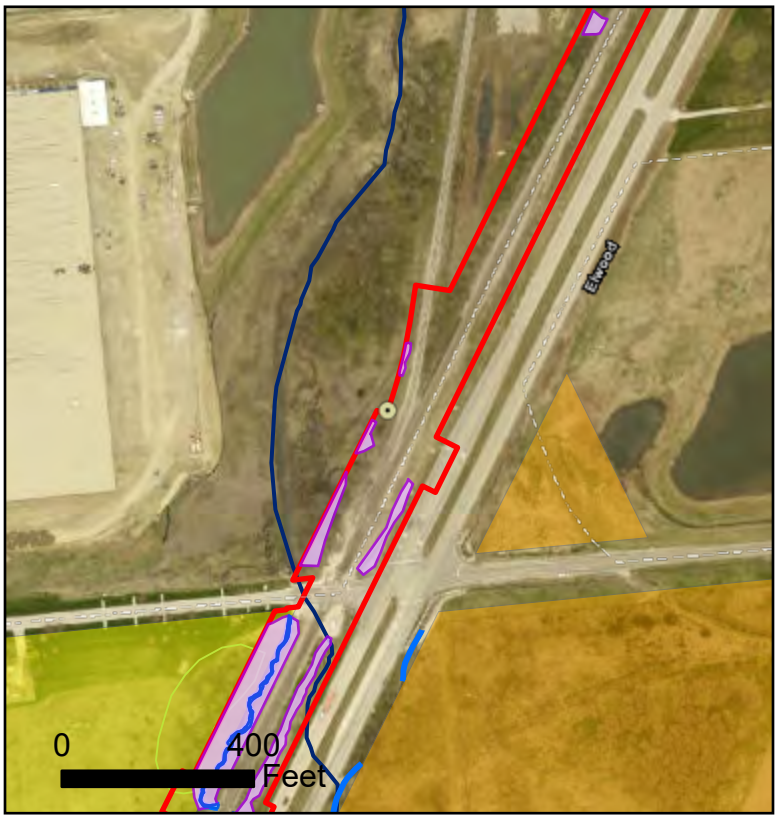


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:
UP008

Comment:
No soil due to pipeline

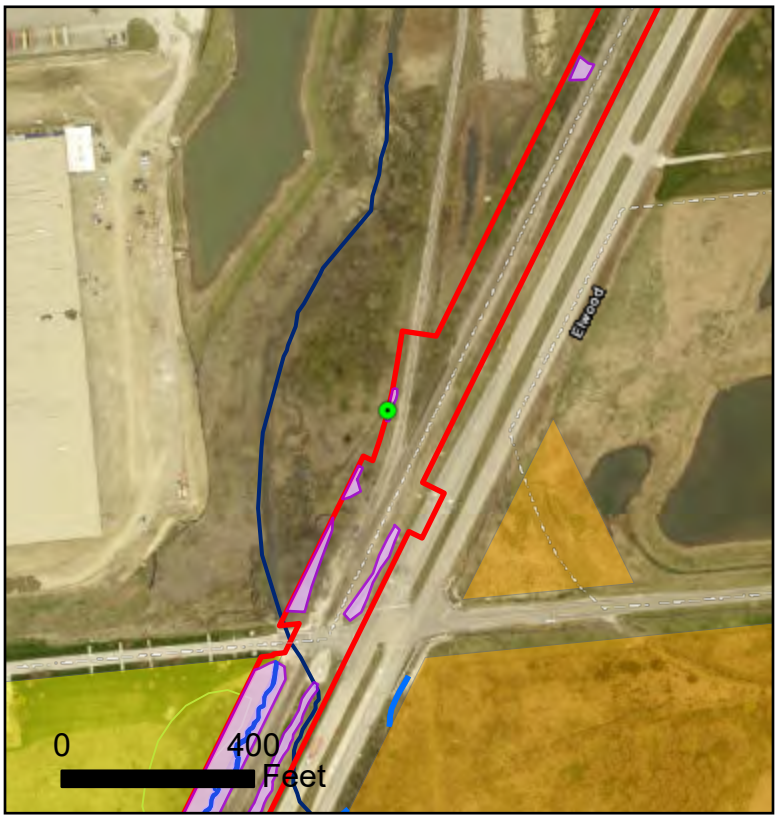


Legend

- Upland
- Stream
- Wetland
- Survey Area

Feature ID:
W009

Comment:
None

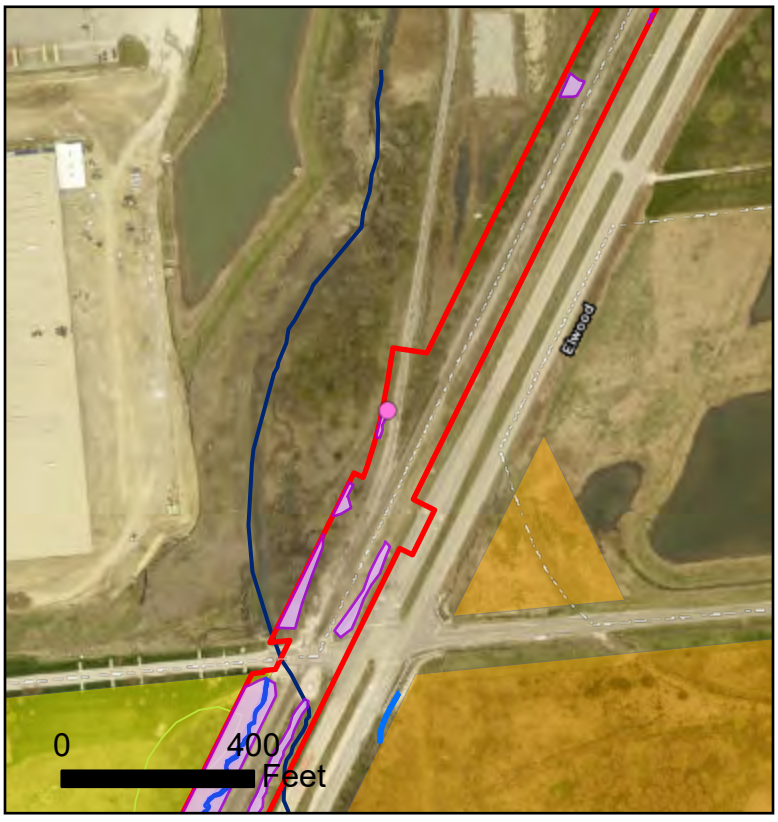


Legend

- Wetland
- Stream
- Wetland
- Survey Area

Feature ID:
Culvert feeding W009

Comment:
Looking NE

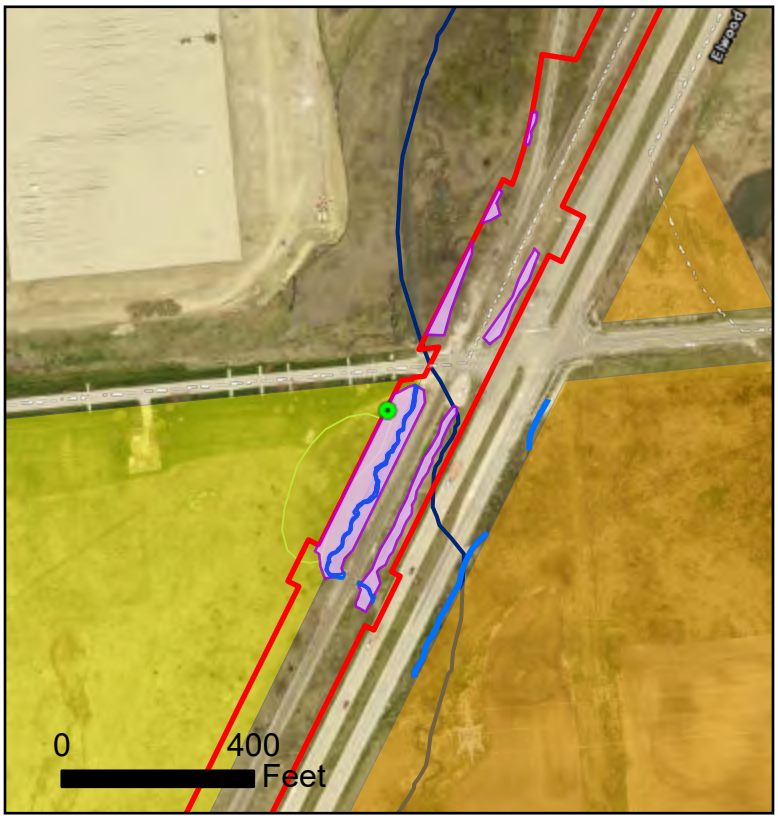


Legend

- Other
- Stream
- Wetland
- Survey Area

Feature ID:
W010

Comment:
Soil pit

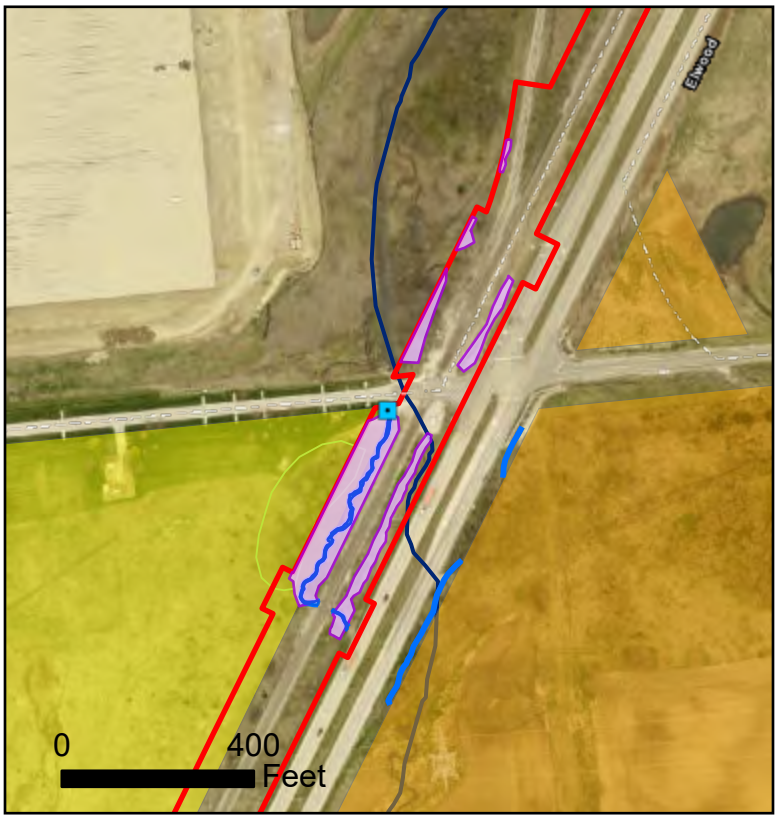


Legend

- Wetland
- Stream
- Wetland
- Survey Area

Feature ID:
S001

Comment:
Looking south

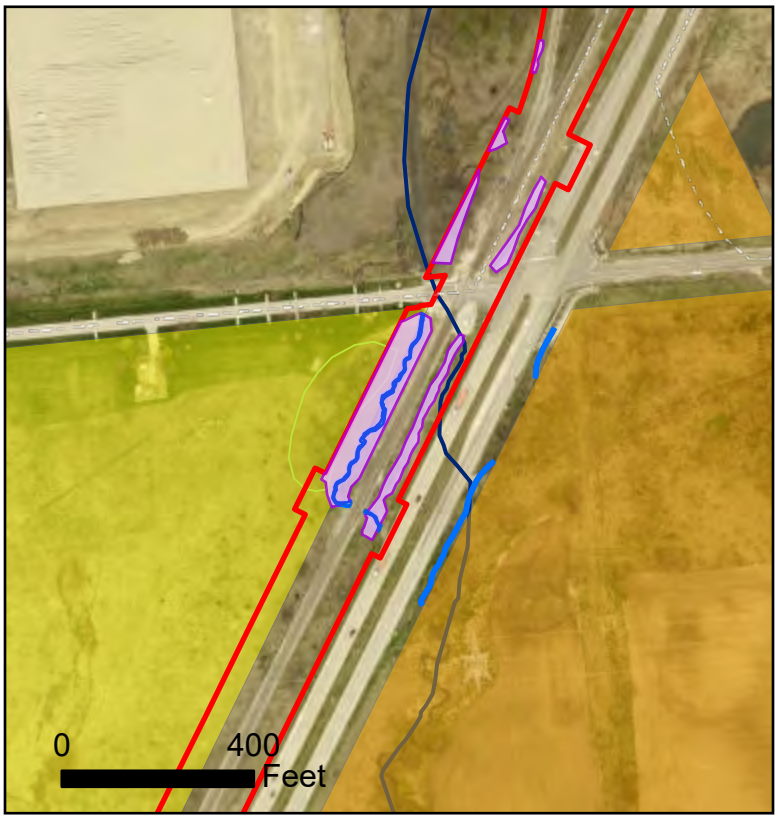


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:
W010

Comment:
Photo facing west from culvert

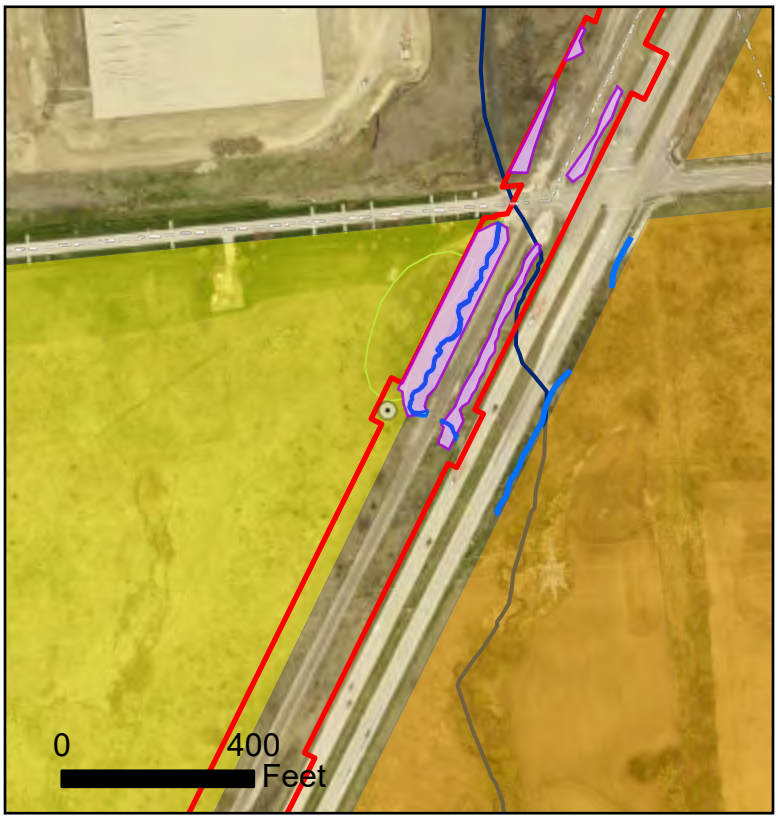


Legend

- Stream
- Wetland
- Survey Area

Feature ID:
UP010

Comment:
None

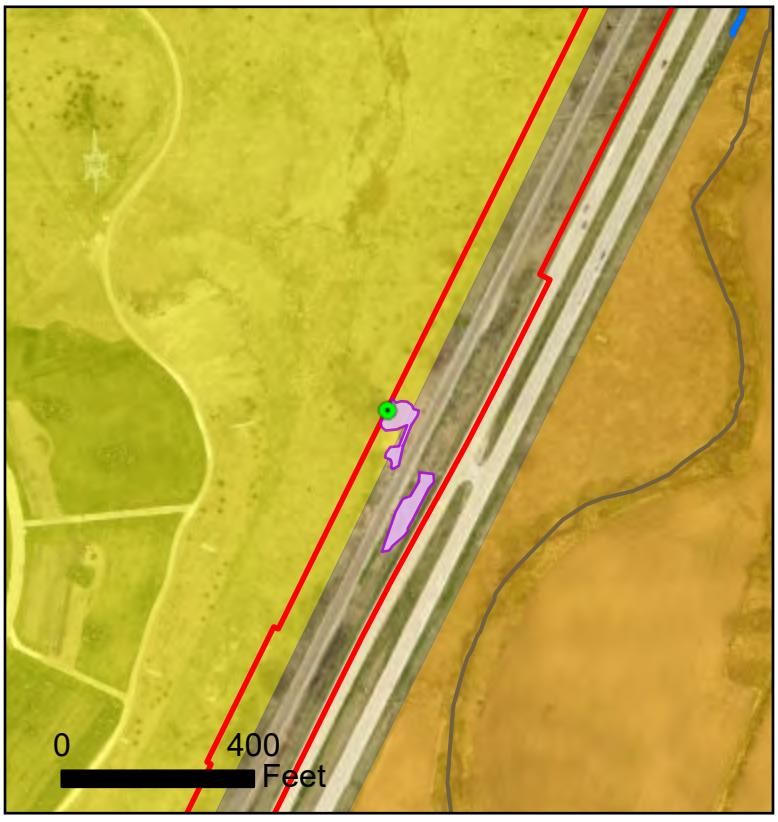


Legend

- Upland
- Stream
- Wetland
- Survey Area

Feature ID:
W011

Comment:
None

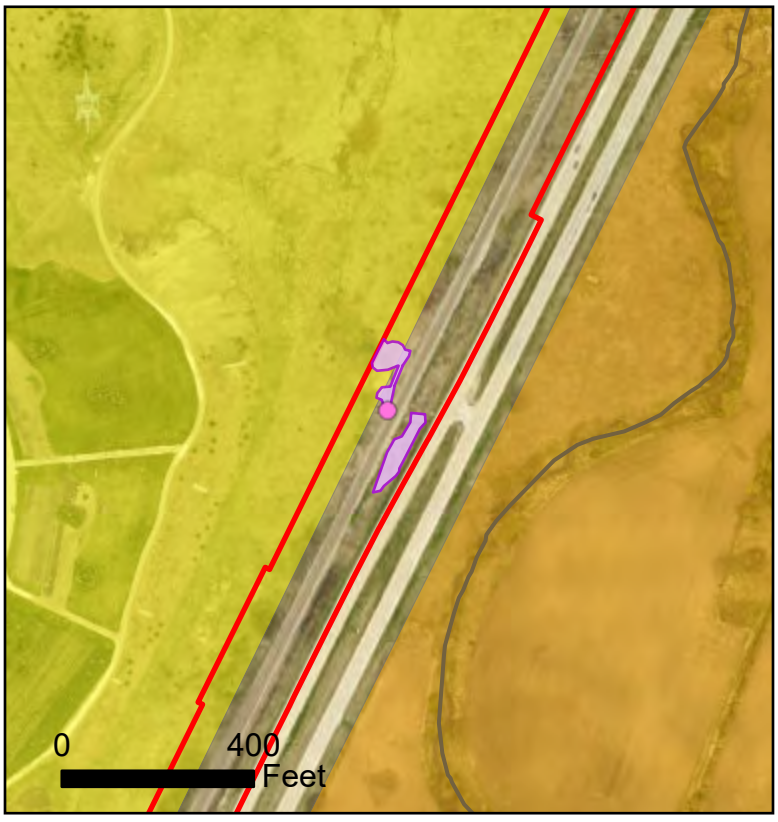


Legend

- Wetland
- Wetland
- Survey Area

Feature ID:
Culvert leading to drainage ditch draining into W011

Comment:
None

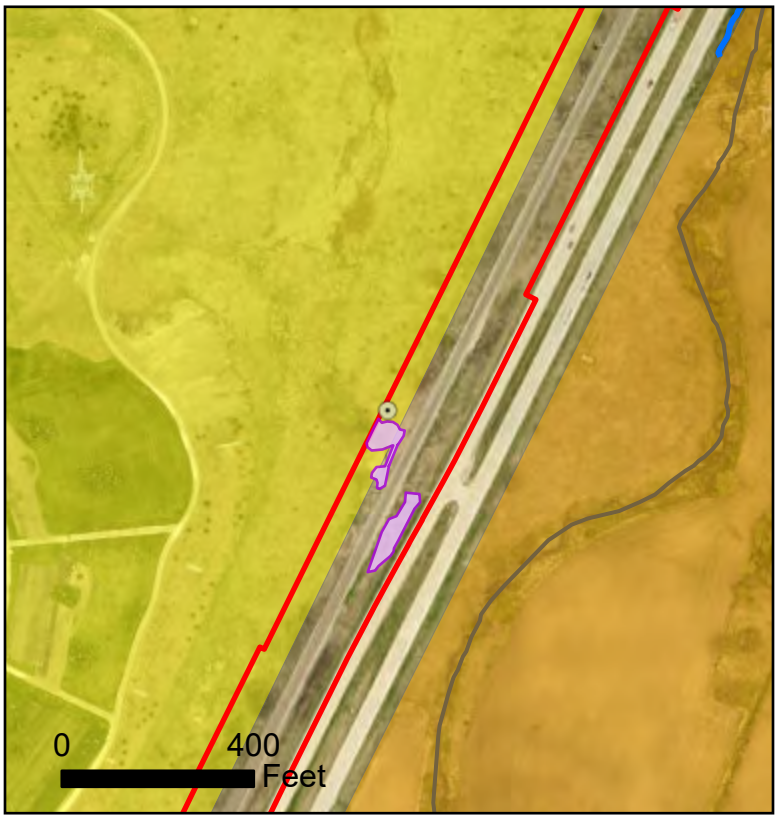


Legend

- Other
- Wetland
- Survey Area

Feature ID:
UP011

Comment:
None



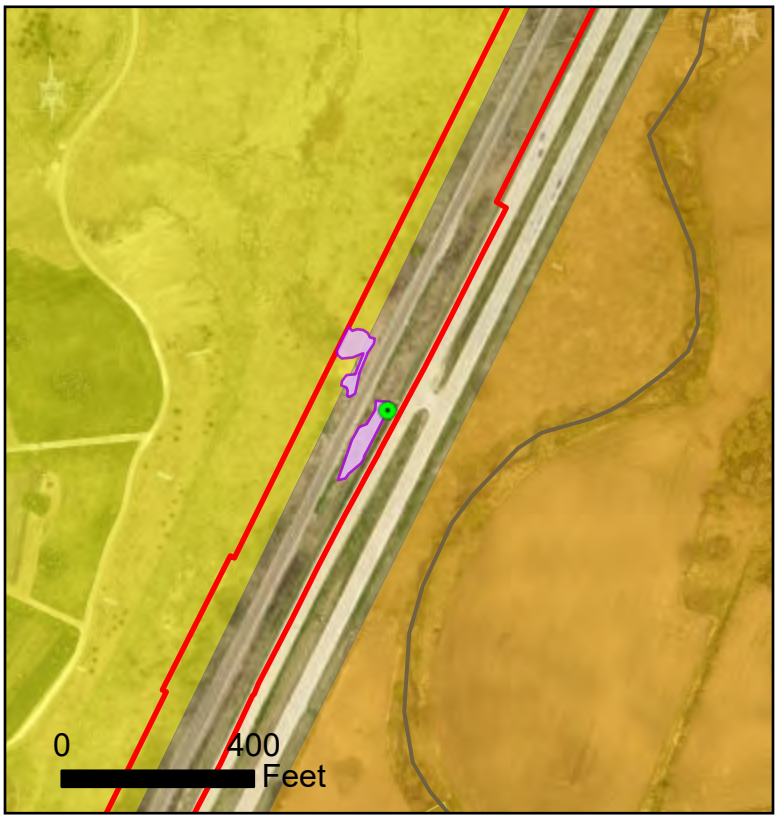
Legend

- Upland
- Wetland
- Survey Area

Feature ID:

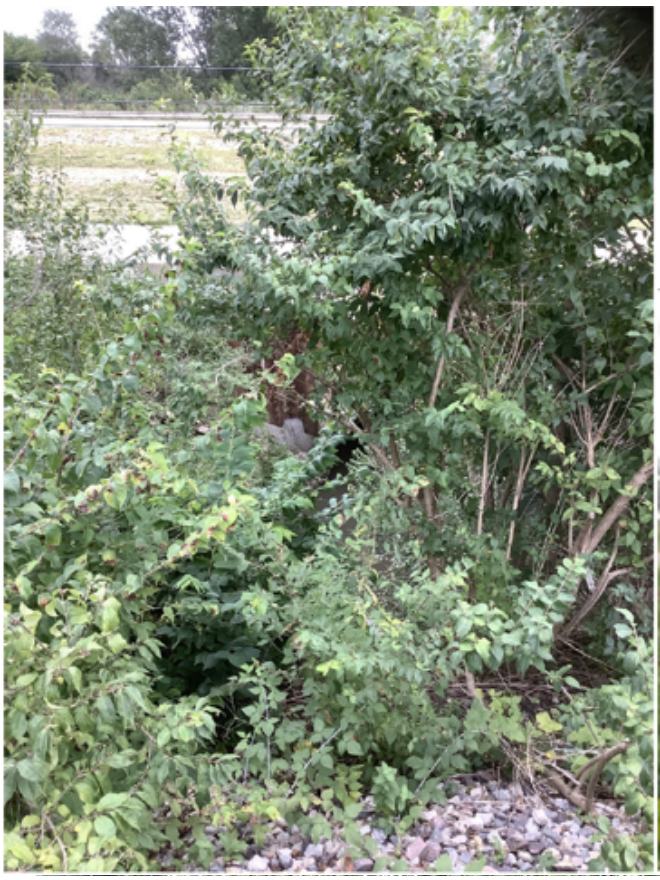
W012

Comment:
Photo facing southwest



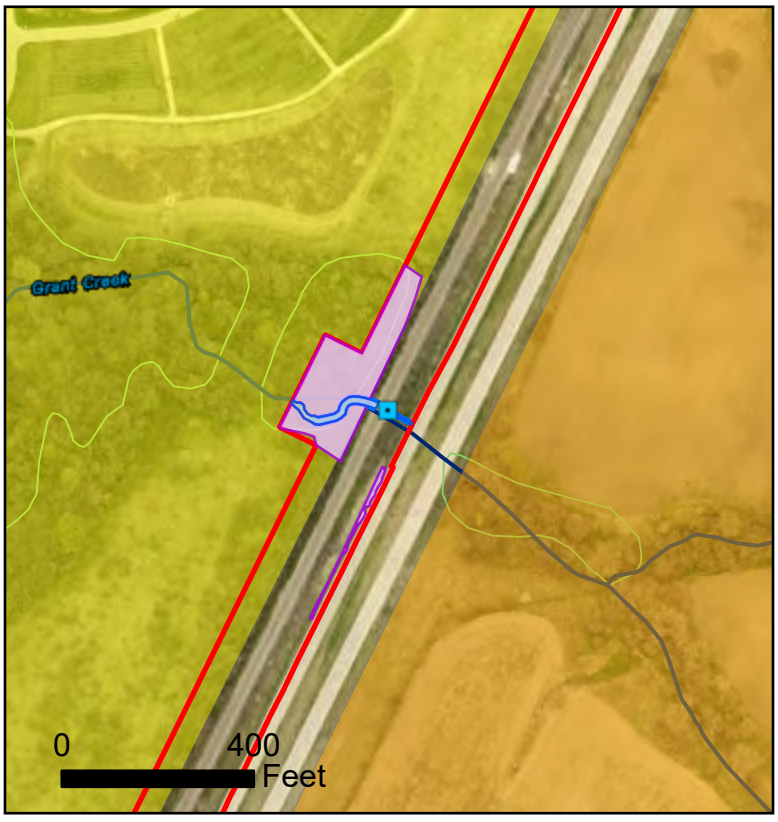
Legend

- Wetland
- Wetland
- Survey Area



Feature ID:
Culvert leading from S002 to W013.

Comment:
Facing east
Photo of W013 adopted from
Olsson wetland delineation report.

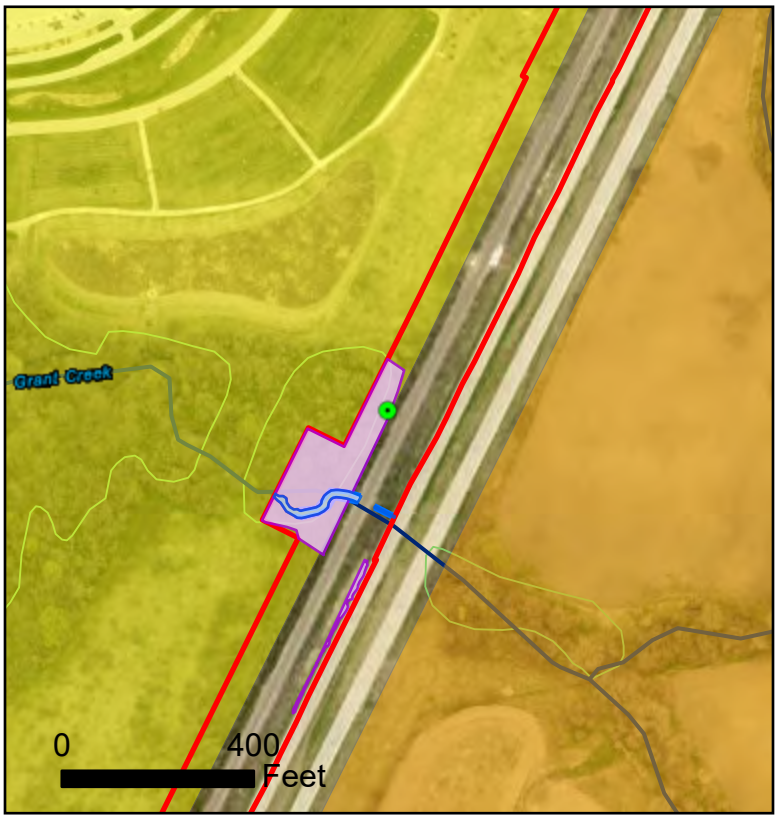


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:
W014

Comment:
Soil pit

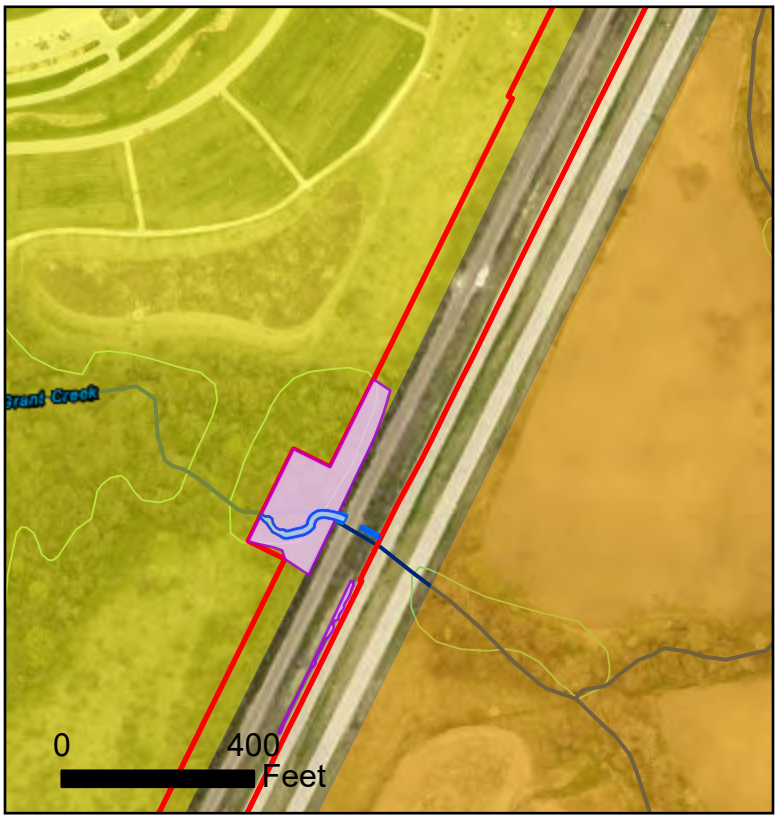


Legend

- Wetland
- Stream
- Wetland
- Survey Area

Feature ID:
W014

Comment:
Photo facing north

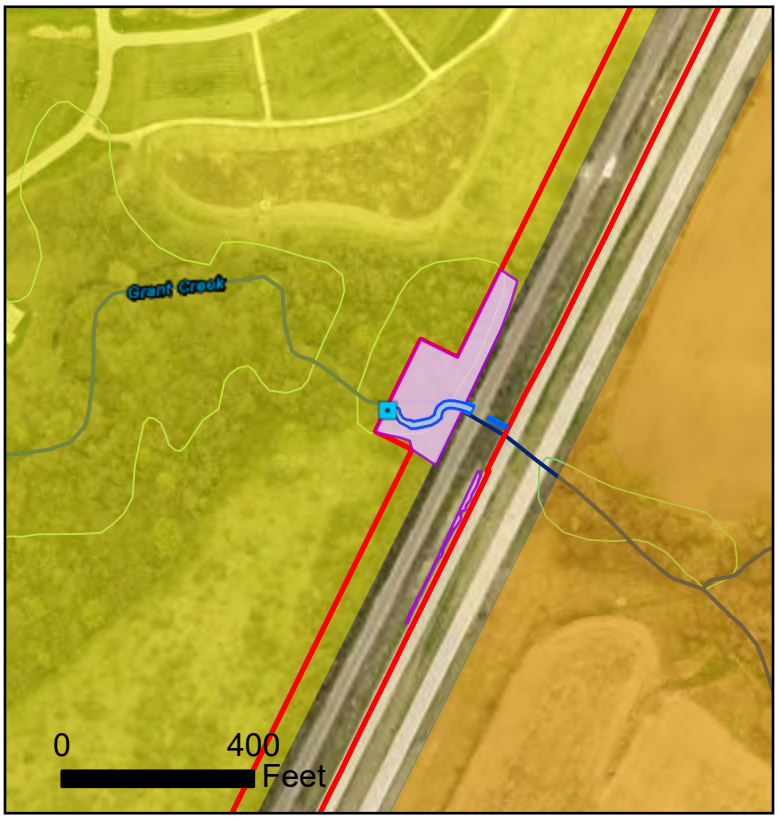


Legend

- Stream
- Wetland
- Survey Area

Feature ID:
S002

Comment:
Looking east towards tracks

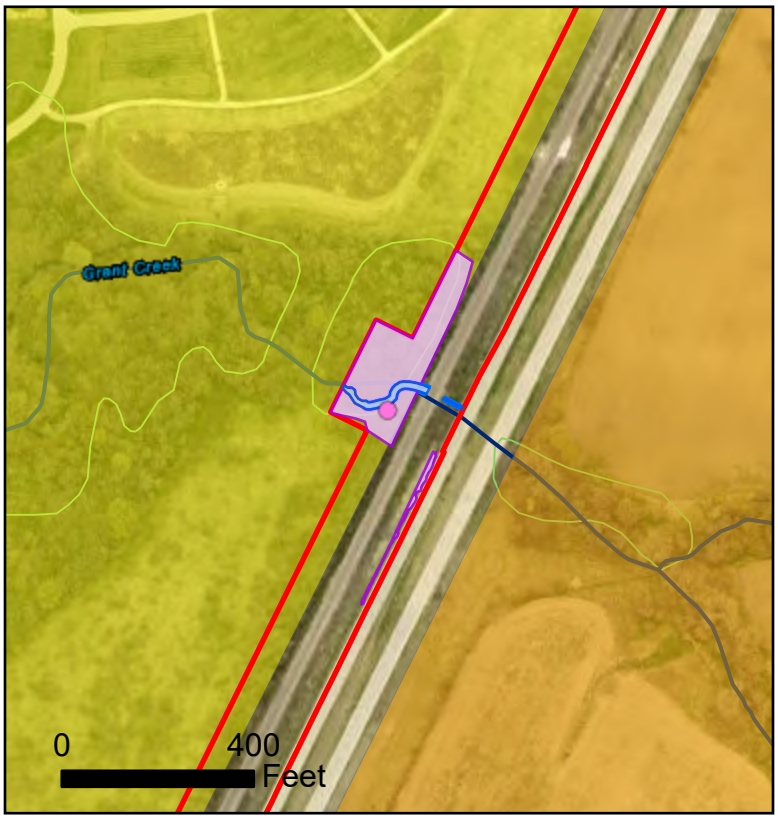


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:
S002

Comment:
Stream bank S side; looking W; looking N

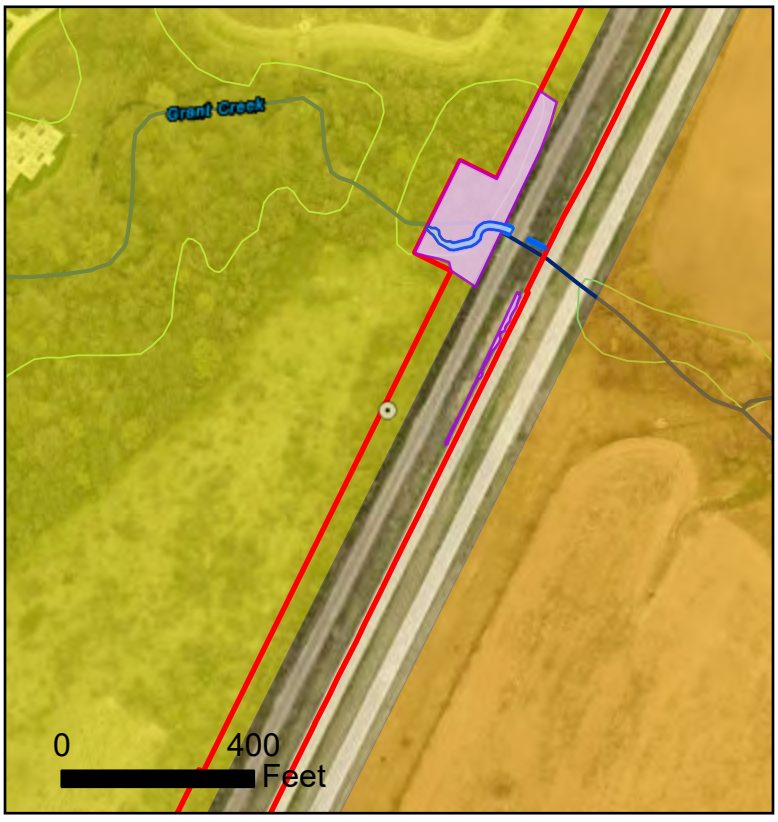


Legend

- Other
- Stream
- Wetland
- Survey Area

Feature ID:
UP014

Comment:
None

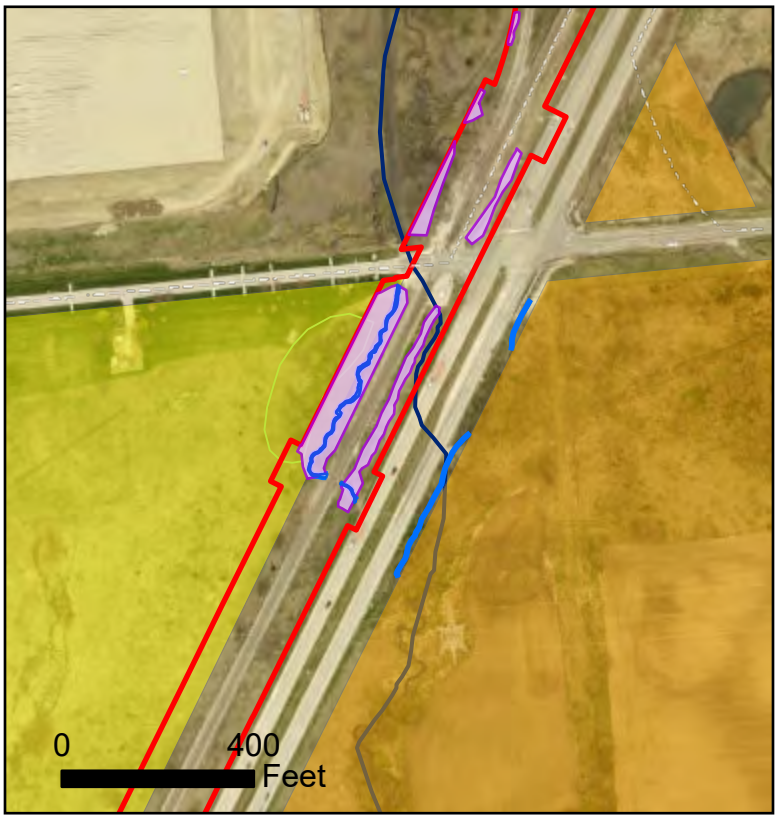


Legend

- Upland
- Stream
- Wetland
- Survey Area

Feature ID:
W015

Comment:
Facing south

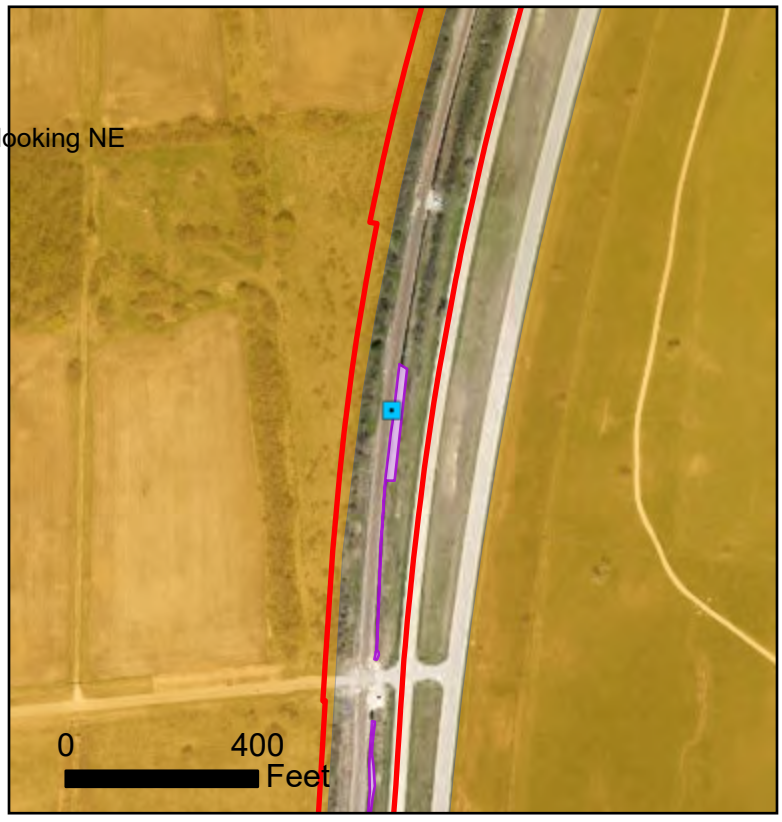


Legend

- Stream
- Wetland
- Survey Area

Feature ID:
W016

Comment:
Drainage vegetation extends upland approximately 20’; looking NE

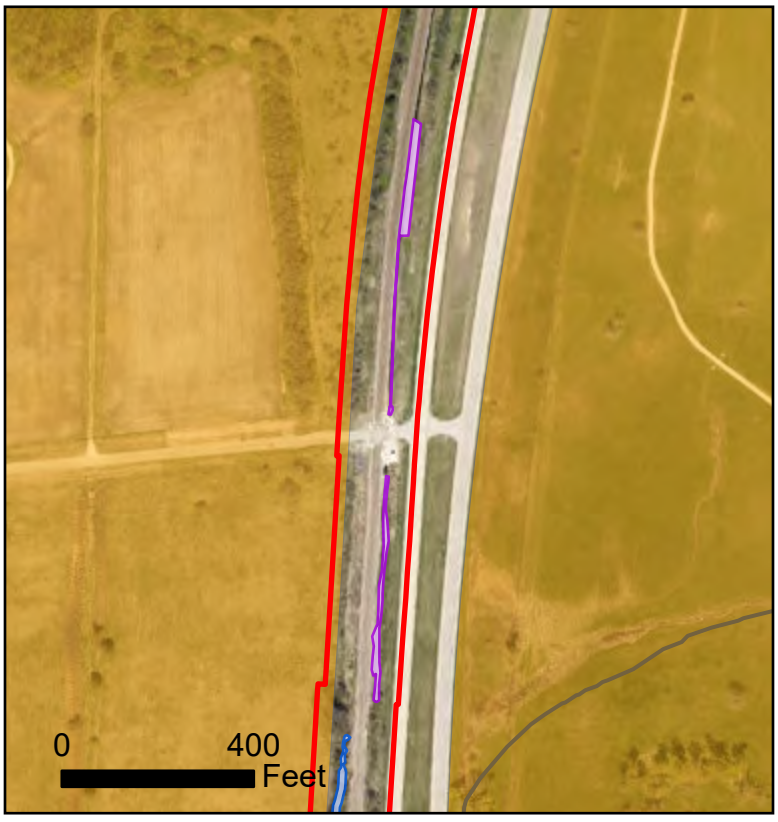


Legend

- Photo
- Wetland
- Survey Area

Feature ID:
W016

Comment:
Drainage ditch leading to culvert approximately 6’ wide at high water mark;
looking N

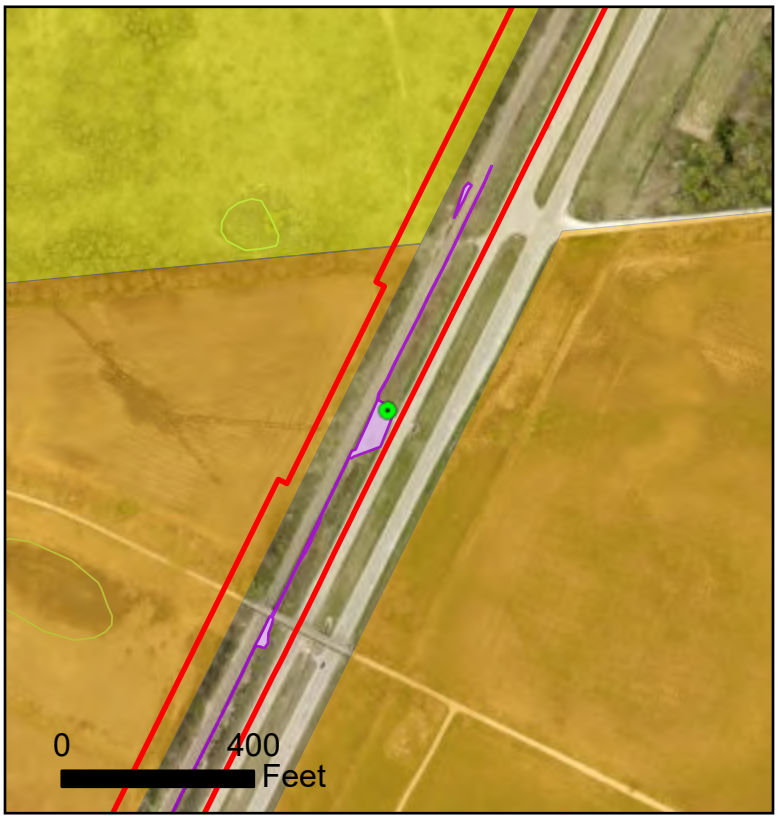


Legend

- Stream
- Wetland
- Survey Area

Feature ID:
W017

Comment:
Soil pit

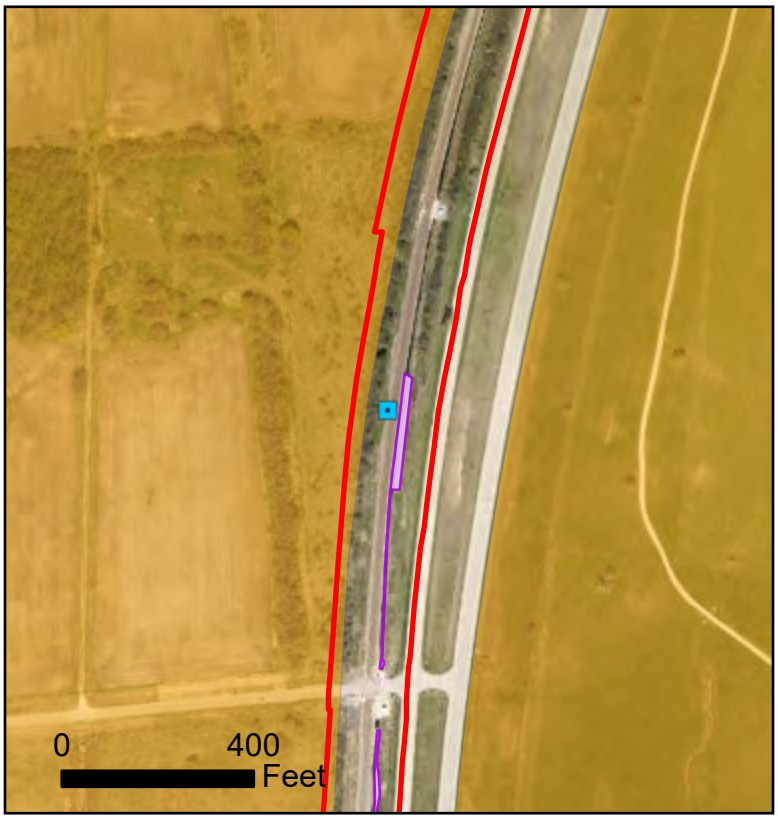


Legend

- Wetland
- Wetland
- Survey Area

Feature ID:
W017

Comment:
Facing east, wide point in phragmites

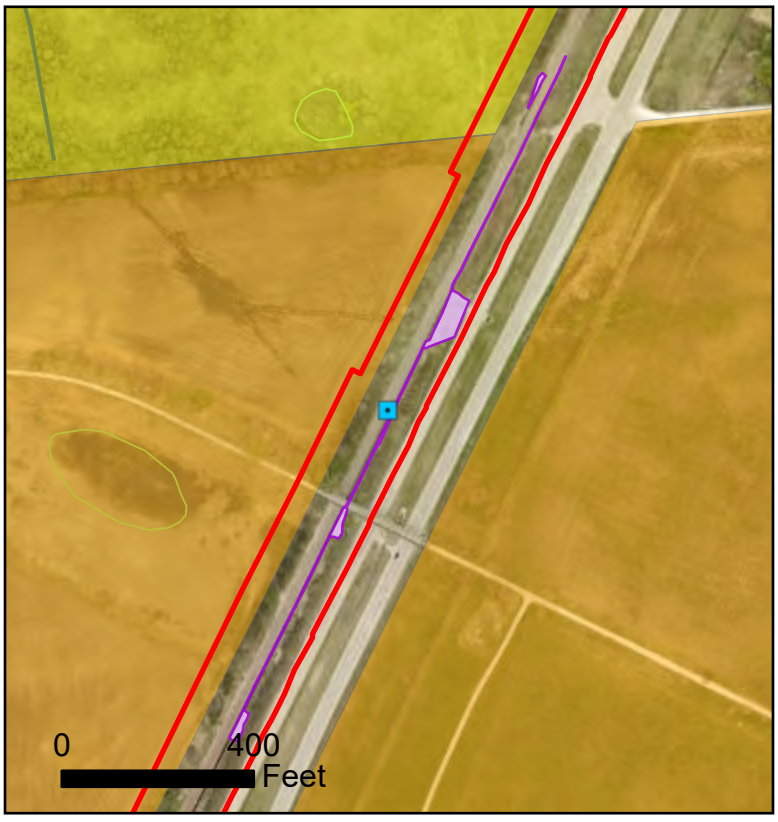


Legend

- Photo
- Wetland
- Survey Area

Feature ID:
W017

Comment:
Duckweed facing south

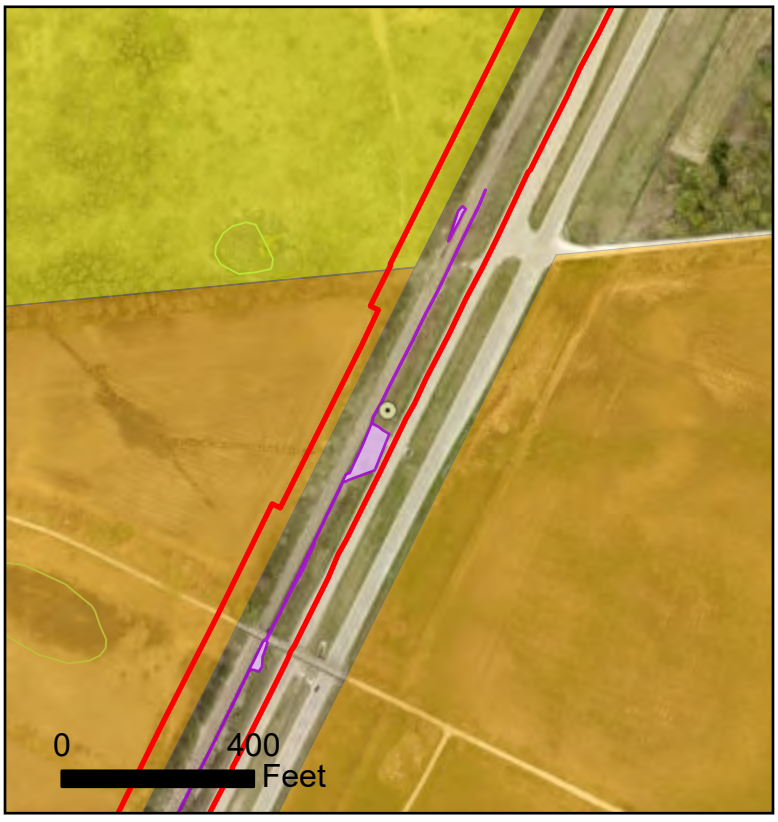


Legend

- Photo
- Wetland
- Survey Area

Feature ID:
UP017

Comment:
Crumbly fill



Legend

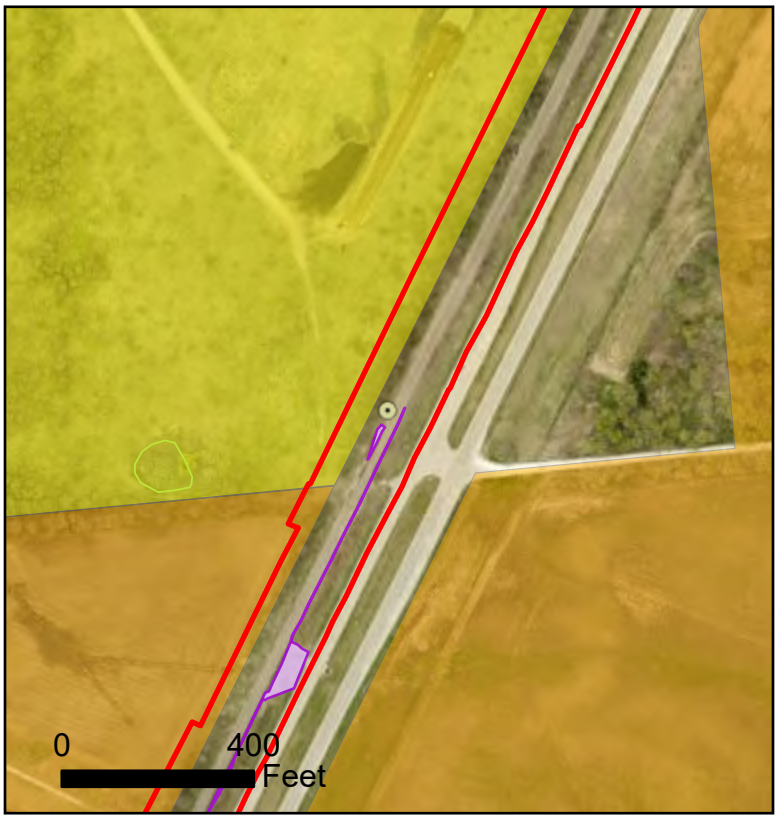
- Upland
- Wetland
- Survey Area

Feature ID:
W018

Comment:
Facing south

Feature ID:
UP018

Comment:
None

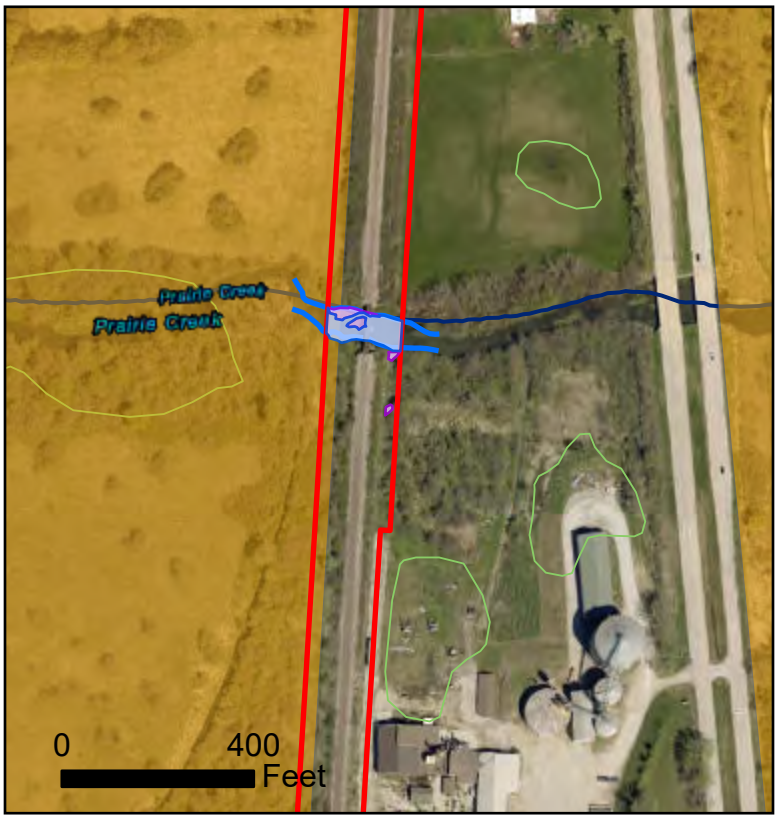


Legend

- Upland
- Wetland
- Survey Area

Feature ID:
W019

Comment:
None

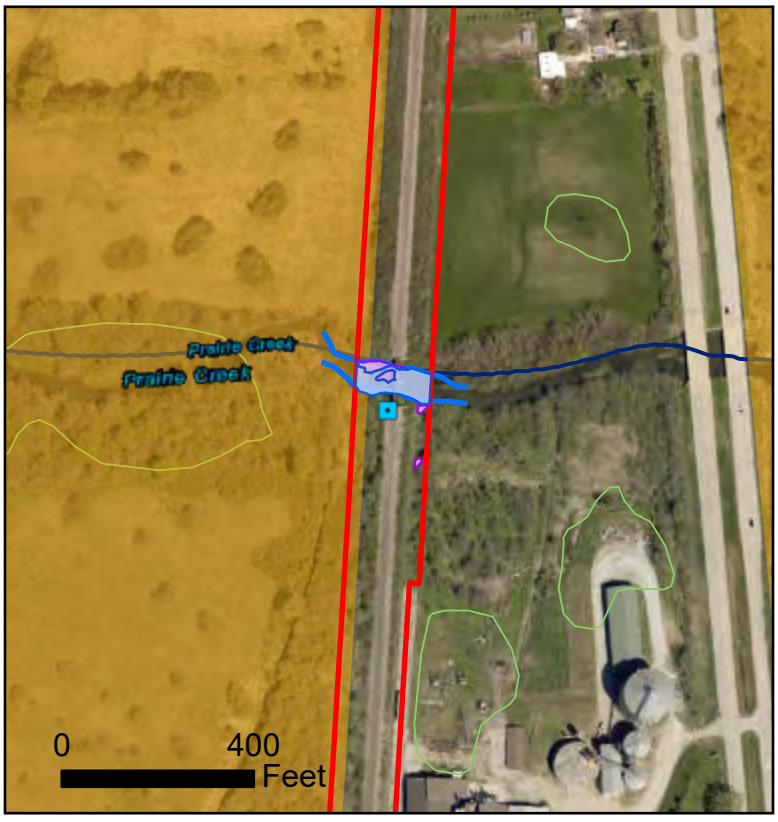


Legend

- Stream
- Wetland
- Survey Area

Feature ID:
W019c within S003 (Prairie Creek)

Comment:
Facing north

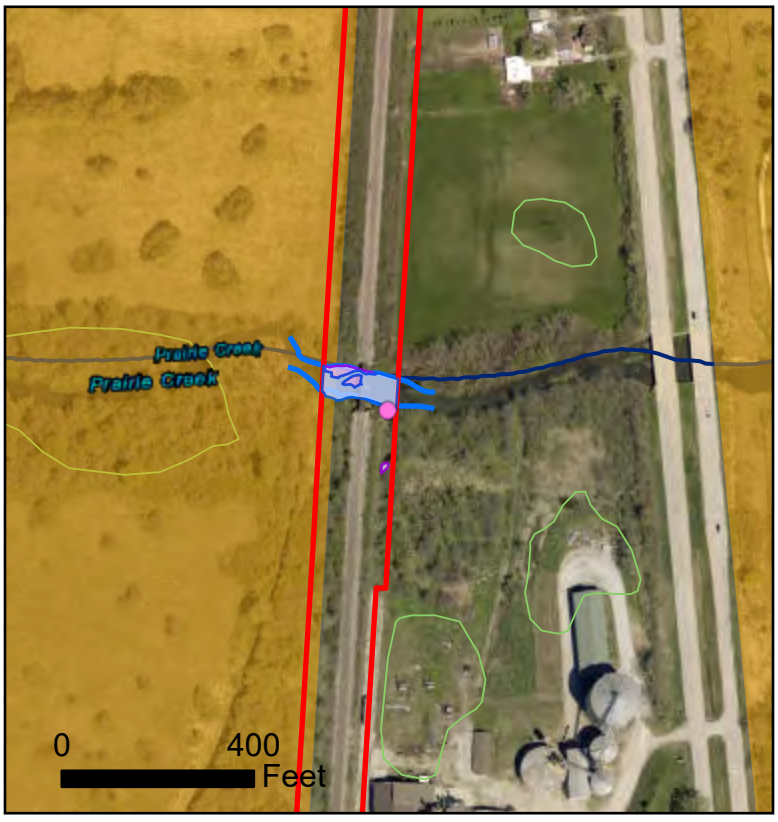


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:
S003 (Prairie Creek)

Comment:
Looking N

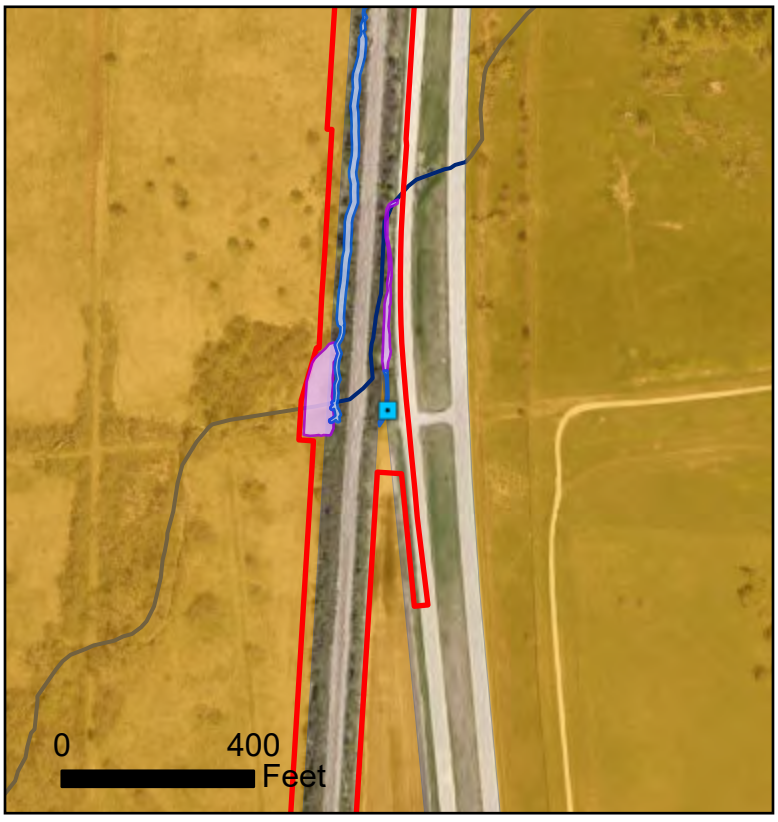


Legend

- Other
- Stream
- Wetland
- Survey Area

Feature ID:
W020a

Comment:
Looking north



Legend

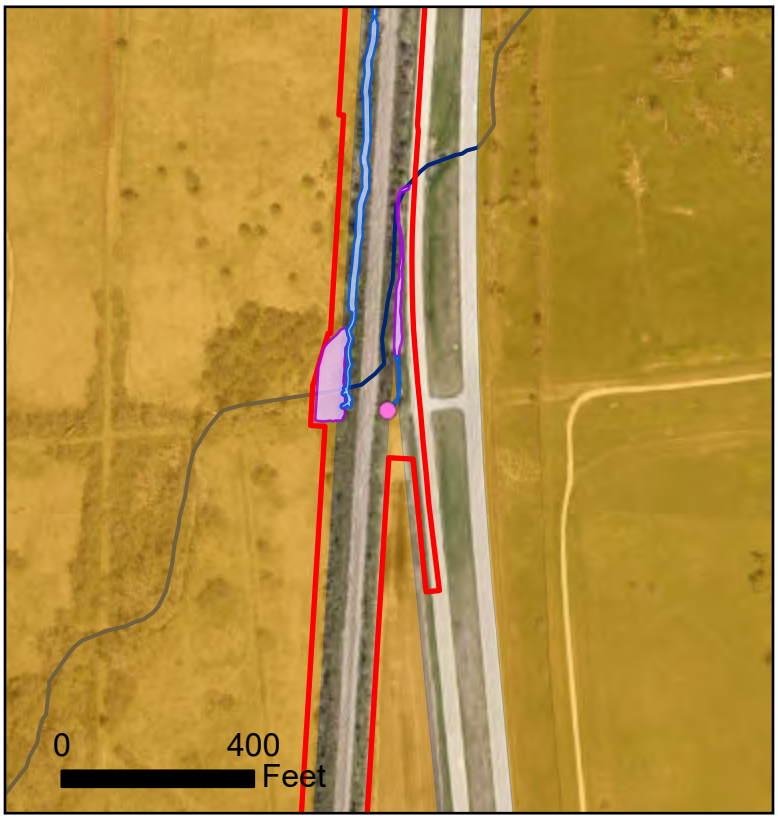
- Photo
- Stream
- Wetland
- Survey Area

Feature ID:

S004 flowing into W020a

Comment:

Looking northeast

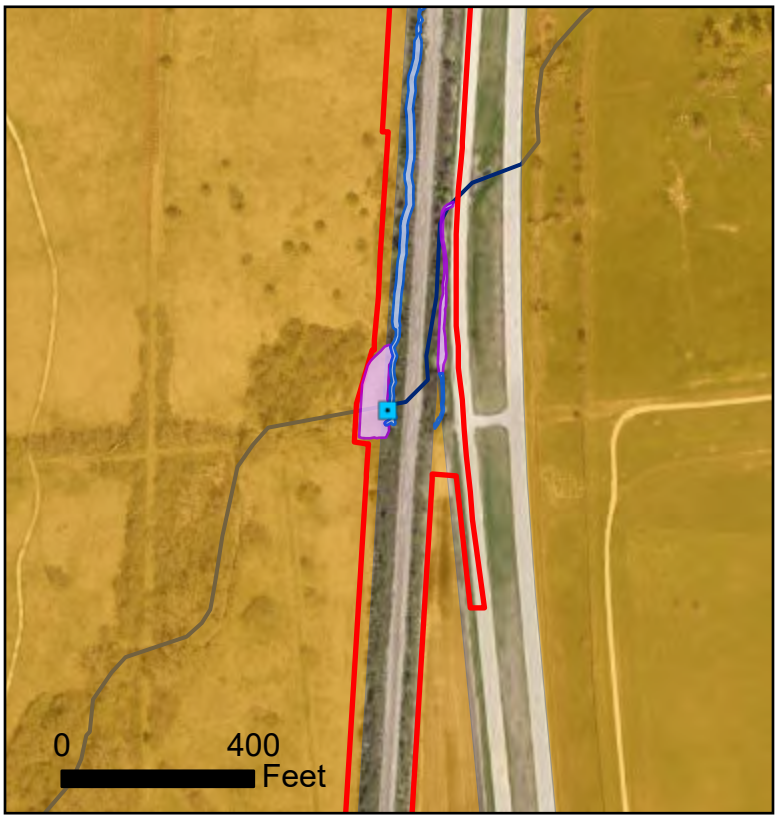


Legend

- Other
- Stream
- Wetland
- Survey Area

Feature ID:
Facing W020b: Barbed wire prevented access

Comment:
Looking W

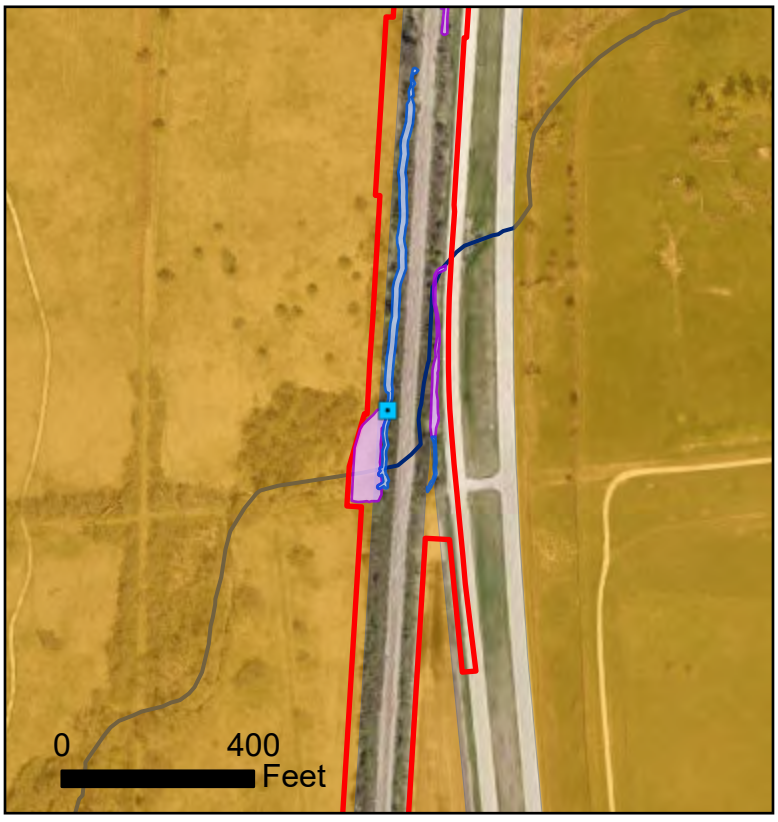


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:
S004

Comment:
Looking N

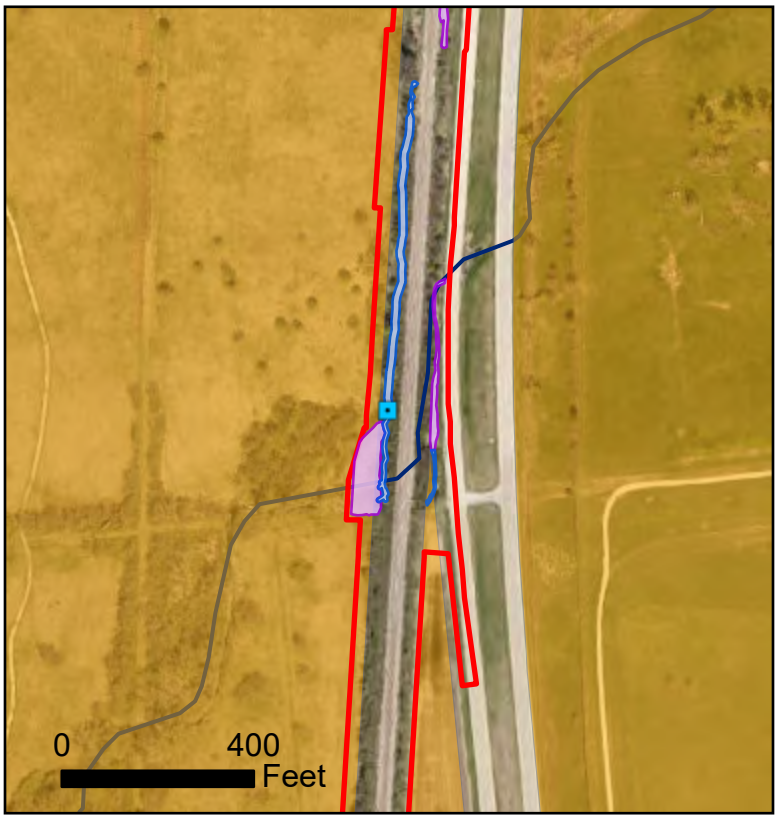


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:
S004

Comment:
Photo facing north

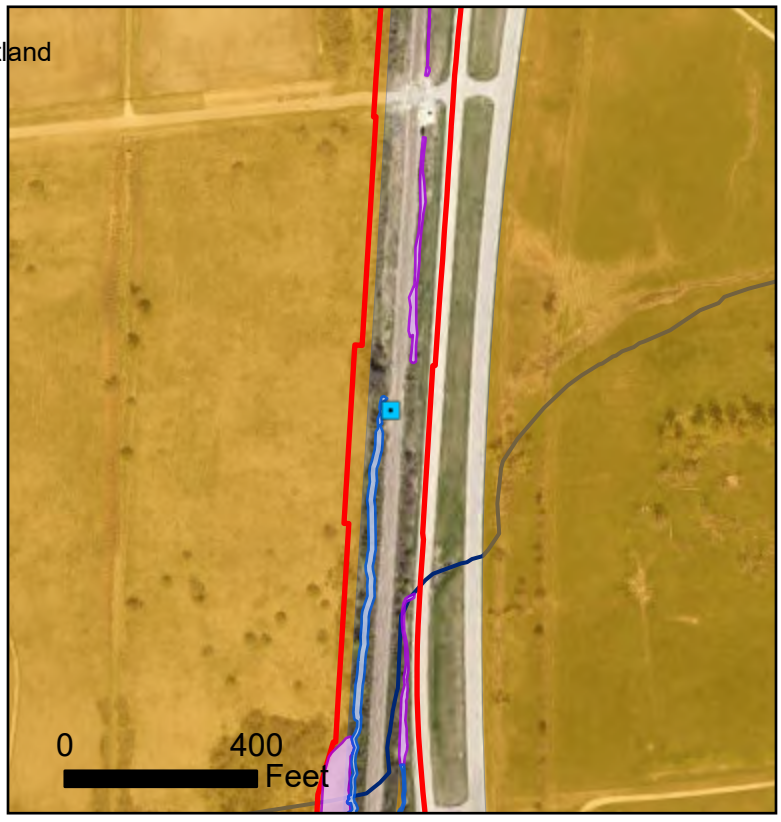


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:
S004: Culvert feeding S004 and connects to W021 › wetland

Comment:
Looking NW

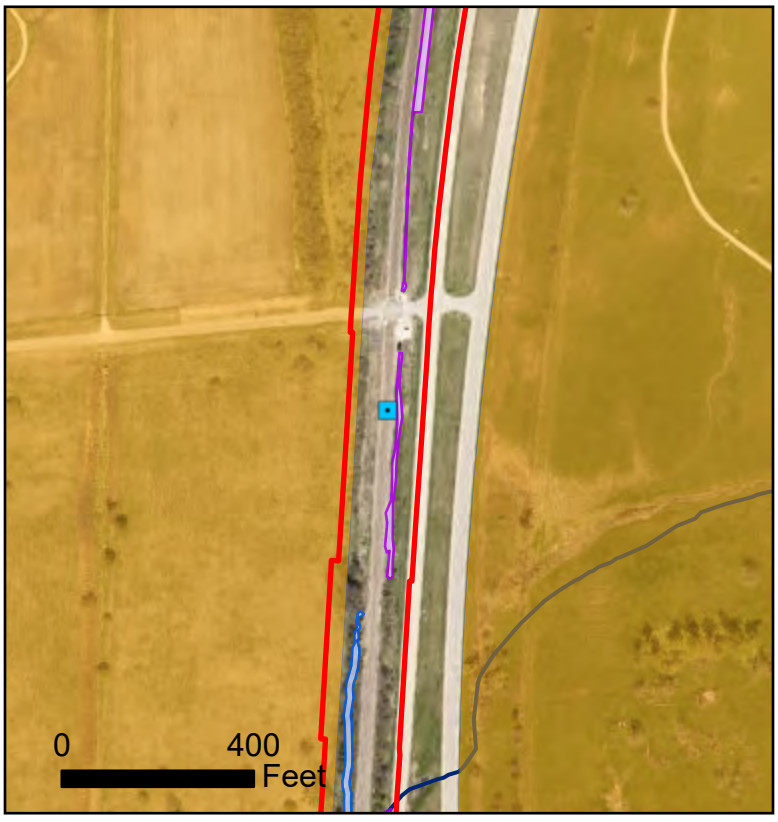


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:
W021

Comment:
Looking N

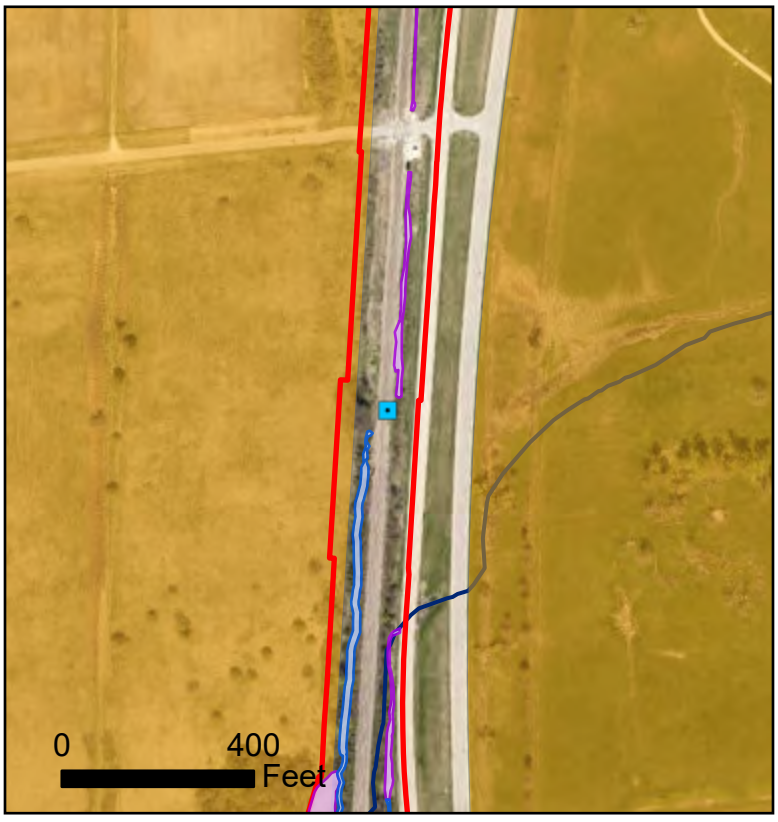


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:
W021

Comment:
Photo facing north

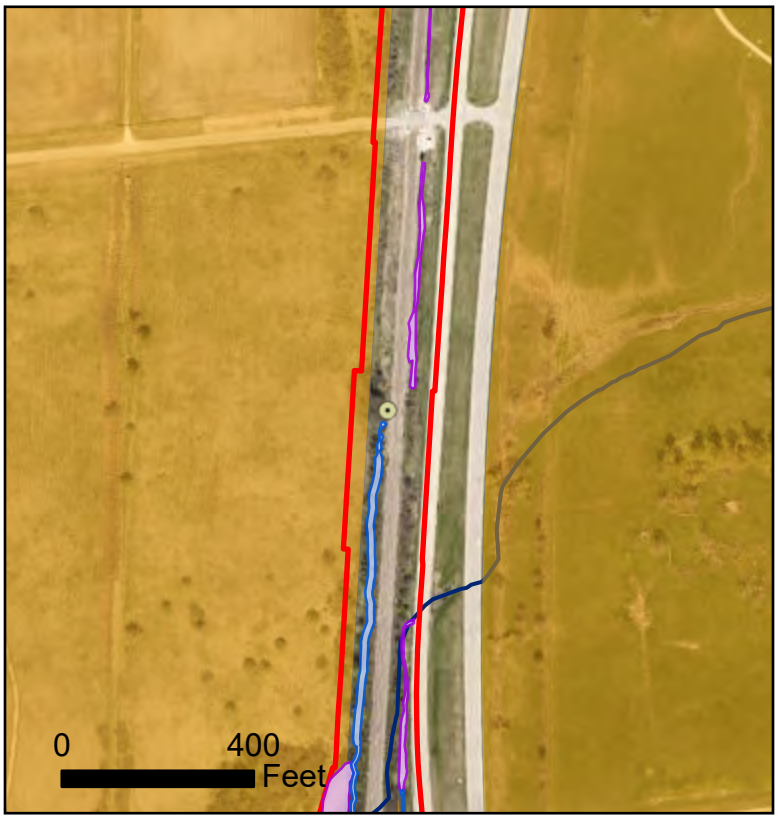


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:
UP021

Comment:
Photo facing northwest



Legend

- Upland
- Stream
- Wetland
- Survey Area

Feature ID:
W022

Comment:
Datapoint, photo facing north

Legend

- Stream
- Wetland
- Survey Area

Feature ID:
W022

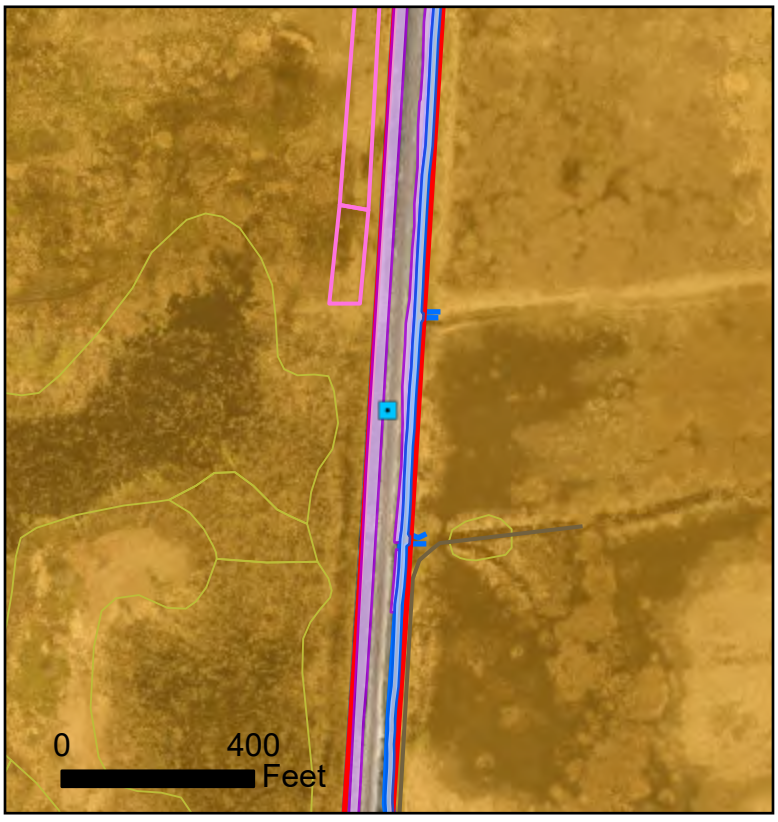
Comment:
Willows

Legend

- Stream
- Wetland
- Survey Area

Feature ID:
W022

Comment:
Willow and large cottonwood

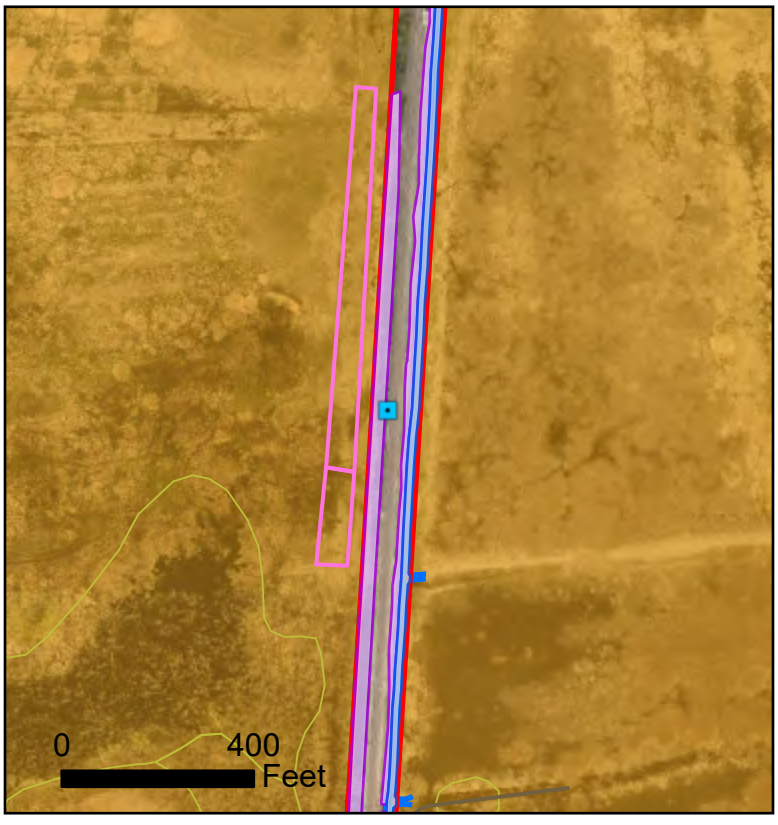


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:
W022, facing north

Comment:
None

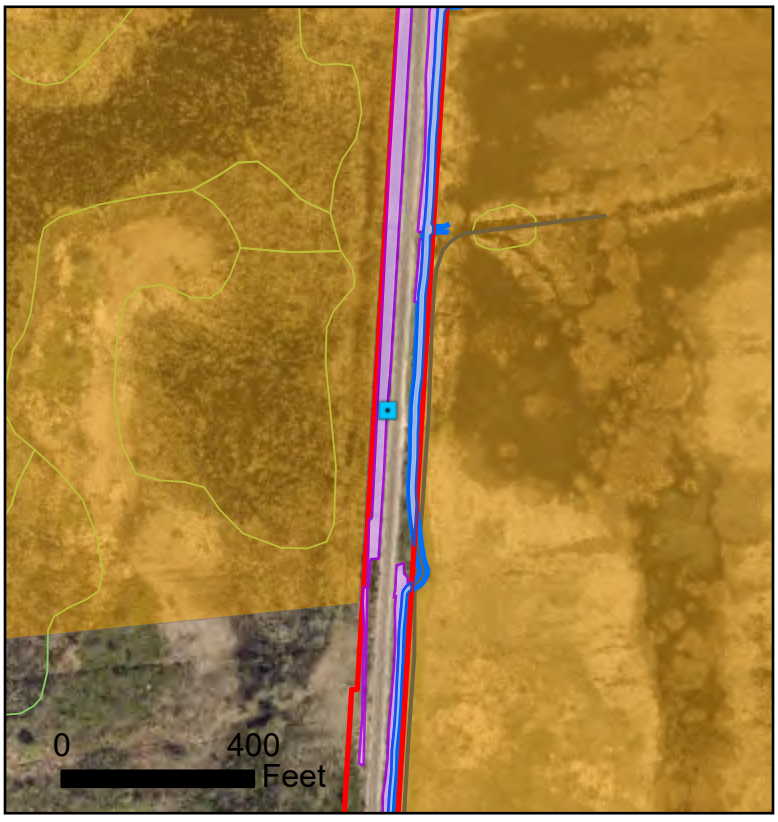


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:
W022

Comment:
Wetland transitions to standing water

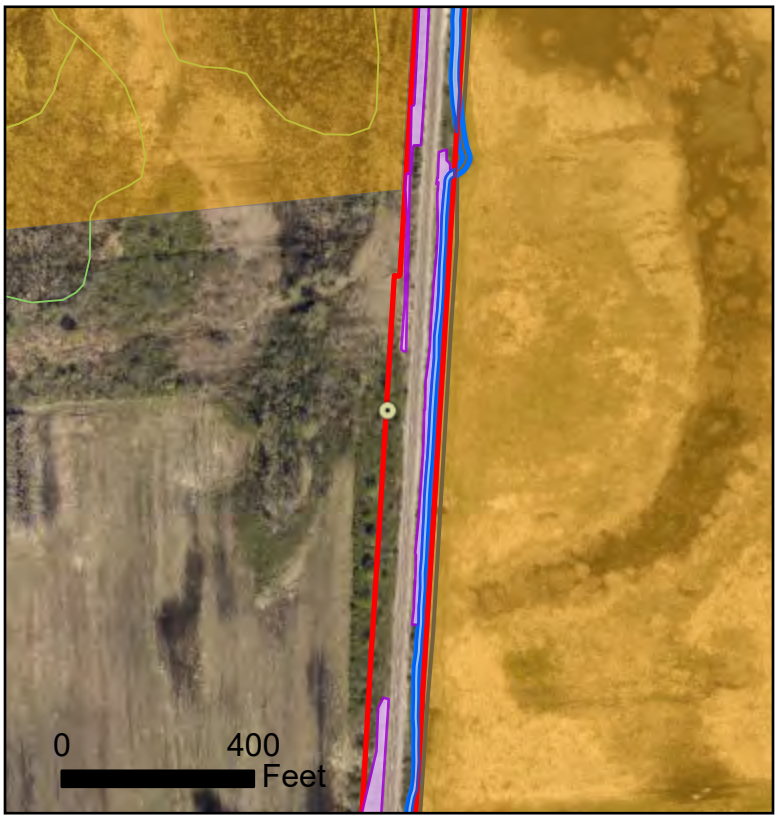


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:
UP022

Comment:
Buckthorn and honeysuckle. Photo facing north



Legend

- Upland
- Stream
- Wetland
- Survey Area

Feature ID:
W023

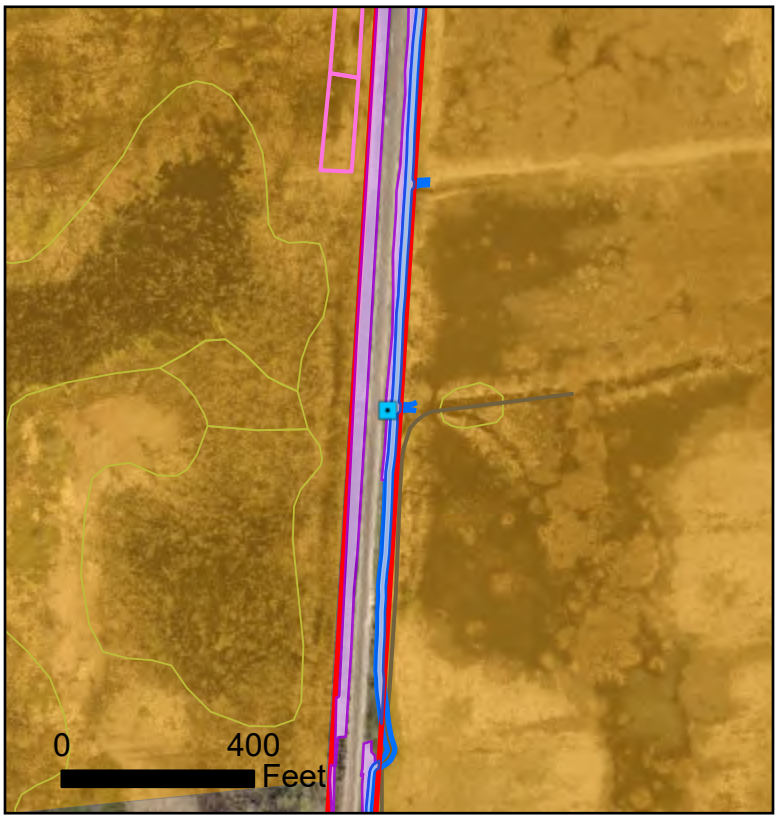
Comment:
Adjacent to NHD

Legend

- Wetland
- Stream
- Wetland
- Survey Area

Feature ID:
W023

Comment:
Wetland corridor along S005, photo facing north

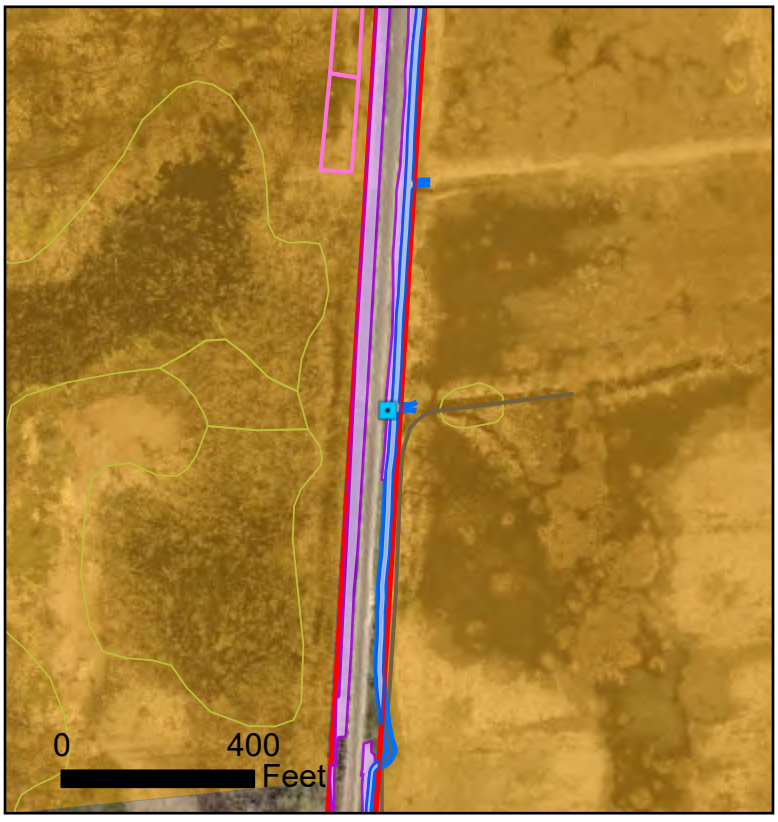


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:
W023 S005

Comment:
Wetland corridor, cottonwood tree on left

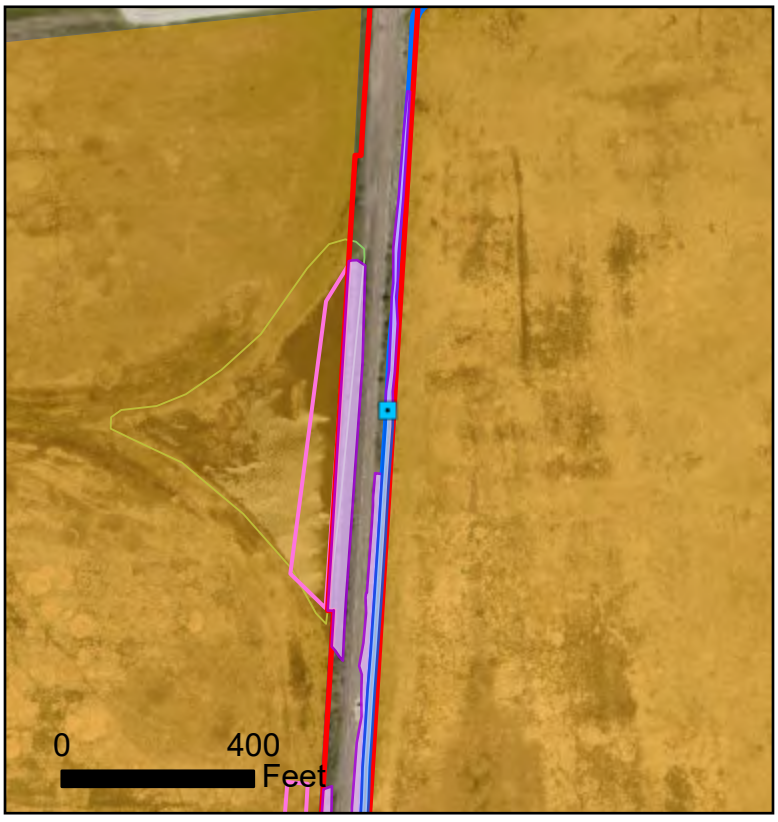


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:
S005

Comment:
Standing water ends. Facing south

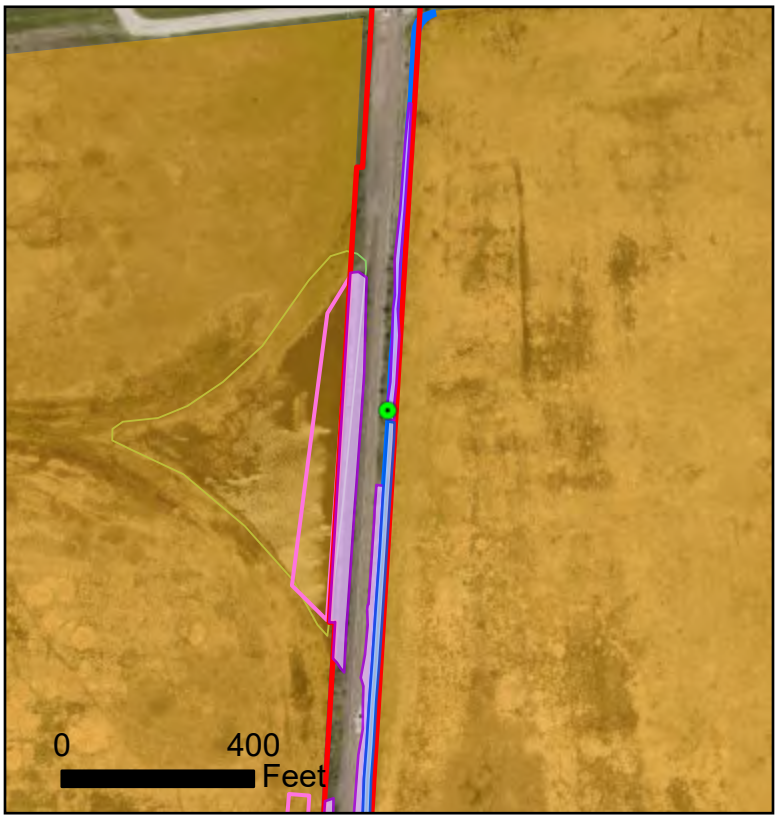


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID: W023

Comment: facing north

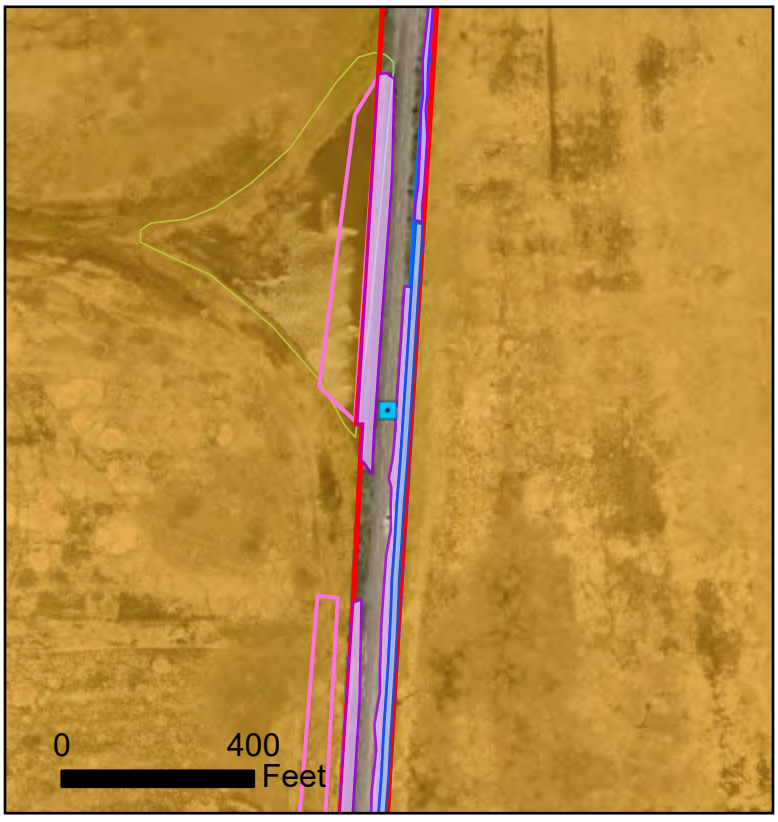


Legend

- Wetland
- Stream
- Wetland
- Survey Area

Feature ID:
UP024

Comment:
Looking NE

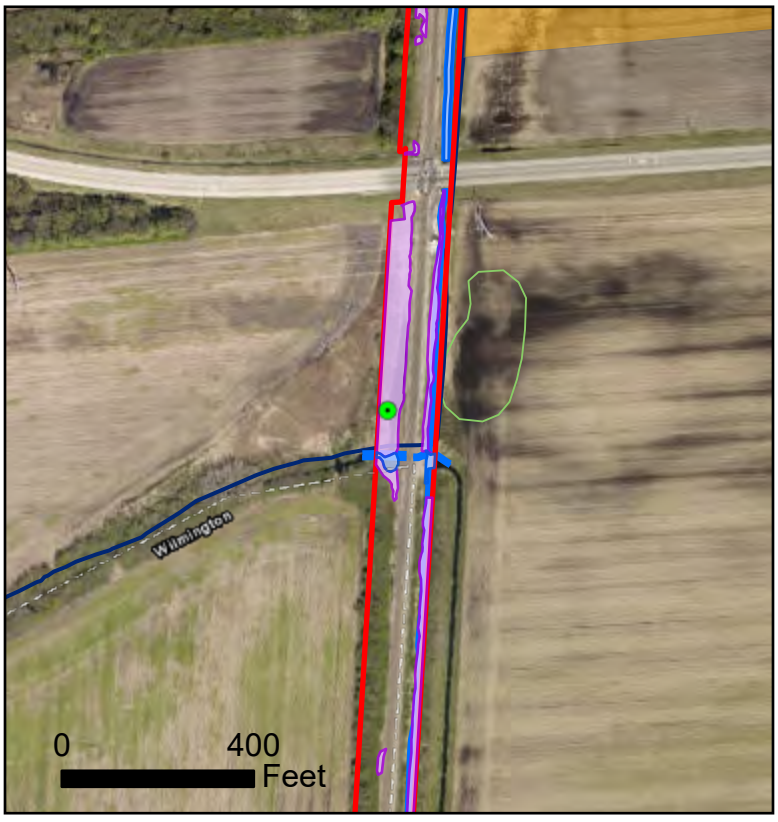


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:
W025

Comment:
None

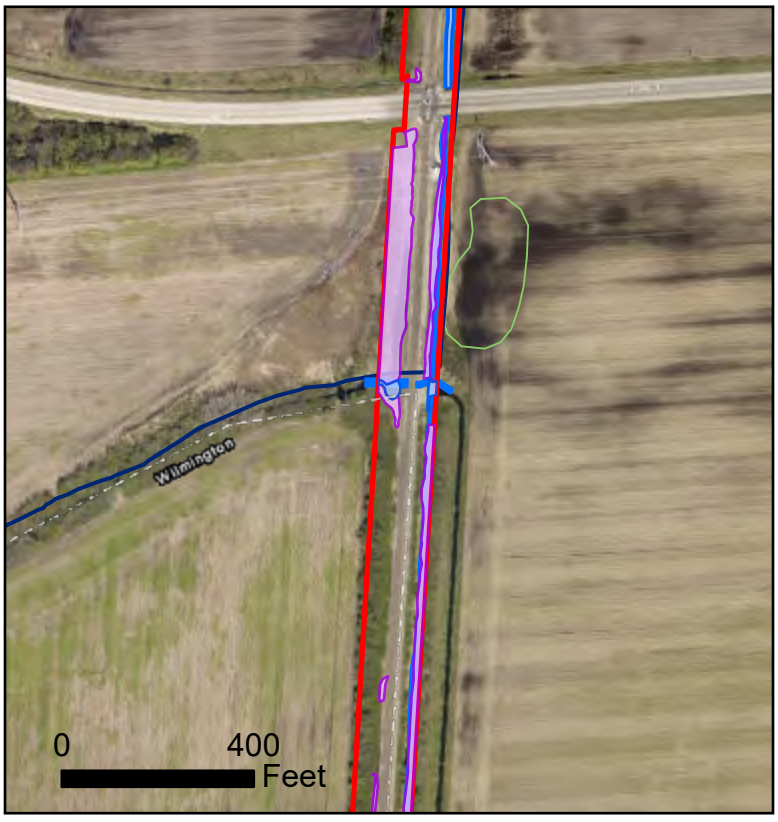


Legend

- Wetland
- Stream
- Wetland
- Survey Area

Feature ID:
W025

Comment:
Looking north

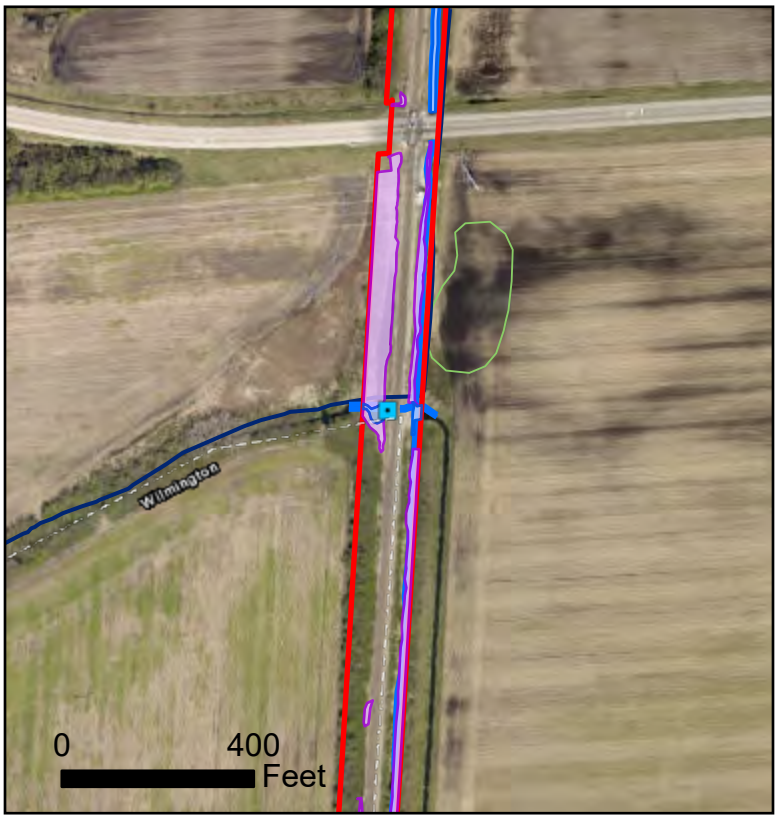


Legend

- Stream
- Wetland
- Survey Area

Feature ID:
S006

Comment:
Culvert



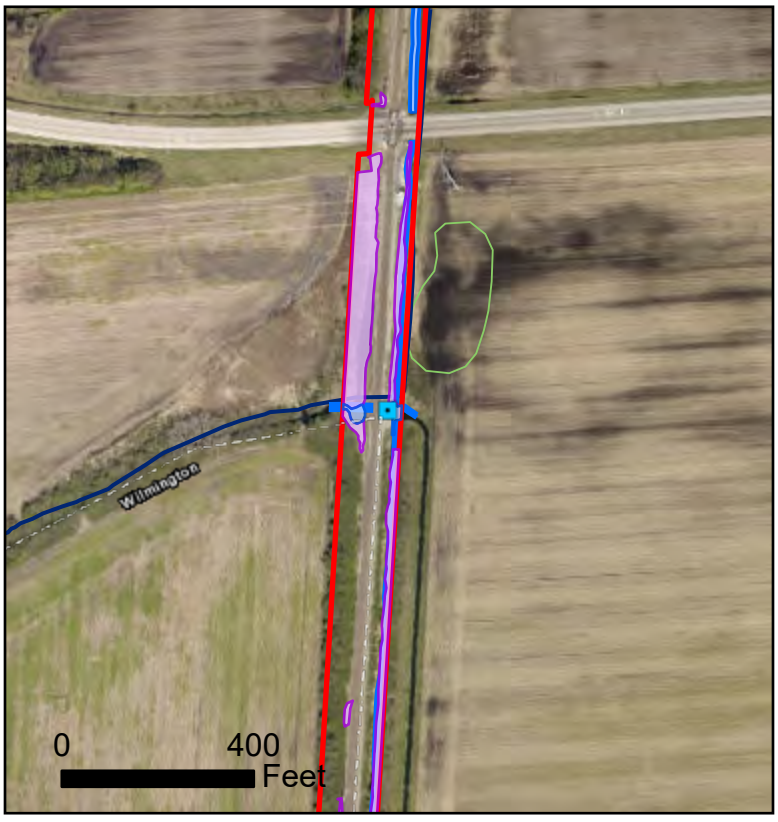
Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:

S006 looking east

Comment:

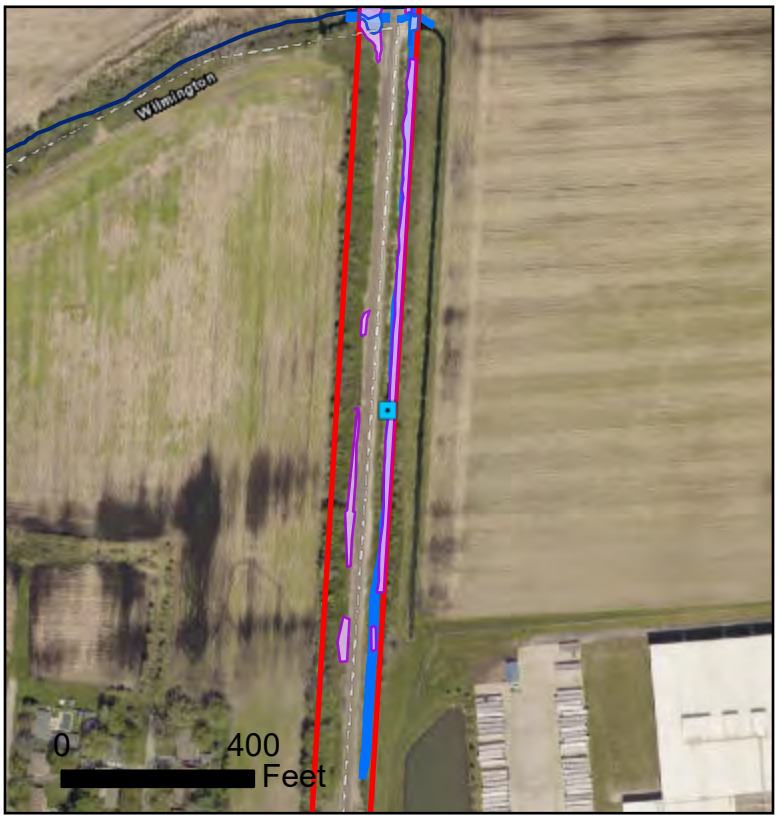


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:
W026

Comment:
Cattails end. Some dark green bulrush. Facing north

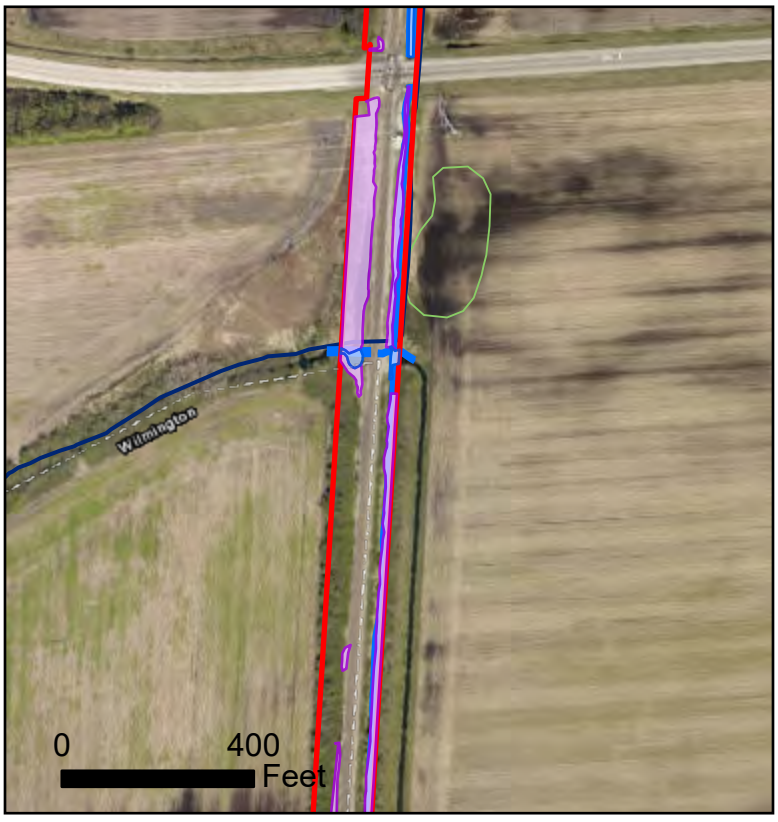


Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID:
W026

Comment:
Filled in ditch , reed canary, willow, smartweed,dark green bulrush

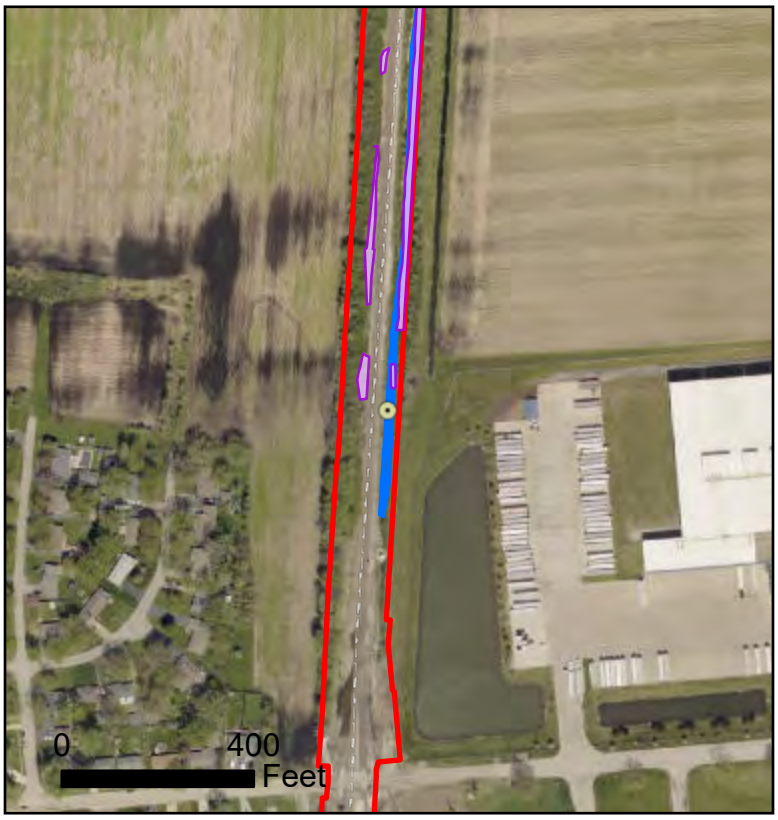


Legend

- Stream
- Wetland
- Survey Area

Feature ID:
UP026

Comment:
Culvert fills in, upland veg



Legend

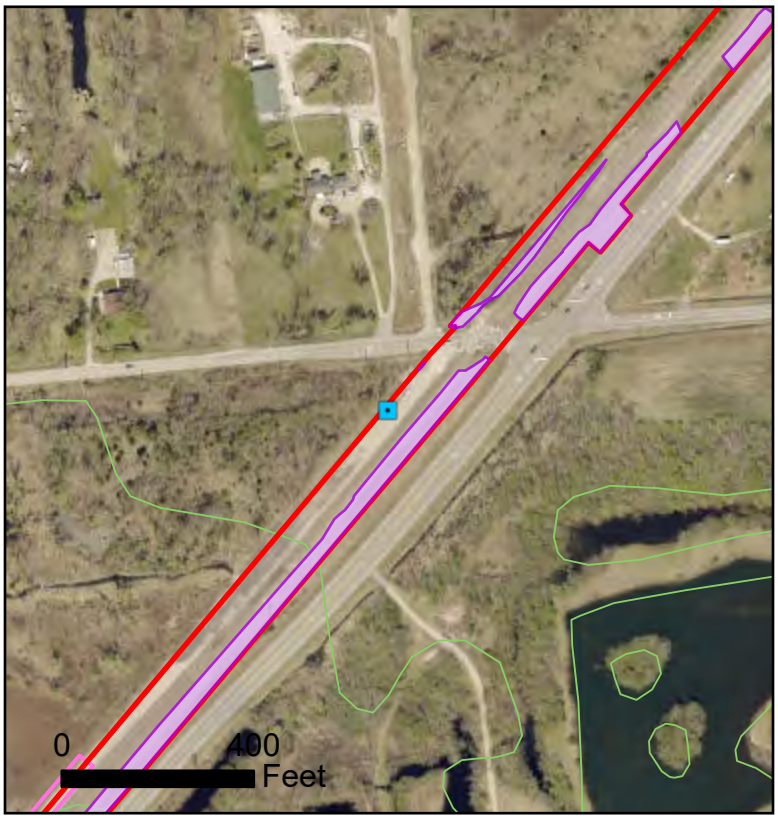
- Upland
- Wetland
- Survey Area

Feature ID:
W027

Comment:
Facing south

Feature ID: W028

Comment:
Looking NW

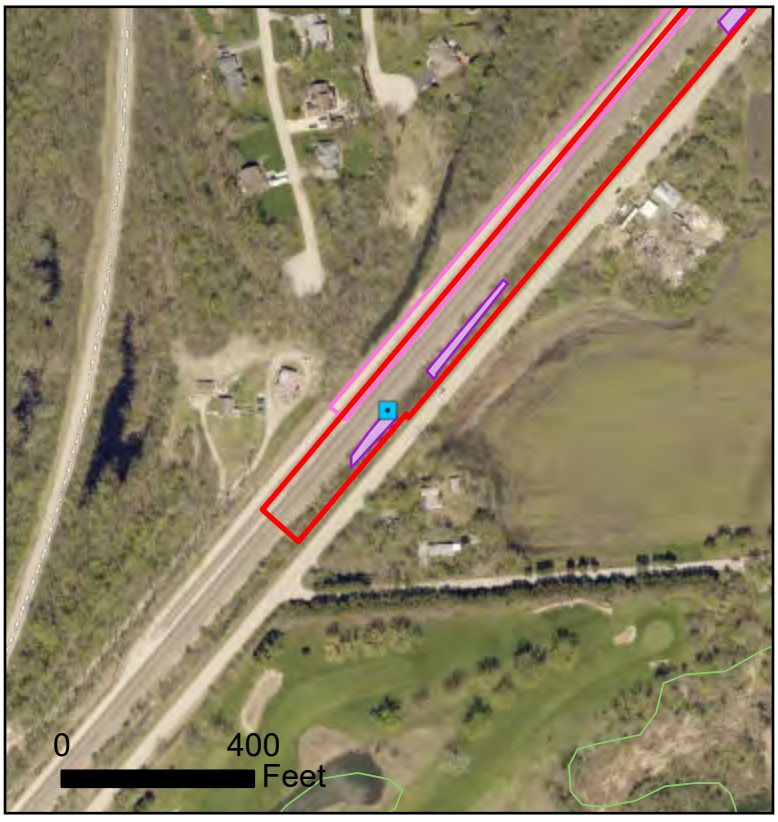


Legend

- Photo
- Wetland
- Survey Area

Feature ID: W029

Comment:
Looking SE

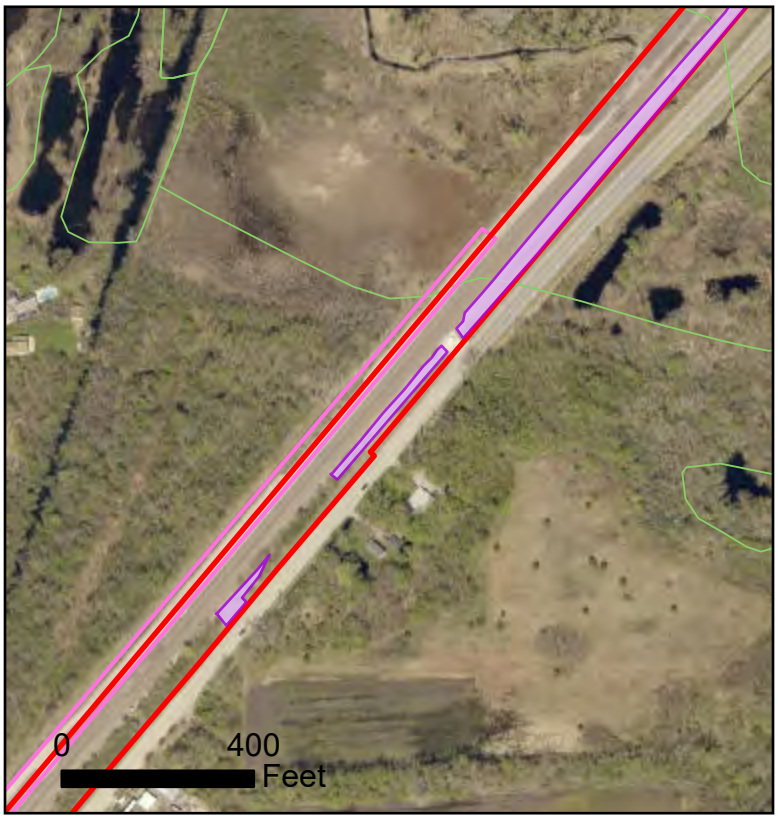


Legend

- Photo
- Wetland
- Survey Area

Feature ID:
W030

Comment:
Photo facing north.



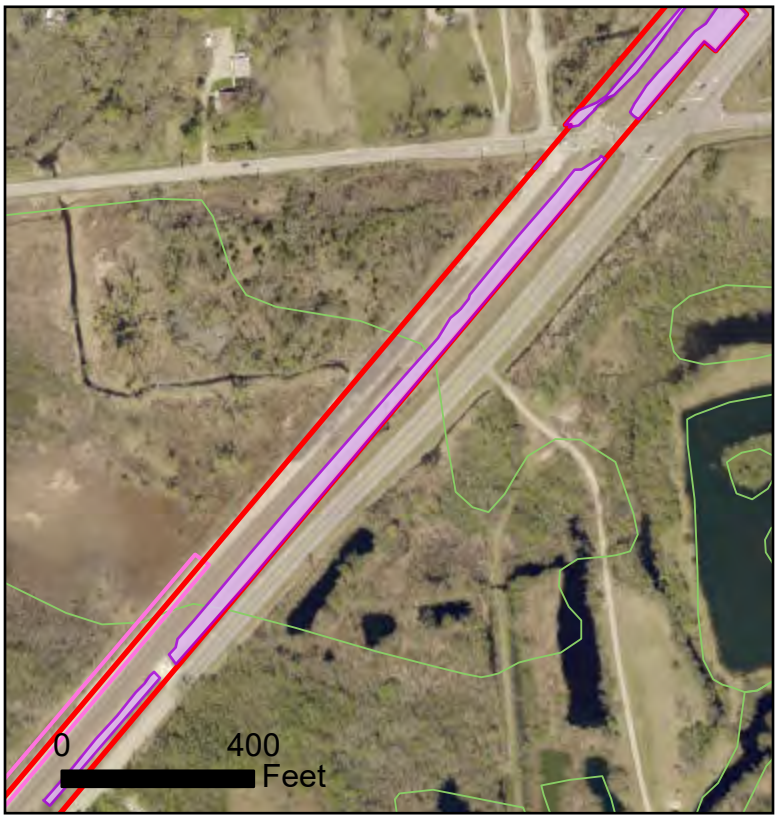
Legend

Wetland

Survey Area

Feature ID: W030

Comment:
Facing north

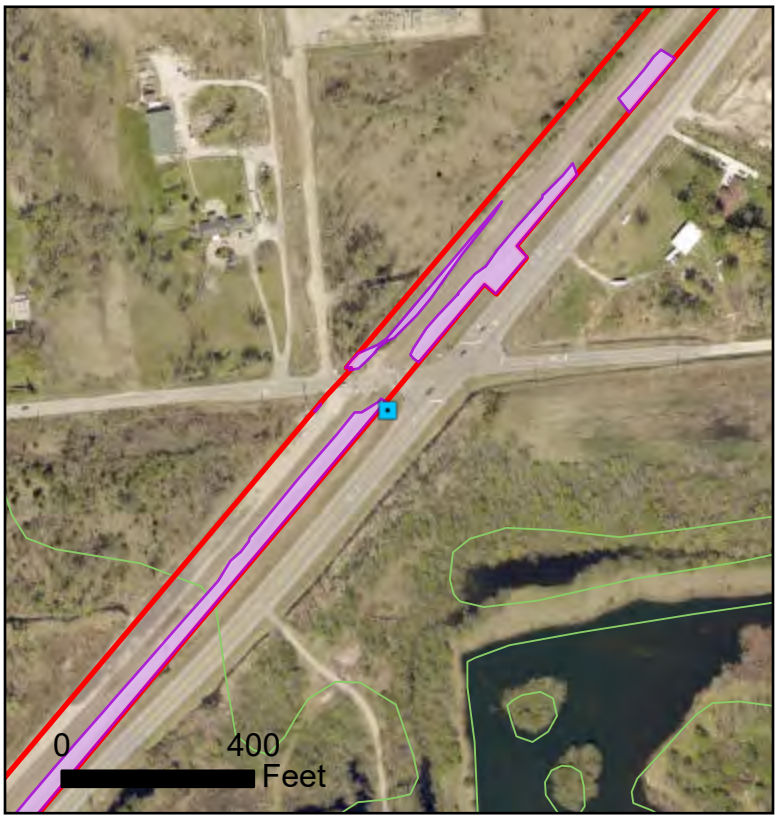


Legend

- Wetland
- Survey Area

Feature ID: W030
Sign

Comment:
Facing SW

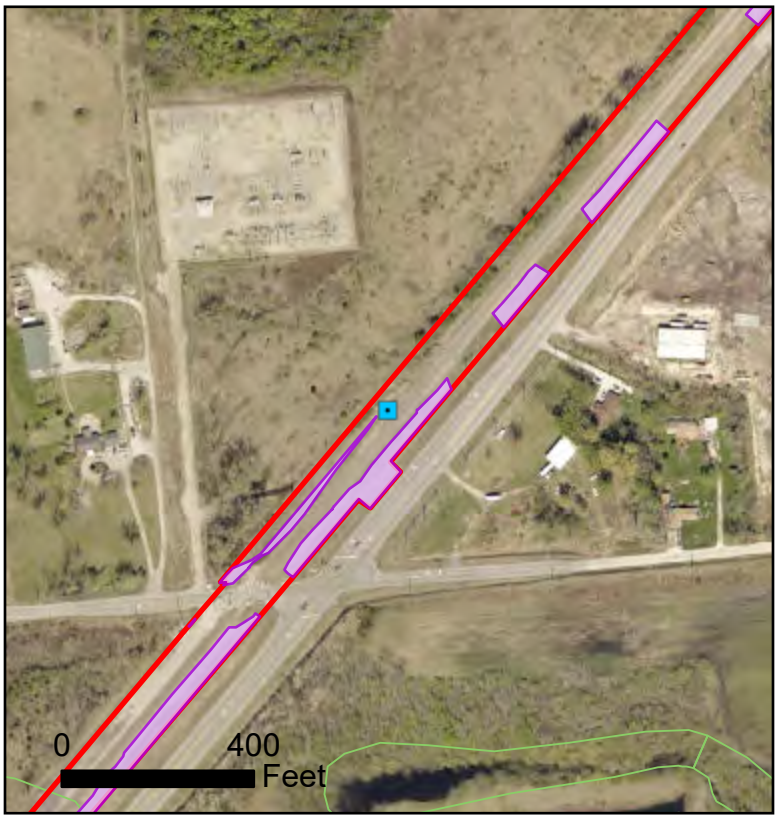


Legend

- Photo
- Wetland
- Survey Area

Feature ID: W031

Comment:
Looking sw

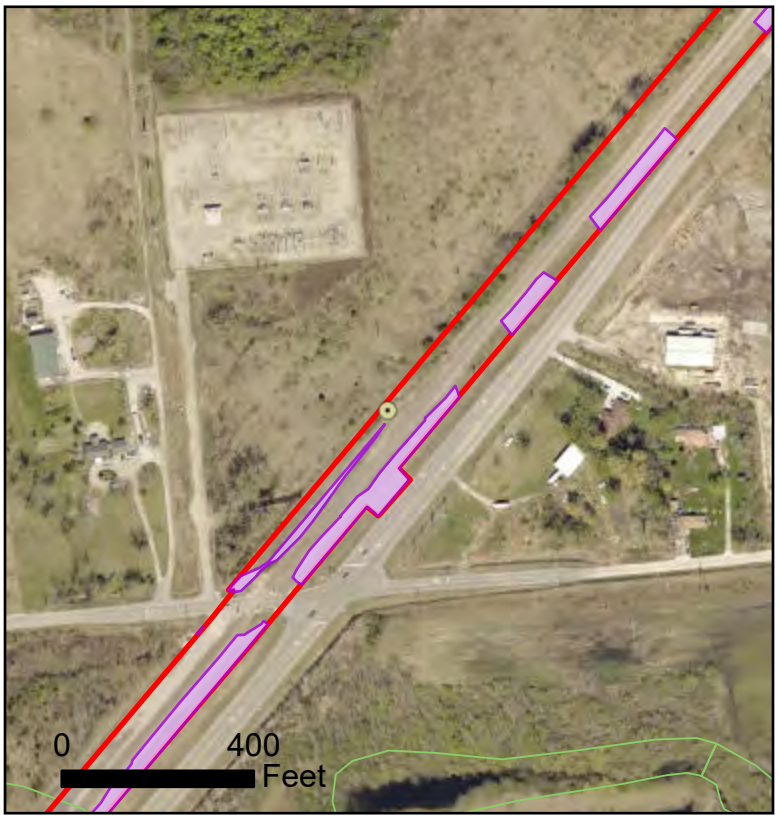


Legend

- Photo
- Wetland
- Survey Area

Feature ID: UP031

Comment:
Facing NW

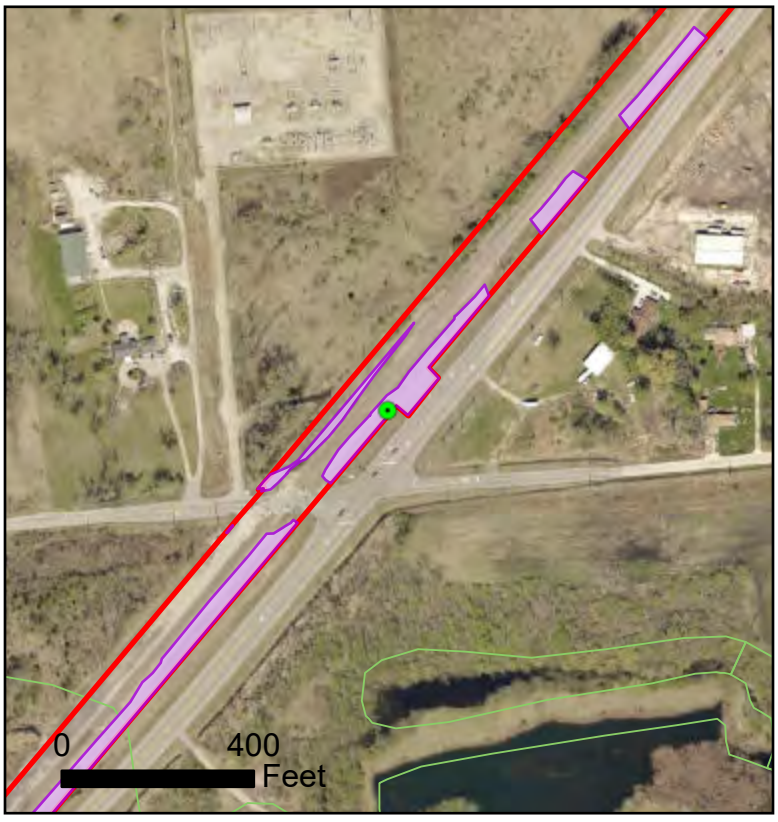


Legend

- Upland
- Wetland
- Survey Area

Feature ID: **W 0 3 2**

Comment:
Facing north

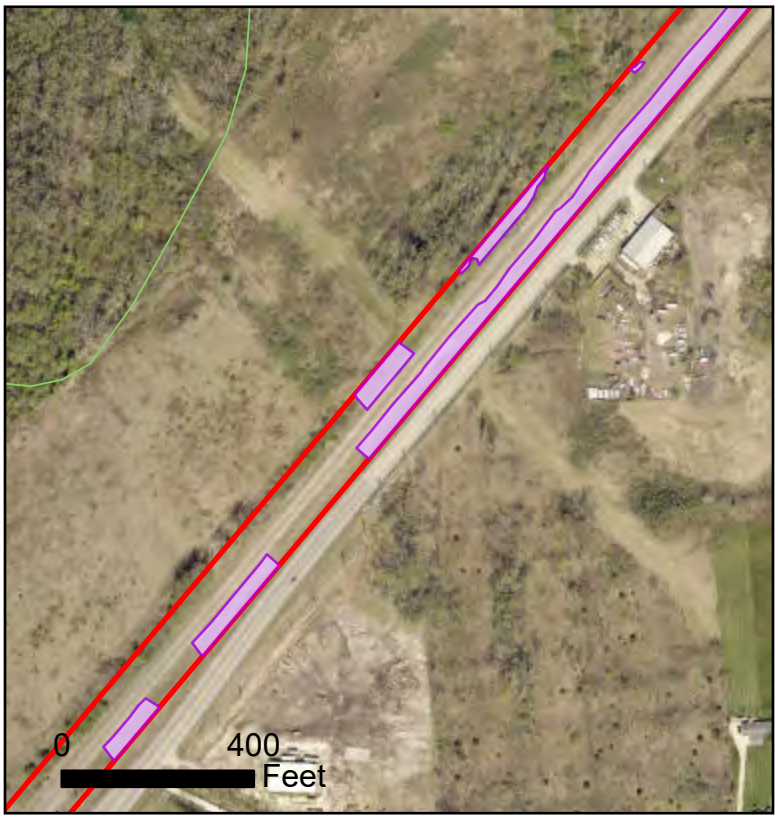


Legend

- Wetland
- Wetland
- Survey Area

Feature ID: W 0 3 2 b

Comment:
Extends to survey boundary; phrag, ragweed, beggartick, looking NE

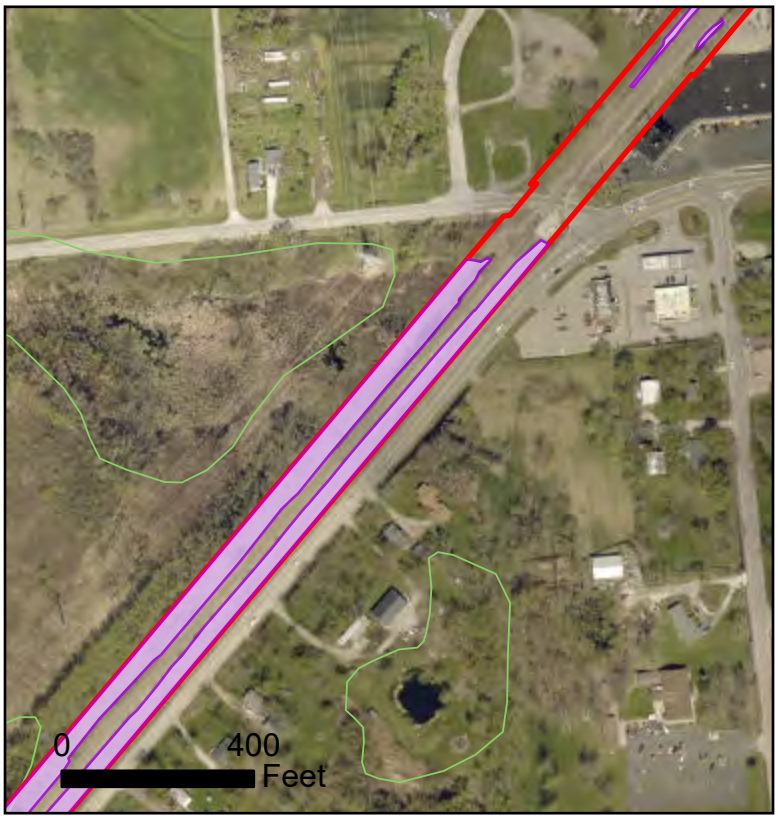


Legend

- Wetland
- Survey Area

Feature ID: W 0 3 2

Comment:
Phrag, cattails, snakeroot sunflower, elderberry, willow ;looking NE

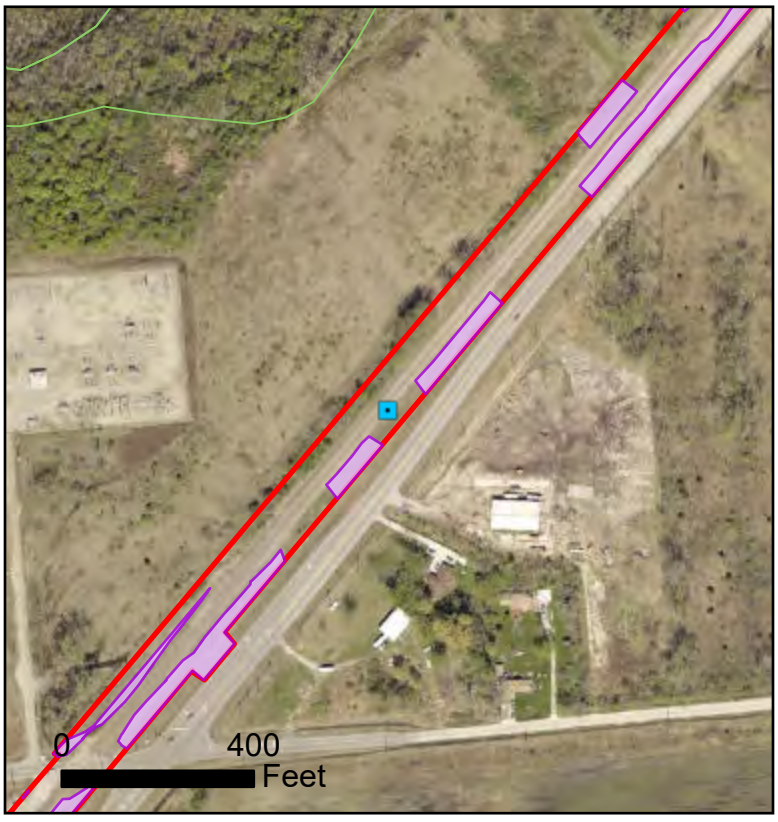


Legend

- Wetland
- Survey Area

Feature ID: U P 0 3 2
Adjacent upland area

Comment:
Looking SE

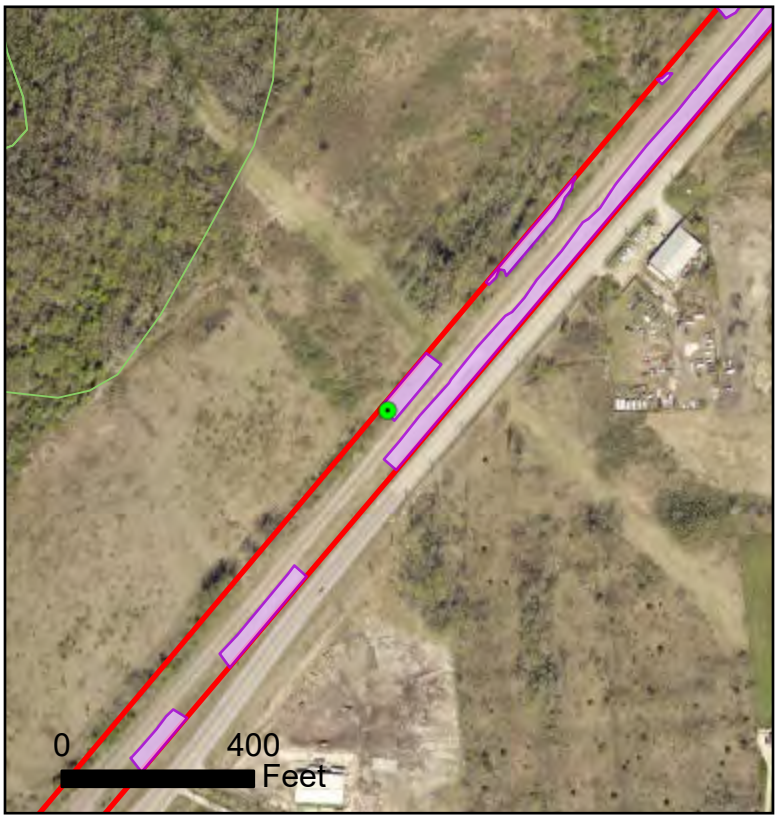


Legend

- Photo
- Wetland
- Survey Area

Feature ID:
W033 Datapoint

Comment:
Photo

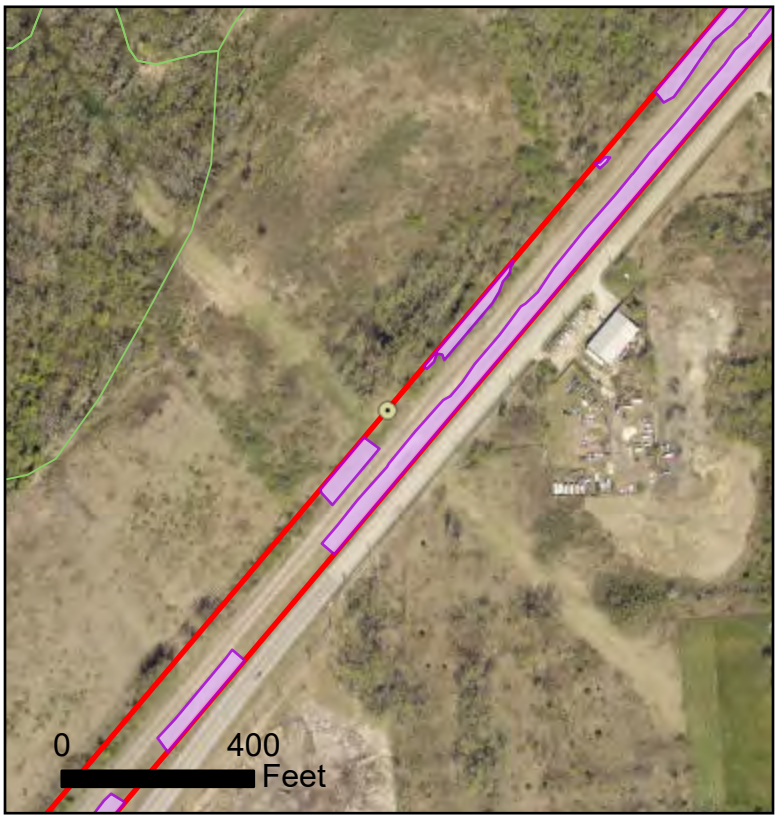


Legend

- Wetland
- Wetland
- Survey Area

Feature ID:
U P 0 3 3

Comment:
Facing north

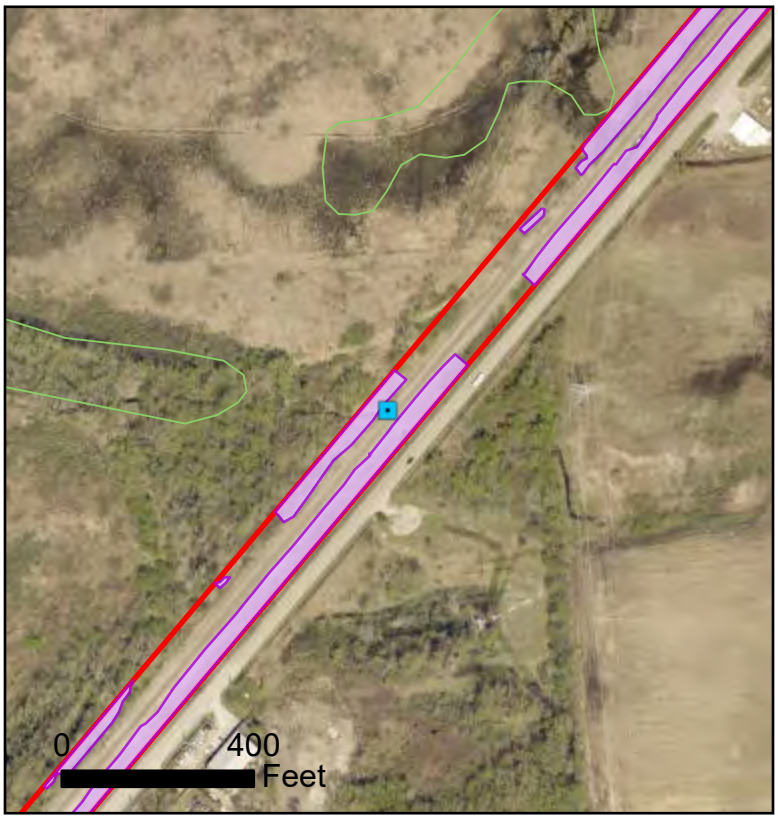


Legend

- Upland
- Wetland
- Survey Area

Feature ID: **W 0 3 4**

Comment:
Facing SW

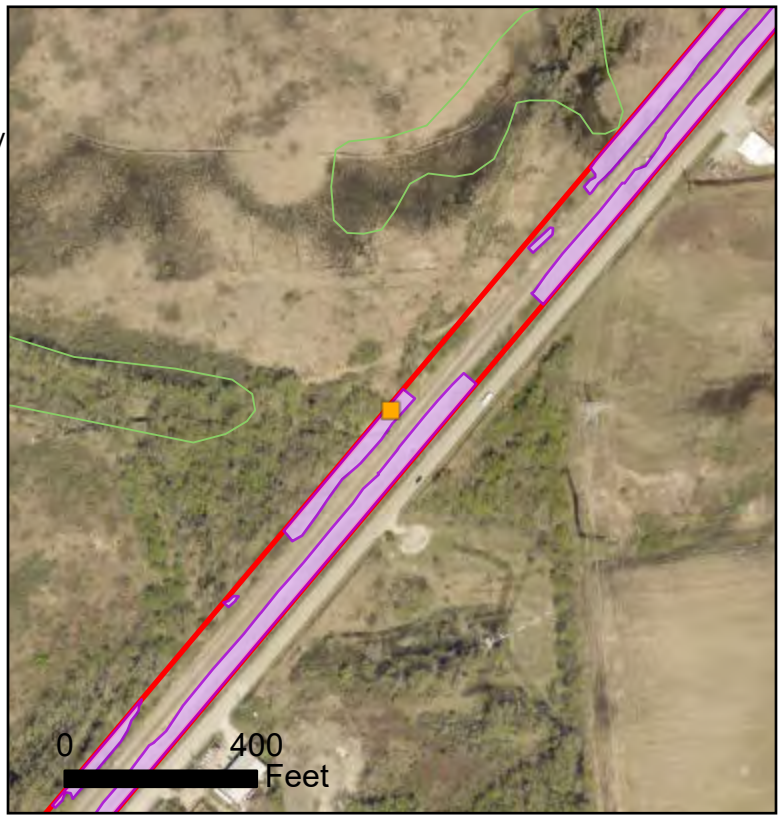


Legend

- Photo
- Wetland
- Survey Area

Feature ID:
Sign **W034**

Comment:
Photo facing west. Some Bull rushes to survey boundary

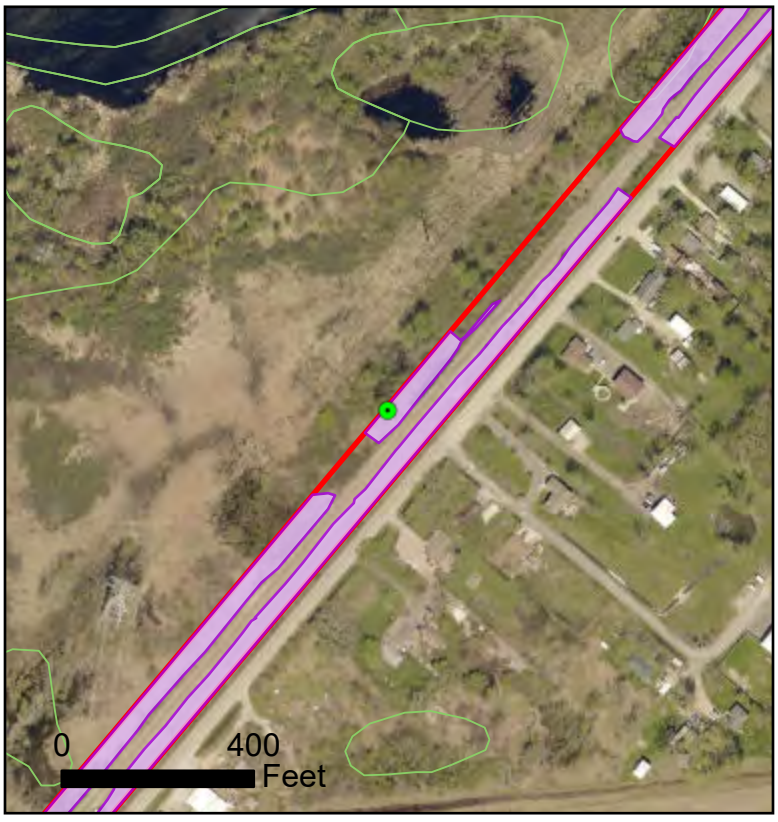


Legend

- Habitat
- Wetland
- Survey Area

Feature ID: W034

Comment:
Facing north, wetland till survey boundary

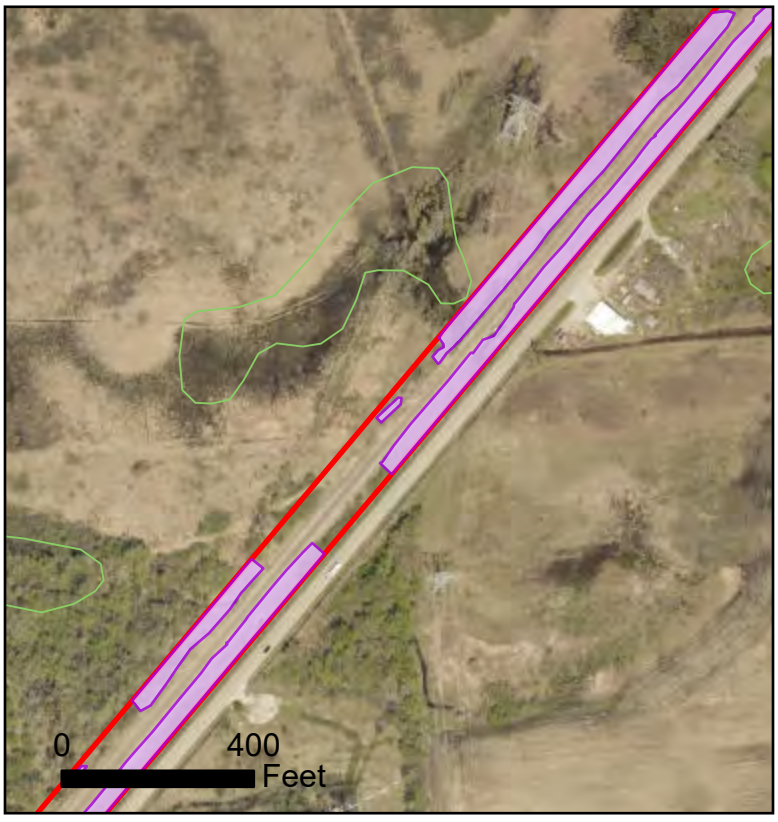


Legend

- Wetland
- Wetland
- Survey Area

Feature ID: W 0 3 4

Comment:
Photo facing south

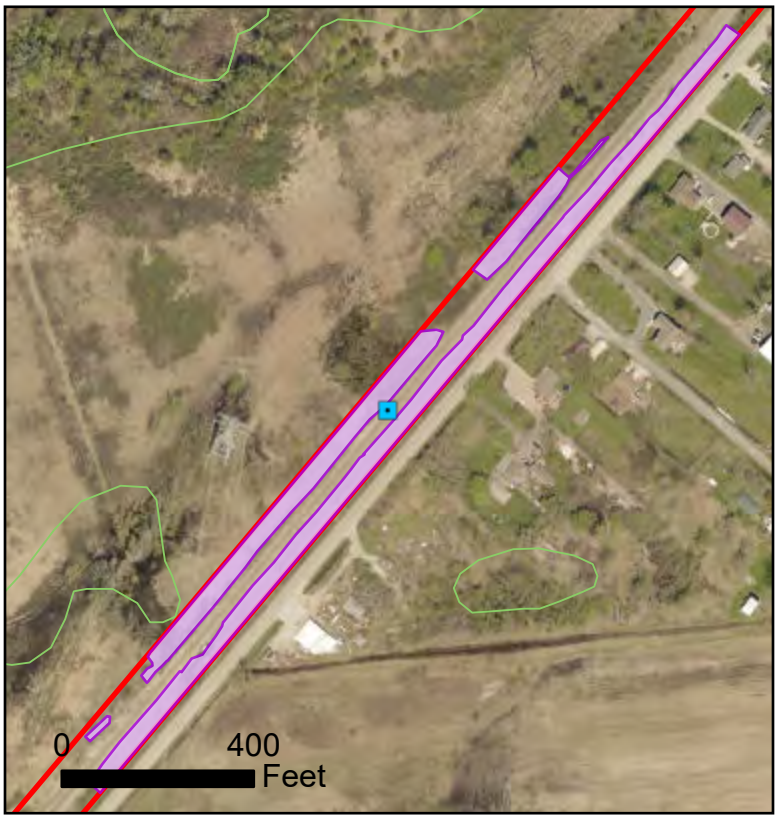


Legend

- Wetland
- Survey Area

Feature ID: W 0 3 4

Comment:
Facing north

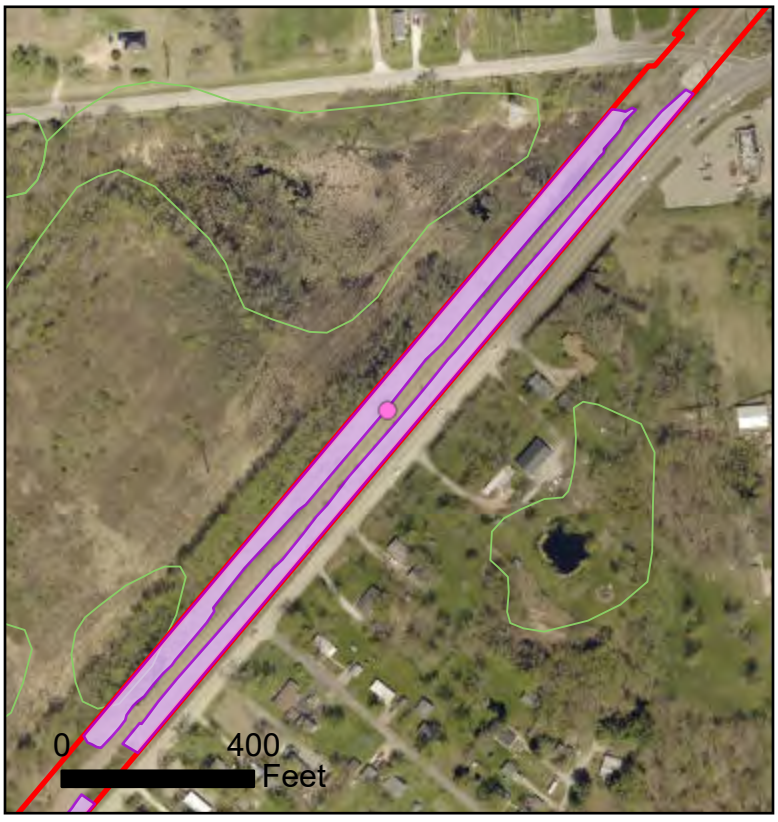


Legend

- Photo
- Wetland
- Survey Area

Feature ID: W 0 3 4

Comment:
Standing water, duckweed

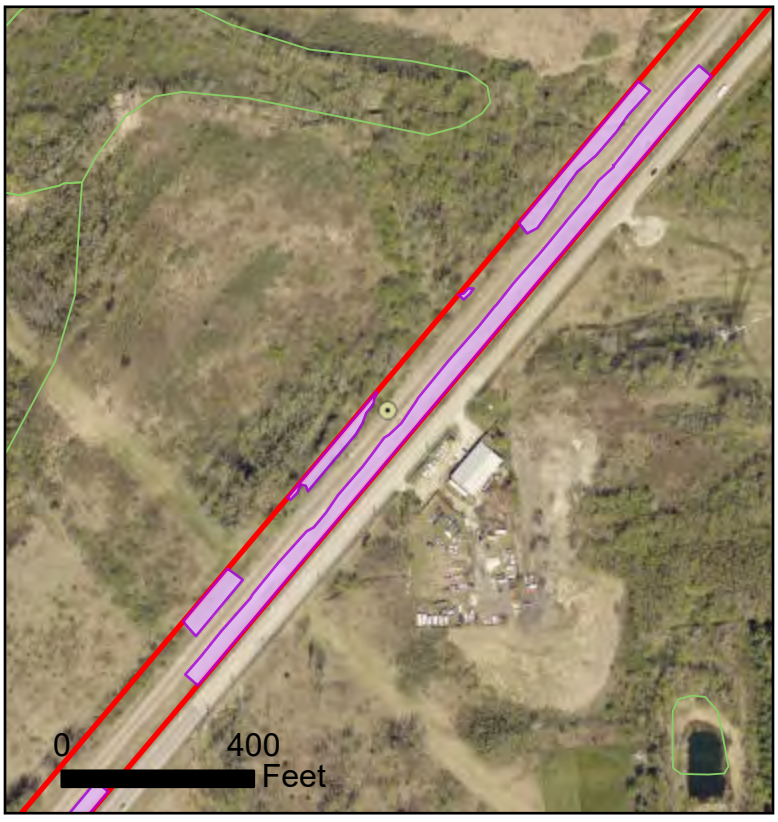


Legend

- Other
- Wetland
- Survey Area

Feature ID: U P 0 3 4

Comment:
Buckthorn

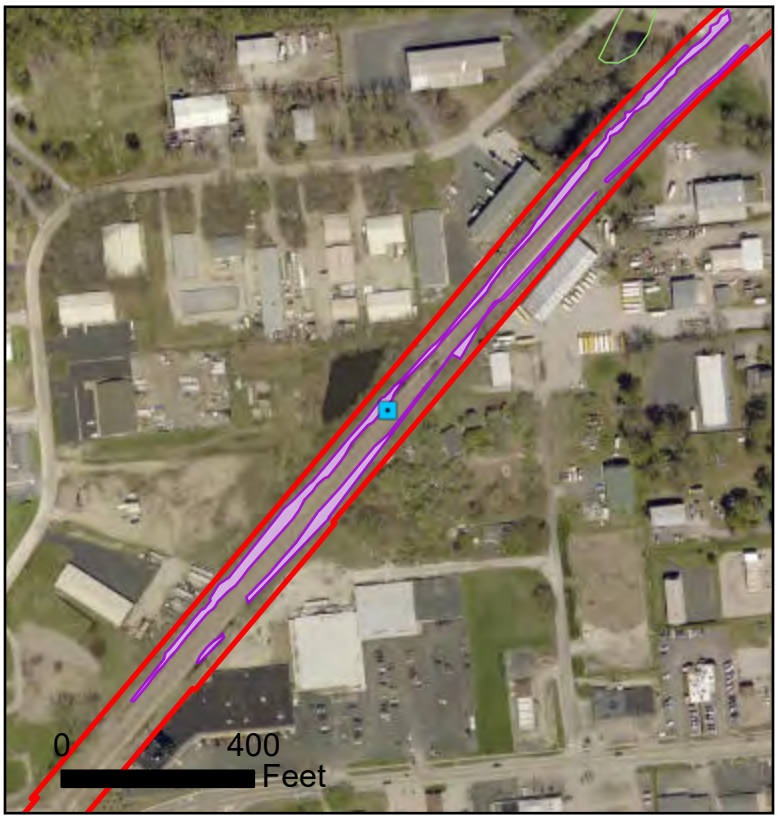


Legend

- Upland
- Wetland
- Survey Area

Feature ID: W 0 3 5

Comment:
Facing south

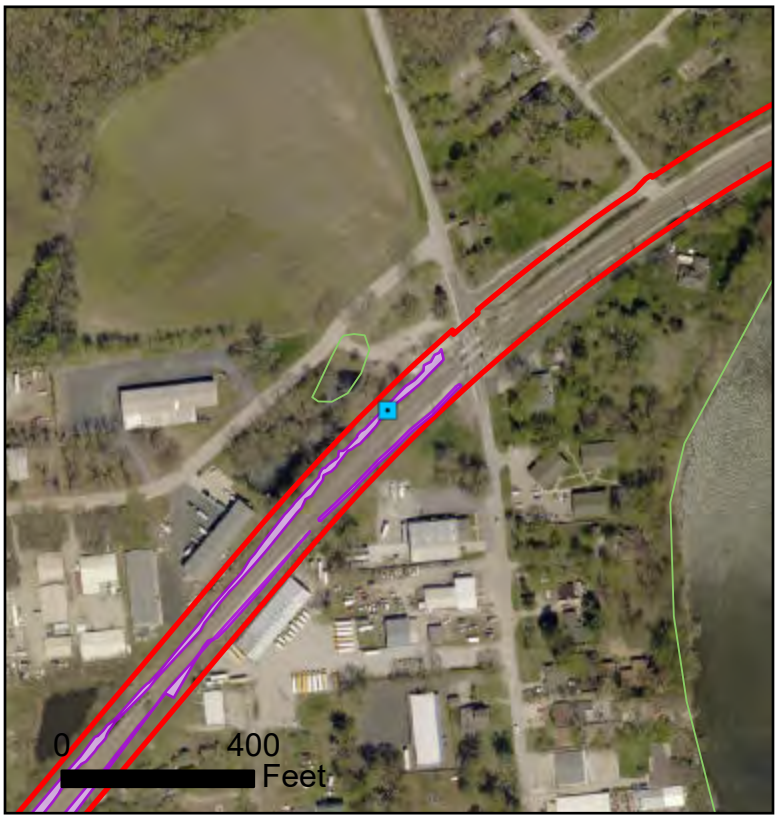


Legend

- Photo
- Wetland
- Survey Area

Feature ID: **W035**

Comment:
Ditch with water facing south



Legend

- Photo
- Wetland
- Survey Area

Feature ID: **W037**
Culvert

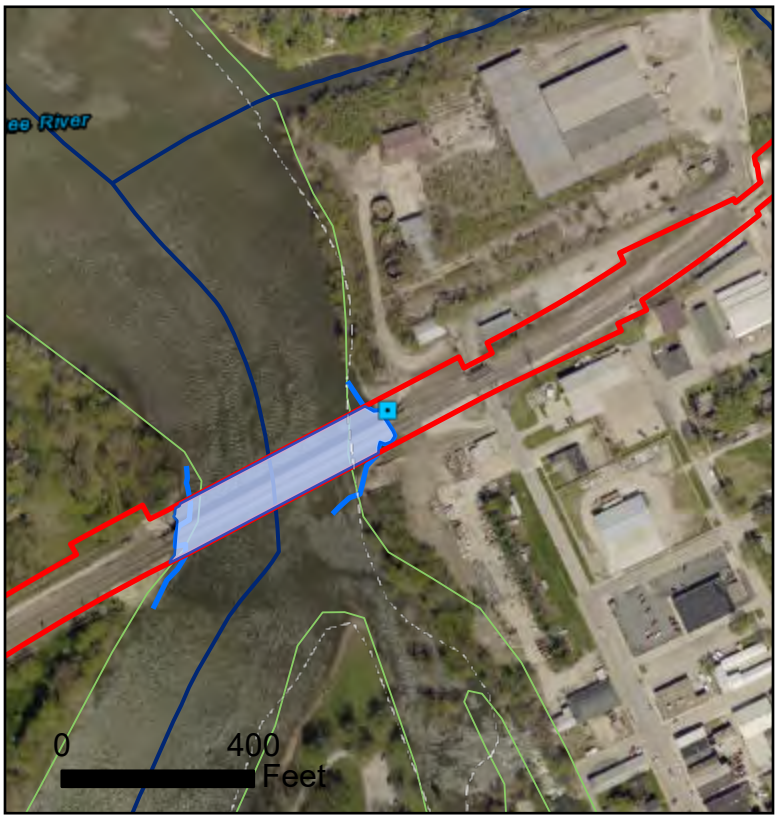
Comment:

Legend

- Other
- Wetland
- Survey Area

Feature ID: S 0 0 8
Under bridge

Comment:
looking SW



Legend

- Photo
- Stream
- Survey Area

Feature ID: S 0 0 7

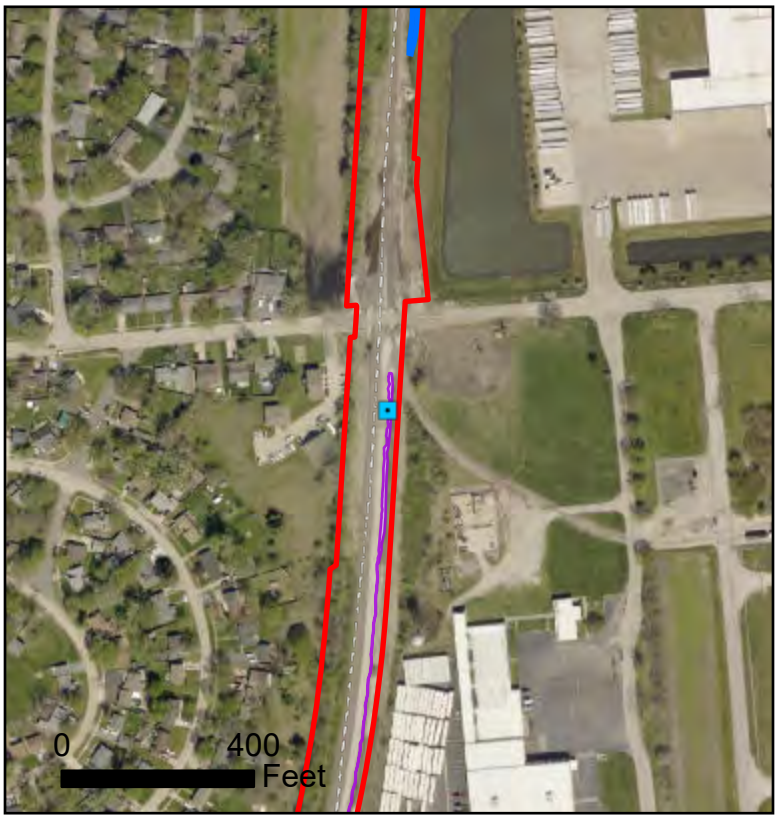
Comment:
Facing west

Legend

- Photo
- Stream
- Wetland
- Survey Area

Feature ID: W039

Comment: Facing south

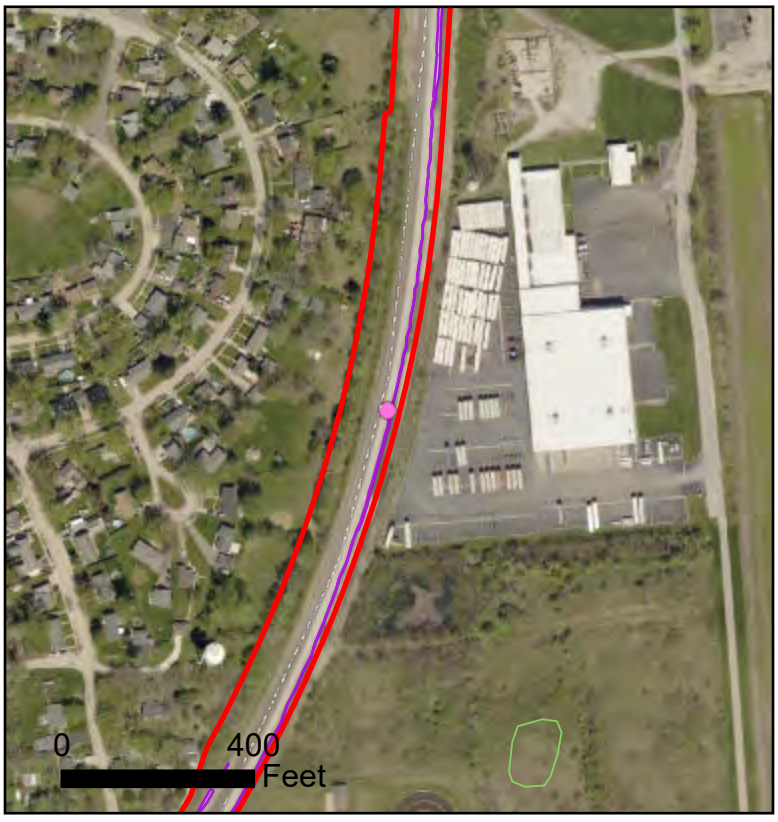


Legend

- Photo
- Wetland
- Survey Area

Feature ID: W 0 3 9

Comment:

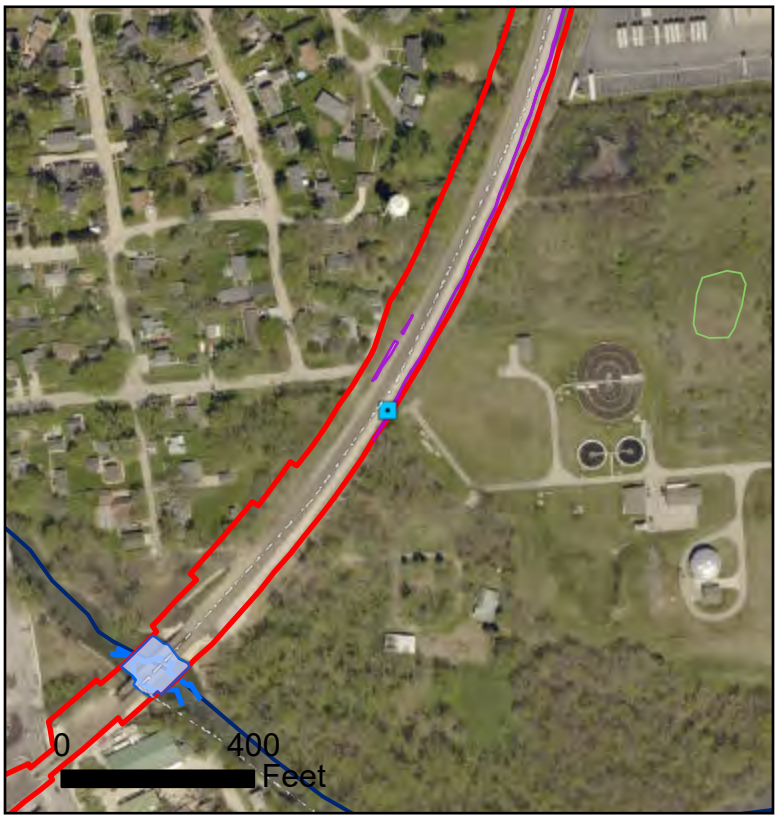


Legend

- Other
- Wetland
- Survey Area

Feature ID: W 0 3 9

Comment:
Facing south, riprap



Legend

- Photo
- Stream
- Wetland
- Survey Area

Appendix D
List of Plant Species Observed

Appendix D. List of Plant Species Observed on 2020 datasheets

Scientific Name[a]	Common Name	Status[b]
Acer saccharinum	silver maple	FACW
Ageratina altissima	white snakeroot	FACU
Alisma subcordatum	water plantain	OBL
Allium sp.	wild chive/onion	FACU/UPL
Ambrosia artemisiifolia	ragweed	FACU
Ambrosia trifida	giant ragweed	FAC
Apocynum cannabinum	common dogbane	FAC
Asclepias syriaca	common milkweed	FACU
Aster sp.	Aster species	-
Bidens frondosa	Devil's beggartick	FACW
Bromus tectorum	cheatgrass	UPL
Carex stricta	tussock sedge	OBL
Catalpa speciosa	Catalpa	FACU
Celtis occidentalis	hackberry	FAC
Chamaesyce prostrata	sandmat	FACU
Cirsium arvense	Canadian thistle	FACU
Convolvulus arvensis	bindweed	UPL
Cynoglossum virginianum	wild comfry	UPL
Cyperus esculentus	yellow nutsedge	FACW
Dipsacus fullonum	teasel	FACU
Echinochloa muricata	rough barnyard grass	OBL
Elaeagnus umbellata	autumn olive	UPL
Equisetum arvense	field horsetail	FAC
Fraxinus pennsylvanica	green ash	FACW
Hackelia virginiana	stickseed	FACU
Helianthus grosseserratus	sawtooth sunflower	FACW
Impatiens capensis	jewelweed	FACW
Iris virginica shrevei	blue flag iris	OBL
Juglans nigra	black walnut	FACU
Juniperus virginiana	red cedar	FACU
Linaria vulgaris	butter and eggs	UPL
Lobelia siphilitica	blue lobelia	OBL
Lonicera tatarica	tartarian honeysuckle	FACU
Lonicera morrowii	Morrow's honeysuckle	FACU
Lycopus americanus	water horehound	OBL

Appendix D. List of Plant Species Observed on 2020 datasheets

Scientific Name[a]	Common Name	Status[b]
Lysimachia nummularia	creeping jenny	FACW
Morus alba	white mulberry	FAC
Onoclea sensibilis	thick fern	FACW
Panicum virgatum	switchgrass	FAC
Parthenocissus quinquefolia	Virginia creeper	FACU
Phalaris arundinacea	reed canary grass	FACW
Phragmites australis	common reed	FACW
Pilea pumila	canadian clearweed	FACW
Platanus occidentalis	sycamore	FACW
Poa pratensis	kentucky bluegrass	FAC
polygonum persicaria syn. Persicaria maculosa	smartweed /spotted ladysthumb	FACW
Populus deltoides	cottonwood	FAC
Prunella vulgaris	purple weed	FAC
Reynoutria japonica	Japaenes knotweed	FACU
Rhamnus cathartica	buckthorn	FAC
Rhus glabra	Smooth sumac	UPL
Ribes missouriense	wild gooseberry	UPL
Rosa multiflora	multiflora rose	FACU
Rubus idaeus	raspberry	FACU
Rudbeckia hirta	black eyed susan	FACU
Sagittaria latifolia	broadleaf arrowhead	OBL
Salix interior	sandbar willow	FACW
Sambucus nigra	elderberry	FAC
Sanicula odorata	black snakeroot	FAC
Scirpus atrovirens	dark-green bulrush	OBL
Setaria faberi	drooping foxtail	FACU
Setaria pumila	yellow foxtail	FAC
Solidago canadensis	goldenrod	FACU
Sonchus oleraceus	sow thistle	FACU
Spartina pectinata	cordgrass	FACW
Symphyotrichum ericoides	heath white aster	FACU
Toxicodendron radicans	poison ivy	FAC
Tradescantia virginiana	Virginia spiderwort	UPL
Typha angustifolia	narrowleaf cattail	OBL

Appendix D. List of Plant Species Observed on 2020 datasheets

Scientific Name[a]	Common Name	Status[b]
Typha latifolia	broadleaf cattail	OBL
Ulmus americana	American elm	FACW
Ulmus pumila	siberian elm	UPL
Verbascum thapsus	Common mullein	UPL
Verbena hastata	blue vervain	FACW
Vitis riparia	grape vine	FACW

[a]Taxonomic nomenclature and status follow the Integrated Taxanomic Information System (ITIS, 2018).

[b]Status follows the National Wetland Plant List (Lichvar et al., 2014).

Indicator Status:

FAC = facultative; Occurs in wetlands and nonwetlands

FACU = facultative upland; Usually occurs in nonwetlands but may occur in wetlands

FACW = facultative wetland; Usually occurs in wetlands but may occur in nonwetlands

NL = not listed; Not listed (assumed to be an upland plant)

OBL = obligate; Almost always occurs in wetlands

UPL = upland; Almost always occurs in nonwetlands

Appendix E
Floristic Quality Index Form

Inventory Assessment

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W001

» Date & Location:

2020-09-09
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **1**
Native Mean C: **1.7**
Total FQI: **3.5**
Native FQI: **4.5**
Adjusted FQI: **13**
% C value 0: **58.3%**
% C value 1-3: **25%**
% C value 4-6: **16.7%**
% C value 7-10: **0%**
Native Tree Mean C: **0**
Native Shrub Mean C: **2**
Native Herbaceous Mean C: **2**

» Species Richness:

Total Species: **12**
Native Species: **7 (58.3%)**
Non-native Species: **5 (41.7%)**

» Species Wetness:

Mean Wetness: **-0.1**
Native Mean Wetness: **-0.3**

» Physiognomy Metrics:

Tree: **1 (8.3%)**
Shrub: **1 (8.3%)**
Vine: **1 (8.3%)**
Forb: **4 (33.3%)**
Grass: **3 (25%)**
Sedge: **2 (16.7%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **2 (16.7%)**
Perennial: **10 (83.3%)**
Biennial: **0 (0%)**

Native Annual: **0 (0%)**
Native Perennial: **7 (58.3%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Cyperus esculentus var. leptostachyus	Cyperaceae	CYPESL	native	0	0	sedge	perennial	field nut sedge
Helianthus grosseserratus	Asteraceae	HELGRO	native	4	0	forb	perennial	sawtooth sunflower
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Populus deltoides	Salicaceae	POPDEL	native	0	0	tree	perennial	eastern cottonwood
Prunella vulgaris	Lamiaceae	PRUVVU	non-native	0	2	forb	perennial	lawn self heal
Salix interior	Salicaceae	SALINT	native	2	-1	shrub	perennial	sandbar willow
Scirpus atrovirens	Cyperaceae	SCIATR	native	4	-2	sedge	perennial	dark green rush
Setaria faberi	Poaceae	SETFAB	non-native	0	1	grass	annual	giant foxtail
Setaria pumila	Poaceae	SETPUM	non-native	0	0	grass	annual	yellow foxtail
Solidago canadensis	Asteraceae	SOLCAN	native	1	1	forb	perennial	canada goldenrod
Typha angustifolia	Typhaceae	TYPANG	non-native	0	-2	forb	perennial	narrow-leaved cattail
Vitis riparia	Vitaceae	VITRIR	native	1	0	vine	perennial	riverbank grape

Inventory Assessment

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W002

» Date & Location:

2020-09-09
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **1.2**
Native Mean C: **1.4**
Total FQI: **2.9**
Native FQI: **3.1**
Adjusted FQI: **12.8**
% C value 0: **33.3%**
% C value 1-3: **50%**
% C value 4-6: **16.7%**
% C value 7-10: **0%**
Native Tree Mean C: **1**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **1.5**

» Species Richness:

Total Species: **6**
Native Species: **5 (83.3%)**
Non-native Species: **1 (16.7%)**

» Species Wetness:

Mean Wetness: **0.2**
Native Mean Wetness: **0**

» Physiognomy Metrics:

Tree: **2 (33.3%)**
Shrub: **0 (0%)**
Vine: **1 (16.7%)**
Forb: **3 (50%)**
Grass: **0 (0%)**
Sedge: **0 (0%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **1 (16.7%)**
Perennial: **5 (83.3%)**
Biennial: **0 (0%)**

Native Annual: **1 (16.7%)**
Native Perennial: **4 (66.7%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Acer saccharinum	Sapindaceae	ACESAI	native	1	-1	tree	perennial	silver maple
Ambrosia trifida	Asteraceae	AMBTRI	native	0	0	forb	annual	giant ragweed
Helianthus grosseserratus	Asteraceae	HELGRO	native	4	0	forb	perennial	sawtooth sunflower
Morus alba	Moraceae	MORALA	non-native	0	1	tree	perennial	white mulberry
Solidago canadensis	Asteraceae	SOLCAN	native	1	1	forb	perennial	canada goldenrod
Vitis riparia	Vitaceae	VITRIR	native	1	0	vine	perennial	riverbank grape

Inventory Assessment

Edit This Inventory | Download Report | Done

W003

» Date & Location:

2020-09-09
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **1.8**
Native Mean C: **2.8**
Total FQI: **4.4**
Native FQI: **5.6**
Adjusted FQI: **22.9**
% C value 0: **50%**
% C value 1-3: **16.7%**
% C value 4-6: **33.3%**
% C value 7-10: **0%**
Native Tree Mean C: **n/a**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **2.8**

» Species Richness:

Total Species: **6**
Native Species: **4 (66.7%)**
Non-native Species: **2 (33.3%)**

» Species Wetness:

Mean Wetness: **0**
Native Mean Wetness: **0.5**

» Physiognomy Metrics:

Tree: **0 (0%)**
Shrub: **0 (0%)**
Vine: **0 (0%)**
Forb: **5 (83.3%)**
Grass: **1 (16.7%)**
Sedge: **0 (0%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **1 (16.7%)**
Perennial: **5 (83.3%)**
Biennial: **0 (0%)**

Native Annual: **1 (16.7%)**
Native Perennial: **3 (50%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Ambrosia trifida	Asteraceae	AMBTRI	native	0	0	forb	annual	giant ragweed
Helianthus grosseserratus	Asteraceae	HELGRO	native	4	0	forb	perennial	sawtooth sunflower
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Solidago canadensis	Asteraceae	SOLCAN	native	1	1	forb	perennial	canada goldenrod
Symphyotrichum ericoides	Asteraceae	SYMERI	native	6	1	forb	perennial	heath aster
Typha angustifolia	Typhaceae	TYPANG	non-native	0	-2	forb	perennial	narrow-leaved cattail

Inventory Assessment

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W004

» Date & Location:

2020-09-09
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **1**
Native Mean C: **3**
Total FQI: **1.7**
Native FQI: **3**
Adjusted FQI: **17.3**
% C value 0: **66.7%**
% C value 1-3: **33.3%**
% C value 4-6: **0%**
% C value 7-10: **0%**
Native Tree Mean C: **n/a**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **3**

» Species Richness:

Total Species: **3**
Native Species: **1 (33.3%)**
Non-native Species: **2 (66.7%)**

» Species Wetness:

Mean Wetness: **0.7**
Native Mean Wetness: **0**

» Physiognomy Metrics:

Tree: **0 (0%)**
Shrub: **0 (0%)**
Vine: **0 (0%)**
Forb: **1 (33.3%)**
Grass: **2 (66.7%)**
Sedge: **0 (0%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **0 (0%)**
Perennial: **2 (66.7%)**
Biennial: **1 (33.3%)**

Native Annual: **0 (0%)**
Native Perennial: **1 (33.3%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Panicum virgatum	Poaceae	PANVIR	native	3	0	grass	perennial	switch grass
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Verbascum thapsus	Scrophulariaceae	VERTHA	non-native	0	2	forb	biennial	common mullein

Inventory Assessment

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W005

» Date & Location:

2020-09-10
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **1.7**
Native Mean C: **3.3**
Total FQI: **4.2**
Native FQI: **5.7**
Adjusted FQI: **23.3**
% C value 0: **50%**
% C value 1-3: **16.7%**
% C value 4-6: **33.3%**
% C value 7-10: **0%**
Native Tree Mean C: **3**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **4**

» Species Richness:

Total Species: **6**
Native Species: **3 (50%)**
Non-native Species: **3 (50%)**

» Species Wetness:

Mean Wetness: **-0.2**
Native Mean Wetness: **-0.3**

» Physiognomy Metrics:

Tree: **2 (33.3%)**
Shrub: **0 (0%)**
Vine: **0 (0%)**
Forb: **1 (16.7%)**
Grass: **3 (50%)**
Sedge: **0 (0%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **1 (16.7%)**
Perennial: **5 (83.3%)**
Biennial: **0 (0%)**

Native Annual: **0 (0%)**
Native Perennial: **3 (50%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Celtis occidentalis	Ulmaceae	CELOCC	native	2	0	tree	perennial	hackberry
Fraxinus pennsylvanica	Oleaceae	FRAPEN	native	4	-1	tree	perennial	red ash
Helianthus grosseserratus	Asteraceae	HELGRO	native	4	0	forb	perennial	sawtooth sunflower
Phalaris arundinacea	Poaceae	PHAARA	non-native	0	-1	grass	perennial	reed canary grass
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Setaria faberi	Poaceae	SETFAB	non-native	0	1	grass	annual	giant foxtail

Inventory Assessment

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W006

» Date & Location:

2020-09-10
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **2.2**
Native Mean C: **3.3**
Total FQI: **5.4**
Native FQI: **6.6**
Adjusted FQI: **26.9**
% C value 0: **50%**
% C value 1-3: **0%**
% C value 4-6: **50%**
% C value 7-10: **0%**
Native Tree Mean C: **n/a**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **3.3**

» Species Richness:

Total Species: **6**
Native Species: **4 (66.7%)**
Non-native Species: **2 (33.3%)**

» Species Wetness:

Mean Wetness: **-0.3**
Native Mean Wetness: **-0.8**

» Physiognomy Metrics:

Tree: **0 (0%)**
Shrub: **0 (0%)**
Vine: **0 (0%)**
Forb: **5 (83.3%)**
Grass: **1 (16.7%)**
Sedge: **0 (0%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **2 (33.3%)**
Perennial: **3 (50%)**
Biennial: **1 (16.7%)**

Native Annual: **1 (16.7%)**
Native Perennial: **3 (50%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Ambrosia trifida	Asteraceae	AMBTRI	native	0	0	forb	annual	giant ragweed
Dipsacus fullonum	Dipsacaceae	DIPFUL	non-native	0	1	forb	biennial	common teasel
Helianthus grosseserratus	Asteraceae	HELGRO	native	4	0	forb	perennial	sawtooth sunflower
Persicaria maculosa	Polygonaceae	PERMAC	non-native	0	0	forb	annual	ladys thumb
Spartina pectinata	Poaceae	SPAPEC	native	4	-1	grass	perennial	prairie cordgrass
Typha latifolia	Typhaceae	TYPLAT	native	5	-2	forb	perennial	broad-leaved cattail

Inventory Assessment

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W007

» Date & Location:

2020-09-10
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **2.7**
Native Mean C: **3.2**
Total FQI: **6.6**
Native FQI: **7.2**
Adjusted FQI: **29.2**
% C value 0: **33.3%**
% C value 1-3: **16.7%**
% C value 4-6: **50%**
% C value 7-10: **0%**
Native Tree Mean C: **n/a**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **3.2**

» Species Richness:

Total Species: **6**
Native Species: **5 (83.3%)**
Non-native Species: **1 (16.7%)**

» Species Wetness:

Mean Wetness: **-0.8**
Native Mean Wetness: **-1**

» Physiognomy Metrics:

Tree: **0 (0%)**
Shrub: **0 (0%)**
Vine: **0 (0%)**
Forb: **1 (16.7%)**
Grass: **3 (50%)**
Sedge: **2 (33.3%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **0 (0%)**
Perennial: **6 (100%)**
Biennial: **0 (0%)**

Native Annual: **0 (0%)**
Native Perennial: **5 (83.3%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Cyperus esculentus var. leptostachyus	Cyperaceae	CYPESL	native	0	0	sedge	perennial	field nut sedge
Panicum virgatum	Poaceae	PANVIR	native	3	0	grass	perennial	switch grass
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Scirpus atrovirens	Cyperaceae	SCIATR	native	4	-2	sedge	perennial	dark green rush
Spartina pectinata	Poaceae	SPAPEC	native	4	-1	grass	perennial	prairie cordgrass
Typha latifolia	Typhaceae	TYPLAT	native	5	-2	forb	perennial	broad-leaved cattail

Inventory Assessment

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W008

» Date & Location:

2020-09-10
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **2.3**
Native Mean C: **2.3**
Total FQI: **4**
Native FQI: **4**
Adjusted FQI: **23**
% C value 0: **33.3%**
% C value 1-3: **33.3%**
% C value 4-6: **33.3%**
% C value 7-10: **0%**
Native Tree Mean C: **0**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **3.5**

» Species Richness:

Total Species: **3**
Native Species: **3 (100%)**
Non-native Species: **0 (0%)**

» Species Wetness:

Mean Wetness: **-0.7**
Native Mean Wetness: **-0.7**

» Physiognomy Metrics:

Tree: **1 (33.3%)**
Shrub: **0 (0%)**
Vine: **1 (33.3%)**
Forb: **0 (0%)**
Grass: **0 (0%)**
Sedge: **1 (33.3%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **0 (0%)**
Perennial: **3 (100%)**
Biennial: **0 (0%)**

Native Annual: **0 (0%)**
Native Perennial: **3 (100%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Carex stricta	Cyperaceae	CXSTRI	native	5	-2	sedge	perennial	common tussock sedge
Populus deltoides	Salicaceae	POPDEL	native	0	0	tree	perennial	eastern cottonwood
Toxicodendron radicans	Anacardiaceae	TOXRAD	native	2	0	vine	perennial	poison ivy

Inventory Assessment

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W009

» Date & Location:

2020-09-10
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **1**
Native Mean C: **2**
Total FQI: **2.4**
Native FQI: **3.5**
Adjusted FQI: **14.1**
% C value 0: **66.7%**
% C value 1-3: **16.7%**
% C value 4-6: **16.7%**
% C value 7-10: **0%**
Native Tree Mean C: **0**
Native Shrub Mean C: **2**
Native Herbaceous Mean C: **4**

» Species Richness:

Total Species: **6**
Native Species: **3 (50%)**
Non-native Species: **3 (50%)**

» Species Wetness:

Mean Wetness: **0.2**
Native Mean Wetness: **-0.7**

» Physiognomy Metrics:

Tree: **2 (33.3%)**
Shrub: **2 (33.3%)**
Vine: **0 (0%)**
Forb: **0 (0%)**
Grass: **2 (33.3%)**
Sedge: **0 (0%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **0 (0%)**
Perennial: **6 (100%)**
Biennial: **0 (0%)**

Native Annual: **0 (0%)**
Native Perennial: **3 (50%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Elaeagnus umbellata	Elaeagnaceae	ELAUMU	non-native	0	2	shrub	perennial	asian autumn olive
Morus alba	Moraceae	MORALA	non-native	0	1	tree	perennial	white mulberry
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Populus deltoides	Salicaceae	POPDEL	native	0	0	tree	perennial	eastern cottonwood
Salix interior	Salicaceae	SALINT	native	2	-1	shrub	perennial	sandbar willow
Spartina pectinata	Poaceae	SPAPEC	native	4	-1	grass	perennial	prairie cordgrass

Inventory Assessment

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W010

» Date & Location:

2020-09-10
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **1.3**
Native Mean C: **4**
Total FQI: **3.2**
Native FQI: **5.7**
Adjusted FQI: **23.1**
% C value 0: **66.7%**
% C value 1-3: **0%**
% C value 4-6: **33.3%**
% C value 7-10: **0%**
Native Tree Mean C: **4**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **4**

» Species Richness:

Total Species: **6**
Native Species: **2 (33.3%)**
Non-native Species: **4 (66.7%)**

» Species Wetness:

Mean Wetness: **0.3**
Native Mean Wetness: **0**

» Physiognomy Metrics:

Tree: **1 (16.7%)**
Shrub: **1 (16.7%)**
Vine: **2 (33.3%)**
Forb: **1 (16.7%)**
Grass: **1 (16.7%)**
Sedge: **0 (0%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **1 (16.7%)**
Perennial: **4 (66.7%)**
Biennial: **1 (16.7%)**

Native Annual: **0 (0%)**
Native Perennial: **2 (33.3%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Fraxinus pennsylvanica	Oleaceae	FRAPEN	native	4	-1	tree	perennial	red ash
Lonicera japonica	Caprifoliaceae	LONJAP	non-native	0	2	vine	perennial	japanese honeysuckle
Parthenocissus quinquefolia	Vitaceae	PARQUI	native	4	1	vine	perennial	virginia creeper
Persicaria maculosa	Polygonaceae	PERMAC	non-native	0	0	forb	annual	ladys thumb
Phalaris arundinacea	Poaceae	PHAARA	non-native	0	-1	grass	perennial	reed canary grass
Rubus idaeus	Rosaceae	RUBIDA	non-native	0	1	shrub	biennial	garden raspberry

Inventory Assessment

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W011

» Date & Location:

2020-09-10
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **1.8**
Native Mean C: **2.7**
Total FQI: **5.4**
Native FQI: **6.6**
Adjusted FQI: **22**
% C value 0: **55.6%**
% C value 1-3: **11.1%**
% C value 4-6: **33.3%**
% C value 7-10: **0%**
Native Tree Mean C: **0**
Native Shrub Mean C: **2**
Native Herbaceous Mean C: **3.5**

» Species Richness:

Total Species: **9**
Native Species: **6 (66.7%)**
Non-native Species: **3 (33.3%)**

» Species Wetness:

Mean Wetness: **-0.6**
Native Mean Wetness: **-0.7**

» Physiognomy Metrics:

Tree: **1 (11.1%)**
Shrub: **1 (11.1%)**
Vine: **0 (0%)**
Forb: **4 (44.4%)**
Grass: **2 (22.2%)**
Sedge: **1 (11.1%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **2 (22.2%)**
Perennial: **7 (77.8%)**
Biennial: **0 (0%)**

Native Annual: **1 (11.1%)**
Native Perennial: **5 (55.6%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Ambrosia artemisiifolia	Asteraceae	AMBART	native	0	1	forb	annual	common ragweed
Carex stricta	Cyperaceae	CXSTRI	native	5	-2	sedge	perennial	common tussock sedge
Helianthus grosseserratus	Asteraceae	HELGRO	native	4	0	forb	perennial	sawtooth sunflower
Persicaria maculosa	Polygonaceae	PERMAC	non-native	0	0	forb	annual	ladys thumb
Phalaris arundinacea	Poaceae	PHAARA	non-native	0	-1	grass	perennial	reed canary grass
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Populus deltoides	Salicaceae	POPDEL	native	0	0	tree	perennial	eastern cottonwood
Salix interior	Salicaceae	SALINT	native	2	-1	shrub	perennial	sandbar willow
Typha latifolia	Typhaceae	TYPLAT	native	5	-2	forb	perennial	broad-leaved cattail

Inventory Assessment

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W012

» Date & Location:

2020-09-10
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **2.2**
Native Mean C: **3.3**
Total FQI: **5.4**
Native FQI: **6.6**
Adjusted FQI: **26.9**
% C value 0: **33.3%**
% C value 1-3: **33.3%**
% C value 4-6: **33.3%**
% C value 7-10: **0%**
Native Tree Mean C: **n/a**
Native Shrub Mean C: **2**
Native Herbaceous Mean C: **3.7**

» Species Richness:

Total Species: **6**
Native Species: **4 (66.7%)**
Non-native Species: **2 (33.3%)**

» Species Wetness:

Mean Wetness: **0.2**
Native Mean Wetness: **0.3**

» Physiognomy Metrics:

Tree: **0 (0%)**
Shrub: **2 (33.3%)**
Vine: **0 (0%)**
Forb: **3 (50%)**
Grass: **1 (16.7%)**
Sedge: **0 (0%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **0 (0%)**
Perennial: **6 (100%)**
Biennial: **0 (0%)**

Native Annual: **0 (0%)**
Native Perennial: **4 (66.7%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Helianthus grosseserratus	Asteraceae	HELGRO	native	4	0	forb	perennial	sawtooth sunflower
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Salix interior	Salicaceae	SALINT	native	2	-1	shrub	perennial	sandbar willow
Sambucus nigra	Adoxaceae	SAMNIG	non-native	0	0	shrub	perennial	european elderberry
Solidago canadensis	Asteraceae	SOLCAN	native	1	1	forb	perennial	canada goldenrod
Symphyotrichum ericoides	Asteraceae	SYMERI	native	6	1	forb	perennial	heath aster

Inventory Assessment

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W014

» Date & Location:

2020-09-10
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **2.7**
Native Mean C: **3.8**
Total FQI: **9**
Native FQI: **10.7**
Adjusted FQI: **32.4**
% C value 0: **27.3%**
% C value 1-3: **36.4%**
% C value 4-6: **27.3%**
% C value 7-10: **9.1%**
Native Tree Mean C: **4**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **3.6**

» Species Richness:

Total Species: **11**
Native Species: **8 (72.7%)**
Non-native Species: **3 (27.3%)**

» Species Wetness:

Mean Wetness: **0.4**
Native Mean Wetness: **0.1**

» Physiognomy Metrics:

Tree: **4 (36.4%)**
Shrub: **0 (0%)**
Vine: **2 (18.2%)**
Forb: **4 (36.4%)**
Grass: **1 (9.1%)**
Sedge: **0 (0%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **1 (9.1%)**
Perennial: **10 (90.9%)**
Biennial: **0 (0%)**

Native Annual: **1 (9.1%)**
Native Perennial: **7 (63.6%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Carya cordiformis	Juglandaceae	CARCOR	native	5	1	tree	perennial	bitternut hickory
Fraxinus pennsylvanica	Oleaceae	FRAPEN	native	4	-1	tree	perennial	red ash
Hackelia virginiana	Boraginaceae	HACVIR	native	1	1	forb	perennial	stickseed
Juglans nigra	Juglandaceae	JUGNIG	native	3	1	tree	perennial	black walnut
Lonicera japonica	Caprifoliaceae	LONJAP	non-native	0	2	vine	perennial	japanese honeysuckle
Maclura pomifera	Moraceae	MACPOM	non-native	0	2	tree	perennial	osage orange
Parthenocissus quinquefolia	Vitaceae	PARQUI	native	4	1	vine	perennial	virginia creeper
Phalaris arundinacea	Poaceae	PHAARA	non-native	0	-1	grass	perennial	reed canary grass
Pilea pumila	Urticaceae	PILPUM	native	2	-1	forb	annual	clearweed
Sanicula odorata	Apiaceae	SANODO	native	3	1	forb	perennial	clustered black snakeroot
Stellaria longifolia	Caryophyllaceae	STELON	native	8	-2	forb	perennial	long-leaved stitchwort

Inventory Assessment

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W015

» Date & Location:

2020-09-10
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **2.7**
Native Mean C: **3.2**
Total FQI: **6.6**
Native FQI: **7.2**
Adjusted FQI: **29.2**
% C value 0: **33.3%**
% C value 1-3: **16.7%**
% C value 4-6: **50%**
% C value 7-10: **0%**
Native Tree Mean C: **n/a**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **3.2**

» Species Richness:

Total Species: **6**
Native Species: **5 (83.3%)**
Non-native Species: **1 (16.7%)**

» Species Wetness:

Mean Wetness: **-0.8**
Native Mean Wetness: **-1**

» Physiognomy Metrics:

Tree: **0 (0%)**
Shrub: **0 (0%)**
Vine: **0 (0%)**
Forb: **1 (16.7%)**
Grass: **3 (50%)**
Sedge: **2 (33.3%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **0 (0%)**
Perennial: **6 (100%)**
Biennial: **0 (0%)**

Native Annual: **0 (0%)**
Native Perennial: **5 (83.3%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Cyperus esculentus var. leptostachyus	Cyperaceae	CYPESL	native	0	0	sedge	perennial	field nut sedge
Panicum virgatum	Poaceae	PANVIR	native	3	0	grass	perennial	switch grass
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Scirpus atrovirens	Cyperaceae	SCIATR	native	4	-2	sedge	perennial	dark green rush
Spartina pectinata	Poaceae	SPAPEC	native	4	-1	grass	perennial	prairie cordgrass
Typha latifolia	Typhaceae	TYPLAT	native	5	-2	forb	perennial	broad-leaved cattail

Inventory Assessment

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W016

» Date & Location:

2020-09-11
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **2.1**
Native Mean C: **3**
Total FQI: **6.6**
Native FQI: **7.9**
Adjusted FQI: **25.1**
% C value 0: **50%**
% C value 1-3: **0%**
% C value 4-6: **50%**
% C value 7-10: **0%**
Native Tree Mean C: **n/a**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **3**

» Species Richness:

Total Species: **10**
Native Species: **7 (70%)**
Non-native Species: **3 (30%)**

» Species Wetness:

Mean Wetness: **-0.4**
Native Mean Wetness: **-1**

» Physiognomy Metrics:

Tree: **0 (0%)**
Shrub: **0 (0%)**
Vine: **0 (0%)**
Forb: **4 (40%)**
Grass: **4 (40%)**
Sedge: **2 (20%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **4 (40%)**
Perennial: **6 (60%)**
Biennial: **0 (0%)**

Native Annual: **3 (30%)**
Native Perennial: **4 (40%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Ambrosia trifida	Asteraceae	AMBTRI	native	0	0	forb	annual	giant ragweed
Bromus inermis	Poaceae	BROINE	non-native	0	2	grass	perennial	hungarian brome
Cyperus esculentus var. leptostachyus	Cyperaceae	CYPESL	native	0	0	sedge	perennial	field nut sedge
Echinochloa muricata	Poaceae	ECHMUA	native	4	-2	grass	annual	spiny barnyard grass
Helianthus grosseserratus	Asteraceae	HELGRO	native	4	0	forb	perennial	sawtooth sunflower
Lemna minor	Lemnaceae	LEMMIR	native	5	-2	forb	annual	green duckweed
Lobelia siphilitica	Lobeliaceae	LOBSIP	native	4	-1	forb	perennial	great blue lobelia
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Scirpus atrovirens	Cyperaceae	SCIATR	native	4	-2	sedge	perennial	dark green rush
Setaria faberi	Poaceae	SETFAB	non-native	0	1	grass	annual	giant foxtail

Inventory Assessment

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W017

» Date & Location:

2020-09-11
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **public** (viewable by all users of this website).

» Conservatism-Based Metrics:

Total Mean C: **0.5**
Native Mean C: **1.7**
Total FQI: **1.6**
Native FQI: **2.9**
Adjusted FQI: **9.3**
% C value 0: **70%**
% C value 1-3: **30%**
% C value 4-6: **0%**
% C value 7-10: **0%**
Native Tree Mean C: **n/a**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **1.7**

» Species Richness:

Total Species: **10**
Native Species: **3 (30%)**
Non-native Species: **7 (70%)**

» Species Wetness:

Mean Wetness: **0.2**
Native Mean Wetness: **-0.3**

» Physiognomy Metrics:

Tree: **0 (0%)**
Shrub: **1 (10%)**
Vine: **1 (10%)**
Forb: **6 (60%)**
Grass: **2 (20%)**
Sedge: **0 (0%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **1 (10%)**
Perennial: **7 (70%)**
Biennial: **2 (20%)**

Native Annual: **0 (0%)**
Native Perennial: **3 (30%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Alisma subcordatum	Alismataceae	ALISUB	native	3	-2	forb	perennial	common water plantain
Convolvulus arvensis	Convolvulaceae	CONARV	non-native	0	2	forb	perennial	field bindweed
Dipsacus fullonum	Dipsacaceae	DIPFUL	non-native	0	1	forb	biennial	common teasel
Phalaris arundinacea	Poaceae	PHAARA	non-native	0	-1	grass	perennial	reed canary grass
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Rubus idaeus	Rosaceae	RUBIDA	non-native	0	1	shrub	biennial	garden raspberry
Solidago canadensis	Asteraceae	SOLCAN	native	1	1	forb	perennial	canada goldenrod
Sonchus oleraceus	Asteraceae	SONOLE	non-native	0	2	forb	annual	store-front sow thistle
Typha angustifolia	Typhaceae	TYPANG	non-native	0	-2	forb	perennial	narrow-leaved cattail
Vitis riparia	Vitaceae	VITRIR	native	1	0	vine	perennial	riverbank grape

Inventory Assessment

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W018

» Date & Location:

2020-09-11
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **public** (viewable by all users of this website).

» Conservatism-Based Metrics:

Total Mean C: **0**
Native Mean C: **0**
Total FQI: **0**
Native FQI: **0**
Adjusted FQI: **0**
% C value 0: **100%**
% C value 1-3: **0%**
% C value 4-6: **0%**
% C value 7-10: **0%**
Native Tree Mean C: **0**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **n/a**

» Species Richness:

Total Species: **3**
Native Species: **1 (33.3%)**
Non-native Species: **2 (66.7%)**

» Species Wetness:

Mean Wetness: **0.7**
Native Mean Wetness: **0**

» Physiognomy Metrics:

Tree: **1 (33.3%)**
Shrub: **0 (0%)**
Vine: **1 (33.3%)**
Forb: **0 (0%)**
Grass: **1 (33.3%)**
Sedge: **0 (0%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **0 (0%)**
Perennial: **3 (100%)**
Biennial: **0 (0%)**

Native Annual: **0 (0%)**
Native Perennial: **1 (33.3%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Lonicera japonica	Caprifoliaceae	LONJAP	non-native	0	2	vine	perennial	japanese honeysuckle
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Populus deltoides	Salicaceae	POPDEL	native	0	0	tree	perennial	eastern cottonwood

Inventory Assessment

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W019

» Date & Location:

2020-09-11
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **2**
Native Mean C: **3**
Total FQI: **4.9**
Native FQI: **6**
Adjusted FQI: **24.5**
% C value 0: **50%**
% C value 1-3: **16.7%**
% C value 4-6: **33.3%**
% C value 7-10: **0%**
Native Tree Mean C: **4**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **2.7**

» Species Richness:

Total Species: **6**
Native Species: **4 (66.7%)**
Non-native Species: **2 (33.3%)**

» Species Wetness:

Mean Wetness: **0.3**
Native Mean Wetness: **0.3**

» Physiognomy Metrics:

Tree: **1 (16.7%)**
Shrub: **0 (0%)**
Vine: **0 (0%)**
Forb: **4 (66.7%)**
Grass: **1 (16.7%)**
Sedge: **0 (0%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **1 (16.7%)**
Perennial: **5 (83.3%)**
Biennial: **0 (0%)**

Native Annual: **1 (16.7%)**
Native Perennial: **3 (50%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Asclepias syriaca	Asclepiadaceae	ASCSYR	native	0	1	forb	perennial	common milkweed
Convolvulus arvensis	Convolvulaceae	CONARV	non-native	0	2	forb	perennial	field bindweed
Fraxinus pennsylvanica	Oleaceae	FRAPEN	native	4	-1	tree	perennial	red ash
Persicaria hydropiper	Polygonaceae	PERHYR	native	2	0	forb	annual	woodland water pepper
Phalaris arundinacea	Poaceae	PHAARA	non-native	0	-1	grass	perennial	reed canary grass
Symphyotrichum ericoides	Asteraceae	SYMERI	native	6	1	forb	perennial	heath aster

Inventory Assessment

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W020

» Date & Location:

2020-09-11
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **1.4**
Native Mean C: **3.5**
Total FQI: **3.1**
Native FQI: **4.9**
Adjusted FQI: **22.1**
% C value 0: **60%**
% C value 1-3: **20%**
% C value 4-6: **20%**
% C value 7-10: **0%**
Native Tree Mean C: **n/a**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **3.5**

» Species Richness:

Total Species: **5**
Native Species: **2 (40%)**
Non-native Species: **3 (60%)**

» Species Wetness:

Mean Wetness: **-0.8**
Native Mean Wetness: **-2**

» Physiognomy Metrics:

Tree: **0 (0%)**
Shrub: **0 (0%)**
Vine: **0 (0%)**
Forb: **2 (40%)**
Grass: **2 (40%)**
Sedge: **1 (20%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **0 (0%)**
Perennial: **5 (100%)**
Biennial: **0 (0%)**

Native Annual: **0 (0%)**
Native Perennial: **2 (40%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Alisma subcordatum	Alismataceae	ALISUB	native	3	-2	forb	perennial	common water plantain
Allium schoenoprasum	Alliaceae	ALLSCH	non-native	0	1	forb	perennial	chives
Phalaris arundinacea	Poaceae	PHAARA	non-native	0	-1	grass	perennial	reed canary grass
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Scirpus atrovirens	Cyperaceae	SCIATR	native	4	-2	sedge	perennial	dark green rush

Inventory Assessment

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W021

» Date & Location:

2020-09-14
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **public** (viewable by all users of this website).

» Conservatism-Based Metrics:

Total Mean C: **1.8**
Native Mean C: **2.8**
Total FQI: **5.1**
Native FQI: **6.3**
Adjusted FQI: **22.1**
% C value 0: **50%**
% C value 1-3: **12.5%**
% C value 4-6: **37.5%**
% C value 7-10: **0%**
Native Tree Mean C: **n/a**
Native Shrub Mean C: **0**
Native Herbaceous Mean C: **3.5**

» Species Richness:

Total Species: **8**
Native Species: **5 (62.5%)**
Non-native Species: **3 (37.5%)**

» Species Wetness:

Mean Wetness: **-0.5**
Native Mean Wetness: **-0.8**

» Physiognomy Metrics:

Tree: **1 (12.5%)**
Shrub: **2 (25%)**
Vine: **0 (0%)**
Forb: **4 (50%)**
Grass: **1 (12.5%)**
Sedge: **0 (0%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **1 (12.5%)**
Perennial: **7 (87.5%)**
Biennial: **0 (0%)**

Native Annual: **1 (12.5%)**
Native Perennial: **4 (50%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Bidens frondosa	Asteraceae	BIDFRO	native	1	-1	forb	annual	common beggars ticks
Juniperus virginiana	Cupressaceae	JUNVIR	native	0	1	shrub	perennial	red cedar
Lobelia siphilitica	Lobeliaceae	LOBSIP	native	4	-1	forb	perennial	great blue lobelia
Morus alba	Moraceae	MORALA	non-native	0	1	tree	perennial	white mulberry
Phalaris arundinacea	Poaceae	PHAARA	non-native	0	-1	grass	perennial	reed canary grass
Sambucus nigra	Adoxaceae	SAMNIG	non-native	0	0	shrub	perennial	european elderberry
Typha latifolia	Typhaceae	TYPLAT	native	5	-2	forb	perennial	broad-leaved cattail
Verbena hastata	Verbenaceae	VERHAS	native	4	-1	forb	perennial	blue vervain

Inventory Assessment

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W022

» Date & Location:

2020-09-14
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **2.1**
Native Mean C: **2.8**
Total FQI: **5.9**
Native FQI: **6.9**
Adjusted FQI: **24.2**
% C value 0: **37.5%**
% C value 1-3: **25%**
% C value 4-6: **37.5%**
% C value 7-10: **0%**
Native Tree Mean C: **0**
Native Shrub Mean C: **2**
Native Herbaceous Mean C: **3.8**

» Species Richness:

Total Species: **8**
Native Species: **6 (75%)**
Non-native Species: **2 (25%)**

» Species Wetness:

Mean Wetness: **-0.6**
Native Mean Wetness: **-0.7**

» Physiognomy Metrics:

Tree: **1 (12.5%)**
Shrub: **1 (12.5%)**
Vine: **0 (0%)**
Forb: **2 (25%)**
Grass: **3 (37.5%)**
Sedge: **1 (12.5%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **0 (0%)**
Perennial: **8 (100%)**
Biennial: **0 (0%)**

Native Annual: **0 (0%)**
Native Perennial: **6 (75%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Apocynum cannabinum var. glaberrimum	Apocynaceae	APOCAG	native	2	0	forb	perennial	smooth dogbane
Carex stricta	Cyperaceae	CXSTRI	native	5	-2	sedge	perennial	common tussock sedge
Helianthus grosseserratus	Asteraceae	HELGRO	native	4	0	forb	perennial	sawtooth sunflower
Phalaris arundinacea	Poaceae	PHAARA	non-native	0	-1	grass	perennial	reed canary grass
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Populus deltoides	Salicaceae	POPDEL	native	0	0	tree	perennial	eastern cottonwood
Salix interior	Salicaceae	SALINT	native	2	-1	shrub	perennial	sandbar willow
Spartina pectinata	Poaceae	SPAPEC	native	4	-1	grass	perennial	prairie cordgrass

Inventory Assessment

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W023

» Date & Location:

2020-09-14
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **2.8**
Native Mean C: **3.7**
Total FQI: **10.1**
Native FQI: **11.7**
Adjusted FQI: **32.5**
% C value 0: **23.1%**
% C value 1-3: **38.5%**
% C value 4-6: **30.8%**
% C value 7-10: **7.7%**
Native Tree Mean C: **3**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **4**

» Species Richness:

Total Species: **13**
Native Species: **10 (76.9%)**
Non-native Species: **3 (23.1%)**

» Species Wetness:

Mean Wetness: **-0.5**
Native Mean Wetness: **-0.6**

» Physiognomy Metrics:

Tree: **3 (23.1%)**
Shrub: **1 (7.7%)**
Vine: **1 (7.7%)**
Forb: **6 (46.2%)**
Grass: **1 (7.7%)**
Sedge: **1 (7.7%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **2 (15.4%)**
Perennial: **10 (76.9%)**
Biennial: **1 (7.7%)**

Native Annual: **1 (7.7%)**
Native Perennial: **9 (69.2%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Bidens frondosa	Asteraceae	BIDFRO	native	1	-1	forb	annual	common beggars ticks
Carex stricta	Cyperaceae	CXSTRI	native	5	-2	sedge	perennial	common tussock sedge
Celtis occidentalis	Ulmaceae	CELOCC	native	2	0	tree	perennial	hackberry
Cynoglossum boreale	Boraginaceae	CYNBOR	native	10	2	forb	perennial	wild comfrey
Fraxinus pennsylvanica	Oleaceae	FRAPEN	native	4	-1	tree	perennial	red ash
Helianthus grosseserratus	Asteraceae	HELGRO	native	4	0	forb	perennial	sawtooth sunflower
Persicaria maculosa	Polygonaceae	PERMAC	non-native	0	0	forb	annual	ladys thumb
Phalaris arundinacea	Poaceae	PHAARA	non-native	0	-1	grass	perennial	reed canary grass
Rubus idaeus	Rosaceae	RUBIDA	non-native	0	1	shrub	biennial	garden raspberry
Sagittaria latifolia	Alismataceae	SAGLAT	native	3	-2	forb	perennial	common arrowhead
Ulmus americana	Ulmaceae	ULMAME	native	3	-1	tree	perennial	american elm
Verbena hastata	Verbenaceae	VERHAS	native	4	-1	forb	perennial	blue vervain
Vitis riparia	Vitaceae	VITRIR	native	1	0	vine	perennial	riverbank grape

Inventory Assessment

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W024

» Date & Location:

2020-09-14
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **2.7**
Native Mean C: **4**
Total FQI: **4.7**
Native FQI: **5.7**
Adjusted FQI: **32.7**
% C value 0: **33.3%**
% C value 1-3: **33.3%**
% C value 4-6: **33.3%**
% C value 7-10: **0%**
Native Tree Mean C: **n/a**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **4**

» Species Richness:

Total Species: **3**
Native Species: **2 (66.7%)**
Non-native Species: **1 (33.3%)**

» Species Wetness:

Mean Wetness: **-1.3**
Native Mean Wetness: **-2**

» Physiognomy Metrics:

Tree: **0 (0%)**
Shrub: **0 (0%)**
Vine: **0 (0%)**
Forb: **3 (100%)**
Grass: **0 (0%)**
Sedge: **0 (0%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **1 (33.3%)**
Perennial: **2 (66.7%)**
Biennial: **0 (0%)**

Native Annual: **0 (0%)**
Native Perennial: **2 (66.7%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Alisma subcordatum	Alismataceae	ALISUB	native	3	-2	forb	perennial	common water plantain
Iris virginica var. shrevei	Iridaceae	IRIVIS	native	5	-2	forb	perennial	blue flag
Persicaria maculosa	Polygonaceae	PERMAC	non-native	0	0	forb	annual	ladys thumb

Inventory Assessment

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W025

» Date & Location:

2020-09-15
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **1.4**
Native Mean C: **2.5**
Total FQI: **5.2**
Native FQI: **7.1**
Adjusted FQI: **18.9**
% C value 0: **57.1%**
% C value 1-3: **21.4%**
% C value 4-6: **21.4%**
% C value 7-10: **0%**
Native Tree Mean C: **2**
Native Shrub Mean C: **2**
Native Herbaceous Mean C: **2.7**

» Species Richness:

Total Species: **14**
Native Species: **8 (57.1%)**
Non-native Species: **6 (42.9%)**

» Species Wetness:

Mean Wetness: **0**
Native Mean Wetness: **-0.5**

» Physiognomy Metrics:

Tree: **2 (14.3%)**
Shrub: **1 (7.1%)**
Vine: **1 (7.1%)**
Forb: **5 (35.7%)**
Grass: **4 (28.6%)**
Sedge: **1 (7.1%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **4 (28.6%)**
Perennial: **10 (71.4%)**
Biennial: **0 (0%)**

Native Annual: **3 (21.4%)**
Native Perennial: **5 (35.7%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Alisma subcordatum	Alismataceae	ALISUB	native	3	-2	forb	perennial	common water plantain
Celtis occidentalis	Ulmaceae	CELOCC	native	2	0	tree	perennial	hackberry
Convolvulus arvensis	Convolvulaceae	CONARV	non-native	0	2	forb	perennial	field bindweed
Cyperus esculentus var. leptostachyus	Cyperaceae	CYPESL	native	0	0	sedge	perennial	field nut sedge
Echinochloa muricata	Poaceae	ECHMUA	native	4	-2	grass	annual	spiny barnyard grass
Impatiens capensis	Balsaminaceae	IMPCAP	native	4	-1	forb	annual	spotted touch-me-not
Lonicera japonica	Caprifoliaceae	LONJAP	non-native	0	2	vine	perennial	japanese honeysuckle
Morus alba	Moraceae	MORALA	non-native	0	1	tree	perennial	white mulberry
Panicum capillare	Poaceae	PANCAP	native	0	0	grass	annual	old witch grass
Persicaria maculosa	Polygonaceae	PERMAC	non-native	0	0	forb	annual	ladys thumb
Phalaris arundinacea	Poaceae	PHAARA	non-native	0	-1	grass	perennial	reed canary grass
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Salix interior	Salicaceae	SALINT	native	2	-1	shrub	perennial	sandbar willow
Tradescantia virginiana	Commelinaceae	TRAVIR	native	5	2	forb	perennial	virginia spiderwort

Inventory Assessment

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W026

» Date & Location:

2020-09-15
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **public** (viewable by all users of this website).

» Conservatism-Based Metrics:

Total Mean C: **1.8**
Native Mean C: **2**
Total FQI: **5.4**
Native FQI: **5.7**
Adjusted FQI: **18.9**
% C value 0: **44.4%**
% C value 1-3: **22.2%**
% C value 4-6: **33.3%**
% C value 7-10: **0%**
Native Tree Mean C: **n/a**
Native Shrub Mean C: **2**
Native Herbaceous Mean C: **2**

» Species Richness:

Total Species: **9**
Native Species: **8 (88.9%)**
Non-native Species: **1 (11.1%)**

» Species Wetness:

Mean Wetness: **-0.8**
Native Mean Wetness: **-0.8**

» Physiognomy Metrics:

Tree: **0 (0%)**
Shrub: **1 (11.1%)**
Vine: **1 (11.1%)**
Forb: **1 (11.1%)**
Grass: **4 (44.4%)**
Sedge: **2 (22.2%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **3 (33.3%)**
Perennial: **6 (66.7%)**
Biennial: **0 (0%)**

Native Annual: **3 (33.3%)**
Native Perennial: **5 (55.6%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Ambrosia trifida	Asteraceae	AMBTRI	native	0	0	forb	annual	giant ragweed
Cyperus esculentus var. leptostachyus	Cyperaceae	CYPESL	native	0	0	sedge	perennial	field nut sedge
Echinochloa muricata	Poaceae	ECHMUA	native	4	-2	grass	annual	spiny barnyard grass
Hordeum jubatum	Poaceae	HORJUB	native	0	0	grass	annual	squirrel-tail barley
Phalaris arundinacea	Poaceae	PHAARA	non-native	0	-1	grass	perennial	reed canary grass
Salix interior	Salicaceae	SALINT	native	2	-1	shrub	perennial	sandbar willow
Scirpus atrovirens	Cyperaceae	SCIATR	native	4	-2	sedge	perennial	dark green rush
Spartina pectinata	Poaceae	SPAPEC	native	4	-1	grass	perennial	prairie cordgrass
Toxicodendron radicans	Anacardiaceae	TOXRAD	native	2	0	vine	perennial	poison ivy

Inventory Assessment

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W027

» Date & Location:

2020-09-15
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **public** (viewable by all users of this website).

» Conservatism-Based Metrics:

Total Mean C: **1.7**
Native Mean C: **3**
Total FQI: **4.5**
Native FQI: **6**
Adjusted FQI: **22.7**
% C value 0: **57.1%**
% C value 1-3: **14.3%**
% C value 4-6: **28.6%**
% C value 7-10: **0%**
Native Tree Mean C: **2.5**
Native Shrub Mean C: **2**
Native Herbaceous Mean C: **5**

» Species Richness:

Total Species: **7**
Native Species: **4 (57.1%)**
Non-native Species: **3 (42.9%)**

» Species Wetness:

Mean Wetness: **-0.3**
Native Mean Wetness: **0**

» Physiognomy Metrics:

Tree: **2 (28.6%)**
Shrub: **1 (14.3%)**
Vine: **0 (0%)**
Forb: **3 (42.9%)**
Grass: **1 (14.3%)**
Sedge: **0 (0%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **1 (14.3%)**
Perennial: **6 (85.7%)**
Biennial: **0 (0%)**

Native Annual: **0 (0%)**
Native Perennial: **4 (57.1%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Persicaria maculosa	Polygonaceae	PERMAC	non-native	0	0	forb	annual	ladys thumb
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Platanus occidentalis	Platanaceae	PLAOCC	native	5	-1	tree	perennial	sycamore
Populus deltoides	Salicaceae	POPDEL	native	0	0	tree	perennial	eastern cottonwood
Salix interior	Salicaceae	SALINT	native	2	-1	shrub	perennial	sandbar willow
Tradescantia virginiana	Commelinaceae	TRAVIR	native	5	2	forb	perennial	virginia spiderwort
Typha angustifolia	Typhaceae	TYPANG	non-native	0	-2	forb	perennial	narrow-leaved cattail

Inventory Assessment

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W028

» Date & Location:

2020-09-15
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **0**
Native Mean C: **0**
Total FQI: **0**
Native FQI: **0**
Adjusted FQI: **0**
% C value 0: **100%**
% C value 1-3: **0%**
% C value 4-6: **0%**
% C value 7-10: **0%**
Native Tree Mean C: **n/a**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **n/a**

» Species Richness:

Total Species: **1**
Native Species: **0 (0%)**
Non-native Species: **1 (100%)**

» Species Wetness:

Mean Wetness: **0**
Native Mean Wetness: **0**

» Physiognomy Metrics:

Tree: **0 (0%)**
Shrub: **0 (0%)**
Vine: **0 (0%)**
Forb: **0 (0%)**
Grass: **1 (100%)**
Sedge: **0 (0%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **0 (0%)**
Perennial: **1 (100%)**
Biennial: **0 (0%)**

Native Annual: **0 (0%)**
Native Perennial: **0 (0%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed

Inventory Assessment

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W029

» Date & Location:

2020-09-15
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **1.5**
Native Mean C: **2**
Total FQI: **5.4**
Native FQI: **6.3**
Adjusted FQI: **17.5**
% C value 0: **38.5%**
% C value 1-3: **46.2%**
% C value 4-6: **15.4%**
% C value 7-10: **0%**
Native Tree Mean C: **2.6**
Native Shrub Mean C: **1**
Native Herbaceous Mean C: **1.7**

» Species Richness:

Total Species: **13**
Native Species: **10 (76.9%)**
Non-native Species: **3 (23.1%)**

» Species Wetness:

Mean Wetness: **-0.2**
Native Mean Wetness: **-0.2**

» Physiognomy Metrics:

Tree: **6 (46.2%)**
Shrub: **2 (15.4%)**
Vine: **1 (7.7%)**
Forb: **3 (23.1%)**
Grass: **1 (7.7%)**
Sedge: **0 (0%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **0 (0%)**
Perennial: **13 (100%)**
Biennial: **0 (0%)**

Native Annual: **0 (0%)**
Native Perennial: **10 (76.9%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Acer saccharinum	Sapindaceae	ACESAI	native	1	-1	tree	perennial	silver maple
Ageratina altissima	Asteraceae	AGEALT	native	3	1	forb	perennial	white snakeroot
Catalpa speciosa	Bignoniaceae	CATSPE	non-native	0	1	tree	perennial	northern cigar tree
Fraxinus pennsylvanica	Oleaceae	FRAPEN	native	4	-1	tree	perennial	red ash
Juniperus virginiana	Cupressaceae	JUNVIR	native	0	1	shrub	perennial	red cedar
Lysimachia nummularia	Myrsinaceae	LYSNUM	non-native	0	-1	forb	perennial	moneywort
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Platanus occidentalis	Platanaceae	PLAOCC	native	5	-1	tree	perennial	sycamore
Populus deltoides	Salicaceae	POPDEL	native	0	0	tree	perennial	eastern cottonwood
Rudbeckia hirta	Asteraceae	RUDHIH	native	1	1	forb	perennial	black-eyed susan
Salix interior	Salicaceae	SALINT	native	2	-1	shrub	perennial	sandbar willow
Ulmus americana	Ulmaceae	ULMAME	native	3	-1	tree	perennial	american elm
Vitis riparia	Vitaceae	VITRIR	native	1	0	vine	perennial	riverbank grape

Inventory Assessment

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W030

» Date & Location:

2020-09-15
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **1.1**
Native Mean C: **2.8**
Total FQI: **4**
Native FQI: **6.3**
Adjusted FQI: **17.4**
% C value 0: **76.9%**
% C value 1-3: **0%**
% C value 4-6: **23.1%**
% C value 7-10: **0%**
Native Tree Mean C: **4**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **2.5**

» Species Richness:

Total Species: **13**
Native Species: **5 (38.5%)**
Non-native Species: **8 (61.5%)**

» Species Wetness:

Mean Wetness: **0.2**
Native Mean Wetness: **0**

» Physiognomy Metrics:

Tree: **2 (15.4%)**
Shrub: **2 (15.4%)**
Vine: **0 (0%)**
Forb: **6 (46.2%)**
Grass: **1 (7.7%)**
Sedge: **1 (7.7%)**
Rush: **0 (0%)**
Fern: **1 (7.7%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **1 (7.7%)**
Perennial: **12 (92.3%)**
Biennial: **0 (0%)**

Native Annual: **0 (0%)**
Native Perennial: **5 (38.5%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Asclepias syriaca	Asclepiadaceae	ASCSYR	native	0	1	forb	perennial	common milkweed
Cirsium arvense	Asteraceae	CIRARV	non-native	0	1	forb	perennial	field thistle
Cyperus esculentus var. leptostachyus	Cyperaceae	CYPESL	native	0	0	sedge	perennial	field nut sedge
Fraxinus pennsylvanica	Oleaceae	FRAPEN	native	4	-1	tree	perennial	red ash
Linaria vulgaris	Scrophulariaceae	LINVUL	non-native	0	2	forb	perennial	butter- -eggs
Onoclea sensibilis	Onocleaceae	ONOSEN	native	5	-2	fern	perennial	sensitive fern
Persicaria maculosa	Polygonaceae	PERMAC	non-native	0	0	forb	annual	ladys thumb
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Rosa multiflora	Rosaceae	ROSMUL	non-native	0	1	shrub	perennial	multiflora rose
Sambucus nigra	Adoxaceae	SAMNIG	non-native	0	0	shrub	perennial	european elderberry
Tradescantia virginiana	Commelinaceae	TRAVIR	native	5	2	forb	perennial	virginia spiderwort
Typha angustifolia	Typhaceae	TYPANG	non-native	0	-2	forb	perennial	narrow-leaved cattail
Ulmus pumila	Ulmaceae	ULMPUM	non-native	0	1	tree	perennial	siberian elm

Inventory Assessment

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W031

» Date & Location:

2020-09-15
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **3.2**
Native Mean C: **4.4**
Total FQI: **10.6**
Native FQI: **12.4**
Adjusted FQI: **37.5**
% C value 0: **36.4%**
% C value 1-3: **9.1%**
% C value 4-6: **45.5%**
% C value 7-10: **9.1%**
Native Tree Mean C: **4**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **4.4**

» Species Richness:

Total Species: **11**
Native Species: **8 (72.7%)**
Non-native Species: **3 (27.3%)**

» Species Wetness:

Mean Wetness: **-0.1**
Native Mean Wetness: **-0.1**

» Physiognomy Metrics:

Tree: **2 (18.2%)**
Shrub: **0 (0%)**
Vine: **0 (0%)**
Forb: **5 (45.5%)**
Grass: **3 (27.3%)**
Sedge: **1 (9.1%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **1 (9.1%)**
Perennial: **10 (90.9%)**
Biennial: **0 (0%)**

Native Annual: **1 (9.1%)**
Native Perennial: **7 (63.6%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Cynoglossum boreale	Boraginaceae	CYNBOR	native	10	2	forb	perennial	wild comfrey
Cyperus esculentus var. leptostachyus	Cyperaceae	CYPESL	native	0	0	sedge	perennial	field nut sedge
Echinochloa muricata	Poaceae	ECHMUA	native	4	-2	grass	annual	spiny barnyard grass
Fraxinus pennsylvanica	Oleaceae	FRAPEN	native	4	-1	tree	perennial	red ash
Helianthus grosseserratus	Asteraceae	HELGRO	native	4	0	forb	perennial	sawtooth sunflower
Lythrum salicaria	Lythraceae	LYTSAL	non-native	0	-1	forb	perennial	purple loosestrife
Morus alba	Moraceae	MORALA	non-native	0	1	tree	perennial	white mulberry
Panicum virgatum	Poaceae	PANVIR	native	3	0	grass	perennial	switch grass
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Tradescantia virginiana	Commelinaceae	TRAVIR	native	5	2	forb	perennial	virginia spiderwort
Typha latifolia	Typhaceae	TYPLAT	native	5	-2	forb	perennial	broad-leaved cattail

Inventory Assessment

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W032

» Date & Location:

2020-09-15
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **1.9**
Native Mean C: **2.4**
Total FQI: **9.7**
Native FQI: **11**
Adjusted FQI: **21.6**
% C value 0: **34.6%**
% C value 1-3: **38.5%**
% C value 4-6: **26.9%**
% C value 7-10: **0%**
Native Tree Mean C: **2**
Native Shrub Mean C: **3**
Native Herbaceous Mean C: **2.4**

» Species Richness:

Total Species: **26**
Native Species: **21 (80.8%)**
Non-native Species: **5 (19.2%)**

» Species Wetness:

Mean Wetness: **-0.1**
Native Mean Wetness: **-0.2**

» Physiognomy Metrics:

Tree: **2 (7.7%)**
Shrub: **3 (11.5%)**
Vine: **2 (7.7%)**
Forb: **14 (53.8%)**
Grass: **2 (7.7%)**
Sedge: **1 (3.8%)**
Rush: **0 (0%)**
Fern: **2 (7.7%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **4 (15.4%)**
Perennial: **21 (80.8%)**
Biennial: **1 (3.8%)**

Native Annual: **4 (15.4%)**
Native Perennial: **17 (65.4%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Acer saccharinum	Sapindaceae	ACESAI	native	1	-1	tree	perennial	silver maple
Ageratina altissima	Asteraceae	AGEALT	native	3	1	forb	perennial	white snakeroot
Ambrosia artemisiifolia	Asteraceae	AMBART	native	0	1	forb	annual	common ragweed
Asclepias syriaca	Asclepiadaceae	ASCSYR	native	0	1	forb	perennial	common milkweed
Bidens frondosa	Asteraceae	BIDFRO	native	1	-1	forb	annual	common beggars ticks
Cirsium arvense	Asteraceae	CIRARV	non-native	0	1	forb	perennial	field thistle
Cyperus esculentus var. leptostachyus	Cyperaceae	CYPESL	native	0	0	sedge	perennial	field nut sedge
Equisetum hyemale	Equisetaceae	EQUHYE	native	1	1	fern	perennial	tall scouring rush
Helianthus grosseserratus	Asteraceae	HELGRO	native	4	0	forb	perennial	sawtooth sunflower
Impatiens capensis	Balsaminaceae	IMPCAP	native	4	-1	forb	annual	spotted touch-me-not
Juncus torreyi	Juncaceae	JUNTOR	native	2	-1	forb	perennial	torreys rush
Leersia oryzoides	Poaceae	LEEORY	native	3	-2	grass	perennial	rice cut grass
Lobelia siphilitica	Lobeliaceae	LOBSIP	native	4	-1	forb	perennial	great blue lobelia
Lonicera japonica	Caprifoliaceae	LONJAP	non-native	0	2	vine	perennial	japanese honeysuckle
Onoclea sensibilis	Onocleaceae	ONOSEN	native	5	-2	fern	perennial	sensitive fern
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Rubus idaeus	Rosaceae	RUBIDA	non-native	0	1	shrub	biennial	garden raspberry
Salix interior	Salicaceae	SALINT	native	2	-1	shrub	perennial	sandbar willow
Sambucus canadensis	Adoxaceae	SAMCAC	native	4	-1	shrub	perennial	elderberry
Solidago canadensis	Asteraceae	SOLCAN	native	1	1	forb	perennial	canada goldenrod
Symphyotrichum ericoides	Asteraceae	SYMERI	native	6	1	forb	perennial	heath aster
Tradescantia virginiana	Commelinaceae	TRAVIR	native	5	2	forb	perennial	virginia spiderwort
Typha angustifolia	Typhaceae	TYPANG	non-native	0	-2	forb	perennial	narrow-leaved cattail
Ulmus americana	Ulmaceae	ULMAME	native	3	-1	tree	perennial	american elm
Vitis riparia	Vitaceae	VITRIR	native	1	0	vine	perennial	riverbank grape
Xanthium strumarium var. canadense	Asteraceae	XANSTC	native	0	0	forb	annual	common cocklebur

Inventory Assessment

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W033

» Date & Location:

2020-09-16
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **1.2**
Native Mean C: **2.3**
Total FQI: **2.9**
Native FQI: **4**
Adjusted FQI: **16.3**
% C value 0: **50%**
% C value 1-3: **33.3%**
% C value 4-6: **16.7%**
% C value 7-10: **0%**
Native Tree Mean C: **3**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **1**

» Species Richness:

Total Species: **6**
Native Species: **3 (50%)**
Non-native Species: **3 (50%)**

» Species Wetness:

Mean Wetness: **0.2**
Native Mean Wetness: **-0.3**

» Physiognomy Metrics:

Tree: **2 (33.3%)**
Shrub: **0 (0%)**
Vine: **1 (16.7%)**
Forb: **2 (33.3%)**
Grass: **1 (16.7%)**
Sedge: **0 (0%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **0 (0%)**
Perennial: **5 (83.3%)**
Biennial: **1 (16.7%)**

Native Annual: **0 (0%)**
Native Perennial: **3 (50%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Celtis occidentalis	Ulmaceae	CELOCC	native	2	0	tree	perennial	hackberry
Cirsium arvense	Asteraceae	CIRARV	non-native	0	1	forb	perennial	field thistle
Dipsacus fullonum	Dipsacaceae	DIPFUL	non-native	0	1	forb	biennial	common teasel
Fraxinus pennsylvanica	Oleaceae	FRAPEN	native	4	-1	tree	perennial	red ash
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Vitis riparia	Vitaceae	VITRIR	native	1	0	vine	perennial	riverbank grape

Inventory Assessment

Edit This Inventory | Download Report | Done

W034

» Date & Location:

2020-09-16
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **2.1**
Native Mean C: **2.8**
Total FQI: **9.6**
Native FQI: **11.2**
Adjusted FQI: **24.4**
% C value 0: **42.9%**
% C value 1-3: **19%**
% C value 4-6: **38.1%**
% C value 7-10: **0%**
Native Tree Mean C: **2**
Native Shrub Mean C: **2**
Native Herbaceous Mean C: **2.9**

» Species Richness:

Total Species: **21**
Native Species: **16 (76.2%)**
Non-native Species: **5 (23.8%)**

» Species Wetness:

Mean Wetness: **-0.5**
Native Mean Wetness: **-0.8**

» Physiognomy Metrics:

Tree: **2 (9.5%)**
Shrub: **2 (9.5%)**
Vine: **0 (0%)**
Forb: **11 (52.4%)**
Grass: **1 (4.8%)**
Sedge: **3 (14.3%)**
Rush: **0 (0%)**
Fern: **2 (9.5%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **5 (23.8%)**
Perennial: **16 (76.2%)**
Biennial: **0 (0%)**

Native Annual: **3 (14.3%)**
Native Perennial: **13 (61.9%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Apocynum cannabinum	Apocynaceae	APOCAC	native	6	-1	forb	perennial	hairy dogbane
Bidens frondosa	Asteraceae	BIDFRO	native	1	-1	forb	annual	common beggars ticks
Commelina communis	Commelinaceae	COMCOM	non-native	0	1	forb	annual	common day flower
Cyperus esculentus var. leptostachyus	Cyperaceae	CYPESL	native	0	0	sedge	perennial	field nut sedge
Equisetum arvense	Equisetaceae	EQUARV	native	0	0	fern	perennial	horsetail
Fraxinus pennsylvanica	Oleaceae	FRAPEN	native	4	-1	tree	perennial	red ash
Impatiens capensis	Balsaminaceae	IMPCAP	native	4	-1	forb	annual	spotted touch-me-not
Lobelia siphilitica	Lobeliaceae	LOBSIP	native	4	-1	forb	perennial	great blue lobelia
Lonicera tatarica	Caprifoliaceae	LONTAT	non-native	0	2	shrub	perennial	tartarian honeysuckle
Lycopus americanus	Lamiaceae	LYCAME	native	4	-2	forb	perennial	common water horehound
Onoclea sensibilis	Onocleaceae	ONOSEN	native	5	-2	fern	perennial	sensitive fern
Persicaria maculosa	Polygonaceae	PERMAC	non-native	0	0	forb	annual	ladys thumb
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Populus deltoides	Salicaceae	POPDEL	native	0	0	tree	perennial	eastern cottonwood
Salix interior	Salicaceae	SALINT	native	2	-1	shrub	perennial	sandbar willow
Schoenoplectus tabernaemontani	Cyperaceae	SCHTAB	native	3	-2	sedge	perennial	great bulrush
Scirpus atrovirens	Cyperaceae	SCIATR	native	4	-2	sedge	perennial	dark green rush
Solidago canadensis	Asteraceae	SOLCAN	native	1	1	forb	perennial	canada goldenrod
Symphyotrichum ericoides	Asteraceae	SYMERI	native	6	1	forb	perennial	heath aster
Typha angustifolia	Typhaceae	TYPANG	non-native	0	-2	forb	perennial	narrow-leaved cattail
Xanthium strumarium var. canadense	Asteraceae	XANSTC	native	0	0	forb	annual	common cocklebur

Inventory Assessment

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W035

» Date & Location:

2020-09-16
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **3**
Native Mean C: **4.1**
Total FQI: **11.6**
Native FQI: **13.6**
Adjusted FQI: **35.1**
% C value 0: **26.7%**
% C value 1-3: **13.3%**
% C value 4-6: **60%**
% C value 7-10: **0%**
Native Tree Mean C: **n/a**
Native Shrub Mean C: **2**
Native Herbaceous Mean C: **4.3**

» Species Richness:

Total Species: **15**
Native Species: **11 (73.3%)**
Non-native Species: **4 (26.7%)**

» Species Wetness:

Mean Wetness: **-0.2**
Native Mean Wetness: **-0.5**

» Physiognomy Metrics:

Tree: **1 (6.7%)**
Shrub: **2 (13.3%)**
Vine: **0 (0%)**
Forb: **8 (53.3%)**
Grass: **1 (6.7%)**
Sedge: **1 (6.7%)**
Rush: **0 (0%)**
Fern: **2 (13.3%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **2 (13.3%)**
Perennial: **13 (86.7%)**
Biennial: **0 (0%)**

Native Annual: **2 (13.3%)**
Native Perennial: **9 (60%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Apocynum cannabinum	Apocynaceae	APOCAC	native	6	-1	forb	perennial	hairy dogbane
Chamaecrista fasciculata	Caesalpiniaceae	CHAFAF	native	4	1	forb	annual	common partridge pea
Convolvulus arvensis	Convolvulaceae	CONARV	non-native	0	2	forb	perennial	field bindweed
Equisetum hyemale	Equisetaceae	EQUHYE	native	1	1	fern	perennial	tall scouring rush
Frangula alnus	Rhamnaceae	FRAALN	non-native	0	-1	shrub	perennial	glossy buckthorn
Impatiens capensis	Balsaminaceae	IMPCAP	native	4	-1	forb	annual	spotted touch-me-not
Lobelia siphilitica	Lobeliaceae	LOBSIP	native	4	-1	forb	perennial	great blue lobelia
Lycopus americanus	Lamiaceae	LYCAME	native	4	-2	forb	perennial	common water horehound
Onoclea sensibilis	Onocleaceae	ONOSEN	native	5	-2	fern	perennial	sensitive fern
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Robinia pseudoacacia	Fabaceae	ROBPSE	non-native	0	1	tree	perennial	black locust
Salix interior	Salicaceae	SALINT	native	2	-1	shrub	perennial	sandbar willow
Scirpus atrovirens	Cyperaceae	SCIATR	native	4	-2	sedge	perennial	dark green rush
Symphyotrichum ericoides	Asteraceae	SYMERI	native	6	1	forb	perennial	heath aster
Tradescantia virginiana	Commelinaceae	TRAVIR	native	5	2	forb	perennial	virginia spiderwort

Inventory Assessment

Edit This Inventory | Download Report | Done

W036

» Date & Location:

2020-09-16
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **0**
Native Mean C: **0**
Total FQI: **0**
Native FQI: **0**
Adjusted FQI: **0**
% C value 0: **100%**
% C value 1-3: **0%**
% C value 4-6: **0%**
% C value 7-10: **0%**
Native Tree Mean C: **n/a**
Native Shrub Mean C: **n/a**
Native Herbaceous Mean C: **0**

» Species Richness:

Total Species: **3**
Native Species: **1 (33.3%)**
Non-native Species: **2 (66.7%)**

» Species Wetness:

Mean Wetness: **-0.7**
Native Mean Wetness: **0**

» Physiognomy Metrics:

Tree: **0 (0%)**
Shrub: **0 (0%)**
Vine: **0 (0%)**
Forb: **2 (66.7%)**
Grass: **0 (0%)**
Sedge: **1 (33.3%)**
Rush: **0 (0%)**
Fern: **0 (0%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **1 (33.3%)**
Perennial: **2 (66.7%)**
Biennial: **0 (0%)**

Native Annual: **0 (0%)**
Native Perennial: **1 (33.3%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Cyperus esculentus var. leptostachyus	Cyperaceae	CYPESL	native	0	0	sedge	perennial	field nut sedge
Persicaria maculosa	Polygonaceae	PERMAC	non-native	0	0	forb	annual	ladys thumb
Typha angustifolia	Typhaceae	TYPANG	non-native	0	-2	forb	perennial	narrow-leaved cattail

Inventory Assessment

Edit This Inventory | Download Report | Done

W038

» Date & Location:

2020-09-17
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **2.3**
Native Mean C: **2.8**
Total FQI: **7.6**
Native FQI: **8.4**
Adjusted FQI: **25.3**
% C value 0: **27.3%**
% C value 1-3: **36.4%**
% C value 4-6: **36.4%**
% C value 7-10: **0%**
Native Tree Mean C: **n/a**
Native Shrub Mean C: **2**
Native Herbaceous Mean C: **2.9**

» Species Richness:

Total Species: **11**
Native Species: **9 (81.8%)**
Non-native Species: **2 (18.2%)**

» Species Wetness:

Mean Wetness: **-0.4**
Native Mean Wetness: **-0.2**

» Physiognomy Metrics:

Tree: **0 (0%)**
Shrub: **1 (9.1%)**
Vine: **0 (0%)**
Forb: **5 (45.5%)**
Grass: **2 (18.2%)**
Sedge: **2 (18.2%)**
Rush: **0 (0%)**
Fern: **1 (9.1%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **1 (9.1%)**
Perennial: **10 (90.9%)**
Biennial: **0 (0%)**

Native Annual: **1 (9.1%)**
Native Perennial: **8 (72.7%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Cyperus esculentus var. leptostachyus	Cyperaceae	CYPESL	native	0	0	sedge	perennial	field nut sedge
Desmanthus illinoensis	Mimosaceae	DESILS	native	3	1	forb	perennial	illinois bundleflower
Echinochloa muricata	Poaceae	ECHMUA	native	4	-2	grass	annual	spiny barnyard grass
Equisetum hyemale	Equisetaceae	EQUHYE	native	1	1	fern	perennial	tall scouring rush
Lobelia siphilitica	Lobeliaceae	LOBSIP	native	4	-1	forb	perennial	great blue lobelia
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Salix interior	Salicaceae	SALINT	native	2	-1	shrub	perennial	sandbar willow
Scirpus atrovirens	Cyperaceae	SCIATR	native	4	-2	sedge	perennial	dark green rush
Solidago canadensis	Asteraceae	SOLCAN	native	1	1	forb	perennial	canada goldenrod
Symphyotrichum ericoides	Asteraceae	SYMERI	native	6	1	forb	perennial	heath aster
Typha angustifolia	Typhaceae	TYPANG	non-native	0	-2	forb	perennial	narrow-leaved cattail

Inventory Assessment

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W039

» Date & Location:

2020-09-17
Tier 8

» FQA Database:

Region: **Flora of the Chicago Region**
Year Published: **2017**
Description:
Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

» Details:

Practitioner: **Katie Wilson**
Latitude:
Longitude:
Weather Notes:
Duration Notes:
Community Type Notes:
Other Notes:
This assessment is **private** (viewable only by you).

» Conservatism-Based Metrics:

Total Mean C: **1.5**
Native Mean C: **3.2**
Total FQI: **5**
Native FQI: **7.2**
Adjusted FQI: **21.6**
% C value 0: **54.5%**
% C value 1-3: **18.2%**
% C value 4-6: **27.3%**
% C value 7-10: **0%**
Native Tree Mean C: **n/a**
Native Shrub Mean C: **1**
Native Herbaceous Mean C: **3.8**

» Species Richness:

Total Species: **11**
Native Species: **5 (45.5%)**
Non-native Species: **6 (54.5%)**

» Species Wetness:

Mean Wetness: **0.2**
Native Mean Wetness: **0.6**

» Physiognomy Metrics:

Tree: **1 (9.1%)**
Shrub: **2 (18.2%)**
Vine: **0 (0%)**
Forb: **6 (54.5%)**
Grass: **1 (9.1%)**
Sedge: **0 (0%)**
Rush: **0 (0%)**
Fern: **1 (9.1%)**
Bryophyte: **0 (0%)**

» Duration Metrics:

Annual: **2 (18.2%)**
Perennial: **9 (81.8%)**
Biennial: **0 (0%)**

Native Annual: **0 (0%)**
Native Perennial: **5 (45.5%)**
Native Biennial: **0 (0%)**

» Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
Alnus glutinosa	Betulaceae	ALNGLU	non-native	0	-1	tree	perennial	black alder
Commelina communis	Commelinaceae	COMCOM	non-native	0	1	forb	annual	common day flower
Equisetum hyemale	Equisetaceae	EQUHYE	native	1	1	fern	perennial	tall scouring rush
Helianthus grosseserratus	Asteraceae	HELGRO	native	4	0	forb	perennial	sawtooth sunflower
Lobelia siphilitica	Lobeliaceae	LOBSIP	native	4	-1	forb	perennial	great blue lobelia
Persicaria maculosa	Polygonaceae	PERMAC	non-native	0	0	forb	annual	ladys thumb
Phragmites australis	Poaceae	PHRAUA	non-native	0	0	grass	perennial	common reed
Reynoutria japonica	Polygonaceae	REYJAP	non-native	0	1	shrub	perennial	japanese knotweed
Rhus glabra	Anacardiaceae	RHUGLA	native	1	2	shrub	perennial	smooth sumac
Symphyotrichum ericoides	Asteraceae	SYMERI	native	6	1	forb	perennial	heath aster
Typha angustifolia	Typhaceae	TYPANG	non-native	0	-2	forb	perennial	narrow-leaved cattail

Appendix F
Stream Assessment Forms

Stream Data Form

Stream Name: Unnamed NHD Tributary	Stream No: **S001**	
Associated Wetland IDs: W010 and W015	Date: **September 10, 2020**	County/State: **Will County, Illinois**
Investigator: **K. Wilson & G. Pettit**	Team No.: **N/A**	Landowner/Tract No.: **Union Pacific Railroad Co.**

STREAM PHOTO: S001 facing south

Stream Flow	Fast:		Moderate:		Slow: X		Very Slow:	None:	
	Perennial:		Intermittent: X		Ephemeral:				
Stream Depth (in.)	0-3:	3-6:	6-12: X	12-18:	18-24:	24-36:	36-48:	48-60:	60+:
Stream Width (ft.)	Top of Banks: 4 to 8 Feet								
Stream Substrate	Bedrock:		Gravel:		Sand:		Silt/Clay: X	Organic:	

Stream Data Form

Bank Height (ft.)	Left	0-2: X	2-4:	4-6:	6-8:	8+:
	Right	0-2: X	2-4:	4-6:	6-8:	8+:

Bank Slope (º)	Left	0-20: X	20-40:	40-60:	60-80:	80+:
	Right	0-20: X	20-40:	40-60:	60-80:	80+:

Water Clarity	Clear:	Slightly Turbid:	Turbid: X	Very Turbid:	Color: Light brown/grey

Aquatic Habitat	Sand Bar:	Gravel Bar:	Mud Bar:	Gravel Riffles:	Deep Pools:
	Overhanging trees/shrubs: ✓	In-stream emergent plants:	In-stream submergent plants:	Bank root systems:	Fringing Wetlands: X

Aquatic Organisms	Waterfowl:	Fish (adult):	Fish (juvenile):	Frogs:	Turtles:
	Snakes:	Invertebrates:	Other: none observed		

RIPARIAN VEGETATION DESCRIPTION
Phalaris arundinacea, Poa sp., Vitis riparia, Solidago canadensis

COMMENTS (construction constraints, erosion potential, existing disturbances, and meanders)
Culvert fed drainage watercourse with vegetated riparian edges.

STREAM QUALITY	(indicate)	High:	Moderate:	Low: X

Rationale for selected rank (explain):
Turbid, shallow, low quality waterbody with invasive species comprising the riparian buffer. Substrate appears instable/mobile and presumed resulting from erosive soils.

High Quality – no indication of stress or disturbance in stream or adjacent area – diverse and mature fringing shrub-dominated cover - diverse and stable fish & wildlife habitat – gravel beds, submerged logs, undercut banks, riffles and pools – no channelization

Moderate Quality – mild to moderate disturbances result in minor recognizable alterations – pipeline, road, railroad, other ROWs – provides fair fish and wildlife habitat – some erosion potential – some habitat diversity – fine sediment deposition predominate – flow and depth variation restricted – some channelization – trees, grass, or forbes dominate bank vegetation

Low quality – disturbances cause significant changes affecting plant species – mechanical alteration of plant species and/or soils – intense grazing activities – stream course channelization or ditching – exotic, nuisance, or invasive species – habitat diversity lacking – high erosion potential – flow and depth variation lacking - does not provide suitable wildlife habitat – grass or forbes dominate bank vegetation

Stream Data Form

Stream Name: Grant Creek	Stream No: **S002**	
Associated Wetland ID: W014	Date: **September 11, 2020**	County/State: **Will County, Illinois**
Investigator: **K. Wilson & G. Pettit**	Team No.: **N/A**	Landowner/Tract No.: **Union Pacific Railroad Co.**

STREAM PHOTO: S002 facing east

Stream Flow	Fast:		Moderate:		Slow:		Very Slow: X		None:
	Perennial:		Intermittent: X		Ephemeral:				
Stream Depth (in.)	0-3:	3-6: X	6-12:	12-18:	18-24:	24-36:	36-48:	48-60:	60+:
Stream Width (ft.)	Top of Banks: 12 to 15 Feet								
Stream Substrate	Bedrock:		Gravel: X		Sand:		Silt/Clay: X		Organic:

Stream Data Form

Bank Height (ft.)	Left	0-2: X	2-4:	4-6:	6-8:	8+:
	Right	0-2:	2-4: X	4-6:	6-8:	8+:

Bank Slope (º)	Left	0-20: X	20-40:	40-60:	60-80:	80+:
	Right	0-20:	20-40:	40-60:	60-80:	80+: X

Water Clarity	Clear:	Slightly Turbid: X	Turbid:	Very Turbid:	Color: Light brown/clear

Aquatic Habitat	Sand Bar:	Gravel Bar: X	Mud Bar:	Gravel Riffles: X	Deep Pools:
	Overhanging trees/shrubs: ✓	In-stream emergent plants:	In-stream submergent plants:	Bank root systems:	Fringing Wetlands: X

Aquatic Organisms	Waterfowl:	Fish (adult):	Fish (juvenile):	Frogs:	Turtles:
	Snakes:	Invertebrates:	Other: none observed		

RIPARIAN VEGETATION DESCRIPTION
Phalaris arundinacea, Poa sp., Lonicera sp.

COMMENTS (construction constraints, erosion potential, existing disturbances, and meanders)
Perennial watercourse with intermittent vegetated riparian edges. Southern bank is highly eroded in some places with a four-foot bank. Riffles throughout stream bed.

STREAM QUALITY	(indicate)	High:	Moderate: X	Low:

Rationale for selected rank (explain):
Shallow, moderate quality waterbody. Substrate has gravel riffles; however, silty deposits in some areas are up to 6 inches deep. South bank is eroding.

High Quality – no indication of stress or disturbance in stream or adjacent area – diverse and mature fringing shrub-dominated cover - diverse and stable fish & wildlife habitat – gravel beds, submerged logs, undercut banks, riffles and pools – no channelization

Moderate Quality – mild to moderate disturbances result in minor recognizable alterations – pipeline, road, railroad, other ROWs – provides fair fish and wildlife habitat – some erosion potential – some habitat diversity – fine sediment deposition predominate – flow and depth variation restricted – some channelization – trees, grass, or forbes dominate bank vegetation

Low quality – disturbances cause significant changes affecting plant species – mechanical alteration of plant species and/or soils – intense grazing activities – stream course channelization or ditching – exotic, nuisance, or invasive species – habitat diversity lacking – high erosion potential – flow and depth variation lacking - does not provide suitable wildlife habitat – grass or forbes dominate bank vegetation

Stream Data Form

Stream Name: Prairie Creek	Stream No: **S003**	
Associated Wetland IDs: W019b and W019c	Date: **September 11, 2020**	County/State: **Will County, Illinois**
Investigator: **K. Wilson & G. Pettit**	Team No.: **N/A**	Landowner/Tract No.: **Union Pacific Railroad Co.**

STREAM PHOTOS: S003 facing west

S003 facing north

Stream Data Form

Stream Flow	Fast:		Moderate:		Slow: X		Very Slow:	None:	
	Perennial: X		Intermittent:		Ephemeral:				
Stream Depth (in.)	0-3:	3-6:	6-12: X	12-18:	18-24:	24-36:	36-48:	48-60:	60+:
Stream Width (ft.)	Top of Banks: about 60 Feet								
Stream Substrate	Bedrock:		Gravel: X		Sand: X		Silt/Clay: X	Organic:	

Bank Height (ft.)	Left	0-2: X	2-4:	4-6:	6-8:	8+:
	Right	0-2: X	2-4:	4-6:	6-8:	8+:
Bank Slope (º)	Left	0-20: X	20-40:	40-60:	60-80:	80+:
	Right	0-20: X	20-40:	40-60:	60-80:	80+:
Water Clarity	Clear: X		Slightly Turbid:	Turbid:	Very Turbid:	Color: Clear
Aquatic Habitat	Sand Bar: X		Gravel Bar:	Mud Bar:	Gravel Riffles:	Deep Pools:
	Overhanging trees/shrubs: X		In-stream emergent plants: X	In-stream submergent plants:	Bank root systems:	Fringing Wetlands: X
Aquatic Organisms	Waterfowl:		Fish (adult):	Fish (juvenile):	Frogs:	Turtles:
	Snakes:		Invertebrates:	Other: none observed		

RIPARIAN VEGETATION DESCRIPTION
Phalaris arundinacea, Polygonum sp., Persicaria maculosa

COMMENTS (construction constraints, erosion potential, existing disturbances, and meanders)
Perennial watercourse with in-stream emergent plants and stream braids. Gravel substrate where no in-stream vegetation occurs.

STREAM QUALITY	(indicate)	High:	Moderate: X	Low:

Rationale for selected rank (explain):
Shallow, moderate quality waterbody. River contains several in-stream emergent plant areas along with pocket wetland islands.

High Quality – no indication of stress or disturbance in stream or adjacent area – diverse and mature fringing shrub-dominated cover - diverse and stable fish & wildlife habitat – gravel beds, submerged logs, undercut banks, riffles and pools – no channelization

Moderate Quality – mild to moderate disturbances result in minor recognizable alterations – pipeline, road, railroad, other ROWs – provides fair fish and wildlife habitat – some erosion potential – some habitat diversity – fine sediment deposition predominate – flow and depth variation restricted – some channelization – trees, grass, or forbes dominate bank vegetation

Low quality – disturbances cause significant changes affecting plant species – mechanical alteration of plant species and/or soils – intense grazing activities – stream course channelization or ditching – exotic, nuisance, or invasive species – habitat diversity lacking – high erosion potential – flow and depth variation lacking - does not provide suitable wildlife habitat – grass or forbes dominate bank vegetation

Stream Data Form

Stream Name: Unnamed	Stream No: **S004**	
Associated Wetland IDs: W021a and W020b	Date: **September 11, 2020**	County/State: **Will County, Illinois**
Investigator: **K. Wilson & G. Pettit**	Team No.: **N/A**	Landowner/Tract No.: **Union Pacific Railroad Co.**

STREAM PHOTO: S004 facing north

Stream Flow	Fast: Perennial:	Moderate: Intermittent: X	Slow: Ephemeral:	Very Slow: X	None:

Stream Depth (in.)	0-3: X	3-6:	6-12:	12-18:	18-24:	24-36:	36-48:	48-60:	60+:

Stream Width (ft.)	Top of Banks: 8 to 15 Feet	

Stream Substrate	Bedrock:	Gravel: X	Sand:	Silt/Clay: X	Organic: X

Stream Data Form

Bank Height (ft.)	Left	0-2: X	2-4:	4-6:	6-8:	8+:
	Right	0-2: X	2-4:	4-6:	6-8:	8+:

Bank Slope (º)	Left	0-20: X	20-40:	40-60:	60-80:	80+:
	Right	0-20: X	20-40:	40-60:	60-80:	80+:

Water Clarity	Clear:	Slightly Turbid: X	Turbid:	Very Turbid:	Color: Light brown

Aquatic Habitat	Sand Bar:	Gravel Bar:	Mud Bar:	Gravel Riffles:	Deep Pools:
	Overhanging trees/shrubs: ✓	In-stream emergent plants:	In-stream submergent plants:	Bank root systems:	Fringing Wetlands:

Aquatic Organisms	Waterfowl:	Fish (adult):	Fish (juvenile):	Frogs:	Turtles:
	Snakes:	Invertebrates:	Other: none observed		

RIPARIAN VEGETATION DESCRIPTION
Lonicera sp.

COMMENTS (construction constraints, erosion potential, existing disturbances, and meanders)
Culvert fed drainage watercourse that connects to an NHD unnamed tributary.

STREAM QUALITY	(indicate)	High:	Moderate: X	Low:

Rationale for selected rank (explain):
Shallow, stagnant water within moderate quality waterbody. Substrate compact with eroding banks.

High Quality – no indication of stress or disturbance in stream or adjacent area – diverse and mature fringing shrub-dominated cover - diverse and stable fish & wildlife habitat – gravel beds, submerged logs, undercut banks, riffles and pools – no channelization

Moderate Quality – mild to moderate disturbances result in minor recognizable alterations – pipeline, road, railroad, other ROWs – provides fair fish and wildlife habitat – some erosion potential – some habitat diversity – fine sediment deposition predominate – flow and depth variation restricted – some channelization – trees, grass, or forbes dominate bank vegetation

Low quality – disturbances cause significant changes affecting plant species – mechanical alteration of plant species and/or soils – intense grazing activities – stream course channelization or ditching – exotic, nuisance, or invasive species – habitat diversity lacking – high erosion potential – flow and depth variation lacking - does not provide suitable wildlife habitat – grass or forbes dominate bank vegetation

Stream Data Form

Stream Name: Unnamed	Stream No: **S005**	
Associated Wetland IDs: W023 and W024	Date: **September 14, 2020**	County/State: **Will County, Illinois**
Investigator: **K. Wilson & G. Pettit**	Team No.: **N/A**	Landowner/Tract No.: **Union Pacific Railroad Co.**

STREAM PHOTO: S005 facing east

Stream Flow	Fast:		Moderate:		Slow: X		Very Slow:	None:	
	Perennial:		Intermittent: X		Ephemeral:				
Stream Depth (in.)	0-3:	3-6:	6-12:	12-18:	18-24: X	24-36:	36-48:	48-60:	60+:
Stream Width (ft.)	Top of Banks: 15 Feet								
Stream Substrate	Bedrock:		Gravel: X		Sand:		Silt/Clay: X	Organic:	

Stream Data Form

Bank Height (ft.)	Left west	0-2:	2-4: X	4-6:	6-8:	8+:
	Right east	0-2: X	2-4:	4-6:	6-8:	8+:

Bank Slope (º)	Left	0-20:	20-40: X	40-60:	60-80:	80+:
	Right	0-20: X	20-40:	40-60:	60-80:	80+:

Water Clarity	Clear:	Slightly Turbid:	Turbid: X	Very Turbid:	Color: Light brown/grey

Aquatic Habitat	Sand Bar:	Gravel Bar:	Mud Bar:	Gravel Riffles:	Deep Pools:
	Overhanging trees/shrubs:	In-stream emergent plants:	In-stream submergent plants:	Bank root systems:	Fringing Wetlands: X

Aquatic Organisms	Waterfowl:	Fish (adult):	Fish (juvenile):	Frogs: X	Turtles:
	Snakes:	Invertebrates:	Other:		

RIPARIAN VEGETATION DESCRIPTION
Phalaris arundinacea, Vitis riparia, Solidago canadensis, Asclepias syriaca

COMMENTS (construction constraints, erosion potential, existing disturbances, and meanders)
Culvert fed drainage watercourse with vegetated riparian edges. Silty substrate.

STREAM QUALITY	(indicate)	High:	Moderate:	Low: X

Rationale for selected rank (explain):
Turbid, moderate quality waterbody. Substrate appears instable/mobile and presumed resulting from erosive soils.

High Quality – no indication of stress or disturbance in stream or adjacent area – diverse and mature fringing shrub-dominated cover - diverse and stable fish & wildlife habitat – gravel beds, submerged logs, undercut banks, riffles and pools – no channelization

Moderate Quality – mild to moderate disturbances result in minor recognizable alterations – pipeline, road, railroad, other ROWs – provides fair fish and wildlife habitat – some erosion potential – some habitat diversity – fine sediment deposition predominate – flow and depth variation restricted – some channelization – trees, grass, or forbes dominate bank vegetation

Low quality – disturbances cause significant changes affecting plant species – mechanical alteration of plant species and/or soils – intense grazing activities – stream course channelization or ditching – exotic, nuisance, or invasive species – habitat diversity lacking – high erosion potential – flow and depth variation lacking - does not provide suitable wildlife habitat – grass or forbes dominate bank vegetation

Stream Data Form

Stream Name: Unnamed NHD Tributary	Stream No: **S006**	
Associated Wetland IDs: W025 and W026	Date: **September 10, 2020**	County/State: **Will County, Illinois**
Investigator: **K. Wilson & G. Pettit**	Team No.: **N/A**	Landowner/Tract No.: **Union Pacific Railroad Co.**

STREAM PHOTO: S006 facing west. Culvert underneath railroad

Stream Flow	Fast:		Moderate:		Slow: X		Very Slow:	None:	
	Perennial:		Intermittent: X		Ephemeral:				
Stream Depth (in.)	0-3:	3-6:	6-12:	12-18: X	18-24:	24-36:	36-48:	48-60:	60+:
Stream Width (ft.)	Top of Banks: 11 to 30 Feet								
Stream Substrate	Bedrock:		Gravel:		Sand:		Silt/Clay: X	Organic:	

Stream Data Form

Bank Height (ft.)	Left	0-2: X	2-4:	4-6:	6-8:	8+:
	Right	0-2: X	2-4:	4-6:	6-8:	8+:

Bank Slope (º)	Left	0-20: X	20-40:	40-60:	60-80:	80+:
	Right	0-20: X	20-40:	40-60:	60-80:	80+:

Water Clarity	Clear:	Slightly Turbid:	Turbid: X	Very Turbid:	Color: Light brown/grey

Aquatic Habitat	Sand Bar:	Gravel Bar:	Mud Bar:	Gravel Riffles:	Deep Pools:
	Overhanging trees/shrubs:	In-stream emergent plants:	In-stream submergent plants:	Bank root systems:	Fringing Wetlands: X

Aquatic Organisms	Waterfowl:	Fish (adult):	Fish (juvenile):	Frogs:	Turtles:
	Snakes:	Invertebrates:	Other: none observed		

T/E SPECIES / SUITABLE HABITAT (briefly describe potential/occurrence)
See biological resources technical memorandum.

RIPARIAN VEGETATION DESCRIPTION
Phalaris arundinacea, Poa sp., Polygonum sp.

COMMENTS (construction constraints, erosion potential, existing disturbances, and meanders)
Culvert fed drainage watercourse with vegetated riparian edges.

STREAM QUALITY	(indicate)	High:	Moderate: X	Low:

Rationale for selected rank (explain):
Culverted moderate quality waterbody. Substrate appears instable/mobile and presumed resulting from erosive soils.

High Quality – no indication of stress or disturbance in stream or adjacent area – diverse and mature fringing shrub-dominated cover - diverse and stable fish & wildlife habitat – gravel beds, submerged logs, undercut banks, riffles and pools – no channelization

Moderate Quality – mild to moderate disturbances result in minor recognizable alterations – pipeline, road, railroad, other ROWs – provides fair fish and wildlife habitat – some erosion potential – some habitat diversity – fine sediment deposition predominate – flow and depth variation restricted – some channelization – trees, grass, or forbes dominate bank vegetation

Low quality – disturbances cause significant changes affecting plant species – mechanical alteration of plant species and/or soils – intense grazing activities – stream course channelization or ditching – exotic, nuisance, or invasive species – habitat diversity lacking – high erosion potential – flow and depth variation lacking - does not provide suitable wildlife habitat – grass or forbes dominate bank vegetation

Stream Data Form

Stream Name: Forked Creek	Stream No: **S007**	
Associated Wetland ID: N/A	Date: **September 17, 2020**	County/State: **Will County, Illinois**
Investigator: **K. Wilson & G. Pettit**	Team No.: **N/A**	Landowner/Tract No.: **Union Pacific Railroad Co.**

STREAM PHOTO: S007 facing west

Stream Flow	Fast:		Moderate: X		Slow:		Very Slow:	None:	
	Perennial: X		Intermittent:		Ephemeral:				
Stream Depth (in.)	0-3:	3-6:	6-12:	12-18: X	18-24:	24-36:	36-48:	48-60:	60+:
Stream Width (ft.)	Top of Banks: 90 to 100 Feet								
Stream Substrate	Bedrock:		Gravel: X		Sand:		Silt/Clay: X	Organic:	

Stream Data Form

Bank Height (ft.)	Left	0-2: X	2-4:	4-6:	6-8:	8+:
	Right	0-2: X	2-4:	4-6:	6-8:	8+:

Bank Slope (º)	Left (S.)	0-20:	20-40: X	40-60:	60-80:	80+:
	Right (N.)	0-20: X	20-40:	40-60:	60-80:	80+:

Water Clarity	Clear:	Slightly Turbid: X	Turbid:	Very Turbid:	Color: Light brown

Aquatic Habitat	Sand Bar:	Gravel Bar: X	Mud Bar:	Gravel Riffles:	Deep Pools:
	Overhanging trees/shrubs:	In-stream emergent plants:	In-stream submergent plants:	Bank root systems:	Fringing Wetlands:

Aquatic Organisms	Waterfowl:	Fish (adult):	Fish (juvenile):	Frogs:	Turtles:
	Snakes:	Invertebrates:	Other: none observed		

RIPARIAN VEGETATION DESCRIPTION
Phalaris arundinacea, Polygonum sp., Urtica dioica, Xanthium strumarium

COMMENTS (construction constraints, erosion potential, existing disturbances, and meanders)
Shallow, slow moving, moderate quality watercourse with gravel and rock embankments.

STREAM QUALITY	(indicate)	High:	Moderate: X	Low:

Rationale for selected rank (explain):
Shallow, moderate quality waterbody. Substrate consists of gravel and silt material.

High Quality – no indication of stress or disturbance in stream or adjacent area – diverse and mature fringing shrub-dominated cover - diverse and stable fish & wildlife habitat – gravel beds, submerged logs, undercut banks, riffles and pools – no channelization

Moderate Quality – mild to moderate disturbances result in minor recognizable alterations – pipeline, road, railroad, other ROWs – provides fair fish and wildlife habitat – some erosion potential – some habitat diversity – fine sediment deposition predominate – flow and depth variation restricted – some channelization – trees, grass, or forbes dominate bank vegetation

Low quality – disturbances cause significant changes affecting plant species – mechanical alteration of plant species and/or soils – intense grazing activities – stream course channelization or ditching – exotic, nuisance, or invasive species – habitat diversity lacking – high erosion potential – flow and depth variation lacking - does not provide suitable wildlife habitat – grass or forbes dominate bank vegetation

Stream Data Form

Stream Name: Kankakee River	Stream No: **S008**	
Associated Wetland ID: N/A, riprap slope	Date: **September 17, 2020**	County/State: **Will County, Illinois**
Investigator: **K. Wilson & G. Pettit**	Team No.: **N/A**	Landowner/Tract No.: **Union Pacific Railroad Co.**

STREAM PHOTO: S008 west bank facing east

S008 Facing southwest from east bank

Stream Flow	Fast: Perennial: X	Moderate: X Intermittent:	Slow: Ephemeral:	Very Slow:	None:	

Stream Depth (in.)	0-3:	3-6:	6-12:	12-18:	18-24: X	24-36:	36-48:	48-60:	60+:

Stream Width (ft.)	Top of Banks: 430 to 480 Feet	

Stream Substrate	Bedrock:	Gravel: X	Sand: X	Silt/Clay:	Organic:

Stream Data Form

Bank Height (ft.)	Left	0-2:	2-4:	4-6:	6-8:	8+: X
	Right	0-2:	2-4:	4-6:	6-8:	8+: X

Bank Slope (º)	Left (W.)	0-20:	20-40:	40-60:	60-80: X	80+:
	Right (E.)	0-20:	20-40: X	40-60:	60-80:	80+:

Water Clarity	Clear: X	Slightly Turbid:	Turbid:	Very Turbid:	Color: clear

Aquatic Habitat	Sand Bar:	Gravel Bar:	Mud Bar:	Gravel Riffles:	Deep Pools:
	Overhanging trees/shrubs:	In-stream emergent plants:	In-stream submergent plants:	Bank root systems:	Fringing Wetlands:

Aquatic Organisms	Waterfowl:	Fish (adult):	Fish (juvenile): X	Frogs:	Turtles:
	Snakes:	Invertebrates: Mussels	Other:		

RIPARIAN VEGETATION DESCRIPTION
Polygonum sp.

COMMENTS (construction constraints, erosion potential, existing disturbances, and meanders)
Kankakee River is a moderate quality watercourse with gravel and rock embankments. Mussels are found in this stretch of the river where the bottom is rocky.

STREAM QUALITY	(indicate)	High:	Moderate: X	Low:

Rationale for selected rank (explain):
Substrate consists of gravel beds where mussel populations occur. However, bed and banks are marginal with rip-rap underneath railroad bridge.

High Quality – no indication of stress or disturbance in stream or adjacent area – diverse and mature fringing shrub-dominated cover - diverse and stable fish & wildlife habitat – gravel beds, submerged logs, undercut banks, riffles and pools – no channelization

Moderate Quality – mild to moderate disturbances result in minor recognizable alterations – pipeline, road, railroad, other ROWs – provides fair fish and wildlife habitat – some erosion potential – some habitat diversity – fine sediment deposition predominate – flow and depth variation restricted – some channelization – trees, grass, or forbes dominate bank vegetation

Low quality – disturbances cause significant changes affecting plant species – mechanical alteration of plant species and/or soils – intense grazing activities – stream course channelization or ditching – exotic, nuisance, or invasive species – habitat diversity lacking – high erosion potential – flow and depth variation lacking - does not provide suitable wildlife habitat – grass or forbes dominate bank vegetation