APPENDIX F

Wetland Delineations

August 2011

November 2014

Wetland Delineation Report

Project Site:

Illinois 31 (FAU 336), original, Addendum A, B, and C, Bull Valley Road to Illinois 176, McHenry County, Illinois

IDOT Sequence Number: 1340

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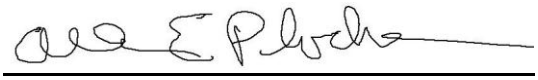
Project Summary

A wetland survey was conducted for proposed work on Illinois 31 (FAU 336), original, Addendum A, B, and C, Bull Valley Road to Illinois 176 in McHenry County, Illinois. All potential wetlands within the specified project area were examined. Thirty-three sites met the three criteria of a wetland established in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* [U.S. Army Corps of Engineers (USACE) 2010] and were, therefore, determined to be wetlands. Summary information regarding the wetland determination sites is presented in the wetland project report. Wetland determination forms are found in Appendix A and wetland plant species lists are included in Appendix B. Wetland boundaries were recorded using a Trimble Global Positioning System. The spatial data have been digitally uploaded to the Illinois Site Assessment Tracking System (http://frostycap.isgs.uiuc.edu/idot_extranet). Locations of determination sites were overlaid on a digital orthophoto quadrangle (DOQ) using ArcGIS; the resulting figure is included in Appendix C. Additional maps and figures are also included in Appendix C.

Signed: 

Dr. Allen Plocher
INHS/IDOT Project Coordinator

Date: August 4, 2011

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Cover Photo: Site 35, a seep site dominated by Symplocarpus foetidus (skunk cabbage).

Illinois 31 (FAU 336), original, Add. A, B, and C
McHenry County, Illinois

Introduction

A wetland survey was conducted on 9-10 September, 2010 and 23-24 May, 2011 for the proposed work on Illinois 31 (FAU 336), original, Addendum A, B, and C, Bull Valley Road to Illinois 176 in McHenry County, Illinois. Construction work is to include additional lanes, intersection reconfiguration, and stream relocations.

Methods

All potential wetlands within the specified study area were examined. Characteristics of vegetation, soils, hydrology, and topography were evaluated during field investigation and on-site wetland determination. Locations of observation points for wetland determinations were selected based on plant community borders and topographic changes. The following sources were examined while surveying the project corridor to determine wetland locations and boundaries: aerial photographs; U.S. Geological Survey topographic map (McHenry 7.5 minute quadrangle); National Wetlands Inventory (NWI) map (McHenry 7.5 minute quadrangle) (U.S. Fish and Wildlife Service); McHenry County Advanced Identification (ADID) wetland maps (Chicago Metropolitan Agency for Planning et al. 2005), Illinois Wetlands Inventory (U.S. Fish and Wildlife Service, Illinois Department of Natural Resources, Illinois Natural History Survey 1996); *Soil Survey of McHenry County, Illinois* (Calsyn 2002); *National List of Plant Species that Occur in Wetlands: Illinois* (Reed 1988); the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987); the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* (USACE 2010); the USDA-NRCS *Official Series Descriptions*; and the USDA-NRCS *Web Soil Survey*. Positional inaccuracies are known to occur with downloaded sources of digital data listed above. As presented on maps and figures in this report, data can be shifted from their actual position when compared to modern aerial photography.

Wetland determinations were conducted using definitions and guidelines established in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* (USACE 2010). Data from these determinations were recorded on U.S. Army Corps of Engineers' Wetland Determination Data Forms – Midwest Region (Appendix A); a data form was completed for each wetland sampling point. All potential wetlands, including all areas mapped as wetlands by the NWI, were described using at least one sampling point. Results of these determinations are summarized in the following text. Adjacent upland areas were also investigated; forms were also completed for these areas. Comprehensive plant species lists were compiled for each wetland site and are presented in Appendix B.

Wetland boundaries were recorded using a Trimble Global Positioning System (either model Pathfinder Pro XR or Pathfinder Pro XRS), with a presumed accuracy of +/- 0.5 m under optimal

field conditions. Spatial data were digitally uploaded to the Illinois Site Assessment Tracking System (http://frostycap.isgs.uiuc.edu/idot_extranet). Locations of determination sites were overlaid on a digital orthophoto quadrangle (DOQ) and approximate area was determined for each wetland site using ArcGIS 10.0 software (ESRI 2010). Resulting areas are calculated in acres, reported to two decimal places. Site location, with respect to the nearest road, was measured from the edge of the pavement and is reported to the nearest foot.

Each native plant species was assigned a "coefficient of conservatism" (C) (Taft et al. 1997), a subjective rating of species fidelity to undegraded natural communities, ranging from zero to ten. Conservative species - those more likely to be found in "pristine" natural areas - were assigned high numbers, whereas non-conservative species - those that occur in anthropogenically disturbed areas - were given lower numbers. Non-native species and those not identifiable to species level were not assigned a rating. The Floristic Quality Index (FQI) is computed as FQI = (mean C) X ($\sqrt{N}$), where mean C is the mean coefficient of conservatism for all native plant species at a site and N is the total number of native plant species at the site. In very general terms, higher FQI values for plant communities indicate more similarity to "pristine" natural areas, as compared to those communities with lower FQI values. Botanical nomenclature follows Taft et al. (1997).

Wetland Site Summaries

Site Number: 1
Community type: **Wet Meadow**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 16 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.14 acres**
Total site area: **0.14 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **ISOLATE (Isolated wetland)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **2.6** Floristic Quality Index (FQI): **6.8**

Site Number: 2
Community type: **Wet Floodplain Forest**
National Wetlands Inventory code: **PFO1/EMC (seasonally flooded, emergent/broad-leaved deciduous forested, palustrine wetland), PEMC (seasonally flooded, emergent, palustrine wetland)**
Site location: **Approximately 112 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.01 acres**

Total site area: **Undetermined**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **ISOLATE (Isolated wetland)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **2.4** Floristic Quality Index (FQI): **6.4**

Site Number: 3
Community type: **Wet Meadow**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 24 ft west of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.07 acres**
Total site area: **0.07 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **ISOLATE (Isolated wetland)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **1.8** Floristic Quality Index (FQI): **3.5**

Site Number: 4
Community type: **Wetland Pond**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 7 ft south of Bull Valley Road**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.29 acres**
Total site area: **0.32 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **ISOLATE (Isolated wetland)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **2.9** Floristic Quality Index (FQI): **12.1**

Site Number: 5
Community type: **Wetland Pond**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 88 ft north of Bull Valley Road**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.07 acres**
Total site area: **0.49 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**

Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **ISOLATE (Isolated wetland)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **2.1** Floristic Quality Index (FQI): **6.6**

Site Number: 6
Community type: **Marsh**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 34 ft south of W. Shamrock Lane**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.05 acres**
Total site area: **0.05 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **ISOLATE (Isolated wetland)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **2.3** Floristic Quality Index (FQI): **4.0**

Site Number: 7
Community type: **Wet Meadow**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 12 ft west of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.12 acres**
Total site area: **0.12 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **ISOLATE (Isolated wetland)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **2.5** Floristic Quality Index (FQI): **8.4**

Site Number: 8
Community type: **Wet Meadow**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 21 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.05 acres**
Total site area: **0.05 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **ISOLATE (Isolated wetland)**

HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **1.6** Floristic Quality Index (FQI): **5.5**

Site Number: 9
Community type: **Farmed Wetland**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 25 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Percent of crop photos with evident wetland signature (including NWI)? **50%**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.13 acres**
Total site area: **0.13 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **ISOLATE (Isolated wetland)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **1.3** Floristic Quality Index (FQI): **4.8**

Site Number: 10
Community type: **Farmed Wetland**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 56 ft west of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Percent of crop photos with evident wetland signature (including NWI)? **50%**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.07 acres**
Total site area: **0.07 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **ISOLATE (Isolated wetland)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **0.6** Floristic Quality Index (FQI): **1.8**

Site Number: 11
Community type: **Farmed Wetland**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 37 ft west of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Percent of crop photos with evident wetland signature (including NWI)? **50%**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.07 acres**
Total site area: **0.07 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**

Waters type (USACE and USEPA 2007): **NRPWW (wetlands adjacent to non-RPWs)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **1.0** Floristic Quality Index (FQI): **2.6**

Site Number: 12
Community type: **Wet Meadow**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 24 ft west of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.28 acres**
Total site area: **Undetermined**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **NRPWW (wetlands adjacent to non-RPWs)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **2.2** Floristic Quality Index (FQI): **9.2**

Site Number: 13
Community type: **Wet Meadow/Farmed Wetland**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 37 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland Hydrology? **Yes**
Percent of crop photos with evident wetland signature (including NWI)? **83%**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.37 acres**
Total site area: **Undetermined**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Waters type (USACE and USEPA 2007): **NRPWW (wetlands adjacent to non-RPWs)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **1.8** Floristic Quality Index (FQI): **8.0**
Additional Remarks: **The periphery of this site appears to be farmed during dry years while the central, wettest portion, is a perennial wetland. FSA methodology was used to determine the outer boundary of this site.**

Site Number: 14
Community type: **Shrub-scrub Wetland**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 16 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.26 acres**
Total site area: **Undetermined**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**

Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **NRPWW (wetlands adjacent to a non-RPW)**
HGM type: **Riverine**
Mean Coefficient of Conservatism (mean C): **2.1** Floristic Quality Index (FQI): **9.8**

Site Number: 15
Community type: **Marsh**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 31 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.11 acres**
Total site area: **Undetermined**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **NRPWW (wetlands adjacent to a non-RPW)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **2.5** Floristic Quality Index (FQI): **8.1**

Site Number: 16
Community type: **Farmed Wetland**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 19 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland Hydrology? **Yes**
Percent of crop photos with evident wetland signature (including NWI)? **67%**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.11 acres**
Total site area: **Undetermined**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Waters type (USACE and USEPA 2007): **NRPWW (wetlands adjacent to a non-RPW)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **1.3** Floristic Quality Index (FQI): **4.0**

Site Number: 17
Community type: **Wet Meadow**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 38 ft west of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.49 acres**
Total site area: **0.58 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **NRPWW (wetlands adjacent to non-RPWs)**

HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **1.8** Floristic Quality Index (FQI): **7.3**

Site Number: 18
Community type: **Cropland**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 107 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **No**
Percent of crop photos with evident wetland signature (including NWI)? **16.7%**
Is this site a wetland? **No**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Remarks: The first author has conducted wetland delineations at this site on two previous occasions (Wiesbrook et al. 2002; Tessene et al. 2007). Because of this familiarity, current site conditions were known to be unusual, therefore, the FSA method was used to determine hydrology at this site. Although, during our field visit, this site meets the three indicators of a wetland, this site fails to exhibit wetland signatures in 50% or more normal years. It is not a wetland.

Site Number: 19
Community type: **Cropland**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 145 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **No**
Percent of crop photos with evident wetland signature (including NWI)? **16.7%**
Is this site a wetland? **No**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Remarks: The first author has conducted wetland delineations at this site on two previous occasions (Wiesbrook et al. 2002; Tessene et al. 2007). Because of this familiarity, current site conditions were known to be unusual, therefore, the FSA method was used to determine hydrology at this site. Although, during our field visit, this site meets the three indicators of a wetland, this site fails to exhibit wetland signatures in 50% or more normal years. It is not a wetland.

Site Number: 20
Community type: **Wet Floodplain Forest**
National Wetlands Inventory code: **PFO1B (saturated, broad-leaved deciduous, forested, palustrine wetland)**
Site location: **Approximately 16 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.03 acres**
Total site area: **0.03 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **Yes (U502, High Habitat Value Wetland)**

Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **NRPWW (wetlands adjacent to non-RPWs)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **2.4** Floristic Quality Index (FQI): **8.6**

Site Number: 21
Community type: **Shrub-scrub Wetland**
National Wetlands Inventory code: **PEM/SS1Ch (diked or impounded, seasonally flooded, broad-leaved deciduous, scrub-shrub/emergent, palustrine wetland)**
Site location: **Approximately 101 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.07 acres**
Total site area: **Undetermined**
Is this site an ADID High Habitat Value or High Functional Value wetland? **Yes (U502, High Habitat Value Wetland)**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **RPWWD (wetlands abutting RPWs)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **3.3** Floristic Quality Index (FQI): **15.9**
Additional Remarks: **This site is a very small part of a much larger marsh/wet meadow/shrub-scrub wetland complex (approximately 100 acres).**

Site Number: 22
Community type: **Wet Meadow**
National Wetlands Inventory code: **PFO1B (saturated, broad-leaved deciduous, forested, palustrine wetland), U (Upland)**
Site location: **Approximately 44 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.03 acres**
Total site area: **Undetermined**
Is this site an ADID High Habitat Value or High Functional Value wetland? **Yes (U502, High Habitat Value Wetland)**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **RPWWD (wetlands abutting RPWs)**
HGM type: **Riverine**
Mean Coefficient of Conservatism (mean C): **2.7** Floristic Quality Index (FQI): **13.9**

Site Number: 23
Community type: **Shrub-scrub Wetland**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 122 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**

Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.02 acres**
Total site area: **0.17 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **NRPWW (wetlands adjacent to non-RPWs)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **1.9** Floristic Quality Index (FQI): **7.5**

Site Number: 24
Community type: **Calcareous Seep**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 150 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.00 acres**
Total site area: **Undetermined**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **ISOLATE (Isolated wetland)**
HGM type: **Slope**
Mean Coefficient of Conservatism (mean C): **3.2** Floristic Quality Index (FQI): **16.1**
Additional Remarks: **This site is a unique natural community with less than 15 acres of high quality examples remaining, according to the original Illinois Natural Areas Inventory (White 1978) and should be considered an environmental asset. While this site is severely degraded on the west end [near complete cover by *Phragmites australis* (common red reed], the east end of the site is still highly diverse with several conservative species being present [*Carex crawei* (early fen sedge), *C. hystericina* (bottlebrush sedge), *Eupatorium maculatum* (spotted Joe Pye weed), *Solidago ohiensis* (Ohio goldenrod), and *Symplocarpus foetidus* (skunk cabbage)].**

Site Number: 25
Community type: **Wet Floodplain Forest**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 24 ft west of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.19 acres**
Total site area: **0.21 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **Yes (U525, High Functional Value Wetland)**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **NRPWW (wetlands adjacent to non-RPWs)**
HGM type: **Depressional**

Mean Coefficient of Conservatism (mean C): **2.0** Floristic Quality Index (FQI): **6.3**

Site Number: 26
Community type: **Mesic Floodplain Forest**
National Wetlands Inventory code: **PFO1B (saturated, broad-leaved deciduous, forested, palustrine wetland)**
Site location: **Approximately 44 ft east of IL 31**
Hydrophytic vegetation? **No** Hydric soils? **Yes** Wetland hydrology? **No**
Is this site a wetland? **No**
Is this site an ADID High Habitat Value or High Functional Value wetland? **Yes (U502, High Habitat Value Wetland)**

Site Number: 27
Community type: **Wet Meadow**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 760 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.12 acres**
Total site area: **Undetermined**
Is this site an ADID High Habitat Value or High Functional Value wetland? **Yes (U502, High Habitat Value Wetland)**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **RPWWN (wetlands adjacent to RPWs)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **3.1** Floristic Quality Index (FQI): **14.5**

Site Number: 28
Community type: **Wet Meadow**
National Wetlands Inventory code: **PEMB (saturated, emergent, palustrine wetland)**
Site location: **Approximately 235 ft north of E. Brighton Lane**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.08 acres**
Total site area: **0.08 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **Yes (U502, High Habitat Value Wetland)**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **ISOLATE (Isolated wetland)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **2.9** Floristic Quality Index (FQI): **10.1**

Site Number: 29
Community type: **Mesic Floodplain Forest**

National Wetlands Inventory code: **PEMB (saturated, emergent, palustrine wetland)**
Site location: **Approximately 75 ft east of IL 31**
Hydrophytic vegetation? **No** Hydric soils? **Yes** Wetland hydrology? **No**
Is this site a wetland? **No**
Is this site an ADID High Habitat Value or High Functional Value wetland? **Yes (U502, High Habitat Value)**

Site Number: 30
Community type: **Wet Meadow**
National Wetlands Inventory code: **PEMC (seasonally flooded, emergent, palustrine wetland), U (Upland)**
Site location: **Approximately 18 ft west of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.40 acres**
Total site area: **Undetermined**
Is this site an ADID High Habitat Value or High Functional Value wetland? **Yes (U525, High Functional Value Wetland)**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **RPWWD (wetlands abutting RPWs)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **2.6** Floristic Quality Index (FQI): **12.9**

Site Number: 31
Community type: **Wetland Pond**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 63 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.03 acres**
Total site area: **0.03 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **ISOLATE (Isolated wetland)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **3.0** Floristic Quality Index (FQI): **3.0**

Site Number: 32
Community type: **Wetland Pond**
National Wetlands Inventory code: **U (Upland), POWHx (excavated, permanently flooded, open water, palustrine wetland)**
Site location: **Approximately 73 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**

Area of site occurring within the project corridor: **0.17 acres**
Total site area: **0.68 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **RPWWN (wetlands adjacent to RPWs)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **2.7** Floristic Quality Index (FQI): **11.9**

Site Number: 33
Community type: **Wet Meadow**
National Wetlands Inventory code: **POWHx (excavated, permanently flooded, open water, palustrine wetland)**
Site location: **Approximately 21 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.07 acres**
Total site area: **0.07 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **RPWWD (wetlands abutting RPWs)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **2.8** Floristic Quality Index (FQI): **10.0**

Site Number: 34
Community type: **Wetland Pond**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 70 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.20 acres**
Total site area: **0.23 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **RPWWD (wetlands abutting RPWs)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **3.1** Floristic Quality Index (FQI): **9.8**

Site Number: 35
Community type: **Seep**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 10 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.11 acres**

Total site area: **0.11 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **RPWWD (wetlands abutting RPWs)**
HGM type: **Slope**
Mean Coefficient of Conservatism (mean C): **3.7** Floristic Quality Index (FQI): **20.1**
Additional Remarks: **This site is a unique wetland community and should be considered an environmental asset. The high mean C (3.7) and FQI (20.1) scores indicate a good level of species diversity. Several conservative species were found at this site [*Aster puniceus* (swamp aster), *Caltha palustris* (marsh marigold), *Carex hystericina* (bottlebrush sedge), *Eupatorium maculatum* (spotted Joe Pye weed), *Iris shrevei* (southern blue flag), *Poa palustris* (fowl bluegrass), *Ribes americanum* (wild black currant), *Symplocarpus foetidus* (skunk cabbage)].**

Site Number: 36
Community type: **Wetland Pond**
National Wetlands Inventory code: **POWHx (excavated, permanently flooded, open water, palustrine wetland)**
Site location: **Approximately 39 ft west of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.33 acres**
Total site area: **0.37 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **RPWWN (wetlands adjacent to RPWs)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **2.5** Floristic Quality Index (FQI): **8.4**

Site Number: 37
Community type: **Wet Meadow**
National Wetlands Inventory code: **U (Upland)**
Site location: **Approximately 75 ft east of IL 31**
Hydrophytic vegetation? **Yes** Hydric soils? **Yes** Wetland hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.04 acres**
Total site area: **0.05 acres**
Is this site an ADID High Habitat Value or High Functional Value wetland? **No**
Does this wetland require IEPA Case Specific Water Quality Certification? **No**
Waters type (USACE and USEPA 2007): **ISOLATE (Isolated wetland)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **0.8** Floristic Quality Index (FQI): **1.5**

Wetland Site Summary Table

Site No.	NWI code	Community Type	Area (ac.)[1]	>50%[2]	FQI	Mean C	ADID?[3]	IEPA[4]	Waters Type
1	U	Wet Meadow	0.14	Yes	6.8	2.6	No	No	ISOLATE
2	PFO1/ EMC	Wet Floodplain Forest	0.01	No	6.4	2.4	No	No	ISOLATE
3	U	Wet Meadow	0.07	Yes	3.5	1.8	No	No	ISOLATE
4	U	Wetland Pond	0.29	Yes	12.1	2.9	No	No	ISOLATE
5	U	Wetland Pond	0.07	Yes	6.6	2.1	No	No	ISOLATE
6	U	Marsh	0.05	Yes	4.0	2.3	No	No	ISOLATE
7	U	Wet Meadow	0.12	Yes	8.4	2.5	No	No	ISOLATE
8	U	Wet Meadow	0.05	Yes	5.5	1.6	No	No	ISOLATE
9	U	Farmed Wetland	0.13	Yes	4.8	1.3	No	No	ISOLATE
10	U	Farmed Wetland	0.07	Yes	1.8	0.6	No	No	ISOLATE
11	U	Farmed Wetland	0.07	Yes	2.6	1.0	No	No	NRPWW
12	U	Wet Meadow	0.28	No	9.2	2.2	No	No	NRPWW
13	U	Wet Meadow/ Farmed Wetland	0.37	Yes	8.0	1.8	No	No	NRPWW
14	U	Shrub-scrub Wetland	0.26	No	9.8	2.1	No	No	NRPWW
15	U	Marsh	0.11	No	8.1	2.5	No	No	NRPWW
16	U	Farmed Wetland	0.11	Yes	4.0	1.3	No	No	NRPWW
17	U	Wet Meadow	0.49	Yes	7.3	1.8	No	No	NRPWW
20	PFO1B	Wet Floodplain Forest	0.03	Yes	8.6	2.4	**Yes**	No	NRPWW

Wetland Site Summary Table continued

Site No.	NWI code	Community Type	Area (ac.)[1]	>50%[2]	FQI	Mean C	ADID?[3]	IEPA[4]	Waters Type
21	PEM/ SS1Ch	Shrub-scrub Wetland	0.07	No	15.9	3.3	Yes	No	RPWWD
22	PFO1B, U	Wet Meadow	0.03	Yes	13.9	2.7	Yes	No	RPWWD
23	U	Shrub-scrub Wetland	0.02	No	7.5	1.9	No	No	NRPWW
24	U	Calcareous Seep	0.00	No	16.1	3.2	No	No	ISOLATE
25	U	Wet Floodplain Forest	0.19	Yes	6.3	2.0	Yes	No	NRPWW
27	U	Wet Meadow	0.12	Yes	14.5	3.1	Yes	No	RPWWN
28	PEMB	Wet Meadow	0.08	Yes	10.1	2.9	Yes	No	ISOLATE
30	PEMC	Wet Meadow	0.40	No	12.9	2.6	Yes	No	RPWWD
31	U	Wetland Pond	0.03	Yes	3.0	3.0	No	No	ISOLATE
32	U, POWHx	Wetland Pond	0.17	No	11.9	2.7	No	No	RPWWN
33	POWHx	Wet Meadow	0.07	Yes	10.0	2.8	No	No	RPWWD
34	U	Wetland Pond	0.20	Yes	9.8	3.1	No	No	RPWWD
35	U	Seep	0.11	Yes	20.1	3.7	No	No	RPWWD
36	POWHx	Wetland Pond	0.33	Yes	8.4	2.5	No	No	RPWWN
37	U	Wet Meadow	0.04	Yes	1.5	0.8	No	No	ISOLATE

[1] Area within the ESR project limits. [2] In our best professional judgment is more than 50% of the total site area within the ESR project limits? [3] Is this site an Advanced Identification (ADID) High Habitat Value or High Functional Value wetland? [4] Does this site require IEPA case specific water quality certification?

Waters of the United States

Site Number: W1
Site name: **Tributary to Fox River**
Site location: **0 ft east and west of IL 31**
Latitude: **42.33552** Longitude: **-88.27544**
Community type: **Stream**
Area of site occurring within the project corridor: **0.16 acres**
Linear feet: **849 ft**
Waters type (USACE and USEPA 2007): **RPW (Relatively permanent waters that flow directly or indirectly into TNWs)**
USGS 8-Digit Hydrologic Unit Code (HUC): **07120006 (Upper Fox River)**
Watershed area: **~1.75 mi^2**
Riffles present? **No** Pools present? **No**
Mussel shell material present? **None Observed**
Is the stream or body of water permanent? **Yes**
Is the stream identified by IDNR (2008) as a biologically significant stream? **No**

Site Number: W2
Site name: **Tributary to Fox River**
Site location: **0 ft east and west of IL 31**
Latitude: **42.27372** Longitude: **-88.28692**
Community type: **Stream**
Area of site occurring within the project corridor: **0.06 acres**
Linear feet: **219 ft**
Waters type (USACE and USEPA 2007): **RPW (Relatively permanent waters that flow directly or indirectly into TNWs)**
USGS 8-Digit Hydrologic Unit Code (HUC): **07120006 (Upper Fox River)**
Watershed area: **9.61 mi^2 (U.S. Geological Survey *Streamstats in Illinois*, accessed July 26, 2011)**
Riffles present? **Yes** Pools present? **Yes**
Mussel shell material present? **None Observed**
Is the stream or body of water permanent? **Yes**
Is the stream identified by IDNR (2008) as a biologically significant stream? **No**

Site Number: W3
Site name: **Tributary to Fox River**
Site location: **0 ft east and west of IL 31**
Latitude: **42.27051** Longitude: **-88.28464**
Community type: **Stream**
Area of site occurring within the project corridor: **0.28 acres**
Linear feet: **1581 ft**
Waters type (USACE and USEPA 2007): **RPW (Relatively permanent waters that flow directly or indirectly into TNWs)**

USGS 8-Digit Hydrologic Unit Code (HUC): **07120006 (Upper Fox River)**
Watershed area: **< 1 mi^2**
Riffles present? **No** Pools present? **No**
Mussel shell material present? **None Observed**
Is the stream or body of water permanent? **Yes**
Is the stream identified by IDNR (2008) as a biologically significant stream? **No**

Site Number: W4
Site name: **Tributary to Fox River**
Site location: **0 ft east and west of IL 31**
Latitude: **42.26906** Longitude: **-88.28653**
Community type: **Stream**
Area of site occurring within the project corridor: **0.30 acres**
Linear feet: **2848 ft**
Waters type (USACE and USEPA 2007): **RPW (Relatively permanent waters that flow directly or indirectly into TNWs)**
USGS 8-Digit Hydrologic Unit Code (HUC): **07120006 (Upper Fox River)**
Watershed area: **< 1 mi^2**
Riffles present? **No** Pools present? **No**
Mussel shell material present? **None Observed**
Is the stream or body of water permanent? **No**
Is the stream identified by IDNR (2008) as a biologically significant stream? **No**

Threatened/Endangered Species and Natural Communities of Special Interest
No species listed as threatened or endangered federally or in Illinois were found within the project corridor. Three natural communities of special interest were surveyed.

Site 21 (shrub-scrub wetland) is a small part of a much larger marsh/wet meadow/shrub-scrub wetland complex (approximately 100 acres). The mean C value (3.3) and FQI (15.9) scores give an indication to the diversity present at this site. If the whole site were surveyed, the FQI score would surely be greater than 20. This site is part of ADID site U502, a high habitat value wetland.

Site 24 represents a unique natural community (calcareous seep). According to the original Illinois Natural Areas Inventory (White 1978), only 15 acres of high quality examples remain. This should be considered an environmental asset. While this site is severely degraded on the west end (near complete cover by *Phragmites australis* (common red reed), the east end of the site is still highly diverse with several conservative species being present [*Carex crawei* (early fen sedge), *C. hystericina* (bottlebrush sedge), *Eupatorium maculatum* (spotted Joe Pye weed), *Solidago ohiensis* (Ohio goldenrod), and *Symplocarpus foetidus* (skunk cabbage)].

Site 35 (seep) is a unique wetland community and should be considered an environmental asset. The high mean C (3.7) and FQI (20.1) scores indicate a good level of species diversity. Several conservative species were found at this site [*Aster puniceus* (swamp aster), *Caltha*

palustris (marsh marigold), *Carex hystericina* (bottlebrush sedge), *Eupatorium maculatum* (spotted Joe Pye weed), *Iris shrevei* (southern blue flag), *Poa palustris* (fowl bluegrass), *Ribes americanum* (wild black currant), *Symplocarpus foetidus* (skunk cabbage)].

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APPENDIX A

Wetland Determination Forms

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 1A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 35, T. 45 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.32952°N Long: -88.27418°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Houghton muck, revised to Harpster silty clay loam NWI classification: U

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

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

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

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

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

Remarks:

Wet Meadow.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Phalaris arundinacea*		yes	FACW+
2. *Typha angustifolia*		yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 1A

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 2/1	100					SICL	
13-19	2.5Y 4/1	95	2.5Y 4/4	5	C	M	SICL	
19-39	2.5Y 4/1	90	2.5Y 4/4	10	C	M	CL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☒ No ☐ Depth (inches): 16

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 16

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 1B

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 35, T. 45 N., R. 8 E.

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): convex to none

Slope (%): 0-2% Lat: 42.32953°N Long: -88.27401°W Datum: NAD83

Soil Map Unit Name: Mapped Brenton silt loam NWI classification: PFO1/EMC

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

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

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

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

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

Remarks:

Mesic Floodplain Forest.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*		yes	FACW-
2. *Rhamnus cathartica*		yes	FACU
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1. *Rhamnus cathartica*		yes	FACU
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Geum canadense*		yes	FAC
2. *Glechoma hederacea*		yes	FACU
3. *Rhamnus cathartica*		yes	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 1B

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 2/1	100					SIL	
14-26	2.5Y 4/3	100	10YR 4/1		CLF	MPF	SICL	Clay films in the matrix along faces of peds

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

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 2A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 35, T. 45 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.32873°N Long: -88.27370°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Houghton muck, revised to Pella silty clay loam NWI classification: PFO1/EMC

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

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

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

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

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

Remarks:

Wet Floodplain Forest.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*		yes	FACW-
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1. *Acer negundo*		yes	FACW-
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Phalaris arundinacea*		yes	FACW+
2. *Pilea pumila*		yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 2A

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-24	10YR 2/1	100					SICL	
24-39	5Y 4/2	85	5Y 5/1	10	CLF	MPF	CL	Clay films in the matrix along faces of peds
			5Y 4/4	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)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☒ No ☐ Depth (inches): 20

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 20

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 2B

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 35, T. 45 N., R. 8 E.

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): concave to slightly sloping

Slope (%): 0-2% Lat: 42.32876°N Long: -88.27362°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Houghton muck, revised to Brenton silt loam NWI classification: PFO1/EMC

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

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

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

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

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

Remarks:

Mesic Floodplain Forest.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*		yes	FACW-
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1. *Rhamnus cathartica*		yes	FACU
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 2B

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-22	10YR 2/1	100					SICL	
22-39	10YR 4/2	100					SICL	

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

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 3A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 35, T. 45 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.32990°N Long: -88.27460°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Houghton muck, revised to undetermined NWI classification: U

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

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

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

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

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

Remarks:

Wet Meadow.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Phragmites australis*		yes	FACW+
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 3A

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-15	N 4/	90	10YR 5/6	10	C	M	CL	
15-26	N 5/	80	10YR 5/4	20	C	M	CL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☒ No ☐ Depth (inches): 6

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 6

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 3B

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 35, T. 45 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.32976°N Long: -88.27471°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Houghton muck, revised to undetermined NWI classification: U

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

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

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

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

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

Remarks:

Non-native Grassland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Aster pilosus*		yes	FACU-
2. *Dipsacus laciniatus*		yes	UPL
3. *Poa pratensis*		yes	FAC-
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 3B

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	2.5Y 5/4	100					SL	
6+	Gravel							

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 4A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 2, T. 44 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.32132°N Long: -88.27001°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Griswold loam, revised to undetermined NWI classification: U

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

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

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

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

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

Remarks:

Wetland Pond.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Typha angustifolia*		yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 4A

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	100					CL	
8-14	10YR 5/2	90	10YR 4/4	10	C	M	CL	

[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)
- [x] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [x] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7)
- [ ] Iron-Manganese Masses (F12)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [x] No [ ]

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- [x] Surface Water (A1)
- [x] High Water Table (A2)
- [x] Saturation (A3)
- [x] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [x] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [x] 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): mostly < 72in

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: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 4B

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 2, T. 44 N., R. 8 E.

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

Slope (%): <3% Lat: 42.32134°N Long: -88.27067°W Datum: NAD83

Soil Map Unit Name: Mapped as Griswold loam NWI classification: U

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

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

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

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

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

Remarks:

Non-native Grassland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Festuca arundinacea*		yes	FACU+
2. *Poa pratensis*		yes	FAC-
3. *Trifolium pratense*		yes	FACU+
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 4B

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 3/2	100					SIL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 5A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 2, T. 44 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.32186°N Long: -88.27017°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Brenton silt loam, revised to undetermined NWI classification: U

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

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

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

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

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

Remarks:

Wetland Pond.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Typha angustifolia*		yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 5A

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	100					CL	
8-14	10YR 5/2	90	10YR 4/4	10	C	M	CL	

[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)
- [x] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [x] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7)
- [ ] Iron-Manganese Masses (F12)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [x] No [ ]

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- [x] Surface Water (A1)
- [x] High Water Table (A2)
- [x] Saturation (A3)
- [x] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [x] 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): mostly < 72in

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: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 5B

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 2, T. 44 N., R. 8 E.

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

Slope (%): <2% Lat: 42.32181°N Long: -88.26953°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Pella silty clay loam, revised to Brenton silt loam NWI classification: U

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

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

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

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

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

Remarks:

Non-native Grassland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Poa pratensis*		yes	FAC-
2. *Trifolium repens*		yes	FACU+
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 5B

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 3/2	100					SIL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 6A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 3, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): excavated depression Local relief (concave, convex, none): concave

Slope (%): 0-1% Lat: 42.31474°N Long: -88.27874°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Ringwood silt loam, revised to undetermined NWI classification: U

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

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

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

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

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

Remarks:

Marsh.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Typha angustifolia*		yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 6A

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	N 2.5/	100					SICL	
5-13	N 2.5/	75	5YR 3/4	25	C	M, PL	SICL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☒ No ☐ Depth (inches): 10

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 10

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 6B

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 3, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): excavated depression Local relief (concave, convex, none): convex to none

Slope (%): 0-1% Lat: 42.31464°N Long: -88.27873°W Datum: NAD83

Soil Map Unit Name: Mapped as Ringwood silt loam NWI classification: U

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

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

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

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

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

Remarks:

Non-native Grassland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Digitaria ischaemum*		yes	FACU
2. *Poa pratensis*		yes	FAC-
3. *Taraxacum officinale*		yes	FACU
4. *Trifolium repens*		yes	FACU+
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 6B

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/2	100					SIL	
6-13	10YR 4/3	100					SIL	

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

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 7A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave to none

Slope (%): 0-1% Lat: 42.29905°N Long: -88.28699°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Elburn silt loam, revised to Pella silty clay loam NWI classification: U

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

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

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

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

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

Remarks:

Wet Meadow.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Carex pellita*		yes	OBL
2. *Phalaris arundinacea*		yes	FACW+
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 7A

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-24	10YR 2/1	100					SICL	
24-39	2.5Y 5/1	85	10YR 5/6	15	C	M	CL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☒ No ☐ Depth (inches): 22

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 22

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 7B

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): upland Local relief (concave, convex, none): convex to none

Slope (%): 0-1% Lat: 42.29876°N Long: -88.28712°W Datum: NAD83

Soil Map Unit Name: Mapped as Elburn silt loam NWI classification: U

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

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

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

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

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

Remarks:

Non-native Grassland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Asclepias syriaca*		yes	UPL
2. *Festuca arundinacea*		yes	FACU+
3. *Vitis riparia*		yes	FACW-
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 7B

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1	100					SIL	
6-14	5Y 4/3	90	2.5Y 4/4	10	C	M	SICL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 8A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.29862°N Long: -88.28660°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Elburn silt loam, revised to Pella silty clay loam NWI classification: U

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

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

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

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

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

Remarks:

Wet Meadow.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Bidens cernua*		yes	OBL
2. *Phalaris arundinacea*		yes	FACW+
3. *Xanthium strumarium*		yes	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 8A

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-24	10YR 2/1	100					CL	
24-39	2.5Y 4/1	80	10YR 5/6	20	C	M	CL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 8B/9B

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): upland Local relief (concave, convex, none): convex to none

Slope (%): 0-1% Lat: 42.29893°N Long: -88.28652°W Datum: NAD83

Soil Map Unit Name: Mapped as Elburn silt loam NWI classification: U

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

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

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

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

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

Remarks:

Forbland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Aster pilosus*		yes	FACU-
2. *Aster simplex*		yes	FACW
3. *Dipsacus laciniatus*		yes	UPL
4. *Helianthus grosseserratus*		yes	FACW-
5. *Solidago canadensis*		yes	FACU
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 40% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 8B/9B

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/1	100					SIL	
10-16	10YR 4/3	100					SIL	

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

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Add. A, B, and C City/County: McHenry County Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: IL Sampling Point: 9A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.29915°N Long: -88.28645°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Elburn silt loam, revised to Pella silty clay loam NWI classification: U

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

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

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

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

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

Remarks: Community type: Farmed wetland

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Cyperus esculentus*		yes	FACW
2. *Xanthium strumarium*		yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 9A

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-24	10YR 2/1	100					CL	
24-39	2.5Y 4/1	80	10YR 5/6	20	C	M	CL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☒ No ☐

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

Percent of FSA crop photos with wetland signature evident: 60% Is the site coded as wetland by the NWI?: No

Remarks:

Combined crop photo/NWI percentage: 50%

Does the site possess wetland hydrology? Yes Rationale: Wetland signature is evident in the majority of years examined.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Add. A, B, and C City/County: McHenry County Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: IL Sampling Point: 10A

Investigator(s): Paul B. Marcum, Ian Draheim, and Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.29592°N Long: -88.28746°W Datum: NAD83

Soil Map Unit Name: Mapped as Pella silty clay loam NWI classification: U

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

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

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

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

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

Remarks: Community type: Farmed wetland

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Echinochloa muricata*		yes	OBL
2. *Panicum dichotomiflorum*		yes	FACW-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 10A

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-19	10YR 2/1	100					CL	
19-26	2.5Y 5/1	85	10YR 5/6	15	C	M	CL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☒ No ☐

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

Percent of FSA crop photos with wetland signature evident: 60% Is the site coded as wetland by the NWI?: No

Remarks:

Combined crop photo/NWI percentage: 50%

Does the site possess wetland hydrology? Yes Rationale: Wetland signature is evident in the majority of years examined.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 10B

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): upland Local relief (concave, convex, none): convex to none

Slope (%): 0-2% Lat: 42.29571°N Long: -88.28752°W Datum: NAD83

Soil Map Unit Name: Mapped as Pella silty clay loam NWI classification: U

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

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

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

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

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

Remarks:

Mesic Floodplain Forest.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*		yes	FACW-
2. *Maclura pomifera*		yes	FACU
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1. *Rhamnus cathartica*		yes	FACU
2. *Prunus virginiana*		yes	FAC-
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Alliaria petiolata*		yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 10B

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 3/1	100					SIL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Add. A, B, and C City/County: McHenry County Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: IL Sampling Point: 11A

Investigator(s): Paul B. Marcum, Ian Draheim, and Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.29527°N Long: -88.28732°W Datum: NAD83

Soil Map Unit Name: Mapped as Pella silty clay loam NWI classification: U

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

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

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

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

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

Remarks: Community type: Farmed wetland

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Amaranthus tuberculatus*		yes	OBL
2. *Cyperus esculentus*		yes	FACW
3. *Echinochloa muricata*		yes	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 11A

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 2/1	100					SICL	
18-26	2.5Y 5/2	80	10YR 5/6	20	C	M	CL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☒ No ☐

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

Percent of FSA crop photos with wetland signature evident: 60% Is the site coded as wetland by the NWI?: No

Remarks:

Combined crop photo/NWI percentage: 50%

Does the site possess wetland hydrology? Yes Rationale: Wetland signature is evident in the majority of years examined.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 11B/12B

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): upland Local relief (concave, convex, none): convex to none

Slope (%): 0-2% Lat: 42.29533°N Long: -88.28754°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Pella silty clay loam, revised to Brenton silt loam NWI classification: U

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

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

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

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

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

Remarks:

Cropland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Glycine max*		yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 11B/12B

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1	100					SIL	
6-13	10YR 4/2	100					SICL	

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

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 12A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.29510°N Long: -88.28739°W Datum: NAD83

Soil Map Unit Name: Mapped as Pella silty clay loam NWI classification: U

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

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

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

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

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

Remarks:

Wet Meadow.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Phalaris arundinacea*		yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 12A

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 2/1	100					SICL	
13-18	5Y 4/1	90	2.5Y 5/6	10	C	M	CL	
18-30	5Y 5/1	80	2.5Y 5/6	20	C	M	CL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☒ No ☐ Depth (inches): 20

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 20

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Add. A, B, and C City/County: McHenry County Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: IL Sampling Point: 13A

Investigator(s): Paul B. Marcum, Ian Draheim, and Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.29568°N Long: -88.28649°W Datum: NAD83

Soil Map Unit Name: Mapped as Pella silty clay loam NWI classification: U

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

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

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

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

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

Remarks: Community type: Wet Meadow/Farmed Wetland

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Cyperus esculentus*		yes	FACW
2. *Echinochloa muricata*		yes	OBL
3. *Leersia oryzoides*		yes	OBL
4. *Typha angustifolia*		yes	OBL
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 13A

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 2/1	100					SICL	
14-26	2.5Y 4/1	90	2.5Y 5/4	10	C	M	SICL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☒ No ☐

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

Percent of FSA crop photos with wetland signature evident: 100% Is the site coded as wetland by the NWI?: No

Remarks:

Combined crop photo/NWI percentage: 83%

Does the site possess wetland hydrology? Yes Rationale: Wetland signature is evident in the majority of years examined.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 13B

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): upland Local relief (concave, convex, none): convex to none

Slope (%): 0-2% Lat: 42.29601°N Long: -88.28608°W Datum: NAD83

Soil Map Unit Name: Mapped as Elburn silt loam NWI classification: U

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

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

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

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

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

Remarks:

Cropland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radiuis)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Cyperus esculentus*		yes	FACW
2. *Zea mays*		yes	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 13B

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 2/1	100					SIL	
8-15	10YR 3/1	100					SICL	

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

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 14A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.29439°N Long: -88.28669°W Datum: NAD83

Soil Map Unit Name: Mapped as Pella silty clay loam NWI classification: U

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

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

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

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

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

Remarks:

Shrub-scrub Wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1. *Salix exigua*		yes	OBL
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Aster simplex*		yes	FACW
2. *Phalaris arundinacea*		yes	FACW+
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 14A

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 2/1	100					SICL	
14-20	5Y 4/1	90	2.5Y 5/6	5	C	M	CL	
			5Y 6/2	5	D	M		
20-26	5Y 5/1	85	2.5Y 5/6	15	C	M	CL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 14B/15B/16B

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): upland Local relief (concave, convex, none): convex to none

Slope (%): 0-1% Lat: 42.29424°N Long: -88.28686°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Pella silty clay loam, revised to undetermined NWI classification: U

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

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

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

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

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

Remarks:

Non-native Grassland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Festuca arundinacea*		yes	FACU+
2. *Helianthus grosseserratus*		yes	FACW-
3. *Poa pratensis*		yes	FAC-
4. *Solidago canadensis*		yes	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 14B/15B/16B

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 3/2	100					SIL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 15A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.29419°N Long: -88.28662°W Datum: NAD83

Soil Map Unit Name: Mapped as Pella silty clay loam NWI classification: U

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

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

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

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

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

Remarks:

Marsh.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Eleocharis erythropoda*		yes	OBL
2. *Typha angustifolia*		yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 15A

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 2/1	100					CL	
15-26	5Y 5/1	90	2.5Y 5/8	10	C	M	SIC	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☒ No ☐ Depth (inches): 20

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 20

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Add. A, B, and C City/County: McHenry County Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: IL Sampling Point: 16A

Investigator(s): Paul B. Marcum, Ian Draheim, and Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.29406°N Long: -88.28676°W Datum: NAD83

Soil Map Unit Name: Mapped as Pella silty clay loam NWI classification: U

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

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

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

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

Hydrophytic Vegetation Present? Yes [X] No [ ]

Hydric Soil Present? Yes [X] No [ ]

Wetland Hydrology Present? Yes [X] No [ ]

Is the Sampled Area within a Wetland? Yes [X] No [ ]

Remarks: Community type: Farmed wetland

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Cyperus esculentus*		yes	FACW
2. *Echinochoa muricata*		yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 16A

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 2/1	100					SiCL	
14-20	5Y 4/1	90	2.5Y 5/6	5	C	M	CL	
			2.5Y 6/2	5	C	M		
20-26	5Y 5/1	85	2.5Y 5/6	15	C	M	CL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☒ No ☐

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

Percent of FSA crop photos with wetland signature evident: 80% Is the site coded as wetland by the NWI?: No

Remarks:

Combined crop photo/NWI percentage: 67%

Does the site possess wetland hydrology? Yes Rationale: Wetland signature is evident in the majority of years examined.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 17A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.29081°N Long: -88.28738°W Datum: NAD83

Soil Map Unit Name: Mapped as Pella silty clay loam NWI classification: U

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

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

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

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

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

Remarks:

Wet Meadow.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Phalaris arundinacea*		yes	FACW+
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 17A

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 2/1	100					SICL	
15-26	2.5Y 4/2	70	10YR 5/6	30	C	M	SICL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 17B

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): upland Local relief (concave, convex, none): convex to none

Slope (%): 0-2% Lat: 42.29085°N Long: -88.28777°W Datum: NAD83

Soil Map Unit Name: Mapped as Pella silty clay loam NWI classification: U

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

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

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

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

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

Remarks:

Cropland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Glycine max*		yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 17B

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 3/2	100					SIL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Add. A, B, and C City/County: McHenry County Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: IL Sampling Point: 18A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.28813°N Long: -88.28644°W Datum: NAD83

Soil Map Unit Name: Mapped as Pella silty clay loam NWI classification: U

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

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

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

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

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

Remarks: Community type: Cropland

Although this site met the three criteria of a wetland, it failed to have wetland signatures in 50% or more years using the FSA method. FSA method was used because 2010 was a wetter than normal year and during two past delineations conducted by the first author (Wiesbrook et al. 2000; Tessene et al. 2007) this site was determined to be a non-wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Panicum dichotomiflorum*		yes	FACW-
2. *Portulaca oleracea*		yes	FAC-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
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% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 18A

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/1	90	10YR 3/6	10	C	M	SICL	
10-26	2.5Y 4/2	90	2.5Y 5/6	10	C	M	CL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Percent of FSA crop photos with wetland signature evident: 20% Is the site coded as wetland by the NWI?: No

Remarks:

Combined crop photo/NWI percentage: 16.7%

Does the site possess wetland hydrology? No Rationale: Wetland signature is not evident in the majority of years examined.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Add. A, B, and C City/County: McHenry County Sampling Date: September 9, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: IL Sampling Point: 19A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 15, T. 44 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.28721°N Long: -88.28629°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as McHenry silt loam, revised to Pella silty clay loam NWI classification: U

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

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

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

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

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

Remarks: Community type: Cropland

Although this site met the three criteria of a wetland, it failed to have wetland signatures in 50% or more years using the FSA method. FSA method was used because 2010 was a wetter than normal year and during two past delineations conducted by the first author (Wiesbrook et al. 2000; Tessene et al. 2007) this site was determined to be a non-wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Panicum dichotomiflorum*		yes	FACW-
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 19A

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 2/1	100					SICL	
14-26	2.5Y 5/2	95	10YR 4/6	5	C	M	CL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☒ No ☐

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

Percent of FSA crop photos with wetland signature evident: 20% Is the site coded as wetland by the NWI?: No

Remarks:

Combined crop photo/NWI percentage: 16.7%

Does the site possess wetland hydrology? No Rationale: Wetland signature is not evident in the majority of years examined.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 10, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 20A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 22, T. 44 N., R. 8 E.

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

Slope (%): 0-2% Lat: 42.27452°N Long: -88.28663°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Lena muck, revised to undetermined NWI classification: PFO1B

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

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

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

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

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

Remarks:

Wet Floodplain Forest.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*		yes	FACW
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 20A

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1	100					SIL	
6-16	10YR 6/1	90	10YR 8/1	10	D	M	SIL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 8

Water Table Present? Yes ☒ No ☐ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 10, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 20B

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 22, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): upland Local relief (concave, convex, none): convex to none

Slope (%): 0-3% Lat: 42.27457°N Long: -88.28650°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Lena muck, revised to Rush silt loam NWI classification: PFO1B

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

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

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

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

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

Remarks:

Mesic Floodplain Forest.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus deltoides*		yes	FAC+
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Eupatorium rugosum*		yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 20B

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 4/3	100					SIL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 10, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 21A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 22, T. 44 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.27465°N Long: -88.28621°W Datum: NAD83

Soil Map Unit Name: Mapped as Lena muck NWI classification: PEM/SS1Ch

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

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

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

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

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

Remarks:

Shrub-scrub Wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1. *Salix exigua*		yes	OBL
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Carex trichocarpa*		yes	OBL
2. *Impatiens capensis*		yes	FACW
3. *Phalaris arundinacea*		yes	FACW+
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 21A

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-39	N 2.5/	100					Muck	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7)
- [ ] Iron-Manganese Masses (F12)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- [X] Surface Water (A1)
- [X] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [X] 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): 4

Water Table Present? Yes [X] No [ ] Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 0

Wetland Hydrology Present? Yes [X] No [ ]

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 10, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 21B

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 22, T. 44 N., R. 8 E.

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

Slope (%): 1-5% Lat: 42.27506°N Long: -88.28597°W Datum: NAD83

Soil Map Unit Name: Mapped as Orthents, loamy, undulating NWI classification: U

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

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

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

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

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

Remarks:

Mesic Upland Forest.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus macrocarpa*		yes	FAC-
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1. *Lonicera maackii*		yes	UPL
2. *Rhamnus cathartica*		yes	FACU
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 21B

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/1	100					SIL	
4+	Gravel							

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 10, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 22A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 22, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): concave to none

Slope (%): 0-1% Lat: 42.27381˚N Long: -88.28641˚W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Rush silt loam, revised to Lena muck NWI classification: PFO1B and U

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

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

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

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

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

Remarks:

Wet Meadow.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Phalaris arundinacea*		yes	FACW+
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 22A

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-15	N 2.5/	90					Muck	
	7.5YR 2.5/2	10						
15-26	N 2.5/	100					Muck	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7)
- [ ] Iron-Manganese Masses (F12)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:

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): 3

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 3

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: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 10, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 22B

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 22, T. 44 N., R. 8 E.

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

Slope (%): 1-5% Lat: 42.27387°N Long: -88.28645°W Datum: NAD83

Soil Map Unit Name: Mapped as Rush silt loam, revised to undetermined NWI classification: U

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

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

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

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

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

Remarks:

Shrubland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1. *Rhus glabra*		yes	UPL
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Daucus carota*		yes	FACU-
2. *Solidago canadensis*		yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 22B

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/1	100					SIL	
6+	Gravel							

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 10, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 23A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 22, T. 44 N., R. 8 E.

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

Slope (%): 0-2% Lat: 42.27520°N Long: -88.28617°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Orthents, loamy, undulating NWI classification: U

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

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

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

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

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

Remarks:

Shrub-scrub Wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1. *Salix exigua*		yes	OBL
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Eleocharis erythropoda*		yes	OBL
2. *Typha angustifolia*		yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 23A

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	2.5Y 4/2	85	10YR 4/4	15	C	M	SICL	
6+	Gravel							

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☒ No ☐ Depth (inches): 1

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 1

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 10, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 23B

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 22, T. 44 N., R. 8 E.

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

Slope (%): 1-5% Lat: 42.27533°N Long: -88.28625°W Datum: NAD83

Soil Map Unit Name: Mapped as Orthents, loamy, undulating NWI classification: U

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

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

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

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

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

Remarks:

Non-native Grassland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Lolium perenne*		yes	FACU
2. *Poa pratensis*		yes	FAC-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 23B

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/3	100					SIL	
3+	Gravel							

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 10, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 24A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 22, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave to convex(seepage zone)

Slope (%): 0-5% Lat: 42.27627°N Long: -88.28597°W Datum: NAD83

Soil Map Unit Name: Mapped as Orthents, loamy, undulating, revised to undetermined NWI classification: U

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

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

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

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

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

Remarks:

Calcareous Seep.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1. *Phragmites australis*		yes	FACW+
2. *Solidago ohiensis*		yes	OBL
3. *Typha angustifolia*		yes	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 24A

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	2.5Y 2.5/1	100					Muck	
10+	Bedrock							

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

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7)
- [ ] Iron-Manganese Masses (F12)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Paralithic contact

Depth (inches): 10

Hydric Soil Present? Yes [X] No [ ]

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- [ ] Surface Water (A1)
- [X] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [X] 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)
- [X] 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): 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:

Marl deposits are present in the seepage area.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 10, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 24B

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 22, T. 44 N., R. 8 E.

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

Slope (%): 0-3% Lat: 42.27630°N Long: -88.28626°W Datum: NAD83

Soil Map Unit Name: Mapped as Orthents, loamy, undulating NWI classification: U

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

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

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

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

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

Remarks:

Non-native Grassland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Poa pratensis*		yes	FAC-
2. *Taraxacum officinale*		yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 24B

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

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

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

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 10, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 25A

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 22, T. 44 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.27183°N Long: -88.28706°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Hooppole loam, revised to Lena muck NWI classification: U

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

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

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

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

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

Remarks:

Wet Floodplain Forest.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*		yes	FACW-
2. *Populus deltoides*		yes	FAC+
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1. *Rhamnus cathartica*		yes	FACU
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 25A

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-39	N 2.5/	100					Muck	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7)
- [ ] Iron-Manganese Masses (F12)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] 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)
- [X] 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)
- [X] 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): 15

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 15

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: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: September 10, 2010

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 25B

Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka Section, Township, Range: Section 22, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): upland Local relief (concave, convex, none): convex to none

Slope (%): 0-2% Lat: 42.27181°N Long: -88.28749°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Rush silt loam, revised to undetermined NWI classification: U

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

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

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

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

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

Remarks:

Mesic Floodplain Forest.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus deltoides*		yes	FAC+
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1. *Rhamnus cathartica*		yes	FACU
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Parthenocissus quinquefolia*		yes	FAC-
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
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: 2 (A)

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [ ] 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: 25B

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 3/1	100					SIL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 23, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 26A

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 22, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): convex to none

Slope (%): 0-2% Lat: 42.27134°N Long: -88.28649°W Datum: NAD83

Soil Map Unit Name: Mapped as Hooppole loam NWI classification: PFO1B

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

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

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

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

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

Remarks:

Mesic Floodplain Forest.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*	60%	yes	FACW-
2. *Morus alba*	5%	no	FAC
3. *Rhamnus cathartica*	2%	no	FACU
4.			
5.			
	67%	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1. *Rhamnus cathartica*	40%	yes	FACU
2. *Lonicera tatarica*	20%	yes	FACU
3. *Ulmus americana*	5%	no	FACW-
4. *Acer negundo*	4%	no	FACW-
5.			
	69%	= Total Cover	
Herb Stratum (Plot size: 5-ft radius)			
1. *Alliaria petiolata*	65%	yes	FAC
2. *Rhamnus cathartica*	5%	no	FACU
3. *Circaea lutetiana*	2%	no	FACU
4. *Galium aparine*	1%	no	FACU
5. *Parthenocissus quinquefolia*	1%	no	FAC-
6.			
7.			
8.			
9.			
10.			
	74%	= Total Cover	
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 26A

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-17	10YR 2/1	100					SIL	
17-26	5Y 4/2	90	10YR 4/4	10	C	M	SL	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 23, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 27A

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 27, T. 44 N., R. 8 E.

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

Slope (%): 0-1% Lat: 42.27022°N Long: -88.28216°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Lena muck, revised to Palms muck NWI classification: U

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

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

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

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

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

Remarks:

Wet Meadow.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ~15 x 60 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ~15 x 60 ft)			
1. *Cornus obliqua*	2%	no	FACW+
2.			
3.			
4.			
5.			
	2% = Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Phragmites australis*	25%	yes	FACW+
2. *Impatiens capensis*	10%	yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	35% = Total Cover		
Woody Vine Stratum (Plot size: ~15 x 60 ft)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 27A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-15	N 2.5/	100					Muck	
15-26	2.5Y 5/1	80	10YR 4/4	20	C	M	LS	

[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)
- [x] Histic Epipedon (A2)
- [x] Black Histic (A3)
- [x] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] 2 cm Muck (A10)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7)
- [ ] Iron-Manganese Masses (F12)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [x] No [ ]

Remarks:

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)
- [x] Sparsely Vegetated Concave Surface (B8)
- [x] 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): 2

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: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 23, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 27B

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 27, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): convex to none

Slope (%): 0-3% Lat: 42.27032°N Long: -88.28214°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Lena muck, revised to undetermined NWI classification: PFO1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [ ]	No [X]	**Is the Sampled Area within a Wetland?** Yes [ ] No [X]
Hydric Soil Present?	Yes [ ]	No [X]	
Wetland Hydrology Present?	Yes [ ]	No [X]	

Remarks:

Mesic Floodplain Forest.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*	50%	yes	FACW-
2. *Rhamnus cathartica*	15%	yes	FACU
3.			
4.			
5.			
	65%	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1. *Rhamnus cathartica*	40%	yes	FACU
2. *Lonicera maackii*	5%	no	UPL
3. *Acer negundo*	2%	no	FACW-
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5-ft radius)			
1. *Alliaria petiolata*	50%	yes	FAC
2. *Circaea lutetiana*	2%	no	FACU
3. *Lonicera maackii*	1%	no	UPL
4. *Rhamnus cathartica*	1%	no	FACU
5. *Geum canadense*	<1%	no	FAC
6.			
7.			
8.			
9.			
10.			
	54%	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 27B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 2/1	100					SIL	
14-26	7.5YR 4/4	95	7.5YR 4/2	5	D	M	LS	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 23, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 28A

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 27, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave

Slope (%): 0-1% Lat: 42.26890°N Long: -88.28472°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Lena muck, revised to Hooppole loam NWI classification: PEMB

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [X]	No [ ]	**Is the Sampled Area within a Wetland?** Yes [X] No [ ]
Hydric Soil Present?	Yes [X]	No [ ]	
Wetland Hydrology Present?	Yes [X]	No [ ]	

Remarks:

Wet Meadow.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: whole site)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Eleocharis erythropoda*	10%	yes	OBL
2. *Phalaris arundinacea*	10%	yes	FACW+
3. *Lycopus americanus*	3%	no	OBL
4. *Populus deltoides*	<1%	no	FAC+
5. *Solanum carolinense*	<1%	no	FACU-
6.			
7.			
8.			
9.			
10.			
	23% = Total Cover		
Woody Vine Stratum (Plot size: whole site)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 28A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-20	N 2.5/	100					SICL	
20-30	5Y 5/2	90	2.5Y 5/4	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☒ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☒ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☒ No ☐ Depth (inches): 1

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 1

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 23, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 28B

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 27, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): upland Local relief (concave, convex, none): none to convex

Slope (%): 0-1% Lat: 42.26887°N Long: -88.28453°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Lena muck, revised to undetermined NWI classification: PEMB

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [ ]	No [X]	**Is the Sampled Area within a Wetland?** Yes [ ] No [X]
Hydric Soil Present?	Yes [ ]	No [X]	
Wetland Hydrology Present?	Yes [ ]	No [X]	

Remarks:

Shrubland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1. *Rhamnus cathartica*	40%	yes	FACU
2. *Lonicera maackii*	2%	no	UPL
3. *Rubus occidentalis*	1%	no	FACU
4.			
5.			
	43% = Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Bromus inermis*	20%	yes	UPL
2. *Solidago canadensis*	20%	yes	FACU
3. *Daucus carota*	10%	no	UPL
4. *Poa compressa*	10%	no	FACU+
5. *Rhamnus cathartica*	10%	no	FACU
6. *Carex granularis*	1%	no	FACW+
7. *Leucanthemum vulgare*	1%	no	UPL
8. *Penstemon digitalis*	<1%	no	FAC-
9.			
10.			
	72% = Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 28B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 2/1	100					SICL	
11-14	10YR 3/1	95	2.5Y 5/6	5	C	M	SICL	
14-26	5Y 5/2	90	2.5Y 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 23, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 29A

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 27, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): none to convex

Slope (%): 0-2% Lat: 42.26901°N Long: -88.28628°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Lena muck, revised to Palms muck NWI classification: PEMB

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [ ]	No [X]	**Is the Sampled Area within a Wetland?** Yes [ ] No [X]
Hydric Soil Present?	Yes [X]	No [ ]	
Wetland Hydrology Present?	Yes [ ]	No [X]	

Remarks:

Mesic Floodplain Forest.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	55%	yes	FACW
2. *Populus deltoides*	5%	no	FAC+
3. *Rhamnus cathartica*	5%	no	FACU
4. *Salix fragilis*	5%	no	FAC
5.			
	70%	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1. *Rhamnus cathartica*	75%	yes	FACU
2. *Lonicera maackii*	3%	no	UPL
3.			
4.			
5.			
	78%	= Total Cover	
Herb Stratum (Plot size: 5-ft radius)			
1. *Rhamnus cathartica*	5%	yes	FACU
2. *Circaea lutetiana*	3%	yes	FACU
3. *Parthenocissus quinquefolia*	<1%	no	FAC-
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	8%	= Total Cover	
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 29A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15	N 2.5/	100					Muck	
15-26	2.5Y 5/1	80	2.5Y 5/6	20	C	M	LS	

[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)
- [x] Histic Epipedon (A2)
- [x] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] 2 cm Muck (A10)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7)
- [ ] Iron-Manganese Masses (F12)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [x] No [ ]

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] 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: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 23, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 30A

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 27, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave to none

Slope (%): 0-1% Lat: 42.26844°N Long: -88.28712°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Lena muck, revised to Hooppole loam 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 [ ], 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:

Wet Meadow.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Phalaris arundinacea*	90%	yes	FACW+
2. *Cirsium arvense*	5%	no	FACU
3. *Urtica dioica*	2%	no	FAC+
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	97% = Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 30A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-22	N 2.5/	100					SICL	
22-28	2.5Y 4/1	100					SICL	
28-39	10Y 4/1	90	10YR 4/4	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☒ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☒ No ☐ Depth (inches): 14

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 14

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 23, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 30B

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 27, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): upland Local relief (concave, convex, none): convex to none

Slope (%): 0-2% Lat: 42.26858°N Long: -88.28690°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Lena muck, revised to undetermined NWI classification: U

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [X]	No [ ]	**Is the Sampled Area within a Wetland?** Yes [ ] No [X]
Hydric Soil Present?	Yes [ ]	No [X]	
Wetland Hydrology Present?	Yes [ ]	No [X]	

Remarks:

Non-native Grassland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Poa pratensis*	80%	yes	FAC-
2. *Taraxacum officinale*	10%	no	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90% = Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 30B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/1	100					SIL	
6+	Gravel							

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 24, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 31A

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 27, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave

Slope (%): 0-1% Lat: 42.26711°N Long: -88.28634°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Grundelein silt loam, revised to Hooppole loam NWI classification: U

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [X]	No [ ]	**Is the Sampled Area within a Wetland?** Yes [X] No [ ]
Hydric Soil Present?	Yes [X]	No [ ]	
Wetland Hydrology Present?	Yes [X]	No [ ]	

Remarks:

Wetland Pond.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Phalaris arundinacea*	7%	yes	FACW+
2. *Leersia oryzoides*	3%	yes	OBL
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: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 31A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	2.5Y 2.5/1	85	10YR 3/4	15	C	M, PL	SICL	
10-16	2.5Y 4/1	90	10YR 4/4	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] 2 cm Muck (A10)
- [x] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [x] Depleted Matrix (F3)
- [x] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7)
- [ ] Iron-Manganese Masses (F12)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [x] No [ ]

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [x] Surface Water (A1)
- [x] High Water Table (A2)
- [x] Saturation (A3)
- [x] 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)
- [x] 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): 8

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: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 24, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 31B

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 27, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): upland Local relief (concave, convex, none): convex to none

Slope (%): 0-2% Lat: 42.26692°N Long: -88.28631°W Datum: NAD83

Soil Map Unit Name: Mapped as Grundelein silt loam NWI classification: U

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [ ]	No [X]	**Is the Sampled Area within a Wetland?** Yes [ ] No [X]
Hydric Soil Present?	Yes [ ]	No [X]	
Wetland Hydrology Present?	Yes [ ]	No [X]	

Remarks:

Mesic Upland Forest.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer platanoides*	55%	yes	UPL
2. *Pinus strobus*	20%	yes	FACU
3.			
4.			
5.			
	75%	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1. *Lonicera maackii*	20%	yes	UPL
2. *Rhamnus cathartica*	10%	yes	FACU
3.			
4.			
5.			
	30%	= Total Cover	
Herb Stratum (Plot size: 5-ft radius)			
1. *Rhamnus cathartica*	5%	yes	FACU
2. *Acer platanoides*	<1%	no	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	5%	= Total Cover	
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 31B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 3/2	100					SIL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 24, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 32A

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 27, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): pond Local relief (concave, convex, none): concave

Slope (%): 0-1% Lat: 42.26537°N Long: -88.28637°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Water, revised to undetermined NWI classification: U

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [X]	No [ ]	**Is the Sampled Area within a Wetland?** Yes [X] No [ ]
Hydric Soil Present?	Yes [X]	No [ ]	
Wetland Hydrology Present?	Yes [X]	No [ ]	

Remarks:

Wetland Pond.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Phragmites australis*	50%	yes	FACW+
2. *Najas flexilis*	10%	no	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	60% = Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 32A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	N 2.5/	100					Muck	
4-14	2.5Y 5/1	100					SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☒ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☒ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☒ Aquatic Fauna (B13)
- ☒ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): < 72

Water Table Present? Yes ☒ No ☐ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 24, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 32B

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 27, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): upland Local relief (concave, convex, none): none to convex

Slope (%): 0-1% Lat: 42.26542°N Long: -88.28644°W Datum: NAD83

Soil Map Unit Name: Mapped as Fox silt loam NWI classification: U

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [ ]	No [X]	**Is the Sampled Area within a Wetland?** Yes [ ] No [X]
Hydric Soil Present?	Yes [ ]	No [X]	
Wetland Hydrology Present?	Yes [ ]	No [X]	

Remarks:

Mesic Upland Forest.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus deltoides*	30%	yes	FAC+
2. *Rhamnus cathartica*	20%	yes	FACU
3. *Acer negundo*	10%	no	FACW-
4.			
5.			
	60%	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1. *Lonicera maackii*	25%	yes	UPL
2. *Rhamnus cathartica*	15%	yes	FACU
3. *Acer negundo*	2%	no	FACW-
4.			
5.			
	42%	= Total Cover	
Herb Stratum (Plot size: 5-ft radius)			
1. *Rhamnus cathartica*	45%	yes	FACU
2. *Lonicera maackii*	10%	no	UPL
3. *Equisetum arvense*	1%	no	FAC
4. *Viburnum opulus*	1%	no	UPL
5. *Taraxacum officinale*	<1%	no	FACU
6.			
7.			
8.			
9.			
10.			
	57%	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 32B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 4/3	100					SIL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 24, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 33A

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 27, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave

Slope (%): 0-2% Lat: 42.26468°N Long: -88.28654°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Fox silt loam, revised to undetermined NWI classification: POWHx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [X]	No [ ]	**Is the Sampled Area within a Wetland?** Yes [X] No [ ]
Hydric Soil Present?	Yes [X]	No [ ]	
Wetland Hydrology Present?	Yes [X]	No [ ]	

Remarks:

Wet Meadow.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Phragmites australis*	55%	yes	FACW+
2. *Impatiens capensis*	15%	yes	FACW
3. *Alliaria petiolata*	1%	no	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	71% = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 33A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/1	100					Muck	
4-10	N 5/	90	10YR 4/4	10	C	M	SICL	
10+	Gravel							

[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)
- [ ] Loamy Mucky Mineral (F1)
- [x] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7)
- [ ] Iron-Manganese Masses (F12)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [x] No [ ]

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [x] Surface Water (A1)
- [x] High Water Table (A2)
- [x] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] True Aquatic Plants (B14)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Gauge or Well Data (D9)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [x] Geomorphic Position (D2)
- [x] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes [x] No [ ] Depth (inches): 1

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: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 24, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 33B/34B

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 27, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): upland Local relief (concave, convex, none): none

Slope (%): 0% Lat: 42.26461°N Long: -88.28643°W Datum: NAD83

Soil Map Unit Name: Mapped as Fox silt loam NWI classification: U

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [ ]	No [X]	**Is the Sampled Area within a Wetland?** Yes [ ] No [X]
Hydric Soil Present?	Yes [ ]	No [X]	
Wetland Hydrology Present?	Yes [ ]	No [X]	

Remarks:

Non-native Grassland (lawn).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Malus c.f. baccata*	25%	yes	UPL
2.			
3.			
4.			
5.			
	25%	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1. *Picea abies*	10%	yes	UPL
2.			
3.			
4.			
5.			
	10%	= Total Cover	
Herb Stratum (Plot size: 5-ft radius)			
1. *Poa pratensis*	60%	yes	FAC-
2. *Trifolium repens*	30%	yes	FACU
3. *Glechoma hederacea*	3%	no	FACU
4. *Daucus carota*	2%	no	UPL
5. *Cerastium vulgatum*	1%	no	FACU
6. *Plantago rugelii*	1%	no	FAC-
7. *Viola pratincola*	1%	no	FACW
8.			
9.			
10.			
	98%	= Total Cover	
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 33B/34B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/2	100					SIL	
5-13	10YR 4/4	100					SIL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 24, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 34A

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 27, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): pond Local relief (concave, convex, none): concave

Slope (%): 0-1% Lat: 42.26474°N Long: -88.28633°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Water, revised to undetermined NWI classification: U

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [X]	No [ ]	**Is the Sampled Area within a Wetland?** Yes [X] No [ ]
Hydric Soil Present?	Yes [X]	No [ ]	
Wetland Hydrology Present?	Yes [X]	No [ ]	

Remarks:

Wetland Pond.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*	2%	no	FACW-
2.			
3.			
4.			
5.			
	2%	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5-ft radius)			
1. *Myriophyllum exalbescens*	30%	yes	OBL
2. *Potamogeton foliosus*	10%	yes	OBL
3. *Leersia oryzoides*	4%	no	OBL
4. *Phalaris arundinacea*	2%	no	FACW+
5. *Eleocharis erythropoda*	1%	no	OBL
6.			
7.			
8.			
9.			
10.			
	47%	= Total Cover	
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 34A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	N 2.5/	100					Muck	
3-7	2.5Y 4/2	90	10YR 4/6	10			SICL	
7+	Gravel							

[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)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [x] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7)
- [ ] Iron-Manganese Masses (F12)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [x] No [ ]

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [x] Surface Water (A1)
- [x] High Water Table (A2)
- [x] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [x] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [x] 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): < 72

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: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 24, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 35A

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 27, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave to convex (seepage area)

Slope (%): 0-2% Lat: 42.26344°N Long: -88.28645°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Casco loam, revised to Palms muck NWI classification: U

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [X]	No [ ]	**Is the Sampled Area within a Wetland?** Yes [X] No [ ]
Hydric Soil Present?	Yes [X]	No [ ]	
Wetland Hydrology Present?	Yes [X]	No [ ]	

Remarks:

Seep.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Nasturtium officinale*	30%	yes	OBL
2. *Symplocarpus foetidus*	20%	yes	OBL
3. *Carex pellita*	10%	no	OBL
4. *Solanum dulcamara*	7%	no	FAC
5. *Glyceria striata*	5%	no	OBL
6. *Phalaris arundinacea*	5%	no	FACW+
7. *Eleocharis erythropoda*	3%	no	OBL
8. *Barbarea vulgaris*	2%	no	FAC
9. *Dipsacus laciniatus*	1%	no	UPL
10.			
	83% = Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1. *Vitis riparia*	2%	no	FACW-
2.			
	no = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 35A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-19	N 2.5/	100					Muck	
19-26	2.5Y 5/1	90	10YR 4/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [X] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] 2 cm Muck (A10)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7)
- [ ] Iron-Manganese Masses (F12)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:

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)
- [X] 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): 1

Saturation Present? (includes capillary fringe) Yes [X] No [ ] Depth (inches): 1

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: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 24, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 35B

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 27, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): upland Local relief (concave, convex, none): convex

Slope (%): 1-5% Lat: 42.26332°N Long: -88.28641°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Casco loam, revised to undetermined NWI classification: U

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [ ]	No [X]	**Is the Sampled Area within a Wetland?** Yes [ ] No [X]
Hydric Soil Present?	Yes [ ]	No [X]	
Wetland Hydrology Present?	Yes [ ]	No [X]	

Remarks:

Mesic Upland Forest.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus deltoides*	30%	yes	FAC+
2. *Rhamnus cathartica*	10%	yes	FACU
3.			
4.			
5.			
	40%	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1. *Lonicera maackii*	10%	yes	UPL
2. *Lonicera tatarica*	2%	no	FACU
3. *Rosa multiflora*	2%	no	FACU
4. *Viburnum opulus*	1%	no	UPL
5.			
	15%	= Total Cover	
Herb Stratum (Plot size: 5-ft radius)			
1. *c.f. Clinopodium vulgare*	90%	yes	UPL
2. *Eupatorium rugosum*	1%	no	FACU
3. *Parthenocissus quinquefolia*	<1%	no	FAC-
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	91%	= Total Cover	
Woody Vine Stratum (Plot size: 30-ft radius)			
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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 35B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 2/2	100					SIL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 24, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 36A

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 27, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): pond Local relief (concave, convex, none): concave

Slope (%): 0-1% Lat: 42.26432°N Long: -88.28712°W Datum: NAD83

Soil Map Unit Name: Mapped as Lena muck NWI classification: POWHx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [X]	No [ ]	**Is the Sampled Area within a Wetland?** Yes [X] No [ ]
Hydric Soil Present?	Yes [X]	No [ ]	
Wetland Hydrology Present?	Yes [X]	No [ ]	

Remarks:

Wetland Pond.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Typha angustifolia*	70%	yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	70% = Total Cover		
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 36A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-39	N 2.5/	100					Muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [X] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] 2 cm Muck (A10)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7)
- [ ] Iron-Manganese Masses (F12)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes [X] No [ ]

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [X] Surface Water (A1)
- [X] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [X] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [X] 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): < 72

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: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 24, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 36B

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 27, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): upland Local relief (concave, convex, none): convex

Slope (%): >5% Lat: 42.26418°N Long: -88.28710°W Datum: NAD83

Soil Map Unit Name: Mapped as Casco loam NWI classification: U

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [ ]	No [X]	**Is the Sampled Area within a Wetland?** Yes [X] No [ ]
Hydric Soil Present?	Yes [ ]	No [X]	
Wetland Hydrology Present?	Yes [ ]	No [X]	

Remarks:

Non-native Grassland (lawn).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus alba*	20%	yes	UPL
2. *Carya ovata*	10%	yes	UPL
3.			
4.			
5.			
	30%	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5-ft radius)			
1. *Poa pratensis*	70%	yes	FAC-
2. *Glechoma hederacea*	25%	yes	FACU
3. *Plantago rugelii*	5%	no	FAC
4. *Taraxacum officinale*	5%	no	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	105%	= Total Cover	
Woody Vine Stratum (Plot size: 30-ft radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 36B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 3/2	100					SIL	
13-26	10YR 4/4	100					SCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 24, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 37A

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 34, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave

Slope (%): 0-1% Lat: 42.25271°N Long: -88.28621°W Datum: NAD83

Soil Map Unit Name: NRCS mapped as Lorenzo loam, revised to undetermined NWI classification: U

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [X]	No [ ]	**Is the Sampled Area within a Wetland?** Yes [X] No [ ]
Hydric Soil Present?	Yes [X]	No [ ]	
Wetland Hydrology Present?	Yes [X]	No [ ]	

Remarks:

Wet Meadow.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: whole site)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Typha angustifolia*	10%	yes	OBL
2. *Polygonum pensylvanicum*	9%	yes	FACW+
3. *Typha latifolia*	2%	no	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	21% = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- [X] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is ≤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: 37A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 2/1	100					SICL	
14-26	10YR 4/2	90	10YR 4/4	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☒ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☒ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 4

Water Table Present? Yes ☒ No ☐ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C City/County: McHenry Sampling Date: May 24, 2011

Applicant/Owner: Illinois Department of Transportation, District 1 State: Illinois Sampling Point: 37B

Investigator(s): Paul B. Marcum, Ian Draheim Section, Township, Range: Section 34, T. 44 N., R. 8 E.

Landform (hillslope, terrace, etc.): upland Local relief (concave, convex, none): convex to none

Slope (%): 0-2% Lat: 42.25253°N Long: -88.28631°W Datum: NAD83

Soil Map Unit Name: Mapped as Lorenzo loam NWI classification: U

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [X]	No [ ]	**Is the Sampled Area within a Wetland?** Yes [ ] No [X]
Hydric Soil Present?	Yes [ ]	No [X]	
Wetland Hydrology Present?	Yes [ ]	No [X]	

Remarks:

Non-native Grassland (lawn).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15-ft radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5-ft radius)			
1. *Poa pratensis*	70%	yes	FAC-
2. *Festuca arundinacea*	10%	no	FACU+
3. *Trifolium repens*	10%	no	FACU+
4. *Plantago rugelii*	5%	no	FAC
5. *Taraxacum officinale*	5%	no	FACU
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% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- [ ] 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: 37B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 3/2	100					L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX B

Wetland Plant Species Lists

Site 1 Wet Meadow

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acer negundo	box elder	sapling	FACW-	1
Agrimonia parviflora	swamp agrimony	herb	FAC+	5
Ambrosia trifida	giant ragweed	herb	FAC+	0
Asclepias incarnata	swamp milkweed	herb	OBL	4
Carex stricta	tussock sedge	herb	OBL	5
Oenothera biennis	evening primrose	herb	FACU	1
Parthenocissus quinquefolia	Virginia creeper	herb	FAC-	2
Phalaris arundinacea	**reed canary grass**	**herb**	**FACW+**	*
Typha angustifolia	**narrow-leaved cattail**	**herb**	**OBL**	*

* Non-native species

mCv = 2.6

FQI = 6.8

Site 2 Wet Floodplain Forest

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acer negundo	**box elder**	**tree, sapling/shrub**	**FACW-**	**1**
Glechoma hederacea	ground ivy	herb	FACU	*
Morus alba	white mulberry	tree	FAC	*
Parthenocissus quinquefolia	Virginia creeper	herb	FAC-	2
Phalaris arundinacea	**reed canary grass**	**herb**	**FACW+**	*
Pilea pumila	**Canada clearweed**	**herb**	**FACW**	**3**
Rhamnus cathartica	common buckthorn	herb	FACU	*
Ribes americanum	wild black currant	shrub	FACW	5
Sambucus canadensis	common elder	shrub	FACW-	2
Solanum dulcamara	false bittersweet	herb	FAC	*
Urtica dioica	stinging nettle	herb	FAC+	2
Vitis riparia	riverbank grape	w-vine	FACW-	2

* Non-native species

mCv = 2.4

FQI = 6.4

Site 3 Wet Meadow

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Ambrosia trifida	giant ragweed	herb	FAC+	0
Aster simplex	panicled aster	herb	FACW	3
Cirsium arvense	Canada thistle	herb	FACU	*
Phragmites australis	**common red reed**	**herb**	**FACW+**	**1**
Scirpus fluviatilis	river bulrush	herb	OBL	3

* Non-native species

mCv = 1.8

FQI = 3.5

Site 4 Wetland Pond

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Bidens frondosa	common beggar's ticks	herb	FACW	1
Carex hystricina	bottlebrush sedge	herb	OBL	6
Carex pellita	wooly sedge	herb	OBL	4
Cirsium arvense	Canada thistle	herb	FACU	*
Conyza canadensis	horseweed	herb	FAC-	0
Eleocharis erythropoda	red-rooted spikerush	herb	OBL	3
Eleocharis obtusa	blunt spike rush	herb	OBL	2
Eupatorium perfoliatum	common boneset	herb	FACW+	4
Festuca arundinacea	tall fescue	herb	FACU+	*
Juncus dudleyi	Dudley's rush	herb	FAC	4
Leersia oryzoides	rice cutgrass	herb	OBL	3
Lemna minor	common duckweed	herb	OBL	3
Lythrum salicaria	purple loosestrife	herb	OBL	*
Parthenocissus quinquefolia	Virginia creeper	herb	FAC-	2
Poa pratensis	Kentucky bluegrass	herb	FAC-	*
Salix amygdaloides	peach-leaved willow	tree	FACW	4
Salix exigua	sandbar willow	sapling/shrub	OBL	1
Salix nigra	black willow	sapling/shrub	OBL	3
Scirpus americanus	chairmaker's rush	herb	OBL	3
Scirpus atrovirens	dark green bulrush	herb	OBL	4
Setaria glauca	pigeon grass	herb	FAC	*
Solidago gigantea	late goldenrod	herb	FACW	3
Sonchus arvensis	field sowthistle	herb	FAC-	*
Typha angustifolia	**narrow-leaved cattail**	**herb**	**OBL**	*****

* Non-native species

mCv = 2.9

FQI = 12.1

Site 5 Wetland Pond

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Ambrosia artemisiifolia	common ragweed	herb	FACU	0
Aster pilosus	hairy aster	herb	FACU+	0
Cyperus esculentus	yellow nut-sedge	herb	FACW	0
Cyperus rivularis	brook flat sedge	herb	FACW+	4
Echinochloa muricata	barnyard grass	herb	OBL	0
Eleocharis erythropoda	red-rooted spikerush	herb	OBL	3
Juncus dudleyi	Dudley's rush	herb	FAC	4
Lythrum salicaria	purple loosestrife	herb	OBL	*
Populus deltoides	eastern cottonwood	herb	FAC+	2
Salix amygdaloides	peach-leaved willow	shrub	FACW	4
Scirpus atrovirens	dark green bulrush	herb	OBL	4
Typha angustifolia	**narrow-leaved cattail**	**herb**	**OBL**	*****

* Non-native species

mCv = 2.1

FQI = 6.6

Site 6 Marsh

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Cirsium arvense	Canada thistle	herb	FACU	*
Eleocharis erythropoda	red-rooted spikerush	herb	OBL	3
Plantago rugelii	red-stalked plantain	herb	FAC	0
Poa pratensis	Kentucky bluegrass	herb	FAC-	*
Polygonum aviculare	knotweed	herb	FAC-	*
Polygonum hydropiper	common smartweed	herb	OBL	*
Rumex crispus	curly dock	herb	FAC+	*
Scirpus tabernaemontanii	great bulrush	herb	OBL	4
Sonchus arvensis	field sowthistle	herb	FAC-	*
Typha angustifolia	**narrow-leaved cattail**	**herb**	**OBL**	*****

* Non-native species

mCv = 2.3

FQI = 4.0

Site 7 Wet Meadow

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Alisma plantago-aquatica	broad-leaf water-plantain	herb	OBL	2
Asclepias syriaca	common milkweed	herb	UPL	0
Calystegia sepium	American bindweed	herb	FAC	1
Carex pellita	**wooly sedge**	**herb**	**OBL**	**4**
Carex stricta	tussock sedge	herb	OBL	5
Cirsium arvense	Canada thistle	herb	FACU	*
Cornus racemosa	gray dogwood	shrub	FACW-	2
Eleocharis erythropoda	red-rooted spikerush	herb	OBL	3
Parthenocissus quinquefolia	Virginia creeper	herb	FAC-	2
Phalaris arundinacea	**reed canary grass**	**herb**	**FACW+**	*****
Rumex crispus	curly dock	herb	FAC+	*
Scirpus fluviatilis	river bulrush	herb	OBL	3
Spartina pectinata	freshwater cord grass	herb	FACW+	4
Vitis riparia	riverbank grape	w-vine, herb	FACW-	2

* Non-native species

mCv = 2.5

FQI = 8.4

Site 8 Wet Meadow

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Abutilon theophrasti	velvet-leaf	herb	FACU-	*
Acer saccharinum	silver maple	shrub	FACW	1
Aster pilosus	hairy aster	herb	FACU+	0
Aster simplex	panicled aster	herb	FACW	3
Bidens cernua	**nodding beggar's ticks**	**herb**	**OBL**	**2**
Cyperus esculentus	yellow nut-sedge	herb	FACW	0
Echinochloa muricata	barnyard grass	herb	OBL	0
Eleocharis erythropoda	red-rooted spikerush	herb	OBL	3
Helianthus grosseserratus	sawtooth sunflower	herb	FACW-	2
Leersia oryzoides	rice cutgrass	herb	OBL	3
Panicum virgatum	prairie switchgrass	herb	FAC+	4
Phalaris arundinacea	**reed canary grass**	**herb**	**FACW+**	*****
Polygonum hydropiper	common smartweed	herb	OBL	*
Polygonum pensylvanicum	giant smartweed	herb	FACW+	1
Xanthium strumarium	**cocklebur**	**herb**	**FAC**	**0**

* Non-native species

mCv = 1.6

FQI = 5.5

Site 9 Farmed Wetland

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Abutilon theophrasti	velvet-leaf	herb	FACU-	*
Acer saccharinum	silver maple	herb	FACW	1
Alisma plantago-aquatica	broad-leaf water-plantain	herb	OBL	2
Amaranthus tuberculatus	tall waterhemp	herb	OBL	1
Ambrosia artemisiifolia	common ragweed	herb	FACU	0
Aster simplex	panicled aster	herb	FACW	3
Bidens tripartita	beggar's ticks	herb	OBL	2
Cyperus esculentus	**yellow nut-sedge**	**herb**	**FACW**	**0**
Echinochloa muricata	barnyard grass	herb	OBL	0
Eleocharis obtusa	blunt spike rush	herb	OBL	2
Hordeum jubatum	squirrel-tail	herb	FAC+	*
Leersia oryzoides	rice cutgrass	herb	OBL	3
Leptochloa acuminata	salt meadow grass	herb	FAC	*
Panicum capillare	witch grass	herb	FAC	0
Panicum dichotomiflorum	fall panicum	herb	FACW-	0
Phalaris arundinacea	reed canary grass	herb	FACW+	*
Scirpus tabernaemontanii	great bulrush	herb	OBL	4
Typha angustifolia	narrow-leaved cattail	herb	OBL	*
Xanthium strumarium	**cocklebur**	**herb**	**FAC**	**0**

* Non-native species

mCv = 1.3

FQI = 4.8

Site 10 Farmed Wetland

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Abutilon theophrasti	velvet-leaf	herb	FACU-	*
Ambrosia artemisiifolia	common ragweed	herb	FACU	0
Apocynum cannabinum	dogbane	herb	FAC	2
Bidens tripartita	beggar's ticks	herb	OBL	2
Cyperus esculentus	yellow nut-sedge	herb	FACW	0
Echinochloa muricata	**barnyard grass**	**herb**	**OBL**	**0**
Hibiscus trionum	flower-of-an-hour	herb	UPL	*
Panicum dichotomiflorum	**fall panicum**	**herb**	**FACW-**	**0**
Polygonum pensylvanicum	giant smartweed	herb	FACW+	1
Portulaca oleracea	purslane	herb	FAC-	*
Xanthium strumarium	cocklebur	herb	FAC	0

* Non-native species

mCv = 0.6

FQI = 1.8

Site 11 Farmed Wetland

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Abutilon theophrasti	velvet-leaf	herb	FACU-	*
Alisma plantago-aquatica	broad-leaf water-plantain	herb	OBL	2
Amaranthus tuberculatus	**tall waterhemp**	**herb**	**OBL**	**1**
Cyperus esculentus	**yellow nut-sedge**	**herb**	**FACW**	**0**
Echinochloa muricata	**barnyard grass**	**herb**	**OBL**	**0**
Panicum dichotomiflorum	fall panicum	herb	FACW-	0
Portulaca oleracea	purslane	herb	FAC-	*
Rorippa islandica	marsh yellow cress	herb	OBL	4
Setaria faberi	giant foxtail	herb	FACU+	*
Trifolium hybridum	alsike clover	herb	FAC-	*
Xanthium strumarium	cocklebur	herb	FAC	0

* Non-native species

mCv = 1.0

FQI = 2.6

Site 12 Wet Meadow

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Agrostis alba	red top	herb	FACW	0
Asclepias syriaca	common milkweed	herb	UPL	0
Aster simplex	panicled aster	herb	FACW	3
Carex pellita	wooly sedge	herb	OBL	4
Cyperus esculentus	yellow nut-sedge	herb	FACW	0
Euthamia graminifolia	grassleaf goldenrod	herb	FACW-	3
Helianthus grosseserratus	sawtooth sunflower	herb	FACW-	2
Juncus dudleyi	Dudley's rush	herb	FAC	4
Juncus torreyi	Torrey's rush	herb	FACW	3
Phalaris arundinacea	**reed canary grass**	**herb**	**FACW+**	*****
Polygonum amphibium	water smartweed	herb	OBL	3
Populus deltoides	eastern cottonwood	tree, sapling/shrub	FAC+	2
Salix exigua	sandbar willow	sapling/shrub	OBL	1
Salix nigra	black willow	shrub	OBL	3
Scirpus fluviatilis	river bulrush	herb	OBL	3
Solidago canadensis	Canada goldenrod	herb	FACU	1
Solidago gigantea	late goldenrod	herb	FACW	3
Typha angustifolia	narrow-leaved cattail	herb	OBL	*
Verbena hastata	blue vervain	herb	FACW+	3

* Non-native species

mCv = 2.2

FQI = 9.2

Site 13 Wet Meadow/Farmed Wetland

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Abutilon theophrasti	velvet-leaf	herb	FACU-	*
Alisma plantago-aquatica	broad-leaf water-plantain	herb	OBL	2
Amaranthus tuberculatus	tall waterhemp	herb	OBL	1
Ambrosia trifida	giant ragweed	herb	FAC+	0
Apocynum cannabinum	dogbane	herb	FAC	2
Aster simplex	panicled aster	herb	FACW	3
Cyperus esculentus	**yellow nut-sedge**	**herb**	**FACW**	**0**
Echinochloa muricata	**barnyard grass**	**herb**	**OBL**	**0**
Eleocharis erythropoda	red-rooted spikerush	herb	OBL	3
Leersia oryzoides	**rice cutgrass**	**herb**	**OBL**	**3**
Morus alba	white mulberry	herb	FAC	*
Panicum dichotomiflorum	fall panicum	herb	FACW-	0
Phalaris arundinacea	reed canary grass	herb	FACW+	*
Polygonum amphibium	water smartweed	herb	OBL	3
Polygonum lapathifolium	curttop lady's thumb	herb	FACW+	0
Polygonum pensylvanicum	giant smartweed	herb	FACW+	1
Rorippa islandica	marsh yellow cress	herb	OBL	4
Sambucus canadensis	common elder	shrub	FACW-	2
Scirpus fluviatilis	river bulrush	herb	OBL	3
Scirpus tabernaemontanii	great bulrush	herb	OBL	4
Typha angustifolia	**narrow-leaved cattail**	**herb**	**OBL**	*****
Ulmus rubra	slippery elm	shrub	FAC	3
Vitis riparia	riverbank grape	w-vine	FACW-	2
Xanthium strumarium	cocklebur	herb	FAC	0

* Non-native species

mCv = 1.8

FQI = 8.0

Site 14 Shrub-scrub Wetland

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acer negundo	box elder	shrub	FACW-	1
Agrostis alba	red top	herb	FACW	0
Alisma plantago-aquatica	broad-leaf water-plantain	herb	OBL	2
Ambrosia trifida	giant ragweed	herb	FAC+	0
Asclepias syriaca	common milkweed	herb	UPL	0
Aster simplex	**panicled aster**	**herb**	**FACW**	**3**
Bidens tripartita	beggar's ticks	herb	OBL	2
Calystegia sepium	American bindweed	herb	FAC	1
Carex pellita	wooly sedge	herb	OBL	4
Cirsium arvense	Canada thistle	herb	FACU	*
Cornus obliqua	pale dogwood	shrub	FACW+	4
Eleocharis erythropoda	red-rooted spikerush	herb	OBL	3
Equisetum arvense	common horsetail	herb	FAC	0
Geum canadense	white avens	herb	FAC	2
Geum laciniatum	rough avens	herb	FACW	2
Helianthus grosseserratus	sawtooth sunflower	herb	FACW-	2
Hordeum jubatum	squirrel-tail	herb	FAC+	*
Phalaris arundinacea	**reed canary grass**	**herb**	**FACW+**	*****
Rhamnus cathartica	common buckthorn	sapling/shrub	FACU	*
Ribes americanum	wild black currant	shrub	FACW	5
Salix exigua	**sandbar willow**	**sapling/shrub**	**OBL**	**1**
Sanicula canadensis	Canadian black snakeroot	herb	FACU+	4
Scirpus tabernaemontanii	great bulrush	herb	OBL	4
Solanum dulcamara	false bittersweet	herb	FAC	*
Solidago canadensis	Canada goldenrod	herb	FACU	1
Solidago gigantea	late goldenrod	herb	FACW	3
Sonchus arvensis	field sowthistle	herb	FAC-	*
Typha angustifolia	narrow-leaved cattail	herb	OBL	*
Vitis riparia	riverbank grape	w-vine	FACW-	2

* Non-native species

mCv = 2.1

FQI = 9.8

Site 15 Marsh

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Alisma plantago-aquatica	broad-leaf water-plantain	herb	OBL	2
Aster simplex	panicled aster	herb	FACW	3
Bidens tripartita	beggar's ticks	herb	OBL	2
Carex trichocarpa	sedge	herb	OBL	6
Echinochloa muricata	barnyard grass	herb	OBL	0
Eleocharis erythropoda	**red-rooted spikerush**	**herb**	**OBL**	**3**
Epilobium coloratum	cinnamon willow herb	herb	OBL	3
Hordeum jubatum	squirrel-tail	herb	FAC+	*
Juncus torreyi	Torrey's rush	herb	FACW	3
Polygonum persicaria	spotted lady's thumb	herb	FACW	*
Rumex crispus	curly dock	herb	FAC+	*
Salix exigua	sandbar willow	sapling/shrub	OBL	1
Scirpus tabernaemontanii	great bulrush	herb	OBL	4
Typha angustifolia	**narrow-leaved cattail**	**herb**	**OBL**	*****
Xanthium strumarium	cocklebur	herb	FAC	0

* Non-native species

mCv = 2.5

FQI = 8.1

Site 16 Farmed Wetland

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Abutilon theophrasti	velvet-leaf	herb	FACU-	*
Ambrosia artemisiifolia	common ragweed	herb	FACU	0
Bidens tripartita	beggar's ticks	herb	OBL	2
Cyperus esculentus	**yellow nut-sedge**	**herb**	**FACW**	**0**
Echinochloa muricata	**barnyard grass**	**herb**	**OBL**	**0**
Epilobium coloratum	cinnamon willow herb	herb	OBL	3
Hibiscus trionum	flower-of-an-hour	herb	UPL	*
Hordeum jubatum	squirrel-tail	herb	FAC+	*
Juncus torreyi	Torrey's rush	herb	FACW	3
Rumex crispus	curly dock	herb	FAC+	*
Solidago canadensis	Canada goldenrod	herb	FACU	1
Solidago gigantea	late goldenrod	herb	FACW	3
Typha angustifolia	narrow-leaved cattail	herb	OBL	*
Xanthium strumarium	cocklebur	herb	FAC	0
Zea mays	corn	herb	UPL	*

* Non-native species

mCv = 1.3

FQI = 4.0

Site 17 Wet Meadow

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Agrostis alba	red top	herb	FACW	0
Ambrosia artemisiifolia	common ragweed	herb	FACU	0
Apocynum cannabinum	dogbane	herb	FAC	2
Asclepias syriaca	common milkweed	herb	UPL	0
Carex pellita	**wooly sedge**	**herb**	**OBL**	**4**
Daucus carota	Queen Anne's lace	herb	UPL	*
Echinochloa muricata	barnyard grass	herb	OBL	0
Euthamia graminifolia	grassleaf goldenrod	herb	FACW-	3
Juncus dudleyi	Dudley's rush	herb	FAC	4
Juncus torreyi	Torrey's rush	herb	FACW	3
Lythrum salicaria	purple loosestrife	herb	OBL	*
Panicum dichotomiflorum	fall panicum	herb	FACW-	0
Phalaris arundinacea	**reed canary grass**	**herb**	**FACW+**	*****
Poa pratensis	**Kentucky bluegrass**	**herb**	**FAC-**	*****
Polygonum persicaria	spotted lady's thumb	herb	FACW	*
Populus deltoides	eastern cottonwood	sapling/shrub	FAC+	2
Rumex crispus	curly dock	herb	FAC+	*
Solidago canadensis	Canada goldenrod	herb	FACU	1
Typha angustifolia	narrow-leaved cattail	herb	OBL	*
Ulmus americana	American elm	herb	FACW-	5
Verbena hastata	blue vervain	herb	FACW+	3
Vitis riparia	riverbank grape	w-vine	FACW-	2
Xanthium strumarium	cocklebur	herb	FAC	0

* Non-native species

mCv = 1.8

FQI = 7.3

Site 20 Wet Floodplain Forest

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acer saccharinum	**silver maple**	**tree**, sapling/shrub	**FACW**	**1**
Apios americana	groundnut	herb	FACW	4
Aster lateriflorus	side-flowered aster	herb	FACW-	2
Aster simplex	panicled aster	herb	FACW	3
Bidens tripartita	beggar's ticks	herb	OBL	2
Epilobium coloratum	cinnamon willow herb	herb	OBL	3
Equisetum arvense	common horsetail	herb	FAC	0
Fraxinus pennsylvanica	green ash	sapling	FACW	2
Glechoma hederacea	ground ivy	herb	FACU	*
Impatiens capensis	jewelweed	herb	FACW	2
Parthenocissus quinquefolia	Virginia creeper	herb	FAC-	2
Phalaris arundinacea	reed canary grass	herb	FACW+	*
Polygonum persicaria	spotted lady's thumb	herb	FACW	*
Populus deltoides	eastern cottonwood	tree	FAC+	2
Rhamnus cathartica	common buckthorn	sapling/shrub	FACU	*
Solidago gigantea	late goldenrod	herb	FACW	3
Ulmus americana	American elm	shrub	FACW-	5

* Non-native species

mCv = 2.4

FQI = 8.6

Site 21 Shrub-scrub Wetland

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Angelica atropurpurea	angelica	herb	OBL	6
Apios americana	groundnut	herb	FACW	4
Bidens frondosa	common beggar's ticks	herb	FACW	1
Bidens tripartita	beggar's ticks	herb	OBL	2
Carex stricta	tussock sedge	herb	OBL	5
Carex trichocarpa	**sedge**	**herb**	**OBL**	**6**
Cirsium arvense	Canada thistle	herb	FACU	*
Eleocharis acicularis	needle spike rush	herb	OBL	3
Epilobium coloratum	cinnamon willow herb	herb	OBL	3
Eupatorium maculatum	spotted Joe Pye weed	herb	OBL	5
Eupatorium rugosum	white snakeroot	herb	FACU	2
Euthamia graminifolia	grassleaf goldenrod	herb	FACW-	3
Impatiens capensis	**jewelweed**	**herb**	**FACW**	**2**
Leersia oryzoides	rice cutgrass	herb	OBL	3
Lonicera maackii	Amur honeysuckle	shrub	UPL	*
Morus alba	white mulberry	tree	FAC	*
Parthenocissus quinquefolia	Virginia creeper	herb	FAC-	2
Phalaris arundinacea	**reed canary grass**	**herb**	**FACW+**	*****
Pilea fontana	clearweed	herb	FACW	6
Rhamnus cathartica	common buckthorn	tree, sapling/shrub	FACU	*
Rosa multiflora	multiflora rose	shrub	FACU	*
Sagittaria latifolia	arrowhead	herb	OBL	4
Salix exigua	**sandbar willow**	**sapling/shrub**	**OBL**	**1**
Salix nigra	black willow	tree	OBL	3
Solanum dulcamara	false bittersweet	vine, herb	FAC	*
Solidago canadensis	Canada goldenrod	herb	FACU	1
Solidago gigantea	late goldenrod	herb	FACW	3
Symplocarpus foetidus	skunk cabbage	herb	OBL	8
Typha latifolia	cattail	herb	OBL	1
Urtica dioica	stinging nettle	herb	FAC+	2
Vitis riparia	riverbank grape	w-vine	FACW-	2

* Non-native species

mCv = 3.3

FQI = 15.9

Site 22 Wet Meadow

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Apios americana	groundnut	herb	FACW	4
Apocynum cannabinum	dogbane	herb	FAC	2
Arctium minus	common burdock	herb	UPL	*
Asclepias incarnata	swamp milkweed	herb	OBL	4
Asclepias syriaca	common milkweed	herb	UPL	0
Aster simplex	panicled aster	herb	FACW	3
Bidens cernua	nodding beggar's ticks	herb	OBL	2
Bidens frondosa	common beggar's ticks	herb	FACW	1
Calystegia sepium	American bindweed	herb	FAC	1
Carex vulpinoidea	fox sedge	herb	OBL	3
Cirsium arvense	Canada thistle	herb	FACU	*
Daucus carota	Queen Anne's lace	herb	UPL	*
Echinocystis lobata	wild balsam-apple	vine	FACW-	4
Eupatorium maculatum	spotted Joe Pye weed	herb	OBL	5
Eupatorium perfoliatum	common boneset	herb	FACW+	4
Eupatorium rugosum	white snakeroot	herb	FACU	2
Euthamia graminifolia	grassleaf goldenrod	herb	FACW-	3
Fraxinus pennsylvanica	green ash	sapling/shrub	FACW	2
Glechoma hederacea	ground ivy	herb	FACU	*
Impatiens capensis	jewelweed	herb	FACW	2
Oxalis stricta	yellow wood sorrel	herb	FACU	0
Parthenocissus quinquefolia	Virginia creeper	herb	FAC-	2
Phalaris arundinacea	**reed canary grass**	**herb**	**FACW+**	*****
Pilea pumila	Canada clearweed	herb	FACW	3
Poa pratensis	Kentucky bluegrass	herb	FAC-	*
Rhamnus cathartica	common buckthorn	sapling/shrub	FACU	*
Ribes americanum	wild black currant	shrub	FACW	5
Salix fragilis	brittle willow	tree, shrub	FAC+	*
Sambucus canadensis	common elder	shrub	FACW-	2
Scirpus atrovirens	dark green bulrush	herb	OBL	4
Solanum dulcamara	false bittersweet	vine, herb	FAC	*
Solidago canadensis	Canada goldenrod	herb	FACU	1
Solidago gigantea	late goldenrod	herb	FACW	3
Ulmus americana	American elm	shrub	FACW-	5
Verbena urticifolia	white vervain	herb	FAC+	3
Vitis riparia	riverbank grape	herb	FACW-	2

* Non-native species

mCv = 2.7

FQI = 13.9

Site 23 Shrub-scrub Wetland

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Ambrosia artemisiifolia	common ragweed	herb	FACU	0
Apocynum cannabinum	dogbane	herb	FAC	2
Aster pilosus	hairy aster	herb	FACU+	0
Bidens frondosa	common beggar's ticks	herb	FACW	1
Carex vulpinoidea	fox sedge	herb	OBL	3
Cirsium arvense	Canada thistle	herb	FACU	*
Daucus carota	Queen Anne's lace	herb	UPL	*
Eleocharis erythropoda	**red-rooted spikerush**	**herb**	**OBL**	**3**
Epilobium coloratum	cinnamon willow herb	herb	OBL	3
Equisetum hyemale affine	tall scouring rush	herb	FACW-	2
Euthamia graminifolia	grassleaf goldenrod	herb	FACW-	3
Phalaris arundinacea	**reed canary grass**	**herb**	**FACW+**	*****
Poa pratensis	Kentucky bluegrass	herb	FAC-	*
Populus deltoides	eastern cottonwood	shrub, herb	FAC+	2
Rumex crispus	curly dock	herb	FAC+	*
Salix amygdaloides	peach-leaved willow	shrub	FACW	4
Salix exigua	**sandbar willow**	**sapling/shrub**	**OBL**	**1**
Scirpus tabernaemontanii	great bulrush	herb	OBL	4
Solidago canadensis	Canada goldenrod	herb	FACU	1
Sonchus arvensis	field sowthistle	herb	FAC-	*
Typha angustifolia	**narrow-leaved cattail**	**herb**	**OBL**	*****
Xanthium strumarium	cocklebur	herb	FAC	0

* Non-native species

mCv = 1.9

FQI = 7.5

Site 24 Calcareous Seep

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Agrostis alba	red top	herb	FACW	0
Agrostis hyemalis	hair grass	herb	FAC-	1
Ambrosia trifida	giant ragweed	herb	FAC+	0
Apocynum cannabinum	dogbane	herb	FAC	2
Aster novae-angliae	New England aster	herb	FACW	4
Carex crawei	early fen sedge	herb	OBL	7
Carex granularis	meadow sedge	herb	FACW+	2
Carex hystricina	bottlebrush sedge	herb	OBL	6
Chara sp. (plant-like algae)	stonewort	herb	OBL	--
Eleocharis erythropoda	red-rooted spikerush	herb	OBL	3
Epilobium coloratum	cinnamon willow herb	herb	OBL	3
Equisetum arvense	common horsetail	herb	FAC	0
Erechtites hieracifolia	fire weed	herb	FACU	2
Eupatorium maculatum	spotted Joe Pye weed	herb	OBL	5
Eupatorium perfoliatum	common boneset	herb	FACW+	4
Euthamia graminifolia	grassleaf goldenrod	herb	FACW-	3
Glyceria striata	fowl manna grass	herb	OBL	4
Helianthus grosseserratus	sawtooth sunflower	herb	FACW-	2
Lycopus americanus	common water horehound	herb	OBL	3
Lythrum salicaria	purple loosestrife	herb	OBL	*
Parthenocissus quinquefolia	Virginia creeper	herb	FAC-	2
Phragmites australis	**common red reed**	**herb**	**FACW+**	**1**
Poa pratensis	Kentucky bluegrass	herb	FAC-	*
Rhamnus cathartica	common buckthorn	sapling/shrub	FACU	*
Rhamnus frangula	glossy buckthorn	shrub, herb	FAC+	*
Salix discolor	pussy willow	shrub	FACW	4
Salix exigua	sandbar willow	shrub	OBL	1
Scirpus tabernaemontanii	great bulrush	herb	OBL	4
Solanum dulcamara	false bittersweet	vine, herb	FAC	*
Solidago ohioensis	**Ohio goldenrod**	**herb**	**OBL**	**10**
Symplocarpus foetidus	skunk cabbage	herb	OBL	8
Taraxacum officinale	common dandelion	herb	FACU	*
Typha angustifolia	narrow-leaved cattail	herb	OBL	*
Typha latifolia	**cattail**	**herb**	**OBL**	**1**

* Non-native species

mCv = 3.2

FQI = 16.1

Site 25 Wet Floodplain Forest

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acer negundo	**box elder**	**tree**, sapling	**FACW-**	**1**
Acer saccharinum	silver maple	sapling	FACW	1
Circaea lutetiana canadensis	enchanter's nightshade	herb	FACU	2
Cirsium arvense	Canada thistle	herb	FACU	*
Geum canadense	white avens	herb	FAC	2
Impatiens capensis	jewelweed	herb	FACW	2
Parthenocissus quinquefolia	Virginia creeper	vine	FAC-	2
Populus deltoides	**eastern cottonwood**	**tree**	**FAC+**	**2**
Rhamnus cathartica	**common buckthorn**	tree, **sapling/shrub**	**FACU**	*****
Ribes americanum	wild black currant	shrub	FACW	5
Solanum dulcamara	false bittersweet	herb	FAC	*
Toxicodendron radicans	poison ivy	herb	FAC+	1
Viburnum opulus	European high-bush cranberry	shrub	UPL	*
Vitis riparia	riverbank grape	w-vine, herb	FACW-	2

* Non-native species

mCv = 2.0

FQI = 6.3

Site 27 Wet Meadow

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Alliaria petiolata	garlic mustard	herb	FAC	*
Angelica atropurpurea	angelica	herb	OBL	6
Aster puniceus	swamp aster	herb	OBL	7
Calystegia sepium	American bindweed	herb	FAC	1
Carex hystricina	bottlebrush sedge	herb	OBL	6
Chara sp. (plant-like algae)	stonewort	herb	OBL	--
Cornus obliqua	pale dogwood	sapling/shrub	FACW+	4
Cornus stolonifera	red osier dogwood	shrub	FACW	4
Equisetum arvense	common horsetail	herb	FAC	0
Eupatorium maculatum	spotted joe pye weed	herb	OBL	5
Glyceria striata	fowl manna grass	herb	OBL	4
Helianthus grosseserratus	sawtooth sunflower	herb	FACW-	2
Impatiens capensis	jewelweed	herb	FACW	2
Leersia oryzoides	rice cutgrass	herb	OBL	3
Lycopus americanus	common water horehound	herb	OBL	3
Lythrum salicaria	purple loosestrife	herb	OBL	*
Mentha arvensis villosa	field mint	herb	FACW	4
Oenothera biennis	evening primrose	herb	FACU	1
Parthenocissus quinquefolia	Virginia creeper	w-vine, herb	FAC-	2
Pastinaca sativa	parsnip	herb	UPL	*
Phragmites australis	**common red reed**	**herb**	**FACW+**	**1**
Rhamnus cathartica	common buckthorn	sapling/shrub	FACU	*
Rosa multiflora	multiflora rose	shrub	FACU	*
Rumex crispus	curly dock	herb	FAC+	*
Salix amygdaloides	peach-leaved willow	sapling/shrub	FACW	4
Salix exigua	sandbar willow	sapling/shrub	OBL	1
Salix fragilis	brittle willow	sapling	FAC+	*
Salix nigra	black willow	sapling	OBL	3
Scirpus tabernaemontanii	great bulrush	herb	OBL	4
Solanum dulcamara	false bittersweet	herb	FAC	*
Typha angustifolia	narrow-leaved cattail	herb	OBL	*
Viola pratincola	common blue violet	herb	FAC	1

* Non-native species

mCv = 3.1

FQI = 14.5

Site 28 Wet Meadow

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Agrostis alba	**red top**	**herb**	**FACW**	**0**
Carex granularis	**meadow sedge**	**herb**	**FACW+**	**2**
Carex hystricina	bottlebrush sedge	herb	OBL	6
Eleocharis erythropoda	red-rooted spikerush	herb	OBL	3
Euthamia graminifolia	grassleaf goldenrod	herb	FACW-	3
Leucanthemum vulgare	common tansy	herb	UPL	*
Lycopus americanus	common water horehound	herb	OBL	3
Mentha arvensis villosa	field mint	herb	FACW	4
Penstemon digitalis	foxglove beard-tongue	herb	FAC-	4
Phalaris arundinacea	reed canary grass	herb	FACW+	*
Poa pratensis	Kentucky bluegrass	herb	FAC-	*
Populus deltoides	eastern cottonwood	shrub, herb	FAC+	2
Rhamnus cathartica	common buckthorn	shrub	FACU	*
Solanum carolinense	horse nettle	herb	FACU-	0
Solidago canadensis	Canada goldenrod	herb	FACU	1
Solidago riddellii	**Riddell's goldenrod**	**herb**	**OBL**	**7**
Taraxacum officinale	common dandelion	herb	FACU	*

* Non-native species

mCv = 2.9

FQI = 10.1

Site 30 Wet Meadow

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acorus calamus	sweetflag	herb	OBL	4
Alliaria petiolata	garlic mustard	herb	FAC	*
Barbarea vulgaris	winter cress	herb	FAC	*
Cardamine bulbosa	bulb bittercress	herb	OBL	5
Carduus nutans	musk bristle thistle	herb	UPL	*
Carex vulpinoidea	fox sedge	herb	OBL	3
Cirsium arvense	Canada thistle	herb	FACU	*
Epilobium coloratum	cinnamon willow herb	herb	OBL	3
Eupatorium maculatum	spotted Joe Pye weed	herb	OBL	5
Eupatorium perfoliatum	common boneset	herb	FACW+	4
Galium aparine	annual bedstraw	herb	FACU	0
Geum canadense	white avens	herb	FAC	2
Glyceria striata	fowl manna grass	herb	OBL	4
Hackelia virginiana	stickseed	herb	FAC-	1
Helianthus grosseserratus	sawtooth sunflower	herb	FACW-	2
Impatiens capensis	jewelweed	herb	FACW	2
Juncus tenuis	path rush	herb	FAC	0
Lycopus americanus	common water horehound	herb	OBL	3
Parthenocissus quinquefolia	Virginia creeper	w-vine	FAC-	2
Phalaris arundinacea	**reed canary grass**	**herb**	**FACW+**	*****
Phragmites australis	common red reed	herb	FACW+	1
Rhamnus cathartica	common buckthorn	shrub	FACU	*
Ribes americanum	wild black currant	shrub	FACW	5
Sambucus canadensis	common elder	shrub	FACW-	2
Solanum dulcamara	false bittersweet	herb	FAC	*
Solidago canadensis	Canada goldenrod	herb	FACU	1
Solidago gigantea	late goldenrod	herb	FACW	3
Thalictrum dasycarpum	purple meadow rue	herb	FACW-	5
Typha latifolia	cattail	herb	OBL	1
Urtica dioica	stinging nettle	herb	FAC+	2
Verbena hastata	blue vervain	herb	FACW+	3

* Non-native species

mCv = 2.6

FQI = 12.9

Site 31 Wetland Pond

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Barbarea vulgaris	winter cress	herb	FAC	*
Leersia oryzoides	**rice cutgrass**	**herb**	**OBL**	**3**
Phalaris arundinacea	**reed canary grass**	**herb**	**FACW+**	*****
Rhamnus cathartica	common buckthorn	sapling/shrub, herb	FACU	*

* Non-native species

mCv = 3.0

FQI = 3.0

Site 32 Wetland Pond

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acer negundo	box elder	sapling/shrub, herb	FACW-	1
Aster simplex	panicled aster	herb	FACW	3
Calystegia sepium	American bindweed	herb	FAC	1
Carex hystricina	bottlebrush sedge	herb	OBL	6
Carex vulpinoidea	fox sedge	herb	OBL	3
Chara sp. (plant-like algae)	stonewort	herb	OBL	--
Dipsacus laciniatus	cut-leaved teasel	herb	UPL	*
Eleocharis erythropoda	red-rooted spikerush	herb	OBL	3
Equisetum arvense	common horsetail	herb	FAC	0
Fraxinus pennsylvanica	green ash	shrub, herb	FACW	2
Impatiens capensis	jewelweed	herb	FACW	2
Leersia oryzoides	rice cutgrass	herb	OBL	3
Lonicera maackii	Amur honeysuckle	sapling/shrub	UPL	*
Najas flexilis	**bushy pondweed**	**herb**	**OBL**	**5**
Phalaris arundinacea	reed canary grass	herb	FACW+	*
Phragmites australis	**common red reed**	**herb**	**FACW+**	**1**
Plantago rugelii	red-stalked plantain	herb	FAC	0
Poa pratensis	Kentucky bluegrass	herb	FAC-	*
Potamogeton foliosus	leafy pondweed	herb	OBL	5
Rhamnus cathartica	common buckthorn	sapling/shrub, herb	FACU	*
Rumex crispus	curly dock	herb	FAC+	*
Salix amygdaloides	peach-leaved willow	herb	FACW	4
Salix nigra	black willow	shrub	OBL	3
Scirpus tabernaemontanii	great bulrush	herb	OBL	4
Typha angustifolia	narrow-leaved cattail	herb	OBL	*
Typha latifolia	cattail	herb	OBL	1
Ulmus americana	American elm	shrub	FACW-	5

* Non-native species

mCv = 2.7

FQI = 11.9

Site 33 Wet Meadow

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acer negundo	box elder	sapling/shrub	FACW-	1
Alliaria petiolata	garlic mustard	herb	FAC	*
Caltha palustris	cowslip	herb	OBL	7
Circaea lutetiana canadensis	enchanter's nightshade	herb	FACU	2
Galium aparine	annual bedstraw	herb	FACU	0
Impatiens capensis	jewelweed	herb	FACW	2
Impatiens capensis	jewelweed	herb	FACW	2
Lonicera maackii	Amur honeysuckle	shrub, herb	UPL	*
Lonicera tatarica	Tartarian honeysuckle	shrub	FACU	*
Parthenocissus quinquefolia	Virginia creeper	w-vine, herb	FAC-	2
Phragmites australis	**common red reed**	**herb**	**FACW+**	**1**
Polygonatum commutatum	great Solomon seal	herb	FACU	4
Rhamnus cathartica	common buckthorn	sapling/shrub	FACU	*
Ribes americanum	wild black currant	shrub	FACW	5
Rosa multiflora	multiflora rose	shrub	FACU	*
Salix fragilis	brittle willow	tree	FAC+	*
Salix nigra	black willow	tree	OBL	3
Sambucus canadensis	common elder	sapling/shrub	FACW-	2
Solanum dulcamara	false bittersweet	herb	FAC	*
Taraxacum officinale	common dandelion	herb	FACU	*
Ulmus americana	American elm	sapling/shrub	FACW-	5
Viburnum opulus	European high-bush cranberry	shrub	UPL	*

* Non-native species

mCv = 2.8

FQI = 10.0

Site 34 Wetland Pond

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acer negundo	box elder	tree	FACW-	1
Carex hystricina	bottlebrush sedge	herb	OBL	6
Carex vulpinoidea	fox sedge	herb	OBL	3
Daucus carota	Queen Anne's lace	herb	UPL	*
Eleocharis erythropoda	red-rooted spikerush	herb	OBL	3
Erigeron philadelphicus	marsh fleabane	herb	FACW	3
Festuca arundinacea	tall fescue	herb	FACU+	*
Glechoma hederacea	ground ivy	herb	FACU	*
Leersia oryzoides	rice cutgrass	herb	OBL	3
Myriophyllum exalbescens	**spiked water milfoil**	**herb**	**OBL**	**6**
Phalaris arundinacea	reed canary grass	herb	FACW+	*
Plantago rugelii	red-stalked plantain	herb	FAC	0
Poa pratensis	Kentucky bluegrass	herb	FAC-	*
Potamogeton foliosus	**leafy pondweed**	**herb**	**OBL**	**5**
Rumex crispus	curly dock	herb	FAC+	*
Solidago canadensis	Canada goldenrod	herb	FACU	1
Taraxacum officinale	common dandelion	herb	FACU	*

* Non-native species

mCv = 3.1

FQI = 9.8

Site 35 Seep

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acer negundo	box elder	tree	FACW-	1
Alliaria petiolata	garlic mustard	herb	FAC	*
Asclepias incarnata	swamp milkweed	herb	OBL	4
Aster puniceus	swamp aster	herb	OBL	7
Barbarea vulgaris	winter cress	herb	FAC	*
Bidens frondosa	common beggar's ticks	herb	FACW	1
Caltha palustris	cowslip	herb	OBL	7
Carex hystricina	bottlebrush sedge	herb	OBL	6
Carex pellita	wooly sedge	herb	OBL	4
Carex vulpinoidea	fox sedge	herb	OBL	3
Dipsacus laciniatus	cut-leaved teasel	herb	UPL	*
Eleocharis erythropoda	red-rooted spikerush	herb	OBL	3
Epilobium coloratum	cinnamon willow herb	herb	OBL	3
Eupatorium maculatum	spotted Joe Pye weed	herb	OBL	5
Eupatorium perfoliatum	common boneset	herb	FACW+	4
Festuca arundinacea	tall fescue	herb	FACU+	*
Glyceria striata	fowl manna grass	herb	OBL	4
Impatiens capensis	jewelweed	herb	FACW	2
Iris pseudacorus	water flag	herb	OBL	*
Iris shrevei	southern blue flag	herb	OBL	5
Juncus dudleyi	Dudley's rush	herb	FAC	4
Leersia oryzoides	rice cutgrass	herb	OBL	3
Lycopus americanus	common water horehound	herb	OBL	3
Lythrum salicaria	purple loosestrife	herb	OBL	*
Nasturtium officinale	**true water cress**	**herb**	**OBL**	*****
Parthenocissus quinquefolia	Virginia creeper	w-vine, herb	FAC-	2
Phalaris arundinacea	**reed canary grass**	**herb**	**FACW+**	*****
Poa palustris	fowl bluegrass	herb	FACW+	7
Poa pratensis	Kentucky bluegrass	herb	FAC-	*
Rhamnus cathartica	common buckthorn	sapling/shrub	FACU	*
Rhamnus frangula	glossy buckthorn	shrub	FAC+	*
Ribes americanum	wild black currant	shrub	FACW	5
Rumex crispus	curly dock	herb	FAC+	*
Salix exigua	sandbar willow	sapling	OBL	1
Scirpus tabernaemontanii	great bulrush	herb	OBL	4
Solanum dulcamara	false bittersweet	herb	FAC	*
Solidago canadensis	Canada goldenrod	herb	FACU	1
Solidago gigantea	late goldenrod	herb	FACW	3
Symplocarpus foetidus	**skunk cabbage**	**herb**	**OBL**	**8**
Typha latifolia	cattail	herb	OBL	1
Ulmus americana	American elm	shrub, herb	FACW-	5
Viburnum opulus	European high-bush cranberry	shrub	UPL	*
Vitis riparia	riverbank grape	w-vine, herb	FACW-	2

* Non-native species

mCv = 3.7

FQI = 20.1

Site 36 Wetland Pond

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Agrostis alba	red top	herb	FACW	0
Barbarea vulgaris	winter cress	herb	FAC	*
Carex hystricina	bottlebrush sedge	herb	OBL	6
Carex vulpinoidea	fox sedge	herb	OBL	3
Cirsium arvense	Canada thistle	herb	FACU	*
Cirsium vulgare	bull thistle	herb	FACU-	*
Eleocharis erythropoda	red-rooted spikerush	herb	OBL	3
Festuca arundinacea	tall fescue	herb	FACU+	*
Geum canadense	white avens	herb	FAC	2
Glechoma hederacea	ground ivy	herb	FACU	*
Glyceria striata	fowl manna grass	herb	OBL	4
Leersia oryzoides	rice cutgrass	herb	OBL	3
Phalaris arundinacea	reed canary grass	herb	FACW+	*
Poa pratensis	Kentucky bluegrass	herb	FAC-	*
Sambucus canadensis	common elder	herb	FACW-	2
Solidago canadensis	Canada goldenrod	herb	FACU	1
Solidago gigantea	late goldenrod	herb	FACW	3
Typha angustifolia	**narrow-leaved cattail**	**herb**	**OBL**	*****
Viola pratincola	common blue violet	herb	FAC	1

* Non-native species

mCv = 2.5

FQI = 8.4

Site 37 Wet Meadow

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Alliaria petiolata	garlic mustard	herb	FAC	*
Ambrosia trifida	giant ragweed	herb	FAC+	0
Cirsium arvense	Canada thistle	herb	FACU	*
Cirsium vulgare	bull thistle	herb	FACU-	*
Phalaris arundinacea	reed canary grass	herb	FACW+	*
Poa pratensis	Kentucky bluegrass	herb	FAC-	*
Polygonum pensylvanicum	**giant smartweed**	**herb**	**FACW+**	**1**
Solanum dulcamara	false bittersweet	herb	FAC	*
Solidago canadensis	Canada goldenrod	herb	FACU	1
Thlaspi arvense	field penny cress	herb	UPL	*
Typha angustifolia	**narrow-leaved cattail**	**herb**	**OBL**	*****
Typha latifolia	cattail	herb	OBL	1

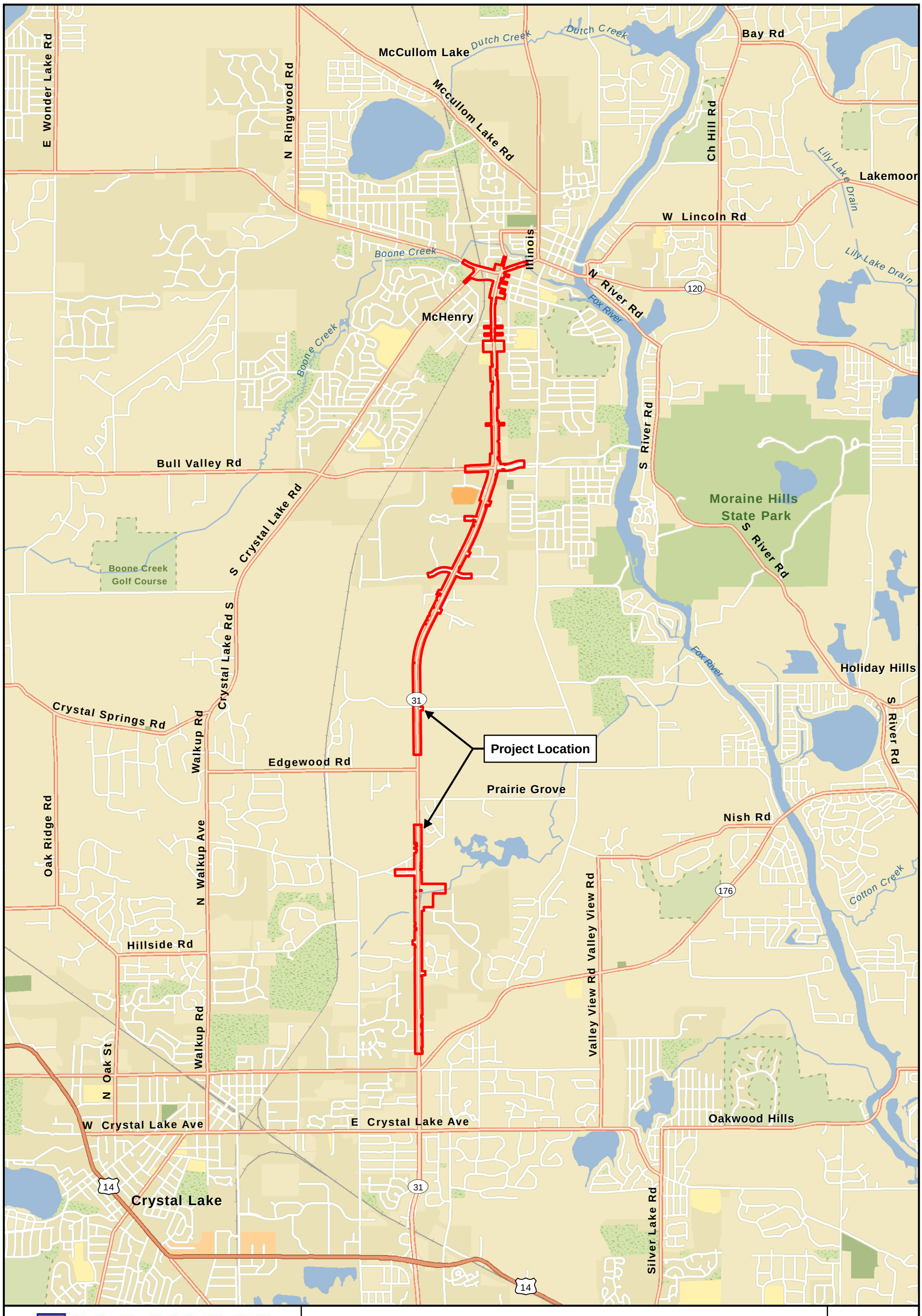
* Non-native species

mCv = 0.8

FQI = 1.5

APPENDIX C

Figures



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Illinois Natural History Survey
Prairie Research Institute
1816 South Oak Street
Champaign, Illinois 61820

Project Location Map
IL 31 (FAU 336) & Addendum A, B, & C
McHenry County

Seq. No: 1340

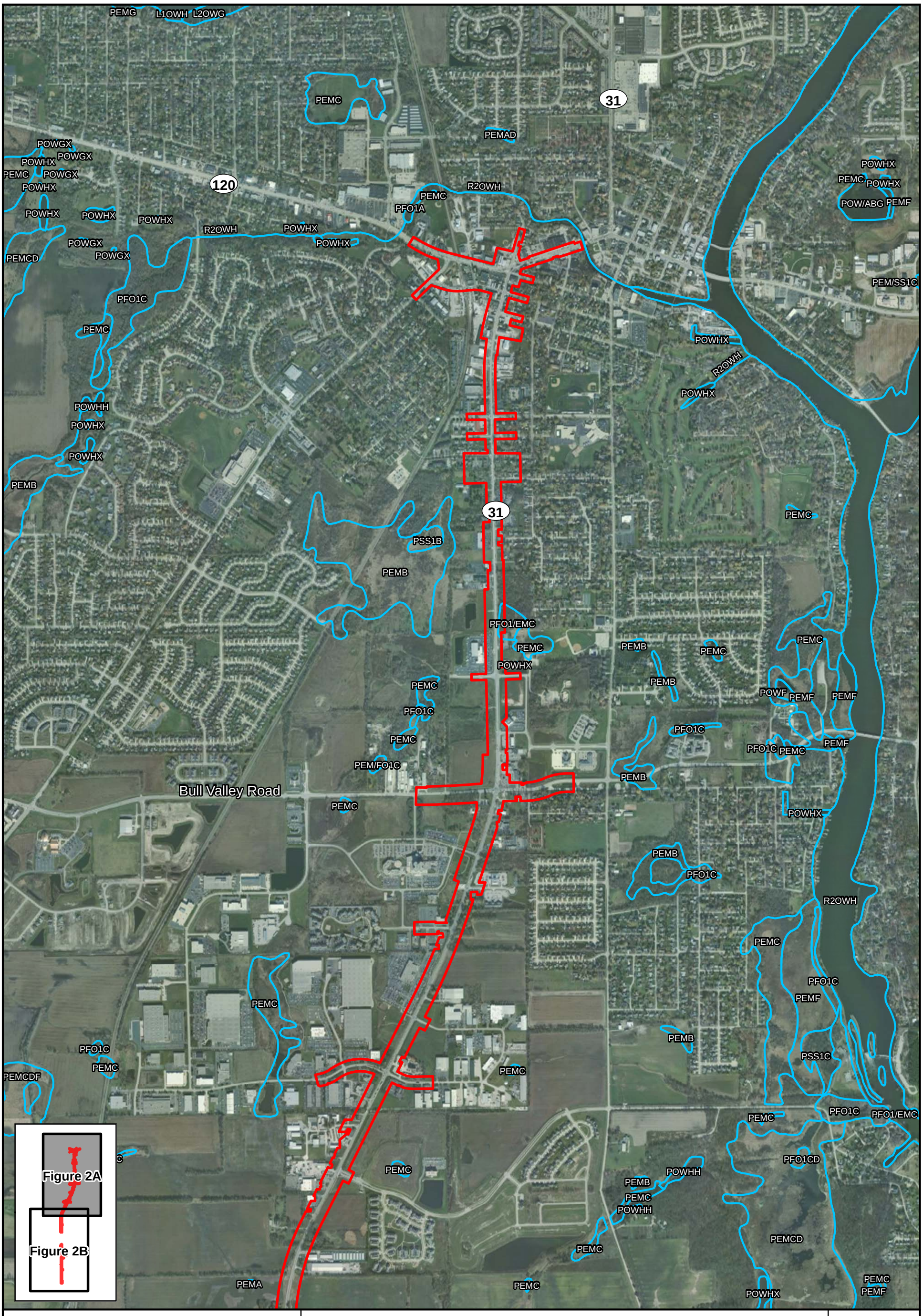
0 Meters 1,000
1 : 48,000

0 Feet 4,000
1 inch : 4,000 feet

July 2011

Figure 1

N W E S



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Champaign, Illinois 61820

National Wetland Inventory Map
IL 31 (FAU 336) & Addendum A, B, & C
McHenry County

Seq. No: 1340

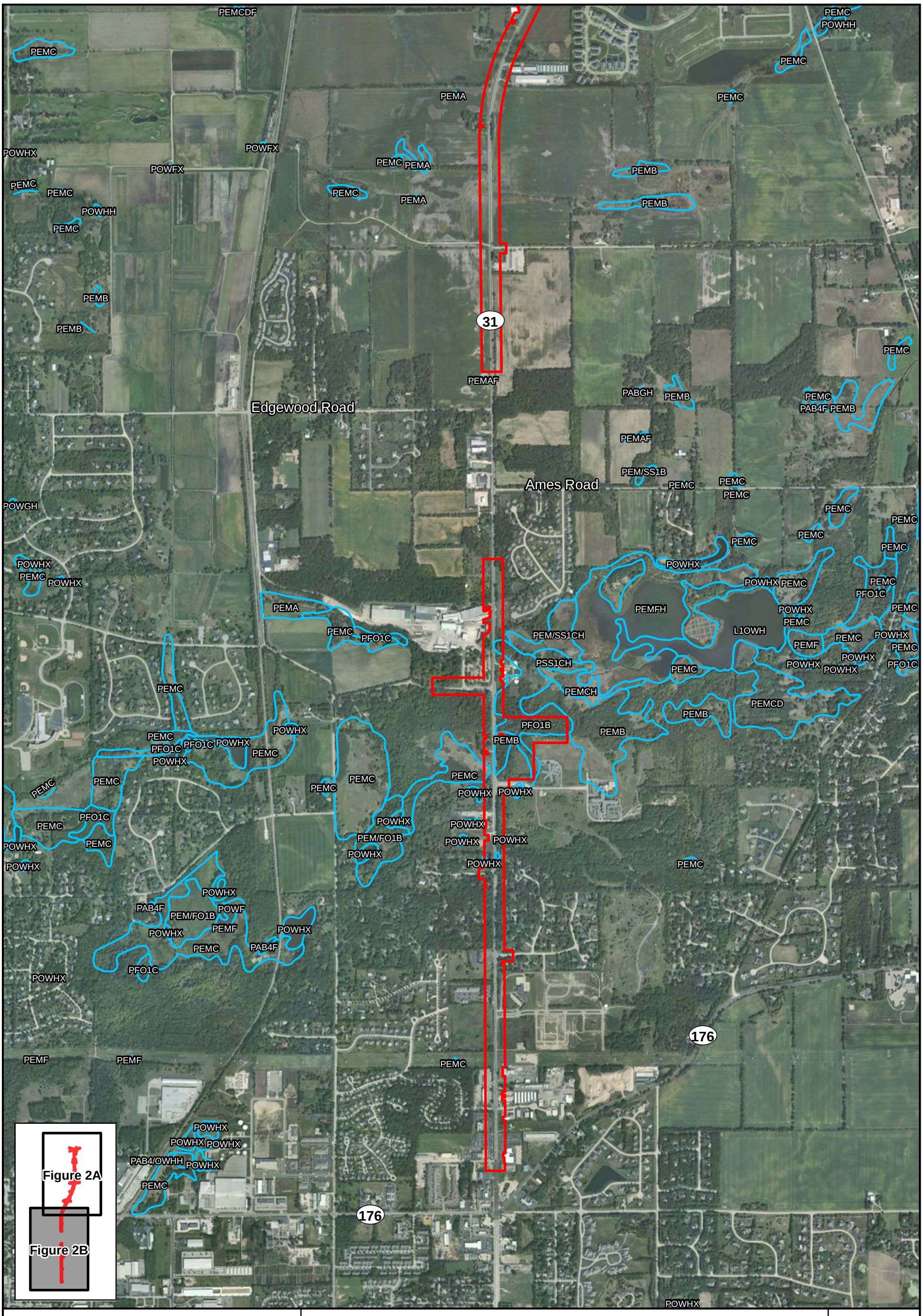
0 Meters 400
1 : 18,000

0 Feet 1,500
1 inch : 1,500 feet

July 2011

Figure 2A

N W E S



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National Wetland Inventory Map
IL 31 (FAU 336) & Addendum A, B, & C
McHenry County

Seq. No: 1340

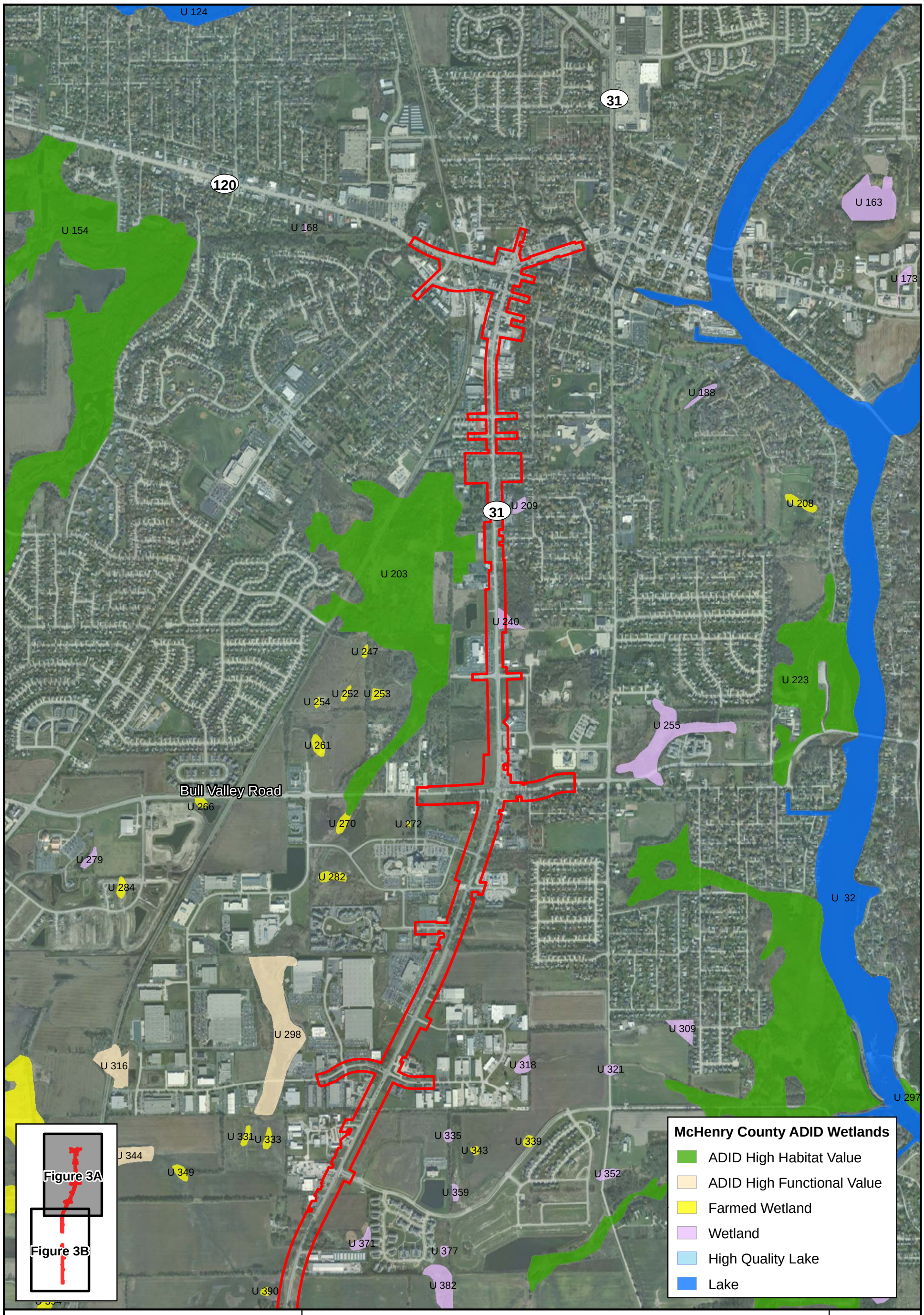
0 Meters 400
1 : 18,000

0 Feet 1,500
1 inch : 1,500 feet

July 2011

Figure 2B

N W E S



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Champaign, Illinois 61820

McHenry County ADID Map
IL 31 (FAU 336) & Addendum A, B, & C
McHenry County

Seq. No: 1340

0 Meters 500
1 : 18,000

0 Feet 1,500
1 inch : 1,500 feet

July 2011

Figure 3A

N W E S

U 317
U 363
U 359
U 369
U 371
U 377
U 273
U 383
U 390
U 406
U 408
U 411
U 410
U 412
U 414
U 416
U 382
U 419
U 420
U 425
U 429
U 430
U 431
U 436
U 439
31
U 445
U 440
U 423
U 394
U 455
U 459
U 453
U 450
Edgewood Road
U 462
U 448
U 464
U 471
U 472
U 476
U 481
U 463
U 458
U 484
U 486
U 482
U 488
U 491
Ames Road
U 487
U 492
U 505
U 506
U 503
U 509
U 507
U 512
U 502A
U 515
U 516
U 521
U 519
U 518
U 502
U 537
U 483
U 525
U 549
U 553
U 554
U 547
U 546
U 566
176
U 576
U 579
U 580
U 585
176
L 58

Figure 3A
Figure 3B

McHenry County ADID Wetlands

- ADID High Habitat Value
- ADID High Functional Value
- Farmed Wetland
- Wetland
- High Quality Lake
- Lake

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McHenry County ADID Map
IL 31 (FAU 336) & Addendum A, B, & C
McHenry County

Seq. No: 1340

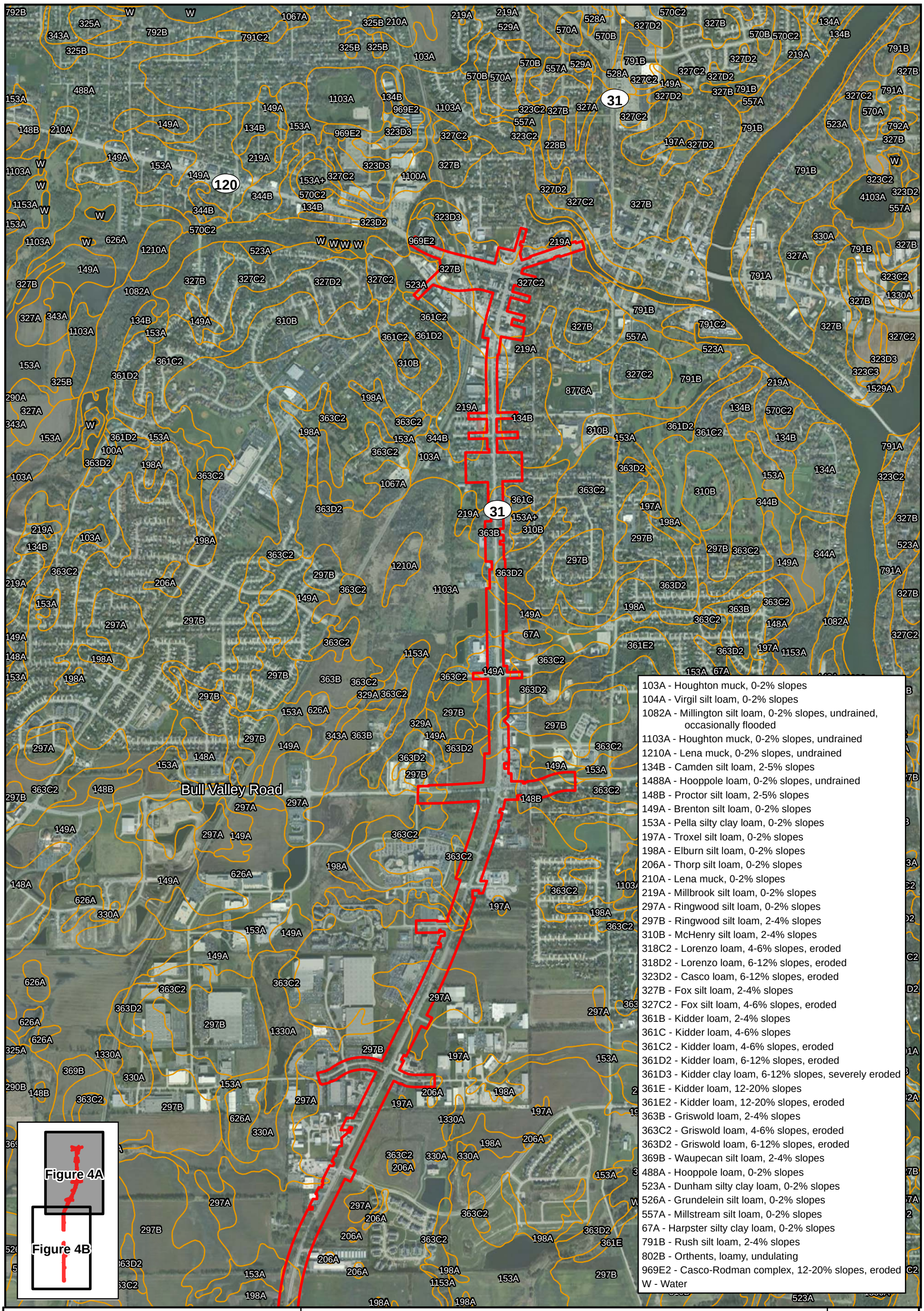
0 Meters 500
1 : 18,000

0 Feet 1,500
1 inch : 1,500 feet

July 2011

Figure 3B

N
W E
S



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Soil Survey Map
IL 31 (FAU 336) & Addendum A, B, & C
McHenry County

Seq. No: 1340

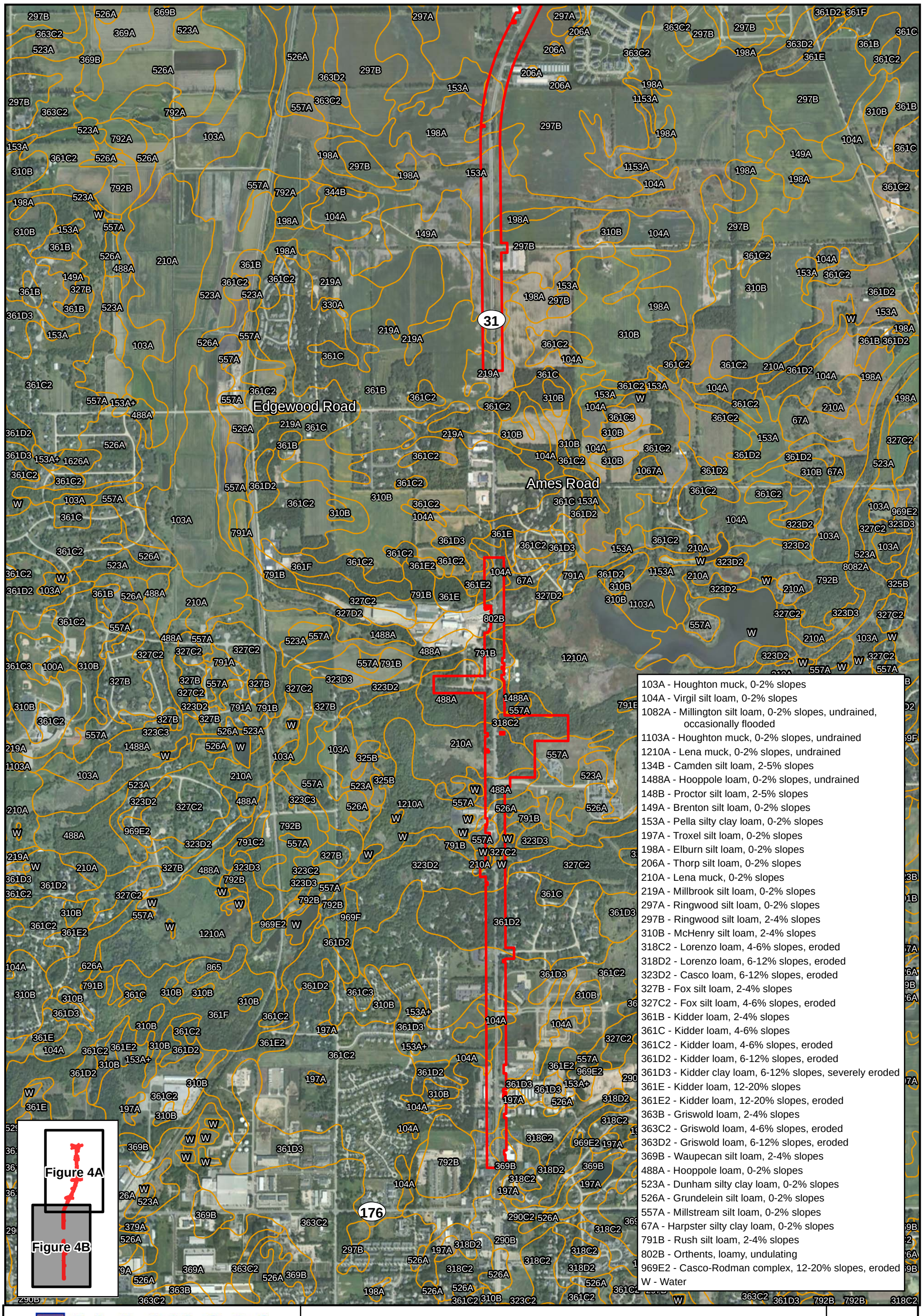
0 Meters 500
1 : 18,000

0 Feet 1,500
1 inch : 1,500 feet

July 2011

Figure 4A

N W E S



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IL 31 (FAU 336) & Addendum A, B, & C
McHenry County

Seq. No: 1340

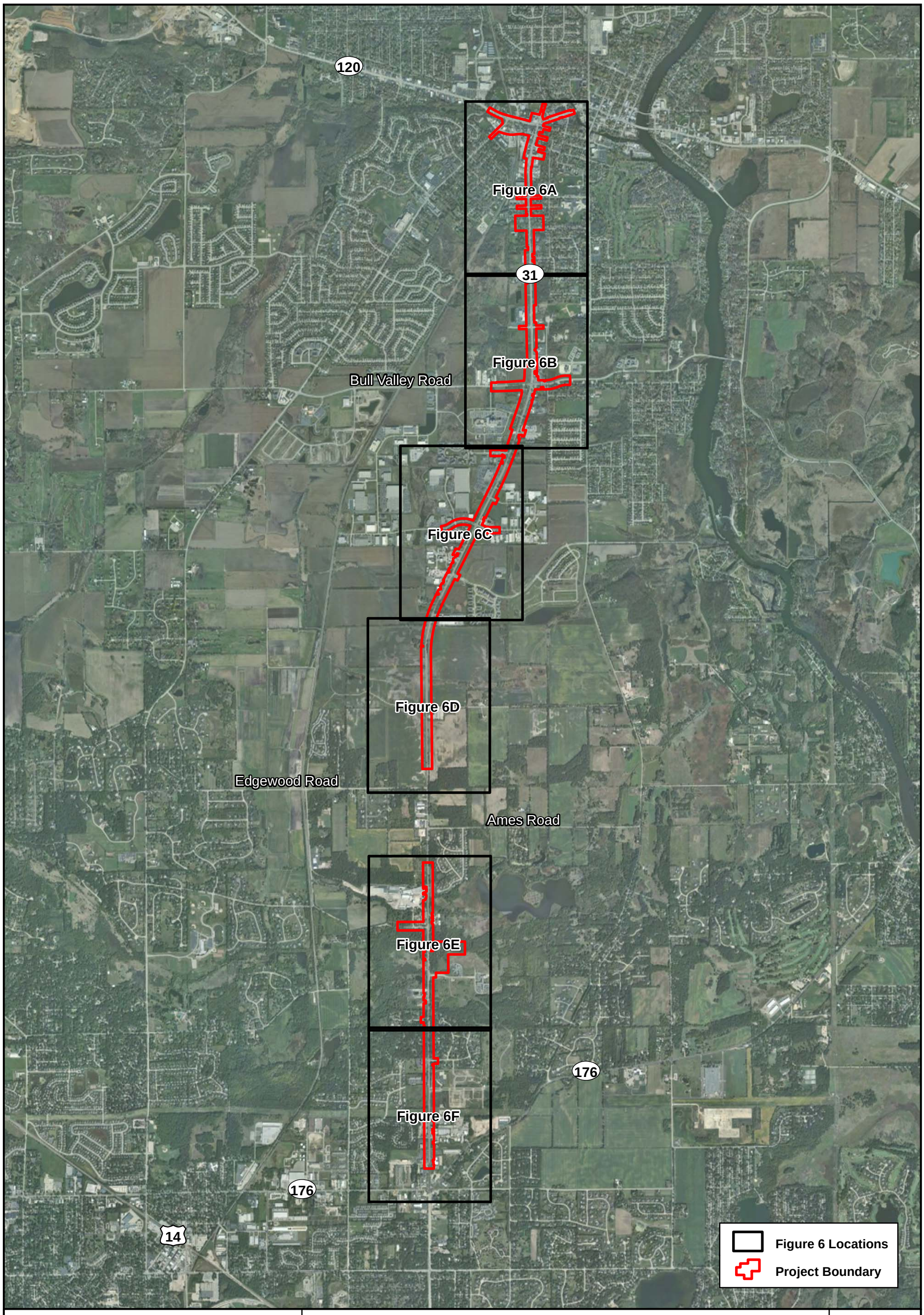
0 Meters 500
1 : 18,000

0 Feet 1,500
1 inch : 1,500 feet

July 2011

Figure 4B

N
W E
S



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Wetland Delineation Overview Map
IL 31 (FAU 336) & Addendum A, B, & C
McHenry County

Seq. No: 1340

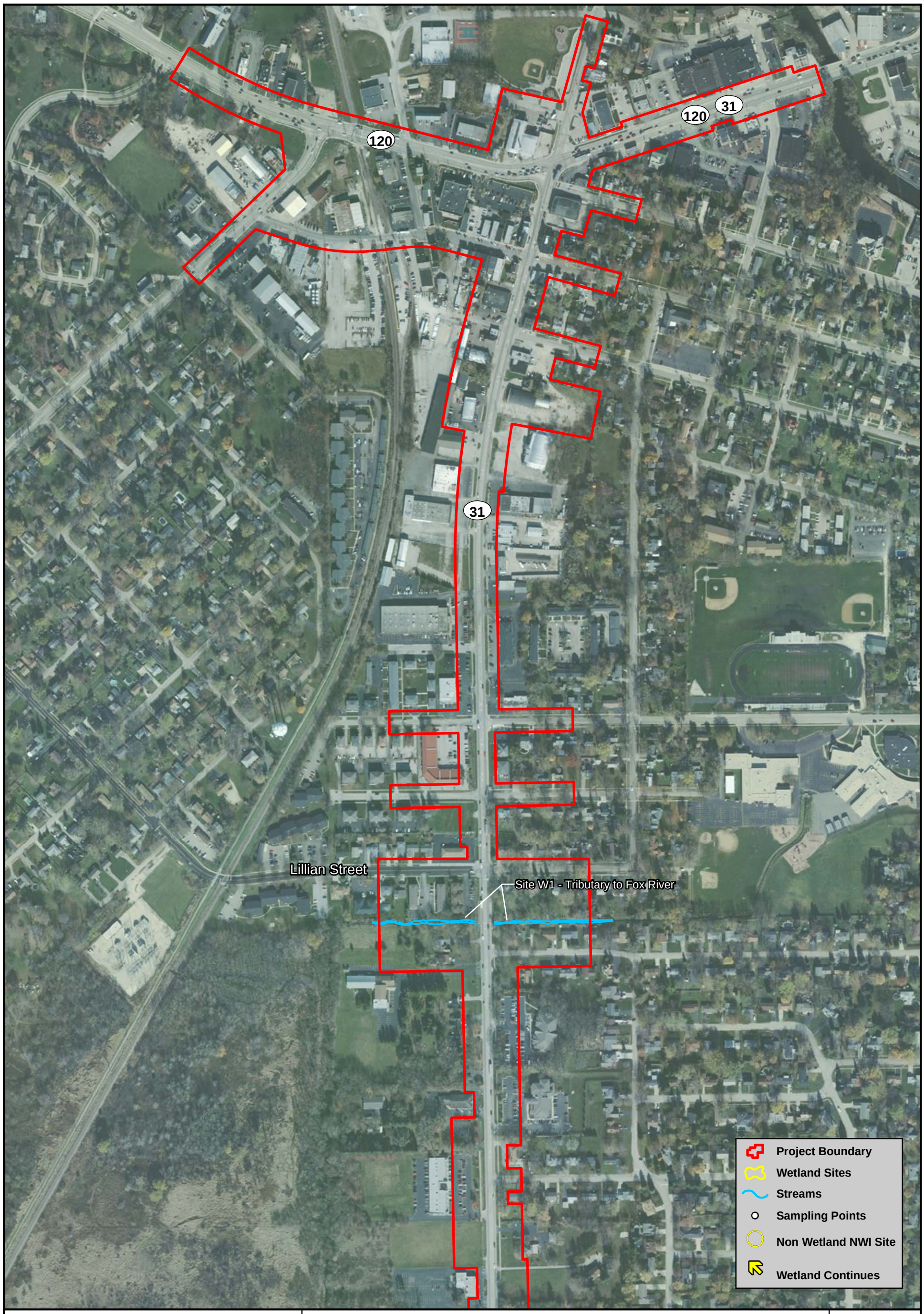
0 Meters 800
1 : 36,000

0 Feet 3,000
1 inch : 3,000 feet

July 2011

Figure 5

N W E S



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Wetland Delineation Map
IL 31 (FAU 336) & Addendum A, B, & C
McHenry County

Seq. No: 1340

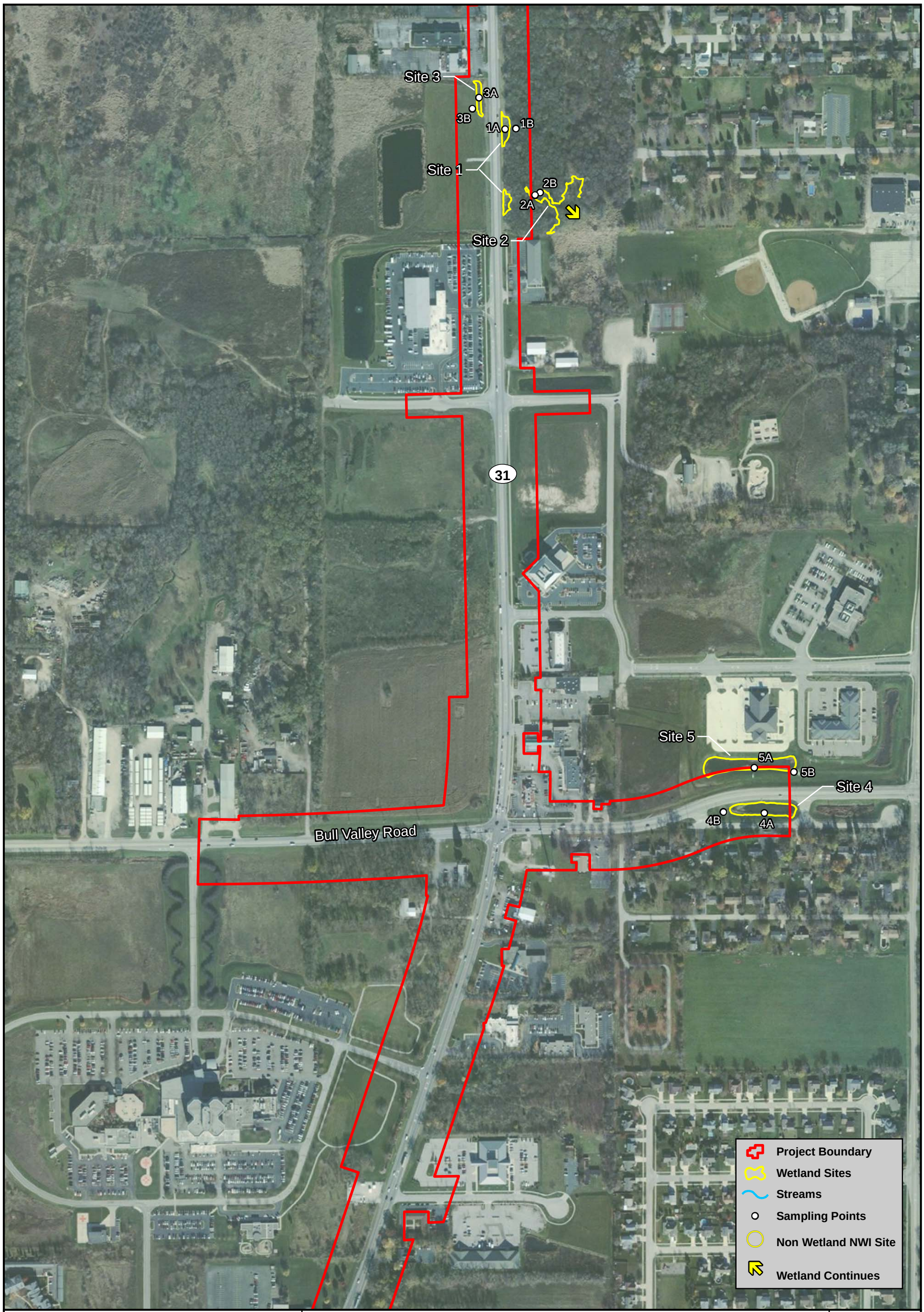
0 Meters 100
1 : 4,800

0 Feet 400
1 inch : 400 feet

July 2011

Figure 6A

N W E S



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Wetland Delineation Map
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McHenry County

Seq. No: 1340

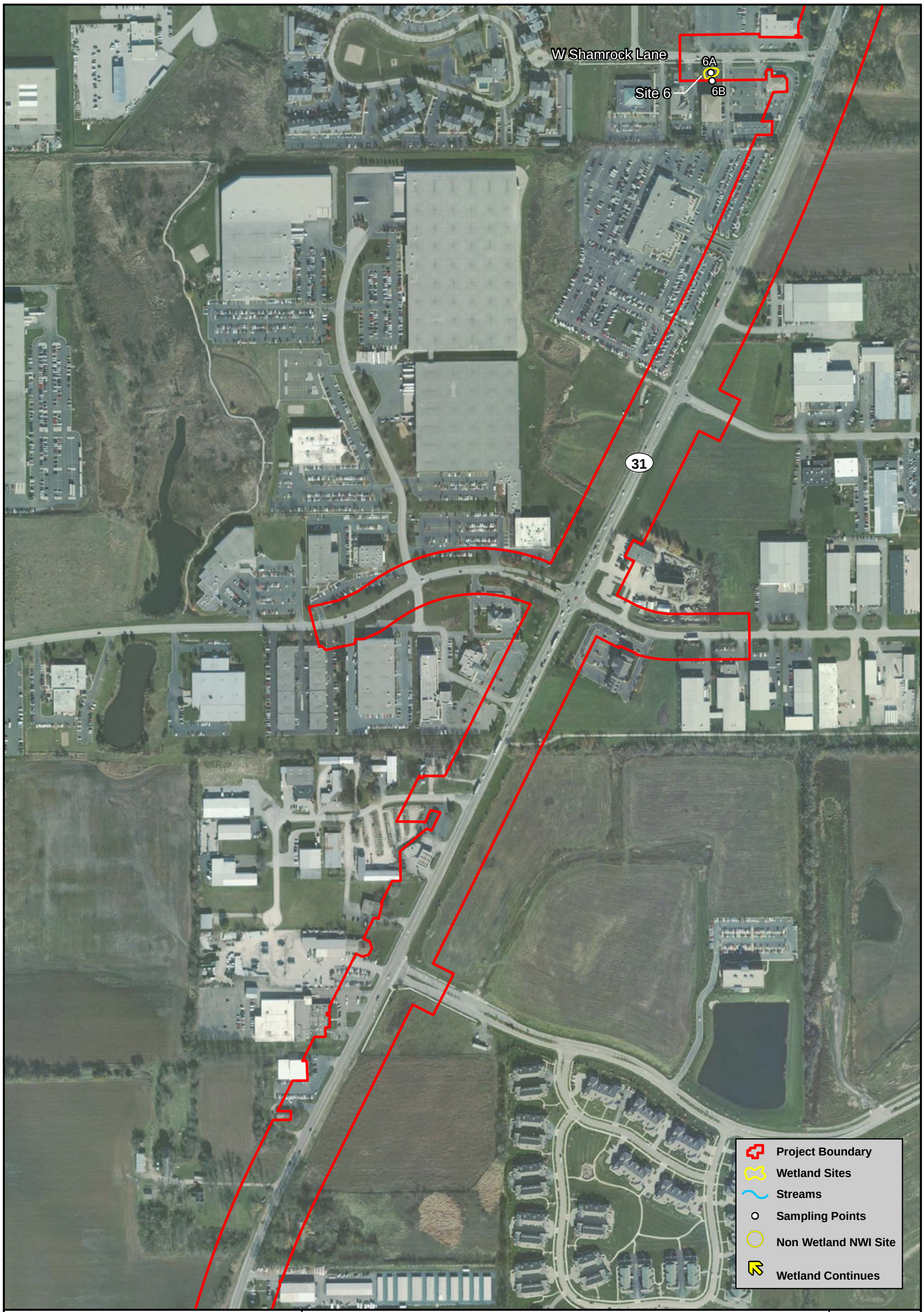
0 Meters 100
1 : 4,800

0 Feet 400
1 inch : 400 feet

July 2011

Figure 6B

N W E S



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IL 31 (FAU 336) & Addendum A, B, & C
McHenry County

Seq. No: 1340

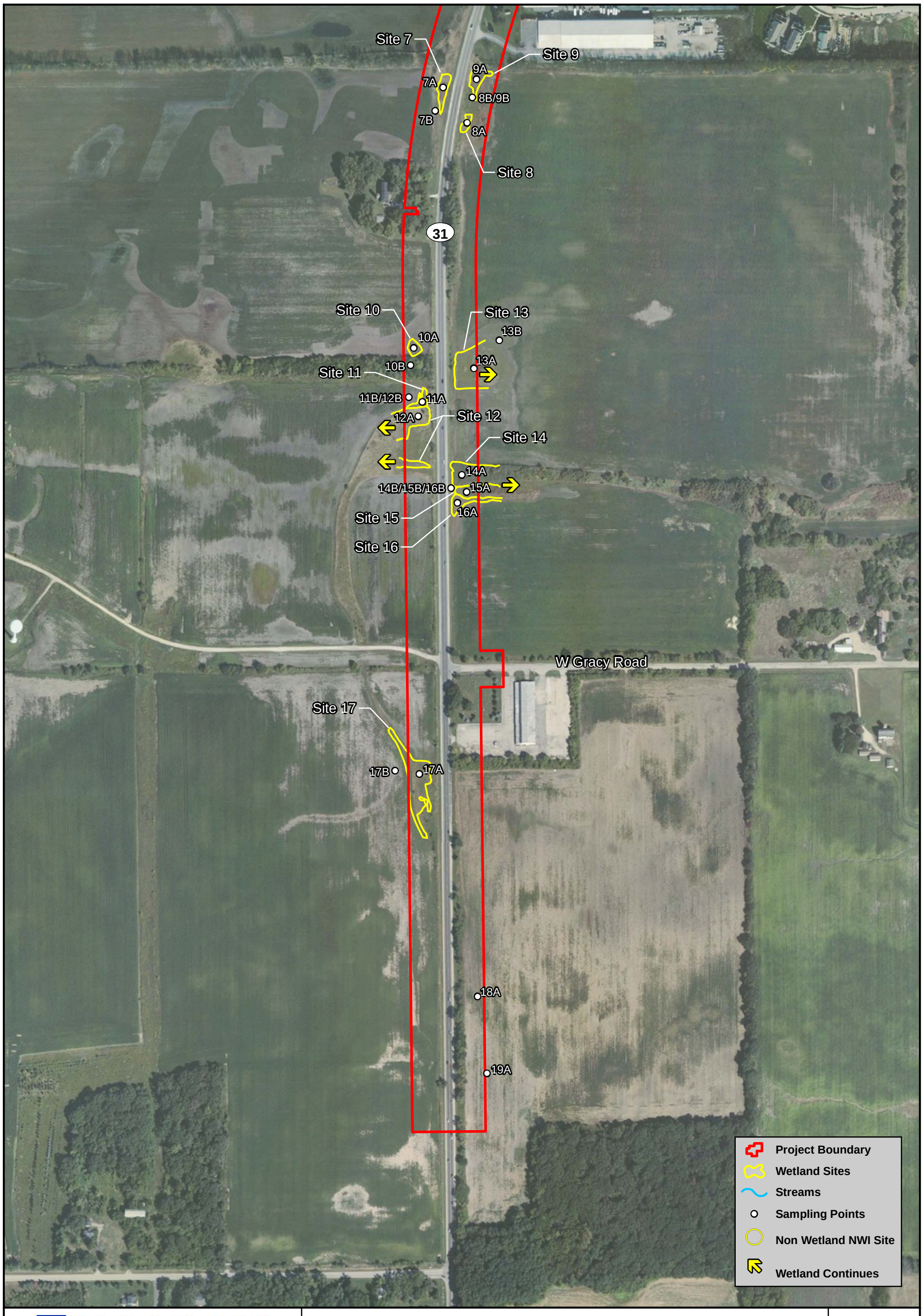
0 Meters 100
1 : 4,800

0 Feet 400
1 inch : 400 feet

July 2011

Figure 6C

N W E S



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McHenry County

Seq. No: 1340

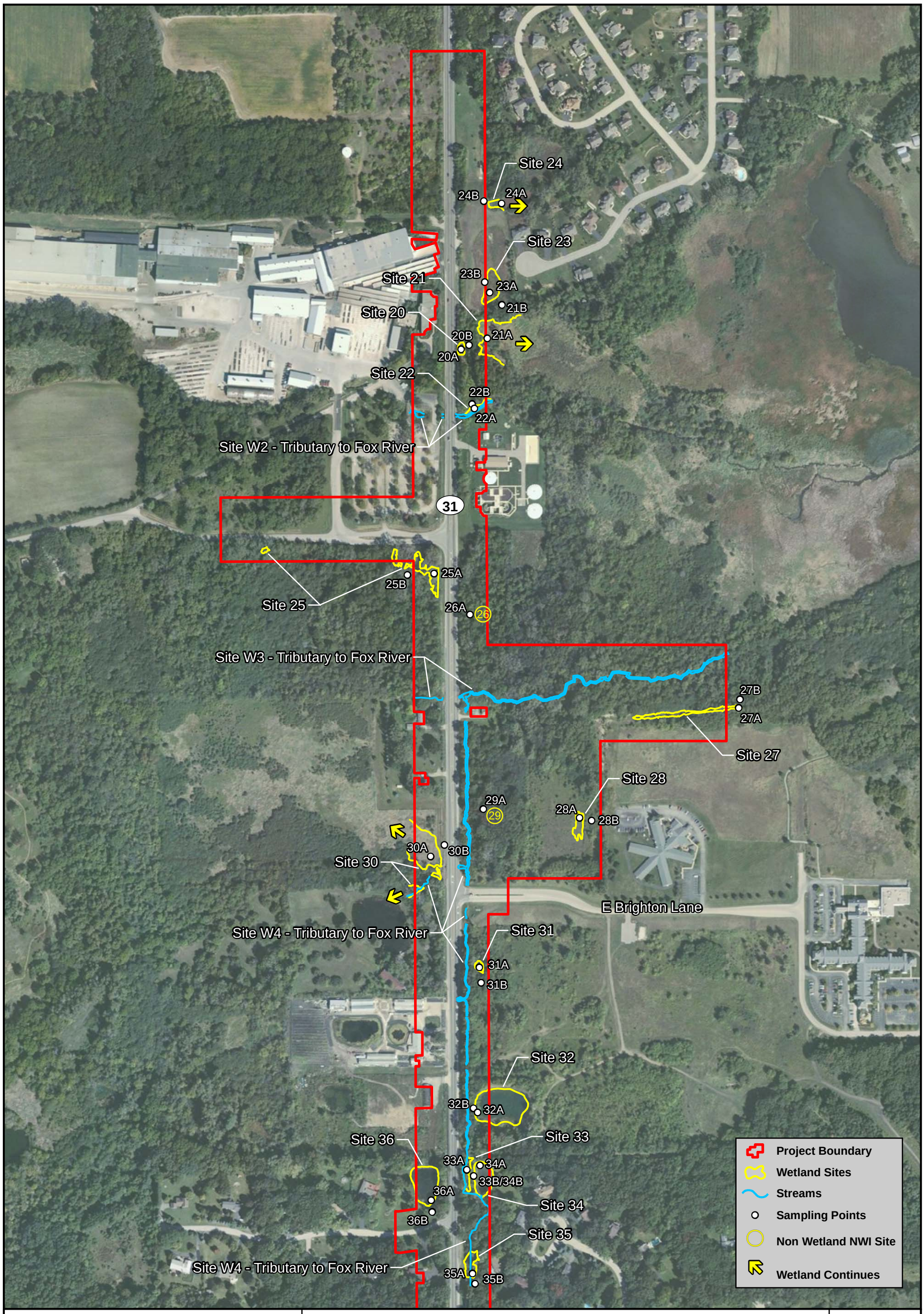
0 Meters 100
1 : 4,800

0 Feet 400
1 inch : 400 feet

July 2011

Figure 6D

N W E S



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McHenry County

Seq. No: 1340

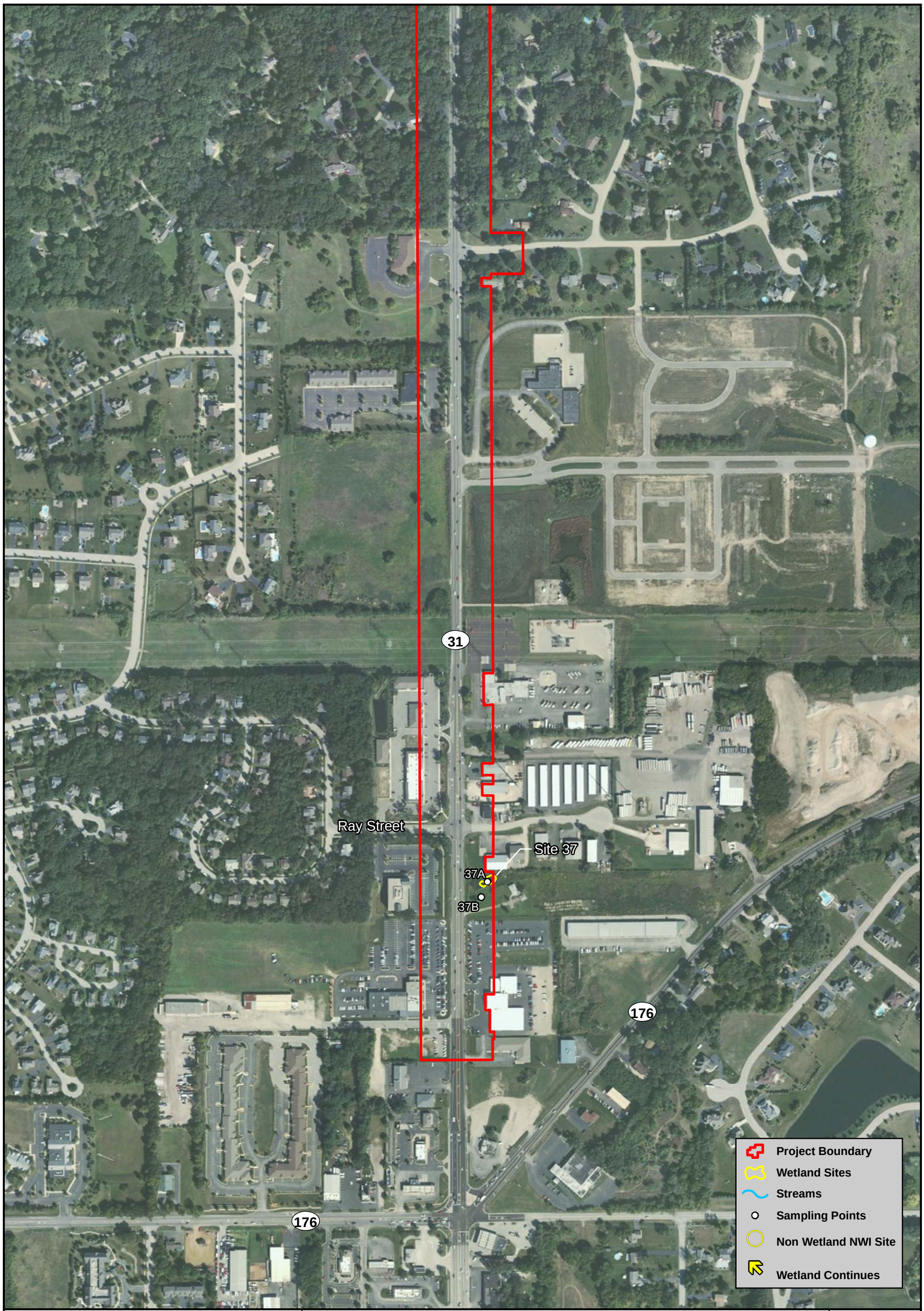
0 Meters 100
1 : 4,800

0 Feet 400
1 inch : 400 feet

July 2011

Figure 6E

N W E S



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Wetland Delineation Map
IL 31 (FAU 336) & Addendum A, B, & C
McHenry County

Seq. No: 1340

0 Meters 100
1 : 4,800

0 Feet 400
1 inch : 400 feet

July 2011

Figure 6F

N W E S

APPENDIX D

FSA Wetland Delineations

Figure 1 – NRCS Wetland Map
Figure 2 – Crop Photos
Table 1 – Wetland Signatures Table

Figure 1 – NRCS Wetland Map

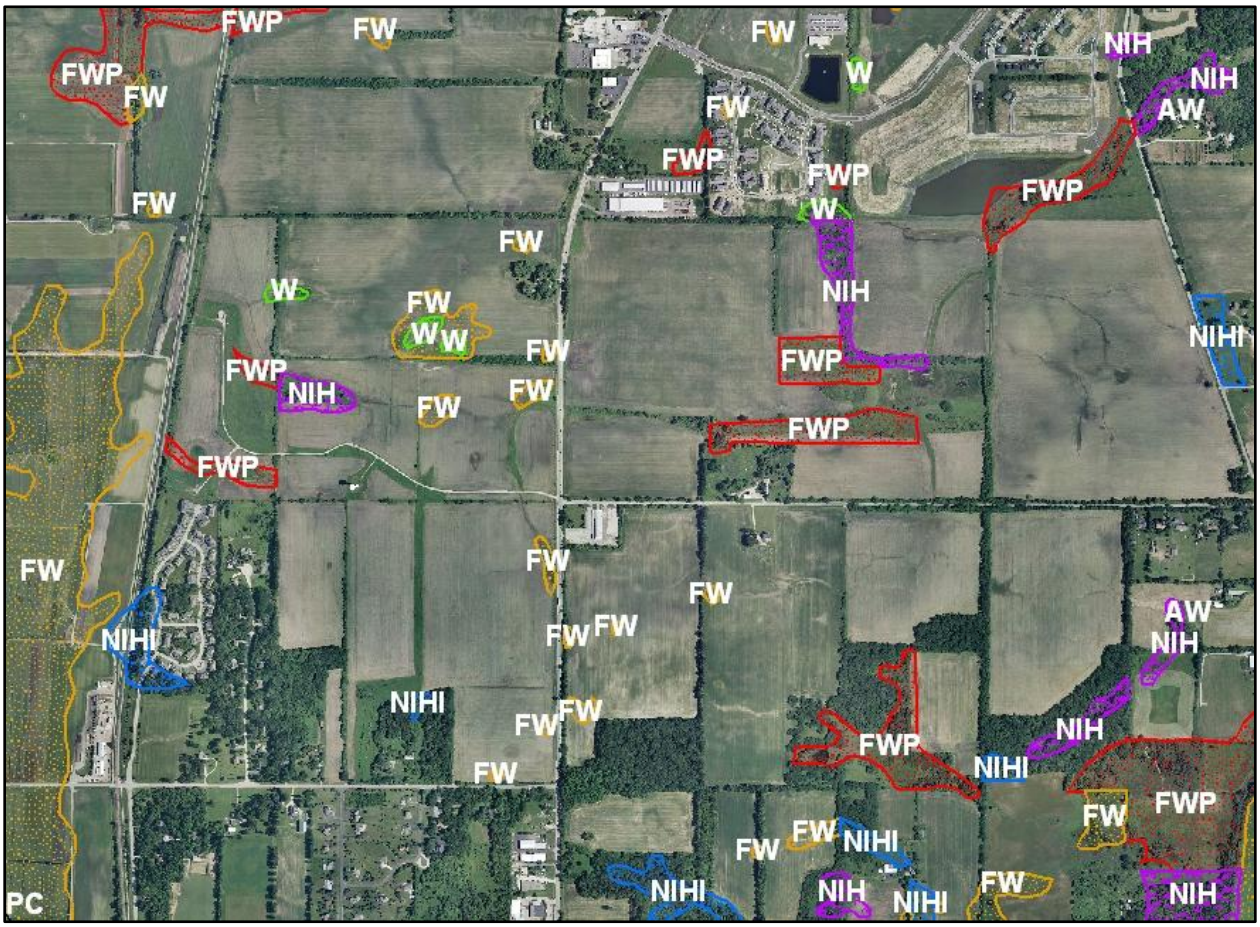


Figure 2A – Crop Photo (1994)

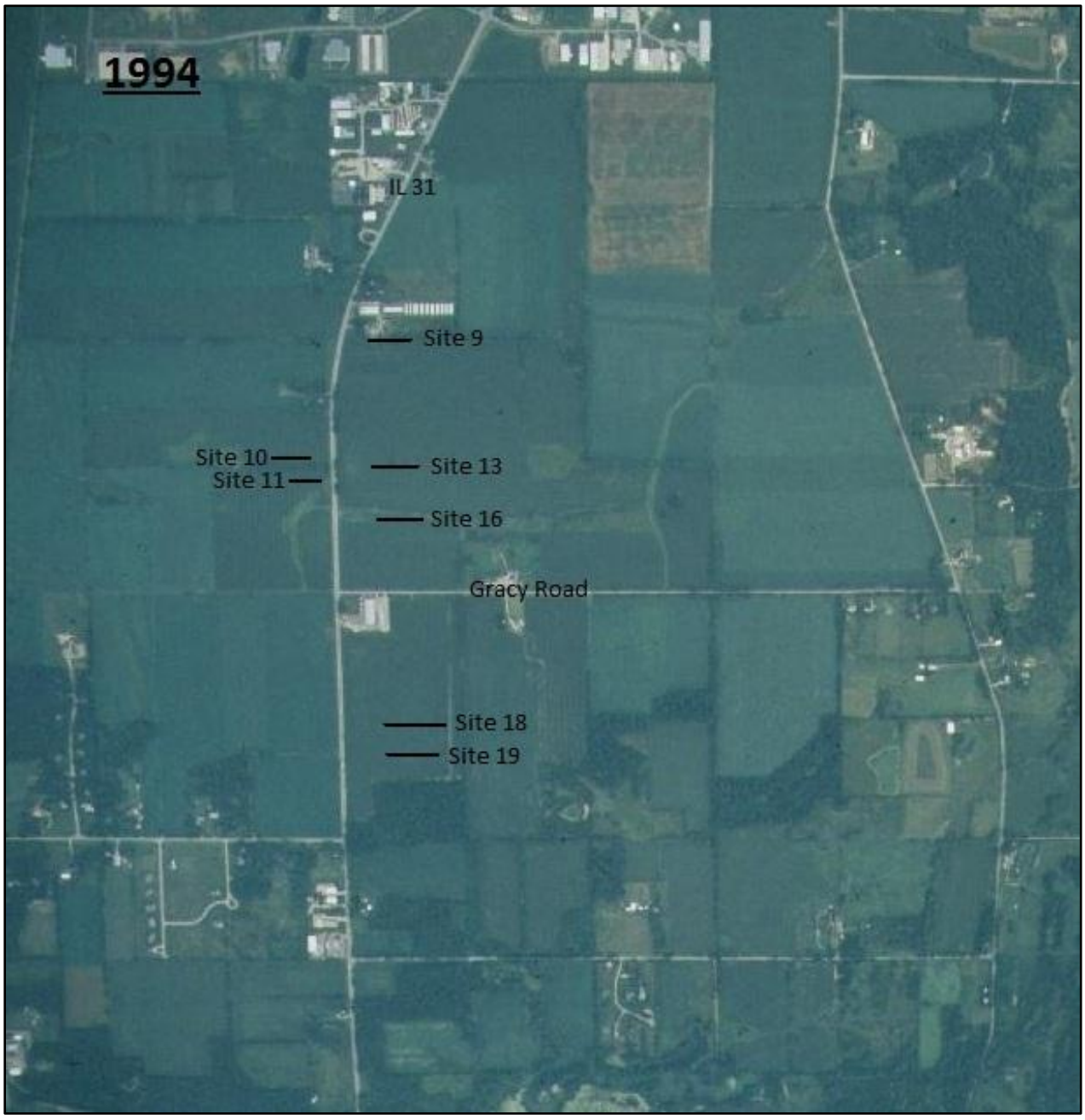


Figure 2B Crop Photo (1996)

Figure 2C – Crop Photo (1998)

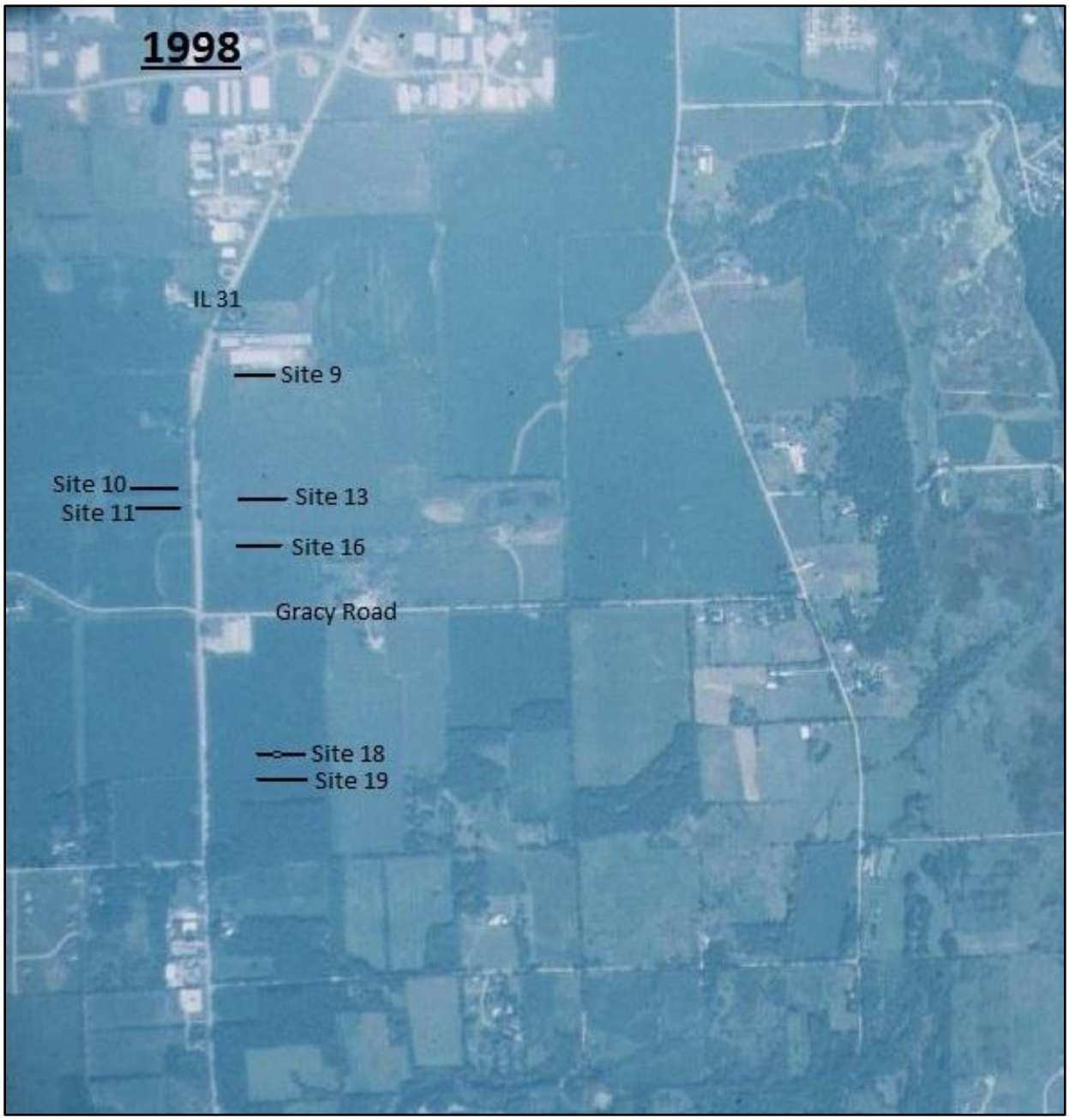


Figure 2D – Crop Photo (2001)

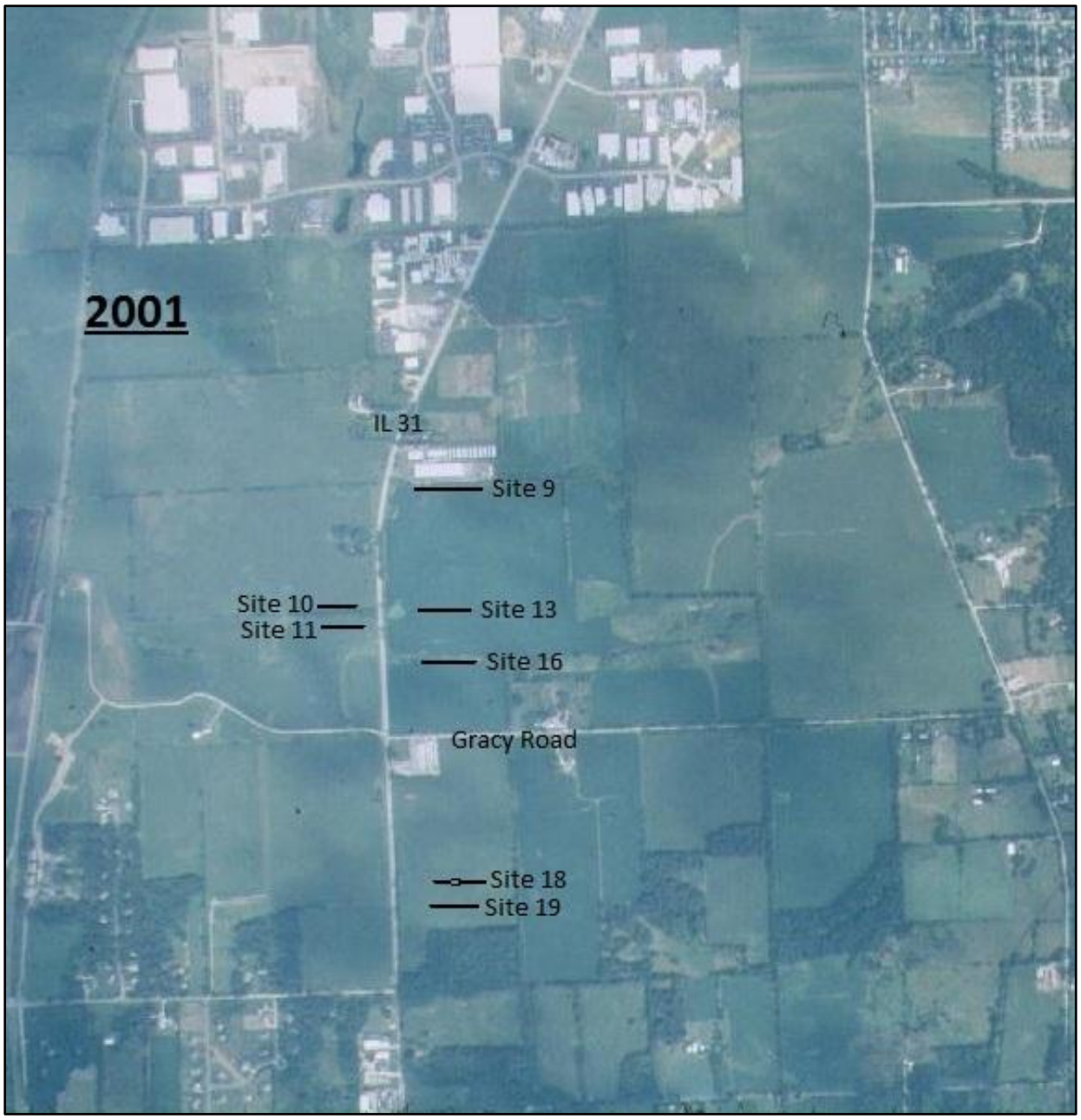


Figure 2E – Crop Photo (2004)

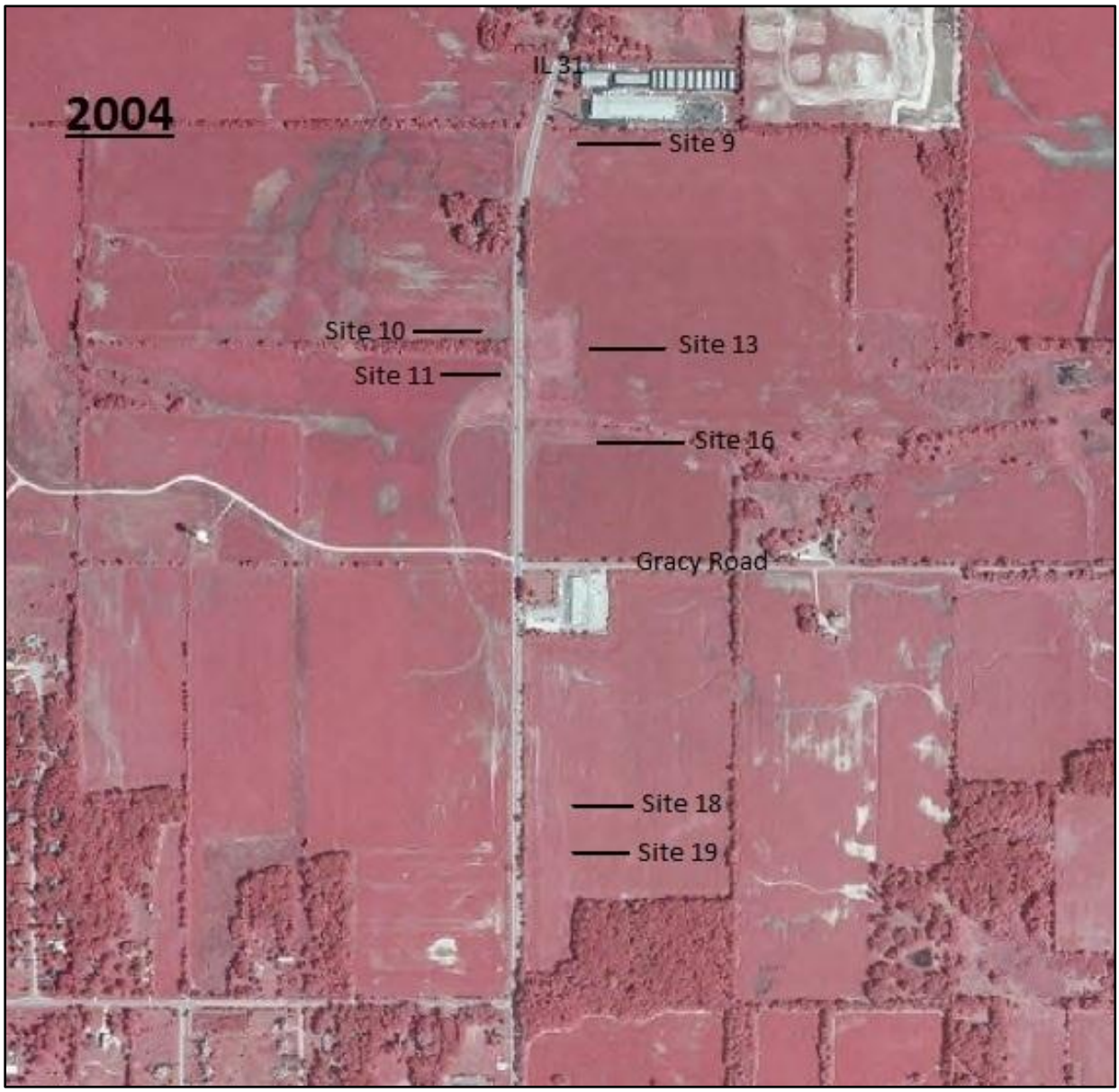


Table 1 – Wetland Signatures Table

Site #/Year	1994	1996	1998	2001	2004	NWI	NRCS
Site 9		X		X	X		
Site 10		X		X	X		FW
Site 11		X	X		X		
Site 13	X	X	X	X	X		
Site 16	X	X		X	X		
Site 18					X		
Site 19			X				

ILLINOIS NATURAL HISTORY SURVEY
PRAIRIE RESEARCH INSTITUTE

WETLAND DETERMINATION REPORT

Project name
IL 31 (FAU 336) from Bull Valley Road to IL 176, Addenda D and E, McHenry County, Illinois

IDOT Sequence Number: 1340D and 1340E

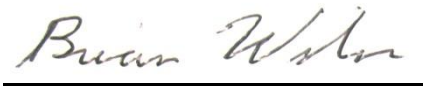
Prepared by:
Paul Marcum, Ian Kenney, Dennis Skultety, and Dennis Keene

INHS/IDOT Wetland Science Program

November 2014

Project Summary

A wetland survey was conducted for proposed work on IL 31 (FAU 336), Addenda D and E, in McHenry County, Illinois. All potential wetlands within the specified project area were examined. Ten sites met the three criteria of a wetland established in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* [U.S. Army Corps of Engineers (USACE) 2010] and were, therefore, determined to be wetlands. Summary information regarding the wetland determination sites is presented in the wetland project report. Wetland determination forms are found in Appendix A and wetland plant species lists are included in Appendix B. Wetland boundaries were recorded using a Trimble Global Navigation Satellite System (GNSS). The spatial data have been digitally uploaded to the Illinois Site Assessment Tracking System (http://frostycap.isgs.uiuc.edu/idot_extranet). Locations of determination sites were overlaid on a digital orthophoto quadrangle (DOQ) using ArcGIS; the resulting figure is included in Appendix C. Additional maps and figures are also included in Appendix C.

Signed:  Date: November 3, 2014

Brian W. Wilm
Wetland Science Program
INHS/IDOT Project Coordinator

Conducted By: Paul Marcum (Vegetation, Hydrology, and GNSS)
Ian Kenney and Dennis Keene (Soils and Hydrology)
Dennis Skultety (GIS)
University of Illinois
Prairie Research Institute
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Wetland Science Program
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swiesbro@illinois.edu
(217) 333-8459 (Marcum)

Table of Contents

Cover Photo: Looking northeast across Boone Creek, Water Site 1.

IL 31 (FAU 336) from Bull Valley Road to IL 176, Addenda D and E, McHenry County, Illinois

Introduction

A wetland survey was conducted on 8-9 and 29-30 September, 2014 for the proposed work on IL 31 (FAU 336) from Bull Valley Road to IL 176, Addenda D and E in McHenry County, Illinois. Construction work in the additional areas is to include pedestrian/bike accommodations and stormwater detention and outfalls. Marcum et al. (2011) previously reported on the original project, as well as Addenda A, B, and C.

Methods

All potential wetlands within the specified study area were examined. Characteristics of vegetation, soils, hydrology, and topography were evaluated during field investigation and on-site wetland determination. Locations of observation points for wetland determinations were selected based on plant community borders and topographic changes. The following sources were examined while surveying the project corridor to determine wetland locations and boundaries: aerial photographs; U.S. Geological Survey topographic map (McHenry 7.5 minute quadrangle); National Wetlands Inventory (NWI) map (McHenry 7.5 minute quadrangle) (U.S. Fish and Wildlife Service); McHenry County Advanced Identification (ADID) wetland maps (Chicago Metropolitan Agency for Planning et al. 2005), Illinois Wetlands Inventory (U.S. Fish and Wildlife Service, Illinois Department of Natural Resources, Illinois Natural History Survey 1996); the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987); the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* (USACE 2010); the USDA-NRCS *Official Series Descriptions*; and the USDA-NRCS *Web Soil Survey*. Positional inaccuracies are known to occur with downloaded sources of digital data listed above. As presented on maps and figures in this report, data can be shifted from their actual position when compared to modern aerial photography.

Wetland determinations were conducted using definitions and guidelines established in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* (USACE 2010). Data from these determinations were recorded on U.S. Army Corps of Engineers' Wetland Determination Data Forms – Midwest Region (Appendix A); a data form was completed for each wetland sampling point. All potential wetlands, including all areas mapped as wetlands by the NWI, were described using at least one sampling point. Results of these determinations are summarized in the following text. Adjacent upland areas were also investigated; forms were also completed for these areas. Comprehensive plant species lists were compiled for each wetland site and are presented in Appendix B.

Wetland and water boundaries were recorded using a Trimble Global Navigation Satellite System (model GeoExplorer 6000 Series GeoXT), with a presumed accuracy of +/- 0.5 m under optimal field conditions. Occasionally, conditions prohibit field-delineation of boundaries using

GNSS equipment, and these boundaries are digitized in the office using aerial photography. Typically this is done when one of three issues prevents field personnel from conducting a normal field delineation:

- Site cannot be accessed due to fence, lack of permission, hostile landowner, or other reason.
- Current conditions make delineation impossible (for example, delineating a stream or other water during a major flood when boundaries cannot be seen in the field).
- Current conditions make field delineation dangerous to our personnel. This often occurs with very steep-sided banks on creeks that have a great deal of vegetation obscuring the drop-off.

When a site is delineated using aerial photography, the site boundary must be readily visible from the aerial photo, and not obscured by overhanging vegetation or other features on the photo.

Spatial data were digitally uploaded to the Illinois Site Assessment Tracking System (http://frostycap.isgs.uiuc.edu/idot_extranet). Locations of determination sites were overlaid on a digital orthophoto quadrangle (DOQ) and approximate area was determined for each wetland site using ArcGIS 10.1 software (ESRI 2012). Resulting areas are calculated in acres, reported to two decimal places. Area of streams and ditches is given for the open channel and omits any portion enclosed in a pipe or culvert. Length of streams and ditches is given for the entire length within the project corridor; this includes pipes and culverts where visual observation can locate both ends. Site location, with respect to the nearest road, was measured from the edge of the pavement and is reported to the nearest foot.

Each native plant species was assigned a "coefficient of conservatism" (C) (Swink and Wilhelm 1994), a subjective rating of species fidelity to undegraded natural communities, ranging from zero to ten. Conservative species - those more likely to be found in "pristine" natural areas - were assigned high numbers, whereas non-conservative species - those that occur in anthropogenically disturbed areas - were given lower numbers. Non-native species and those not identifiable to species level were not assigned a rating. The Floristic Quality Index (FQI) is computed as FQI = (mean C) X ($\sqrt{N}$), where mean C is the mean coefficient of conservatism for all native plant species at a site and N is the total number of native plant species at the site. In very general terms, higher FQI values for plant communities indicate more similarity to "pristine" natural areas, as compared to those communities with lower FQI values. Botanical nomenclature follows *Plants of the Chicago Region* (*ibid*.), while wetland indicator status for each species follows *National Wetland Plant List, version 3.2* (USACE 2014).

Wetland Determination Site Summaries

Site summaries below are for sites within the project limits of Addenda D and E for this project. See Marcum et al. (2011) for information on Sites 1 to 37 from the original project, as well as Addenda A, B, and C. Site 36 is also discussed in this report since part of the site is also included within the current project limits.

Site Number: 36
Community type: **Wetland pond**
National Wetlands Inventory code: **POWHx (excavated, permanently flooded, open water, palustrine wetland)**
Site location: **Approximately 40 feet west of IL 31**
Hydrophytic Vegetation? **Yes** Hydric Soils? **Yes** Wetland Hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.04 ac**
Total site area: **0.38 ac**
Is this site an Advanced Identification (ADID) High Habitat Value wetland? **No**
Is this site an Advanced Identification (ADID) High Functional Value wetland? **No**
Is this site a High Quality Aquatic Resource (HQAR) (USACE-CD 2012)? **No**
Does this site meet U.S. Fish and Wildlife Service (FWS) criteria for potential *Platanthera leucophaea* (Eastern prairie fringed orchid) habitat (USFWS 2014)? **No**
Waters type (USACE and USEPA 2007): **Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into Traditional Navigable Waters (RPWWN)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **3.1** Floristic Quality Index (FQI): **11.9**
Additional remarks: **This site was originally reported by Marcum et al. (2011).**

Site Number: 38
Community type: **Wetland pond**
National Wetlands Inventory code: **U (upland)**
Site location: **Approximately 277 feet west of IL 31**
Hydrophytic Vegetation? **Yes** Hydric Soils? **Yes** Wetland Hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **1.80 ac**
Total site area: **1.80 ac**
Is this site an Advanced Identification (ADID) High Habitat Value wetland? **No**
Is this site an Advanced Identification (ADID) High Functional Value wetland? **No**
Is this site a High Quality Aquatic Resource (HQAR) (USACE-CD 2012)? **Yes**
Rationale: **This site has a mean C-value of 3.5 or greater (Swink and Wilhelm 1994).**
Does this site meet U.S. Fish and Wildlife Service (FWS) criteria for potential *Platanthera leucophaea* (Eastern prairie fringed orchid) habitat (USFWS 2014)? **No**
Waters type (USACE and USEPA 2007): **Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into Traditional Navigable Waters (RPWWN)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **4.5** Floristic Quality Index (FQI): **12.7**

Site Number: 39
Community type: **Wet meadow**
National Wetlands Inventory code: **U (upland)**
Site location: **Approximately 571 feet west of IL 31**
Hydrophytic Vegetation? **Yes** Hydric Soils? **Yes** Wetland Hydrology? **Yes**

Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.13 ac**
Total site area: **0.18 ac**
Is this site an Advanced Identification (ADID) High Habitat Value wetland? **No**
Is this site an Advanced Identification (ADID) High Functional Value wetland? **No**
Is this site a High Quality Aquatic Resource (HQAR) (USACE-CD 2012)? **No**
Does this site meet U.S. Fish and Wildlife Service (FWS) criteria for potential *Platanthera leucophaea* (Eastern prairie fringed orchid) habitat (USFWS 2014)? **No**
Waters type (USACE and USEPA 2007): **Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into Traditional Navigable Waters (RPWWN)**
HGM type: **Riverine**
Mean Coefficient of Conservatism (mean C): **2.1** Floristic Quality Index (FQI): **8.5**

Site Number: 40
Community type: **Wet meadow**
National Wetlands Inventory code: **U (upland)**
Site location: **Approximately 289 feet west of IL 31**
Hydrophytic Vegetation? **Yes** Hydric Soils? **Yes** Wetland Hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **1.71 ac**
Total site area: **1.72 ac**
Is this site an Advanced Identification (ADID) High Habitat Value wetland? **No**
Is this site an Advanced Identification (ADID) High Functional Value wetland? **No**
Is this site a High Quality Aquatic Resource (HQAR) (USACE-CD 2012)? **Yes**
Rationale: **This site has an FQI of 20 or greater and this site has a mean C-value of 3.5 or greater (Swink and Wilhelm 1994).**
Does this site meet U.S. Fish and Wildlife Service (FWS) criteria for potential *Platanthera leucophaea* (Eastern prairie fringed orchid) habitat (USFWS 2014)? **Yes**
Waters type (USACE and USEPA 2007): **Wetlands directly abutting RPWs that flow directly or indirectly into Traditional Navigable Waters (RPWWD)**
HGM type: **Riverine**
Mean Coefficient of Conservatism (mean C): **3.7** Floristic Quality Index (FQI): **20.1**

Site Number: 41
Community type: **Wet shrubland**
National Wetlands Inventory code: **U (upland)**
Site location: **Approximately 14 feet southeast of Ridgeview Drive**
Hydrophytic Vegetation? **Yes** Hydric Soils? **Yes** Wetland Hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.05 ac**
Total site area: **Undetermined**
Is this site an Advanced Identification (ADID) High Habitat Value wetland? **No**
Is this site an Advanced Identification (ADID) High Functional Value wetland? **No**
Is this site a High Quality Aquatic Resource (HQAR) (USACE-CD 2012)? **No**

Does this site meet U.S. Fish and Wildlife Service (FWS) criteria for potential *Platanthera leucophaea* (Eastern prairie fringed orchid) habitat (USFWS 2014)? **No**
Waters type (USACE and USEPA 2007): **Wetlands adjacent to non-RPWs that flow directly or indirectly into Traditional Navigable Waters (NRPWW)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **2.3** Floristic Quality Index (FQI): **10.1**

Site Number: 42
Community type: **Wet shrubland/Marsh**
National Wetlands Inventory code: **PEMC (seasonally flooded, emergent, palustrine wetland)**
Site location: **Multiple pieces beginning approximately 504 feet northwest of Corporate Drive**
Hydrophytic Vegetation? **Yes** Hydric Soils? **Yes** Wetland Hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.40 ac**
Total site area: **Undetermined**
Is this site an Advanced Identification (ADID) High Habitat Value wetland? **No**
Is this site an Advanced Identification (ADID) High Functional Value wetland? **Yes**
Is this site a High Quality Aquatic Resource (HQAR) (USACE-CD 2012)? **Yes**
Rationale: **This site is an Advanced Identification (ADID) Site.**
Does this site meet U.S. Fish and Wildlife Service (FWS) criteria for potential *Platanthera leucophaea* (Eastern prairie fringed orchid) habitat (USFWS 2014)? **No**
Waters type (USACE and USEPA 2007): **Wetlands directly abutting RPWs that flow directly or indirectly into Traditional Navigable Waters (RPWWD)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **3.1** Floristic Quality Index (FQI): **17.0**

Site Number: 43
Community type: **Marsh**
National Wetlands Inventory code: **U (upland)**
Site location: **Approximately 303 feet north of Corporate Drive**
Hydrophytic Vegetation? **Yes** Hydric Soils? **Yes** Wetland Hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.05 ac**
Total site area: **0.05 ac**
Is this site an Advanced Identification (ADID) High Habitat Value wetland? **No**
Is this site an Advanced Identification (ADID) High Functional Value wetland? **No**
Is this site a High Quality Aquatic Resource (HQAR) (USACE-CD 2012)? **No**
Does this site meet U.S. Fish and Wildlife Service (FWS) criteria for potential *Platanthera leucophaea* (Eastern prairie fringed orchid) habitat (USFWS 2014)? **No**
Waters type (USACE and USEPA 2007): **Wetlands adjacent to non-RPWs that flow directly or indirectly into Traditional Navigable Waters (NRPWW)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **1.9** Floristic Quality Index (FQI): **6.0**

Site Number: 44
Community type: **Wet shrubland**
National Wetlands Inventory code: **U (upland)**
Site location: **Approximately 369 feet northwest of IL 31**
Hydrophytic Vegetation? **Yes** Hydric Soils? **Yes** Wetland Hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.08 ac**
Total site area: **0.08 ac**
Is this site an Advanced Identification (ADID) High Habitat Value wetland? **No**
Is this site an Advanced Identification (ADID) High Functional Value wetland? **No**
Is this site a High Quality Aquatic Resource (HQAR) (USACE-CD 2012)? **No**
Does this site meet U.S. Fish and Wildlife Service (FWS) criteria for potential *Platanthera leucophaea* (Eastern prairie fringed orchid) habitat (USFWS 2014)? **No**
Waters type (USACE and USEPA 2007): **Wetlands adjacent to non-RPWs that flow directly or indirectly into Traditional Navigable Waters (NRPWW)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **2.4** Floristic Quality Index (FQI): **6.7**

Site Number: 45
Community type: **Wetland pond**
National Wetlands Inventory code: **U (upland)**
Site location: **Approximately 257 feet west of IL 31**
Hydrophytic Vegetation? **Yes** Hydric Soils? **Yes** Wetland Hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.05 ac**
Total site area: **0.05 ac**
Is this site an Advanced Identification (ADID) High Habitat Value wetland? **No**
Is this site an Advanced Identification (ADID) High Functional Value wetland? **No**
Is this site a High Quality Aquatic Resource (HQAR) (USACE-CD 2012)? **No**
Does this site meet U.S. Fish and Wildlife Service (FWS) criteria for potential *Platanthera leucophaea* (Eastern prairie fringed orchid) habitat (USFWS 2014)? **No**
Waters type (USACE and USEPA 2007): **Isolated interstate or intrastate waters including isolated wetlands (ISOLATE)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **1.5** Floristic Quality Index (FQI): **3.0**

Site Number: 46
Community type: **Wetland pond**
National Wetlands Inventory code: **U (upland)**
Site location: **Approximately 53 feet southwest of IL 176**
Hydrophytic Vegetation? **Yes** Hydric Soils? **Yes** Wetland Hydrology? **Yes**
Is this site a wetland? **Yes**
Area of site occurring within the project corridor: **0.23 ac**
Total site area: **0.23 ac**

Is this site an Advanced Identification (ADID) High Habitat Value wetland? **No**
Is this site an Advanced Identification (ADID) High Functional Value wetland? **No**
Is this site a High Quality Aquatic Resource (HQAR) (USACE-CD 2012)? **No**
Does this site meet U.S. Fish and Wildlife Service (FWS) criteria for potential *Platanthera leucophaea* (Eastern prairie fringed orchid) habitat (USFWS 2014)? **No**
Waters type (USACE and USEPA 2007): **Wetlands adjacent to non-RPWs that flow directly or indirectly into Traditional Navigable Waters (NRPWW)**
HGM type: **Depressional**
Mean Coefficient of Conservatism (mean C): **1.3** Floristic Quality Index (FQI): **5.3**

Wetland Determination Site Summary Table

Site no.	NWI code	Community type	Area (ac.)[1]	>50%[2]	FQI	Mean C	ADID[3]	HQAR[4]	Waters type
36	POWHx	Wetland pond	0.38	Yes	11.9	3.1	None	No	RPWWN
38	U	Wetland pond	1.80	Yes	12.7	4.5	None	Yes	RPWWN
39	U	Wet meadow	0.13	Yes	8.5	2.1	None	No	RPWWN
40	U	Wet meadow	1.71	Yes	20.1	3.7	None	Yes	RPWWD
41	U	Wet shrubland	0.05	No	10.1	2.3	None	No	NRPWW
42	PEMC	Wet shrubland/Marsh	0.40	No	17.0	3.1	HFV	Yes	RPWWD
43	U	Marsh	0.05	Yes	6.0	1.9	None	No	NRPWW
44	U	Wet shrubland	0.08	Yes	6.7	2.4	None	No	NRPWW
45	U	Wetland pond	0.05	Yes	3.0	1.5	None	No	ISOLATE
46	U	Wetland pond	0.23	Yes	5.3	1.3	None	No	NRPWW

[1] Area within the ESR project limits. [2] In our best professional judgment is more than 50% of the total site area within the ESR project limits? [3] Is this site an Advanced Identification High Habitat Value wetland (HHV) or a High Functional Value wetland (HFV)? [4] Is this site a High Quality Aquatic Resource?

Waters of the United States

Water summaries below are for water sites within the project limits of Addenda D and E for this project. Water Site 1, originally delineated in Marcum et al. (2011), is also discussed in this report since part of the site is included within the current project limits. Values for area and

linear feet are for the current project limits only. See Marcum et al. (2011) for these values within the original project, Addenda A, B, and C.

Site Number: W1
Site Name: **Tributary to Fox River**
Site Location: **Flows north along IL 31 then turns east crossing under IL 31 approximately 200 feet south of Grove Avenue**
Latitude: **42.33547** Longitude: **- 88.27698**
Community type: **Stream**
National Wetlands Inventory code:
Area of site occurring within the project corridor: **0.21 ac**
Linear feet: **1492 ft**
Waters type (USACE 2007): **TNWRPW (Tributary consisting of both Relatively Permanent and Non-Relatively Permanent Waters)**
USGS 8-Digit Hydrologic Unit Code (HUC): **07120006 (Upper Fox River)**
Watershed area: **3.5 mi^2 (USGS 2013)**
Riffles observed? **Yes** Pools observed? **Yes**
Mussel shell material observed? **No**
Is the stream or body of water permanent? **Yes**
Was this site mapped as a high quality stream, river, or ditch? **No**
Is this site a High Quality Aquatic Resource (HQAR) (USACE-CD 2012)? **No**
Is the stream identified by the IDNR (2008) as a biologically significant stream? **No**
Stream Integrity Rating: **Not Rated** Stream Diversity Rating: **Not Rated**
Additional Remarks: **Most of this water site is permanent within the project area, however, at the south end of the study area near Site 41, this water site is a non-relatively permanent water.**

Site Number: W5
Site Name: **Boone Creek**
Site Location: **Crosses under IL 120 approximately 227 feet northeast of Millstream Drive**
Latitude: **42.34657** Longitude: **- 88.26961**
Community type: **Stream**
National Wetlands Inventory code: **R2OWH (permanently flooded, open water, lower perennial, riverine wetland)**
Area of site occurring within the project corridor: **3.38 ac**
Linear feet: **1867 ft**
Waters type (USACE 2007): **RPW (Relatively Permanent Waters that flow directly or indirectly into Traditional Navigable Waters)**
USGS 8-Digit Hydrologic Unit Code (HUC): **07120006 (Upper Fox River)**
Watershed area: **23.2 mi^2 (USGS 2013)**
Riffles observed? **No** Pools observed? **Yes**
Mussel shell material observed? **No**
Is the stream or body of water permanent? **Yes**
Was this site mapped as a high quality stream, river, or ditch? **No**

Is this site a High Quality Aquatic Resource (HQAR) (USACE-CD 2012)? **No**
Is the stream identified by the IDNR (2008) as a biologically significant stream? **No**
Stream Integrity Rating: **Not Rated** Stream Diversity Rating: **Not Rated**

Site Number: W6
Site Name: **Tributary to Fox River**
Site Location: **Approximately 65 feet west of IL 31**
Latitude: **42.33009** Longitude: **- 88.27503**
Community type: **Ditch**
Area of site occurring within the project corridor: **0.02 ac**
Linear feet: **415 ft**
Waters type (USACE 2007): **NRPW (Non-RPWs that flow directly or indirectly into Traditional Navigable Waters)**
USGS 8-Digit Hydrologic Unit Code (HUC): **07120006 (Upper Fox River)**
Watershed area: **<1 mi^2 (USGS 2013)**
Riffles observed? **No** Pools observed? **No**
Mussel shell material observed? **No**
Is the stream or body of water permanent? **No**
Was this site mapped as a high quality stream, river, or ditch? **No**
Is this site a High Quality Aquatic Resource (HQAR) (USACE-CD 2012)? **No**
Is the stream identified by the IDNR (2008) as a biologically significant stream? **No**
Stream Integrity Rating: **Not Rated** Stream Diversity Rating: **Not Rated**

Site Number: W7
Site Name: **Ditch connecting pieces of wetland Site 42**
Site Location: **Approximately 630 feet northwest of Corporate Drive**
Latitude: **42.31356** Longitude: **- 88.28677**
Community type: **Ditch**
National Wetlands Inventory code: **PEMC (seasonally flooded, emergent, palustrine wetland)**
Area of site occurring within the project corridor: **0.01 ac**
Linear feet: **46 ft**
Waters type (USACE 2007): **NRPW (Non-RPWs that flow directly or indirectly into Traditional Navigable Waters)**
USGS 8-Digit Hydrologic Unit Code (HUC): **07120006 (Upper Fox River)**
Watershed area: **<1 mi^2 (USGS 2013)**
Riffles observed? **No** Pools observed? **No**
Mussel shell material observed? **No**
Is the stream or body of water permanent? **No**
Was this site mapped as a high quality stream, river, or ditch? **No**
Is this site a High Quality Aquatic Resource (HQAR) (USACE-CD 2012)? **No**
Is the stream identified by the IDNR (2008) as a biologically significant stream? **No**
Stream Integrity Rating: **Not Rated** Stream Diversity Rating: **Not Rated**

Threatened/Endangered Species and Natural Communities of Special Interest

No species listed as threatened or endangered federally or in Illinois were found during our wetland survey within the project corridor. Two wetland sites, Sites 38 and 40, are of special interest because they satisfy at least one standard for HQAR. Site 38 has a mean C score of 4.5 while Site 40 has a mean C of 3.7 and FQI of 20.1. Also, Site 40 meets the U.S. Fish and Wildlife Service (FWS) criteria for potential *Platanthera leucophaea* (Eastern prairie fringed orchid) habitat (USFWS 2014).

INHS Biotic Surveys have conducted in-depth studies at select areas of the Addendum C project corridor for the presence of *Platanthera leucophaea* (Eastern prairie fringed orchid), breeding birds (with emphasis on listed species including *Chelidonias niger* [Black tern], *Xanthocephalus xanthocephalus* [Yellow-headed black bird], *Ixobrychis exilis* [Least bittern], and *Gallinula galleata* [Common gallinule]), and Blanding's turtle. More information can be found in *Results of Platanthera leucophaea (Nutt.) Lindl. (Eastern Prairie Fringed Orchid) Surveys in the IL 31 (FAU 336) Bull Valley Road to IL 176 IDOT Project Area, McHenry County, Illinois* (Murphy 2012), *Results of searches for Eastern Prairie Fringed Orchid (Platanthera leucophaea) at IL 31 (FAU 336) Addendum C, Bull Valley Road to IL 176, Job No: P-91-135-99, Sequence # 1340C, McHenry County, Illinois* (Hill 2013), *Breeding Bird Surveys at Thunderbird Lake and the Addendum C Study Area along US 31 (FAU 336) from Bull Valley Road to IL 176, Job No. P-91-135-99, McHenry County, Illinois* (Schelsky 2014), and *Surveys for Blanding's Turtle along Illinois Route 31 (IDOT FAU 336) between Bull Valley Road and Illinois Route 176, McHenry County, Illinois* (Kuhs 2014).

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APPENDIX A

Wetland Determination Forms

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31 (FAU 336) City/County: McHenry Sampling Date 9/9/2014

Applicant/Owner: IDOT District 1 State: IL Sampling Point 36C

Investigator(s): Marcum, Kenney Section, Township, Range: Sec. 27, T44N, R8E

Landform (hillslope, terrace, etc.): Pond Local relief (concave, convex, none): Concave

Slope (%): 0 Lat: 42.26468 Long: -88.28740 Datum: NAD 83

Soil Map Unit Name: NRCS mapped as Lena muck, 0-2% slopes; revised to Aquent NWI classification: POWHx

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No , Soil No , or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No , Soil No , or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric Soil Present?	Yes		
Wetland Hydrology Present?	Yes		

Remarks: Community type is wetland pond.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. *Typha angustifolia*	85	Yes	OBL
2. *Leersia oryzoides*	10	No	OBL
3. *Agrostis alba*	1	No	FACW
4. *Festuca elatior*	1	No	FACU
5. *Glechoma hederacea*	1	No	FACU
6.			
7.			
8.			
9.			
10.			
	98 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals	(A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators

- [x] 1-Rapid Test for Hydrophytic Vegetation
- [ ] 2-Dominance Test is >50%
- [ ] 3-Prevalence Index is < or =3.0[1]
- [ ] 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 36C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/1	95	10YR 4/6	5	C	M	SIL	
3-7	10YR 3/1	100					SIL	
7-13	10YR 6/1	100					SICL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☑ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☑ Aquatic Fauna (B13)
- ☑ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☑ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes Depth (inches): <72

Water Table Present? Yes Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes Depth (inches): 0

Wetland Hydrology Present? **Yes**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31 (FAU 336) City/County: McHenry Sampling Date 9/9/2014

Applicant/Owner: IDOT District 1 State: IL Sampling Point 36D/45B

Investigator(s): Marcum, Kenney Section, Township, Range: Sec. 27, T44N, R8E

Landform (hillslope, terrace, etc.): Upland Local relief (concave, convex, none): Convex

Slope (%): <5 Lat: 42.26464 Long: -88.28761 Datum: NAD 83

Soil Map Unit Name: NRCS mapped as Lena muck, 0-2% slopes; revised to Orthents NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No , Soil No , or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No , Soil No , or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?**	**No**
Hydric Soil Present?	No		
Wetland Hydrology Present?	No		

Remarks: Community type is non-native grassland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	15	Yes	FACW
2.			
3.			
4.			
5.			
	15	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Poa pratensis*	85	Yes	FAC
2. *Glechoma hederacea*	15	No	FACU
3. *Festuca elatior*	10	No	FACU
4. *Plantago rugelii*	3	No	FAC
5. *Taraxacum officinale*	2	No	FACU
6.			
7.			
8.			
9.			
10.			
	115	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ 1-Rapid Test for Hydrophytic Vegetation
- ☑ 2-Dominance Test is >50%
- ☐ 3-Prevalence Index is < or =3.0[1]
- ☐ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 36D/45B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1	100					SIL	
6-13	10YR 5/2	100					SIL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches): _____

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

Wetland Hydrology Present? **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31 (FAU 336) City/County: McHenry Sampling Date 9/8/2014

Applicant/Owner: IDOT District 1 State: IL Sampling Point 38A

Investigator(s): Marcum, Kenney Section, Township, Range: Sec. 2, T44N, R8E

Landform (hillslope, terrace, etc.): Pond Local relief (concave, convex, none): Concave

Slope (%): 0 Lat: 42.32834 Long: -88.27595 Datum: NAD 83

Soil Map Unit Name: NRCS mapped as Houghton muck, 0-2% slopes, undrained; revised to Aquol NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No , Soil No , or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No , Soil No , or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric Soil Present?	Yes		
Wetland Hydrology Present?	Yes		

Remarks: Community type is wetland pond.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Leersia oryzoides*	70	Yes	OBL
2. *Phalaris arundinacea*	30	Yes	FACW
3. *Dipsacus laciniatus*	1	No	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	101	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators

- [x] 1-Rapid Test for Hydrophytic Vegetation
- [ ] 2-Dominance Test is >50%
- [ ] 3-Prevalence Index is < or =3.0[1]
- [ ] 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 38A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-26	10YR 2/1	100					SIL	
26-34	2.5Y 5/1	93	7.5YR 4/6	7	C	M	SICL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☑ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? **Yes**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☑ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☑ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes Depth (inches): <72

Water Table Present? Yes Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes Depth (inches): 0

Wetland Hydrology Present? **Yes**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31 (FAU 336) City/County: McHenry Sampling Date 9/8/2014

Applicant/Owner: IDOT District 1 State: IL Sampling Point 38B/39B

Investigator(s): Marcum, Kenney Section, Township, Range: Sec. 2, T44N, R8E

Landform (hillslope, terrace, etc.): Upland Local relief (concave, convex, none): None

Slope (%): 0 Lat: 42.32831 Long: -88.27636 Datum: NAD 83

Soil Map Unit Name: NRCS mapped as Houghton muck, 0-2% slopes, undrained; revised to Aquol NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No , Soil No , or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No , Soil No , or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric Soil Present?	Yes		
Wetland Hydrology Present?	No		

Remarks: Community type is forbland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. *Dipsacus laciniatus*	85	Yes	UPL
2. *Ambrosia trifida*	3	No	FAC
3. *Cirsium arvense*	3	No	FACU
4. *Phalaris arundinacea*	3	No	FACW
5. *Solidago canadensis*	3	No	FACU
6. *Acer negundo*	1	No	FAC
7. *Sonchus arvensis*	1	No	FACU
8.			
9.			
10.			
	99 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index =B/A =

Hydrophytic Vegetation Indicators

- ☐ 1-Rapid Test for Hydrophytic Vegetation
- ☐ 2-Dominance Test is >50%
- ☐ 3-Prevalence Index is < or =3.0[1]
- ☐ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **No**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 38B/39B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 2/1	100					SIL	
13-26	2.5Y 6/2	100					SICL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☑ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches): _____

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

Wetland Hydrology Present? **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31 (FAU 336) City/County: McHenry Sampling Date 9/8/2014

Applicant/Owner: IDOT District 1 State: IL Sampling Point 39A

Investigator(s): Marcum, Kenney Section, Township, Range: Sec. 2, T44N, R8E

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave

Slope (%): 0-1 Lat: 42.32809 Long: -88.27697 Datum: NAD 83

Soil Map Unit Name: NRCS mapped as Houghton muck, 0-2% slopes, undrained; revised to Aquol NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric Soil Present?	Yes		
Wetland Hydrology Present?	Yes		

Remarks: Community type is wet meadow.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Salix amygdaloides*	1	No	FACW
2. *Salix nigra*	1	No	OBL
3.			
4.			
5.			
	2 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. *Phalaris arundinacea*	95	Yes	FACW
2. *Dipsacus laciniatus*	3	No	UPL
3. *Polygonum pensylvanicum*	2	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators

- [x] 1-Rapid Test for Hydrophytic Vegetation
- [ ] 2-Dominance Test is >50%
- [ ] 3-Prevalence Index is < or =3.0[1]
- [ ] 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 39A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 2/1	100					SIL	
5-12	10YR 3/1	93	7.5YR 4/6	7	C	M	SICL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes Depth (inches): <2

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

Wetland Hydrology Present? **Yes**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31 (FAU 336) City/County: McHenry Sampling Date 9/8/2014

Applicant/Owner: IDOT District 1 State: IL Sampling Point 40A

Investigator(s): Marcum, Kenney Section, Township, Range: Sec. 35, T45N, R8E

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave

Slope (%): 0 Lat: 42.32970 Long: -88.27673 Datum: NAD 83

Soil Map Unit Name: NRCS mapped as Houghton muck, 0-2% slopes, undrained; revised to Aquol NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No , Soil No , or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No , Soil No , or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric Soil Present?	Yes		
Wetland Hydrology Present?	Yes		

Remarks: Community type is wet meadow.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. *Phalaris arundinacea*	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: (A)

Total Number of Dominant Species Across All Strata: (B)

Percent of Dominant Species That are OBL, FACW, or FAC: (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- [x] 1-Rapid Test for Hydrophytic Vegetation
- [ ] 2-Dominance Test is >50%
- [ ] 3-Prevalence Index is < or =3.0[1]
- [ ] 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 40A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-26	10YR 2/1	100					SIL	
26-39	10YR 3/1	100					SICL	
39-45	2.5Y 5/1	80	10YR 5/6	20	C	M	FSL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☑ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches): _____

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

Wetland Hydrology Present? **Yes**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31 (FAU 336) City/County: McHenry Sampling Date 9/8/2014

Applicant/Owner: IDOT District 1 State: IL Sampling Point 40B

Investigator(s): Marcum, Kenney Section, Township, Range: Sec. 35, T45N, R8E

Landform (hillslope, terrace, etc.): Upland Local relief (concave, convex, none): None

Slope (%): 0 Lat: 42.32985 Long: -88.27572 Datum: NAD 83

Soil Map Unit Name: NRCS mapped as Houghton muck, 0-2% slopes, undrained; revised to Aquol NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No , Soil No , or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No , Soil No , or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric Soil Present?	Yes		
Wetland Hydrology Present?	No		

Remarks: Community type is forbland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Solidago canadensis*	60	Yes	FACU
2. *Dipsacus laciniatus*	35	Yes	UPL
3. *Phalaris arundinacea*	10	No	FACW
4. *Solidago gigantea*	4	No	FACW
5. *Agrimonia parviflora*	2	No	FACW
6.			
7.			
8.			
9.			
10.			
	111	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ 1-Rapid Test for Hydrophytic Vegetation
- ☐ 2-Dominance Test is >50%
- ☐ 3-Prevalence Index is < or =3.0[1]
- ☐ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **No**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 40B

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
0-34	10YR 2/1	100					SIL	
34-42	2.5Y 5/2	93	10YR 4/6	7	C	M	SICL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☑ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches): _____

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

Wetland Hydrology Present? **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31 (FAU 336) City/County: McHenry Sampling Date 9/8/2014

Applicant/Owner: IDOT District 1 State: IL Sampling Point 41A

Investigator(s): Marcum, Kenney Section, Township, Range: Sec. 3, T44N, R8E

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave

Slope (%): 0-1 Lat: 42.31719 Long: -88.28571 Datum: NAD 83

Soil Map Unit Name: Pella silty clay loam, 0-2% slopes NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric Soil Present?	Yes		
Wetland Hydrology Present?	Yes		

Remarks: Community type is wet shrubland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix amygdaloides*	10	Yes	FACW
2. *Acer negundo*	3	No	FAC
3.			
4.			
5.			
	13	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Salix interior*	45	Yes	FACW
2. *Acer negundo*	5	No	FAC
3.			
4.			
5.			
	50	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Phalaris arundinacea*	80	Yes	FACW
2. *Aster simplex*	15	No	FAC
3. *Poa pratensis*	8	No	FAC
4. *Apocynum cannabinum*	5	No	FAC
5. *Cirsium arvense*	3	No	FACU
6. *Solanum americanum*	2	No	FACU
7.			
8.			
9.			
10.			
	113	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators

- [x] 1-Rapid Test for Hydrophytic Vegetation
- [ ] 2-Dominance Test is >50%
- [ ] 3-Prevalence Index is < or =3.0[1]
- [ ] 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 41A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/1	100					SICL	
10-16	5Y 5/1	92	10YR 5/6	8	C	M	SICL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches): _____

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

Wetland Hydrology Present? **Yes**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31 (FAU 336) City/County: McHenry Sampling Date 9/8/2014

Applicant/Owner: IDOT District 1 State: IL Sampling Point 41B

Investigator(s): Marcum, Kenney Section, Township, Range: Sec. 3, T44N, R8E

Landform (hillslope, terrace, etc.): Upland Local relief (concave, convex, none): None

Slope (%): 0 Lat: 42.31682 Long: -88.28584 Datum: NAD 83

Soil Map Unit Name: Pella silty clay loam, 0-2% slopes NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No , Soil No , or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No , Soil No , or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric Soil Present?	Yes		
Wetland Hydrology Present?	No		

Remarks: Community type is non-native grassland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Poa pratensis*	70	Yes	FAC
2. *Taraxacum officinale*	25	Yes	FACU
3. *Plantago lanceolata*	7	No	FACU
4. *Trifolium repens*	5	No	FACU
5. *Plantago rugelii*	4	No	FAC
6.			
7.			
8.			
9.			
10.			
	111	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ 1-Rapid Test for Hydrophytic Vegetation
- ☐ 2-Dominance Test is >50%
- ☐ 3-Prevalence Index is < or =3.0[1]
- ☐ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **No**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 41B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/1	90	10YR 4/6	10	C	M	SICL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches): _____

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

Wetland Hydrology Present? **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31 (FAU 336) City/County: McHenry Sampling Date 9/8/2014

Applicant/Owner: IDOT District 1 State: IL Sampling Point 42A

Investigator(s): Marcum, Kenney Section, Township, Range: Sec. 10, T44N, R8E

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave

Slope (%): 0-1 Lat: 42.31378 Long: -88.28678 Datum: NAD 83

Soil Map Unit Name: NRCS mapped as Peotone silty clay loam, 0-2% slopes; revised to Aquent NWI classification: PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric Soil Present?	Yes		
Wetland Hydrology Present?	Yes		

Remarks: Community type is wet shrubland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Salix interior*	55	Yes	FACW
2.			
3.			
4.			
5.			
	55	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Poa pratensis*	25	Yes	FAC
2. *Aster puniceus*	10	Yes	OBL
3. *Phalaris arundinacea*	10	Yes	FACW
4. *Solidago gigantea*	10	Yes	FACW
5. *Aster novae-angliae*	7	No	FACW
6. *Carex vulpinoidea*	5	No	FACW
7. *Apocynum cannabinum*	3	No	FAC
8. *Juncus dudleyi*	2	No	FACW
9. *Verbena hastata*	2	No	FACW
10.			
	74	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ 1-Rapid Test for Hydrophytic Vegetation
- ☑ 2-Dominance Test is >50%
- ☐ 3-Prevalence Index is < or =3.0[1]
- ☐ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 42A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/1	100					SIL	
4-13	10YR 5/2	85	10YR 4/6	15	C	M	L	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☑ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes Depth (inches): 5

Water Table Present? Yes Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes Depth (inches): 0

Wetland Hydrology Present? **Yes**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31 (FAU 336) City/County: McHenry Sampling Date 9/8/2014

Applicant/Owner: IDOT District 1 State: IL Sampling Point 42B

Investigator(s): Marcum, Kenney Section, Township, Range: Sec. 10, T44N, R8E

Landform (hillslope, terrace, etc.): Upland Local relief (concave, convex, none): None

Slope (%): 0 Lat: 42.31389 Long: -88.28696 Datum: NAD 83

Soil Map Unit Name: NRCS mapped as Brenton silt loam, 0-2% slopes; revised to Aquoll NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No , Soil No , or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No , Soil No , or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?**	**No**
Hydric Soil Present?	Yes		
Wetland Hydrology Present?	No		

Remarks: Community type is non-native grassland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Poa pratensis*	80	Yes	FAC
2. *Festuca elatior*	15	No	FACU
3. *Plantago rugelii*	10	No	FAC
4. *Daucus carota*	8	No	UPL
5. *Geum canadense*	3	No	FAC
6.			
7.			
8.			
9.			
10.			
	116	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ 1-Rapid Test for Hydrophytic Vegetation
- ☑ 2-Dominance Test is >50%
- ☐ 3-Prevalence Index is < or =3.0[1]
- ☐ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 42B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 3/1	94	10YR 4/6	6	C	M	SICL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches): _____

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

Wetland Hydrology Present? **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31 (FAU 336) City/County: McHenry Sampling Date 9/8/2014

Applicant/Owner: IDOT District 1 State: IL Sampling Point 43A

Investigator(s): Marcum, Kenney Section, Township, Range: Sec. 10, T44N, R8E

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave

Slope (%): 0-1 Lat: 42.31372 Long: -88.28454 Datum: NAD 83

Soil Map Unit Name: NRCS mapped as Ringwood silt loam, 2-4% slopes; revised to Aquent NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No , Soil No , or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No , Soil No , or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric Soil Present?	Yes		
Wetland Hydrology Present?	Yes		

Remarks: Community type is marsh.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Typha angustifolia*	90	Yes	OBL
2. *Solidago graminifolia*	1	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	91	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators

- [x] 1-Rapid Test for Hydrophytic Vegetation
- [ ] 2-Dominance Test is >50%
- [ ] 3-Prevalence Index is < or =3.0[1]
- [ ] 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 43A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/1	100					SIL	
2-13	10YR 4/2	94	10YR 4/6	6	C	M	L	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches): _____

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

Wetland Hydrology Present? **Yes**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31 (FAU 336) City/County: McHenry Sampling Date 9/8/2014

Applicant/Owner: IDOT District 1 State: IL Sampling Point 43B

Investigator(s): Marcum, Kenney Section, Township, Range: Sec. 10, T44N, R8E

Landform (hillslope, terrace, etc.): Upland Local relief (concave, convex, none): Convex

Slope (%): <2 Lat: 42.31368 Long: -88.28456 Datum: NAD 83

Soil Map Unit Name: Ringwood silt loam, 2-4% slopes NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No , Soil No , or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No , Soil No , or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?**	**No**
Hydric Soil Present?	No		
Wetland Hydrology Present?	No		

Remarks: Community type is non-native grassland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Poa pratensis*	99	Yes	FAC
2. *Taraxacum officinale*	2	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	101	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ 1-Rapid Test for Hydrophytic Vegetation
- ☑ 2-Dominance Test is >50%
- ☐ 3-Prevalence Index is < or =3.0[1]
- ☐ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 43B

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
0-13	10YR 3/2	100					SIL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches): _____

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

Wetland Hydrology Present? **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31 (FAU 336) City/County: McHenry Sampling Date 9/9/2014

Applicant/Owner: IDOT District 1 State: IL Sampling Point 44A

Investigator(s): Marcum, Kenney Section, Township, Range: Sec. 10, T44N, R8E

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave

Slope (%): 0-1 Lat: 42.31060 Long: -88.28138 Datum: NAD 83

Soil Map Unit Name: NRCS mapped as Elburn silt loam, 0-2% slopes; revised to Aquent NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric Soil Present?	Yes		
Wetland Hydrology Present?	Yes		

Remarks: Community type is wet shrubland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Salix interior*	5	Yes	FACW
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. *Phalaris arundinacea*	95	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	95 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators

- [x] 1-Rapid Test for Hydrophytic Vegetation
- [ ] 2-Dominance Test is >50%
- [ ] 3-Prevalence Index is < or =3.0[1]
- [ ] 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 44A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/1	100					SIL	
6-13	10YR 4/2	92	10YR 4/6	8	C	M	SICL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☑ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes Depth (inches): 3

Water Table Present? Yes Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes Depth (inches): 0

Wetland Hydrology Present? **Yes**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31 (FAU 336) City/County: McHenry Sampling Date 9/9/2014

Applicant/Owner: IDOT District 1 State: IL Sampling Point 44B

Investigator(s): Marcum, Kenney Section, Township, Range: Sec. 10, T44N, R8E

Landform (hillslope, terrace, etc.): Upland Local relief (concave, convex, none): None

Slope (%): 0 Lat: 42.31041 Long: -88.28118 Datum: NAD 83

Soil Map Unit Name: NRCS mapped as Elburn silt loam, 0-2% slopes; revised to Orthent NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No , Soil No , or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No , Soil No , or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric Soil Present?	No		
Wetland Hydrology Present?	No		

Remarks: Community type is non-native grassland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Melilotus alba*	50	Yes	FACU
2. *Poa pratensis*	45	Yes	FAC
3. *Solidago canadensis*	15	No	FACU
4. *Plantago lanceolata*	8	No	FACU
5. *Aster pilosus*	3	No	FACU
6. *Dactylis glomerata*	2	No	FACU
7. *Potentilla norvegica*	1	No	FAC
8.			
9.			
10.			
	124	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals (A)	(B)	

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ 1-Rapid Test for Hydrophytic Vegetation
- ☐ 2-Dominance Test is >50%
- ☐ 3-Prevalence Index is < or =3.0[1]
- ☐ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **No**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 44B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 4/2	100					SIL	8% CF (GR)

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches): _____

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

Wetland Hydrology Present? **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31 (FAU 336) City/County: McHenry Sampling Date 9/9/2014

Applicant/Owner: IDOT District 1 State: IL Sampling Point 45A

Investigator(s): Marcum, Kenney Section, Township, Range: Sec. 27, T44N, R8E

Landform (hillslope, terrace, etc.): Pond Local relief (concave, convex, none): Concave

Slope (%): 0 Lat: 42.26454 Long: -88.28787 Datum: NAD 83

Soil Map Unit Name: NRCS mapped as Lena muck, 0-2% slopes; revised to Aquoll NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No , Soil No , or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No , Soil No , or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric Soil Present?	Yes		
Wetland Hydrology Present?	Yes		

Remarks: Community type is wetland pond.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. *Nymphaea sp.*	50	Yes	OBL
2. *Typha angustifolia*	40	Yes	OBL
3. *Agrostis alba*	20	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	110 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators

- [x] 1-Rapid Test for Hydrophytic Vegetation
- [ ] 2-Dominance Test is >50%
- [ ] 3-Prevalence Index is < or =3.0[1]
- [ ] 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 45A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 2/1	100					SIL	
13-26	2.5Y 5/1	100					L	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☑ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? **Yes**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☑ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☑ Aquatic Fauna (B13)
- ☑ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes Depth (inches): <72

Water Table Present? Yes Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes Depth (inches): 0

Wetland Hydrology Present? **Yes**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31 (FAU 336) City/County: McHenry Sampling Date 9/9/2014

Applicant/Owner: IDOT District 1 State: IL Sampling Point 46A

Investigator(s): Marcum, Kenney Section, Township, Range: Sec. 34, T44N, R8E

Landform (hillslope, terrace, etc.): Excavated depression Local relief (concave, convex, none): Concave

Slope (%): 0-1 Lat: 42.24872 Long: -88.28589 Datum: NAD 83

Soil Map Unit Name: NRCS mapped as Warsaw loam, 4-6% slopes, eroded; revised to Aquoll NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?**	**Yes**
Hydric Soil Present?	Yes		
Wetland Hydrology Present?	Yes		

Remarks: Community type is wetland pond.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. *Echinochloa crusgalli*	70	Yes	FACW
2. *Polygonum persicaria*	1	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	71 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: (A)

Total Number of Dominant Species Across All Strata: (B)

Percent of Dominant Species That are OBL, FACW, or FAC: (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- [x] 1-Rapid Test for Hydrophytic Vegetation
- [ ] 2-Dominance Test is >50%
- [ ] 3-Prevalence Index is < or =3.0[1]
- [ ] 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 46A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 2/1	100					SIL	
5-13	10YR 3/2	94	10YR 5/8	6	C	M	SIL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☑ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes Depth (inches): <24

Water Table Present? Yes Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes Depth (inches): 0

Wetland Hydrology Present? **Yes**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31 (FAU 336) City/County: McHenry Sampling Date 9/9/2014

Applicant/Owner: IDOT District 1 State: IL Sampling Point 46B

Investigator(s): Marcum, Kenney Section, Township, Range: Sec. 34, T44N, R8E

Landform (hillslope, terrace, etc.): Upland Local relief (concave, convex, none): Convex

Slope (%): <10 Lat: 42.24871 Long: -88.28582 Datum: NAD 83

Soil Map Unit Name: NRCS mapped as Warsaw loam, 4-6% slopes, eroded; revised to Orthent NWI classification: U

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks.)

Are Vegetation No , Soil No , or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No , Soil No , or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	No	**Is the Sampled Area within a Wetland?**	**No**
Hydric Soil Present?	No		
Wetland Hydrology Present?	No		

Remarks: Community type is forbland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Bouteloua curtipendula*	35	Yes	UPL
2. *Chenopodium album*	10	Yes	FACU
3. *Melilotus alba*	10	Yes	FACU
4. *Aster pilosus*	8	Yes	FACU
5. *Elymus canadensis*	6	No	FACU
6. *Setaria glauca*	6	No	FAC
7. *Cirsium arvense*	5	No	FACU
8. *Pastinaca sativa*	5	No	UPL
9. *Rumex crispus*	5	No	FAC
10. *Cichorium intybus*	4	No	FACU
	124	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators

- ☐ 1-Rapid Test for Hydrophytic Vegetation
- ☐ 2-Dominance Test is >50%
- ☐ 3-Prevalence Index is < or =3.0[1]
- ☐ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **No**

Remarks: (Include photo numbers here or on a separate sheet.)

Additional taxa from herb strata include: Lolium perenne (4%), Panicum dichotomiflorum (4%), Coronilla varia (3%), Echinochloa crus-galli (3%), Panicum capillare (3%), Setaria faberi (3%), Solidago canadensis (3%), Verbascum thapsus (3%), Erigeron canadensis (2%), Hibiscus trionum (1%), and Sonchus asper (1%).

SOIL

Sampling Point: 46B

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					SIL	
2-13	10YR 4/2	100					SICL	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two is required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches): _____

Water Table Present? No Depth (inches): _____

Saturation Present? (includes capillary fringe) No Depth (inches): _____

Wetland Hydrology Present? **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX B

Wetland Plant Species Lists

Project Title: IL 31 (FAU 336) **Sequence No: 1340D**

Site 36 - Wetland pond

Scientific Name	Common Name	Strata	Wetland Indicator Status	Coefficient of Conservatism
Typha angustifolia	**narrow-leaved cattail**	**H**	**OBL**	**1**
*Agrostis alba**	red top	H	FACW	-
Aster simplex	panicled aster	H	FAC	3
Bidens frondosa	common beggar's ticks	H	FACW	1
Carex sp.	sedge	H	-	-
Cyperus rivularis	brook flat sedge	H	OBL	4
Eleocharis erythropoda	red-rooted spike rush	H	OBL	2
Eupatorium perfoliatum	common boneset	H	OBL	4
Eupatorium rugosum	white snakeroot	H	FACU	4
*Festuca elatior**	tall fescue	H	FACU	-
Fraxinus pennsylvanica var. subintegerrima	green ash	H	FACW	1
*Glechoma hederacea**	ground ivy	H	FACU	-
Leersia oryzoides	rice cut grass	H	OBL	4
Lemna minor	small duckweed	H	OBL	5
*Poa pratensis**	Kentucky blue grass	H	FAC	-
Potamogeton pectinatus	comb pondweed	H	OBL	5
Prunella vulgaris var. lanceolata	self-heal	H	FAC	0
*Rumex crispus**	curly dock	H	FAC	-
Sambucus canadensis	common elder	S	FACW	1
*Senecio glabellus**	butterweed	H	FACW	-
Solidago gigantea	late goldenrod	H	FACW	4
*Sonchus arvensis**	field sow thistle	H	FACU	-
Spirodela polyrhiza	great duckweed	H	OBL	7

*Non-native species **Bolded species is dominant in the denoted stratum** Mean C = 3.1

H = Herb, T = Tree, S = Sapling/Shrub, W = Woody Vine FQI = 11.9

Site 38 - Wetland pond

Scientific Name	Common Name	Strata	Wetland Indicator Status	Coefficient of Conservatism
Leersia oryzoides	**rice cut grass**	**H**	**OBL**	**4**
Phalaris arundinacea*	**reed canary grass**	**H**	**FACW**	**-**
Wolffia columbiana	**water meal**	**H**	**OBL**	**7**
Asclepias incarnata	swamp milkweed	H	OBL	4
Ceratophyllum demersum	coontail	H	OBL	5
*Cirsium arvense**	field thistle	H	FACU	-
*Dipsacus laciniatus**	cut-leaved teasel	H	UPL	-
Eleocharis obtusa	blunt spike rush	H	OBL	3
Lemna trisulca	forked duckweed	H	OBL	7
Solidago canadensis	Canada goldenrod	H	FACU	1
Verbena urticifolia	white vervain	H	FAC	5

*Non-native species **Bolded species is dominant in the denoted stratum** Mean C = 4.5

H = Herb, T = Tree, S = Sapling/Shrub, W = Woody Vine FQI = 12.7

Site 39 - Wet meadow

Scientific Name	Common Name	Strata	Wetland Indicator Status	Coefficient of Conservatism
Phalaris arundinacea*	**reed canary grass**	**H**	**FACW**	**-**
Acer negundo	box elder	ST	FAC	0
Ambrosia trifida	giant ragweed	H	FAC	0
Asclepias incarnata	swamp milkweed	H	OBL	4
Aster simplex	panicled aster	H	FAC	3
*Cirsium arvense**	field thistle	H	FACU	-
*Dipsacus laciniatus**	cut-leaved teasel	H	UPL	-
Echinochloa crusgalli	barnyard grass	H	FACW	0
Echinocystis lobata	wild cucumber	H	FACW	5
Eleocharis erythropoda	red-rooted spike rush	H	OBL	2
Phragmites australis	common reed	H	FACW	1
*Poa pratensis**	Kentucky blue grass	H	FAC	-
Polygonum pensylvanicum	pinkweed	H	FACW	0
Polygonum scandens	climbing false buckwheat	H	FAC	1
*Rumex crispus**	curly dock	H	FAC	-
Salix amygdaloides	peach-leaved willow	HS	FACW	5
Salix nigra	black willow	HS	OBL	4
Scirpus fluviatilis	river bulrush	H	OBL	4
*Setaria glauca**	pigeon grass	H	FAC	-
Solanum americanum	black nightshade	H	FACU	0
Typha angustifolia	narrow-leaved cattail	H	OBL	1
Ulmus americana	American elm	H	FACW	3
Urtica procera	stinging nettle	H	FACW	2

*Non-native species **Bolded species is dominant in the denoted stratum** Mean C = 2.1

H = Herb, T = Tree, S = Sapling/Shrub, W = Woody Vine FQI = 8.5

Site 40 - Wet meadow

Scientific Name	Common Name	Strata	Wetland Indicator Status	Coefficient of Conservatism
Phalaris arundinacea*	**reed canary grass**	**H**	**FACW**	**-**
Acer negundo	box elder	ST	FAC	0
Agrimonia parviflora	swamp agrimony	H	FACW	7
Ambrosia trifida	giant ragweed	H	FAC	0
Angelica atropurpurea	angelica	H	OBL	7
Aster puniceus	bristly aster	H	OBL	8
Aster simplex	panicled aster	H	FAC	3
Carex stricta	common tussock sedge	H	OBL	5
Cicuta maculata	water hemlock	H	OBL	6
*Cirsium arvense**	field thistle	H	FACU	-
Echinocystis lobata	wild cucumber	H	FACW	5
Epilobium coloratum	cinnamon willow herb	H	OBL	3
*Glechoma hederacea**	ground ivy	H	FACU	-
Impatiens capensis	spotted touch-me-not	H	FACW	3
Lobelia siphilitica	great blue lobelia	H	OBL	6
Lycopus americanus	common water horehound	H	OBL	5
Phragmites australis	common reed	H	FACW	1
Polygonum pensylvanicum	pinkweed	H	FACW	0
Polygonum scandens	climbing false buckwheat	H	FAC	1
*Rhamnus cathartica**	common buckthorn	S	FAC	-
Ribes americanum	wild black currant	HS	FACW	7
Salix amygdaloides	peach-leaved willow	T	FACW	5
*Salix fragilis**	crack willow	S	FAC	-
Salix interior	sandbar willow	S	FACW	1
Salix nigra	black willow	T	OBL	4
Scirpus cyperinus	wool grass	H	OBL	6
Scirpus fluviatilis	river bulrush	H	OBL	4
Solidago canadensis	Canada goldenrod	H	FACU	1
Solidago gigantea	late goldenrod	H	FACW	4
Solidago graminifolia	grass-leaved goldenrod	H	FACW	4
Typha angustifolia	narrow-leaved cattail	H	OBL	1
Urtica procera	stinging nettle	H	FACW	2
Verbena hastata	blue vervain	H	FACW	4
Verbena urticifolia	white vervain	H	FAC	5

*Non-native species **Bolded species is dominant in the denoted stratum** Mean C = 3.7

H = Herb, T = Tree, S = Sapling/Shrub, W = Woody Vine FQI = 20.1

Site 41 - Wet shrubland

Scientific Name	Common Name	Strata	Wetland Indicator Status	Coefficient of Conservatism
Salix interior	**sandbar willow**	**S**	**FACW**	**1**
Acer negundo	box elder	HST	FAC	0
Acer rubrum	red maple	S	FAC	7
Ambrosia trifida	giant ragweed	H	FAC	0
Apocynum cannabinum	dogbane	H	FAC	4
Asclepias syriaca	common milkweed	H	FACU	0
Aster simplex	panicled aster	H	FAC	3
*Cirsium arvense**	field thistle	H	FACU	-
Convolvulus sepium	American bindweed	H	FAC	1
Geum canadense	white avens	H	FAC	1
Impatiens capensis	spotted touch-me-not	H	FACW	3
Phragmites australis	common reed	H	FACW	1
*Poa pratensis**	Kentucky blue grass	H	FAC	-
Populus deltoides	eastern cottonwood	T	FAC	2
*Rhamnus cathartica**	common buckthorn	S	FAC	-
Ribes americanum	wild black currant	S	FACW	7
*Rosa multiflora**	Japanese rose	S	FACU	-
Rubus occidentalis	black raspberry	S	UPL	2
Salix amygdaloides	peach-leaved willow	ST	FACW	5
Salix nigra	black willow	ST	OBL	4
Sambucus canadensis	common elder	S	FACW	1
Solanum americanum	black nightshade	H	FACU	0
*Solanum dulcamara**	bittersweet nightshade	H	FAC	-
Vitis riparia	riverbank grape	W	FACW	2

*Non-native species **Bolded species is dominant in the denoted stratum** Mean C = 2.3

H = Herb, T = Tree, S = Sapling/Shrub, W = Woody Vine FQI = 10.1

Site 42 - Wet shrubland/Marsh

Scientific Name	Common Name	Strata	Wetland Indicator Status	Coefficient of Conservatism
Aster puniceus	**bristly aster**	**H**	**OBL**	**8**
Eupatorium maculatum	**spotted Joe Pye weed**	**H**	**OBL**	**4**
Salix interior	**sandbar willow**	**S**T	**FACW**	**1**
Typha angustifolia	**narrow-leaved cattail**	**H**	**OBL**	**1**
*Agrostis alba**	red top	H	FACW	-
Ambrosia trifida	giant ragweed	H	FAC	0
Apocynum cannabinum	dogbane	H	FAC	4
Asclepias syriaca	common milkweed	H	FACU	0
Aster novae-angliae	New England aster	H	FACW	4
Aster simplex	panicled aster	H	FAC	3
Carex pellita	wooly sedge	H	OBL	4
Carex vulpinoidea	brown fox sedge	H	FACW	2
*Cirsium arvense**	field thistle	H	FACU	-
Convolvulus sepium	American bindweed	H	FAC	1
Cornus obliqua	pale dogwood	HS	FACW	6
Cornus stolonifera	red osier dogwood	S	FACW	6
*Daucus carota**	Queen Anne's lace	H	UPL	-
Geum canadense	white avens	H	FAC	1
Geum laciniatum	rough avens	H	FACW	5
Impatiens capensis	spotted touch-me-not	H	FACW	3
Juncus dudleyi	Dudley's rush	H	FACW	4
Juncus torreyi	Torrey's rush	H	FACW	4
*Phalaris arundinacea**	reed canary grass	H	FACW	-
Phragmites australis	common reed	H	FACW	1
Pilea pumila	Canada clearweed	H	FACW	5
*Poa pratensis**	Kentucky blue grass	H	FAC	-
Polygonum pensylvanicum	pinkweed	H	FACW	0
Prunella vulgaris var. lanceolata	self-heal	H	FAC	0
Ribes americanum	wild black currant	S	FACW	7
*Salix fragilis**	crack willow	T	FAC	-
*Solanum dulcamara**	bittersweet nightshade	H	FAC	-
Solidago gigantea	late goldenrod	H	FACW	4
Solidago graminifolia	grass-leaved goldenrod	H	FACW	4
Spartina pectinata	prairie cord grass	H	FACW	4
Typha latifolia	broad-leaved cattail	H	OBL	1
Verbena hastata	blue vervain	H	FACW	4
Vitis riparia	riverbank grape	HW	FACW	2

*Non-native species **Bolded species is dominant in the denoted stratum** Mean C = 3.1

H = Herb, T = Tree, S = Sapling/Shrub, W = Woody Vine FQI = 17.0

Site 43 - Marsh

Scientific Name	Common Name	Strata	Wetland Indicator Status	Coefficient of Conservatism
Typha angustifolia	**narrow-leaved cattail**	**H**	**OBL**	**1**
*Agrostis alba**	red top	H	FACW	-
Apocynum cannabinum	dogbane	H	FAC	4
Aster simplex	panicled aster	H	FAC	3
Bidens frondosa	common beggar's ticks	H	FACW	1
*Cirsium arvense**	field thistle	H	FACU	-
Convolvulus sepium	American bindweed	H	FAC	1
Echinochloa crusgalli	barnyard grass	H	FACW	0
*Festuca elatior**	tall fescue	H	FACU	-
Panicum dichotomiflorum	fall panicum	H	FACW	0
*Pastinaca sativa**	wild parsnip	H	UPL	-
*Poa pratensis**	Kentucky blue grass	H	FAC	-
*Salix fragilis**	crack willow	T	FAC	-
Solidago canadensis	Canada goldenrod	H	FACU	1
Solidago gigantea	late goldenrod	H	FACW	4
Solidago graminifolia	grass-leaved goldenrod	H	FACW	4

*Non-native species **Bolded species is dominant in the denoted stratum** Mean C = 1.9

H = Herb, T = Tree, S = Sapling/Shrub, W = Woody Vine FQI = 6.0

Site 44 - Wet shrubland

Scientific Name	Common Name	Strata	Wetland Indicator Status	Coefficient of Conservatism
Phalaris arundinacea*	**reed canary grass**	**H**	**FACW**	**-**
Salix interior	**sandbar willow**	**S**	**FACW**	**1**
Asclepias syriaca	common milkweed	H	FACU	0
Aster simplex	panicled aster	H	FAC	3
Carex vulpinoidea	brown fox sedge	H	FACW	2
*Cirsium arvense**	field thistle	H	FACU	-
*Lolium perenne**	perennial rye grass	H	FACU	-
*Poa pratensis**	Kentucky blue grass	H	FAC	-
Populus deltoides	eastern cottonwood	ST	FAC	2
Salix amygdaloides	peach-leaved willow	S	FACW	5
Solidago canadensis	Canada goldenrod	H	FACU	1
Verbena urticifolia	white vervain	H	FAC	5

*Non-native species **Bolded species is dominant in the denoted stratum** Mean C = 2.4

H = Herb, T = Tree, S = Sapling/Shrub, W = Woody Vine FQI = 6.7

Site 45 - Wetland pond

Scientific Name	Common Name	Strata	Wetland Indicator Status	Coefficient of Conservatism
Nymphaea sp. (p)	**water lily**	**H**	**OBL**	**-**
Acalypha rhomboidea	three-seeded mercury	H	FACU	0
*Agrostis alba**	red top	H	FACW	-
Cyperus rivularis	brook flat sedge	H	OBL	4
Juncus effusus (p)	common rush	H	OBL	-
*Poa pratensis**	Kentucky blue grass	H	FAC	-
Sambucus canadensis	common elder	S	FACW	1
Typha angustifolia	narrow-leaved cattail	H	OBL	1

*Non-native species **Bolded species is dominant in the denoted stratum** Mean C = 1.5

H = Herb, T = Tree, S = Sapling/Shrub, W = Woody Vine FQI = 3.0

Planted species (p) are not included in mean C or FQI calculations.

Site 46 - Wetland pond

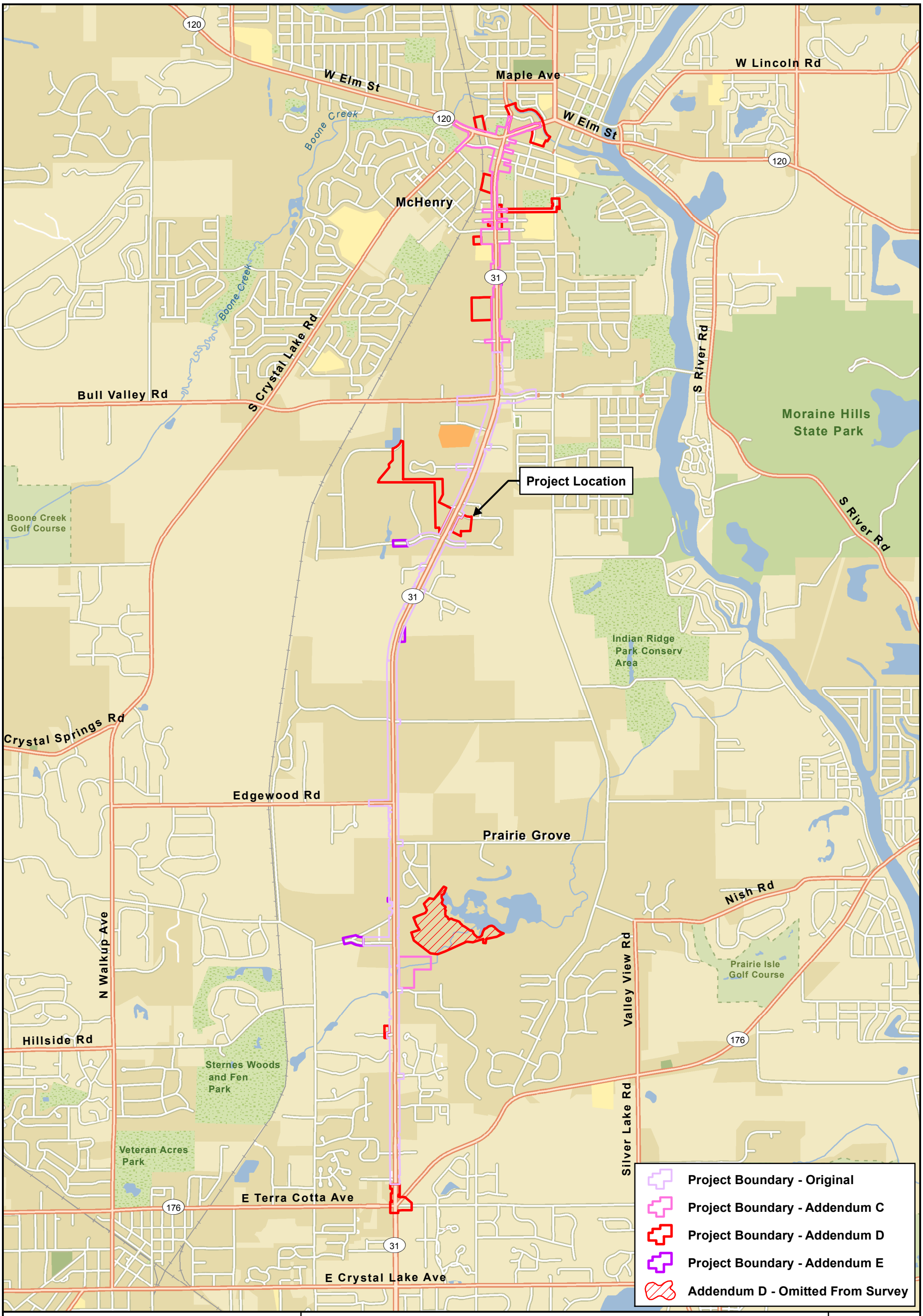
Scientific Name	Common Name	Strata	Wetland Indicator Status	Coefficient of Conservatism
Echinochloa crusgalli	**barnyard grass**	**H**	**FACW**	**0**
Typha angustifolia	**narrow-leaved cattail**	**H**	**OBL**	**1**
Acnida altissima	tall waterhemp	H	OBL	0
Alisma subcordatum	common water plantain	H	OBL	4
Ambrosia artemisiifolia var. elatior	common ragweed	H	FACU	0
Aster pilosus	hairy aster	H	FACU	0
Aster simplex	panicled aster	H	FAC	3
*Chenopodium album**	lamb's quarters	H	FACU	-
*Diplachne acuminata**	salt meadow grass	H	OBL	-
Elymus canadensis	Canada wild rye	H	FACU	4
Eragrostis pectinacea	small love grass	H	FAC	0
*Lolium perenne**	perennial rye grass	H	FACU	-
Oxalis stricta	common wood sorrel	H	FACU	0
Panicum capillare	old witch grass	H	FAC	1
Panicum dichotomiflorum	fall panicum	H	FACW	0
*Pastinaca sativa**	wild parsnip	H	UPL	-
Phragmites australis	common reed	H	FACW	1
*Polygonum aviculare**	common knotweed	H	FAC	-
Polygonum pensylvanicum	pinkweed	H	FACW	0
*Polygonum persicaria**	lady's thumb	H	FACW	-
Populus deltoides	eastern cottonwood	H	FAC	2
*Rumex crispus**	curly dock	H	FAC	-
Salix amygdaloides	peach-leaved willow	H	FACW	5
Solidago canadensis	Canada goldenrod	H	FACU	1

*Non-native species **Bolded species is dominant in the denoted stratum** Mean C = 1.3

H = Herb, T = Tree, S = Sapling/Shrub, W = Woody Vine FQI = 5.3

APPENDIX C

Figures



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ILLINOIS NATURAL HISTORY SURVEY
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Figure 1
Project Location Map
IL 31 (FAU 336) from Bull Valley Road to IL 176
McHenry County

Seq. No: 1340D,E

Meters 0 1,000 — Feet 0 3,000

November 2014

N W E S

L1OWH
L2OWG
PEMC
PEMAD
R2OWH
PEMC
PFO1A
POWHX
R2OWH
POWHX
PFO1C
120
W Elm St
R2OWH
POWHX
R2OWH
POWHX
W Crystal Lake Rd
PSS1B
PEMB
31
PFO1/EMC
PEMC
POWHX
PEMB
PEMC
PEMB
PEMF
PEMC
PFO1C
PFO1C
PEMC
PFO1C
PEM/FO1C
Bull Valley Rd
PEMC
Figure 2A
Figure 2B
Figure 2C

- Project Boundary - Original
- Project Boundary - Addendum C
- Project Boundary - Addendum D
- Project_Boundary - Addendum E
- Addendum D - Omitted From Survey

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Figure 2A
National Wetlands Inventory Map
IL 31 (FAU 336) from Bull Valley Road to IL 176
McHenry County

Seq. No: 1340D,E

Meters 0 250
Feet 0 1,000

November 2014

N W E S

PEMB
PEMC
PFO1C
PEMC
PEMC
PEMCDF
PEMC
PEMC
PEMB
PEMC
31
PEMC
PEMA
PEMC
POWFX
PEMC
PEMA
PEMB
PEMC
PEMA
PEMB
Figure 2A
Figure 2B
Figure 2C
PEMAF
PABGH
PEMB
PEMC
Edgewood Rd
PEMAF
PEM/S
Ames Rd

Project Boundary - Original
Project Boundary - Addendum C
Project Boundary - Addendum D
Project_Boundary - Addendum E
Addendum D - Omitted From Survey

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Champaign, Illinois 61820

Figure 2B
National Wetlands Inventory Map
IL 31 (FAU 336) from Bull Valley Road to IL 176
McHenry County

Seq. No: 1340D,E

Meters 0 250
Feet 0 1,000

November 2014

N W E S

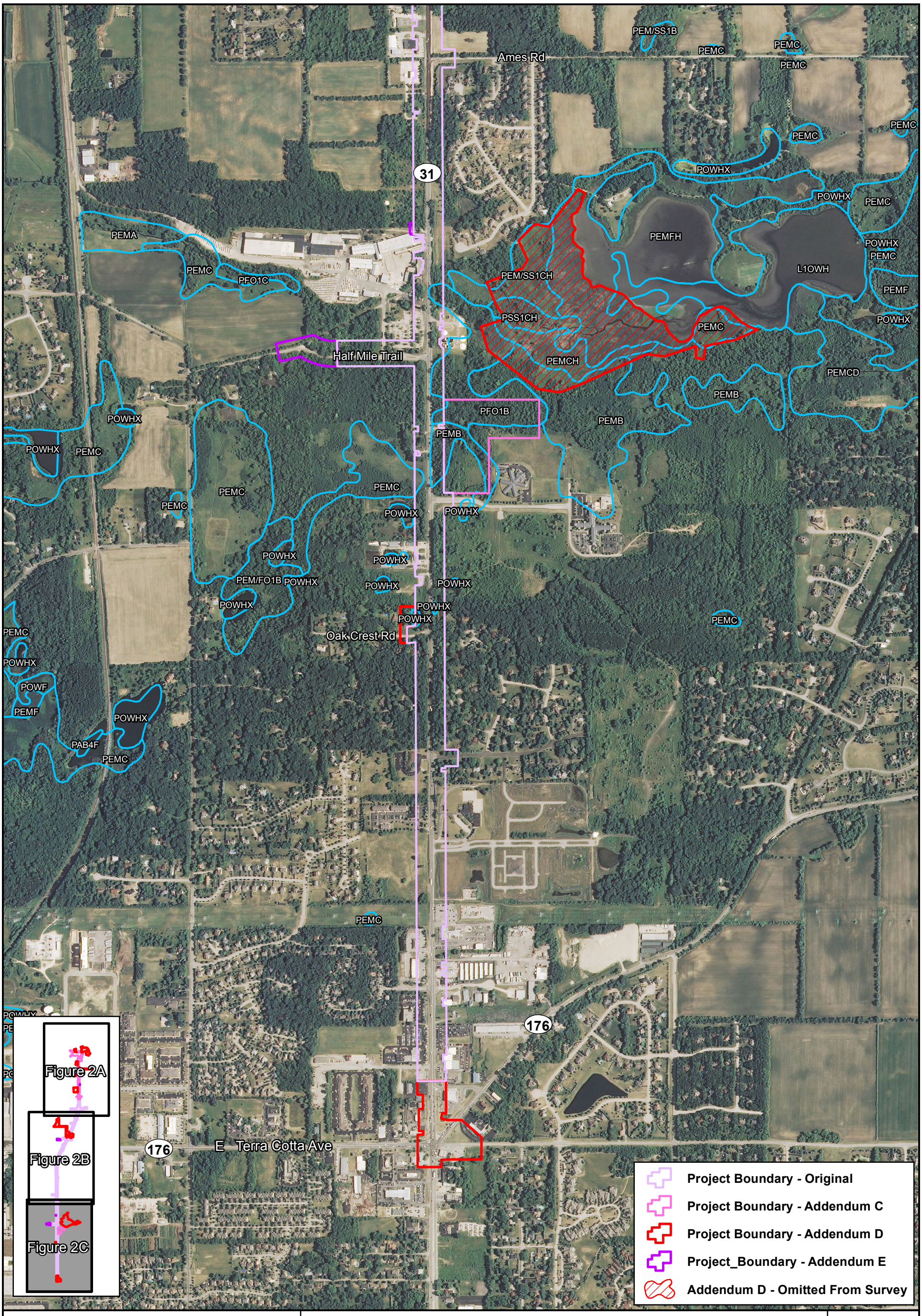

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Figure 2C
National Wetlands Inventory Map
IL 31 (FAU 336) from Bull Valley Road to IL 176
McHenry County

Seq. No: 1340D,E

Meters 0 250

Feet 0 1,000

November 2014

N W E S

U 124
U 168
U 154
U 32
120 W Elm St
U 188
U 209
W Crystal Lake Rd
U 203
31
U 240
U 247
U 252
U 253
U 254
U 261
Bull Valley Rd
U 270
U 272
Figure 3A
Figure 3B
Figure 3C

McHenry County ADID Wetlands

- ADID High Habitat Value
- ADID High Functional Value
- Farmed Wetland
- Wetland
- High Quality Lake
- Lake

- Project Boundary - Original
- Project Boundary - Addendum C
- Project Boundary - Addendum D
- Project_Boundary - Addendum E
- Addendum D - Omitted From Survey

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Figure 3A
McHenry County ADID Map
IL 31 (FAU 336) from Bull Valley Road to IL 176
McHenry County

Seq. No: 1340D,E

Meters 0 250

Feet 0 1,000

November 2014

N W E S

U 270
U 272
U 279
U 284
U 282
U 273
U 298
U 316
U 318
U 321
U 331
U 333
U 335
U 339
U 317
U 344
U 343
U 349
U 352
U 359
31
U 363
U 371
U 377
U 273
U 383
U 382
U 390
U 406
U 408
U 412
U 414
U 411
U 416
U 420
U 425
U 429
U 430
U 394
U 431
U 436
U 439
U 445
U 447
U 455
U 459
U 450
U 462
U 471
U 476
Edgewood Rd
Ames Rd

Figure 3A
Figure 3B
Figure 3C

McHenry County ADID Wetlands

- ADID High Habitat Value
- ADID High Functional Value
- Farmed Wetland
- Wetland
- High Quality Lake
- Lake

- Project Boundary - Original
- Project Boundary - Addendum C
- Project Boundary - Addendum D
- Project_Boundary - Addendum E
- Addendum D - Omitted From Survey

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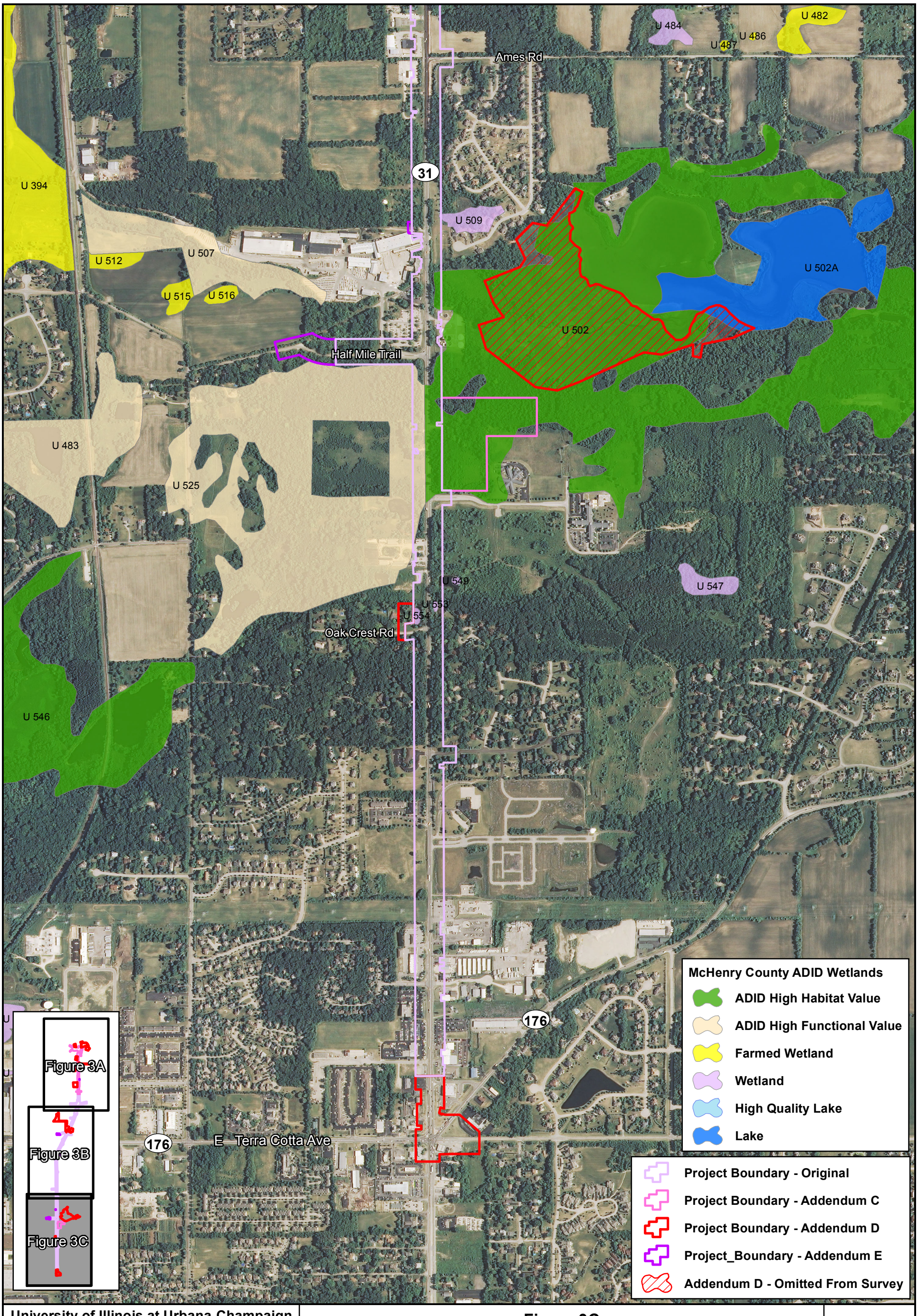
Figure 3B
McHenry County ADID Map
IL 31 (FAU 336) from Bull Valley Road to IL 176
McHenry County

Seq. No: 1340D,E

Meters: 0 — 250
Feet: 0 — 1,000

November 2014

N
W
E
S



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Wetland Science Program
1816 South Oak Street
Champaign, Illinois 61820

Figure 3C
McHenry County ADID Map
IL 31 (FAU 336) from Bull Valley Road to IL 176
McHenry County

Seq. No: 1340D,E

Meters 0 250

Feet 0 1,000

November 2014

N W E S

103A - Houghton muck, 0-2% slopes
104A - Virgil silt loam, 0-2% slopes
1082A - Millington silt loam, 0-2% slopes, undrained, occasionally flooded
1103A - Houghton muck, 0-2% slopes, undrained
1153A - Pella silty clay loam, 0-2% slopes, undrained
1210A - Lena muck, 0-2% slopes, undrained
1330A - Peotone silty clay loam, 0-2% slopes, undrained
134B - Camden silt loam, 2-5% slopes
149A - Brenton silt loam, 0-2% slopes
153A - Pella silty clay loam, 0-2% slopes
197A - Troxel silt loam, 0-2% slopes
198A - Elburn silt loam, 0-2% slopes
210A - Lena muck, 0-2% slopes
219A - Millbrook silt loam, 0-2% slopes
290B - Warsaw loam, 2-4% slopes
290C2 - Warsaw loam, 4-6% slopes, eroded
297A - Ringwood silt loam, 0-2% slopes
297B - Ringwood silt loam, 2-4% slopes
310B - McHenry silt loam, 2-4% slopes
318C2 - Lorenzo loam, 4-6% slopes, eroded
318D2 - Lorenzo loam, 6-12% slopes, eroded
323D2 - Casco loam, 6-12% slopes, eroded
323D3 - Casco clay loam, 6-12% slopes, severely eroded
327B - Fox silt loam, 2-4% slopes
327C2 - Fox silt loam, 4-6% slopes, eroded
363D2 - Griswold loam, 6-12% slopes, eroded
369B - Waupecan silt loam, 2-4% slopes
488A - Hooppole loam, 0-2% slopes
523A - Dunham silty clay loam, 0-2% slopes
557A - Millstream silt loam, 0-2% slopes
791B - Rush silt loam, 2-4% slopes
802B - Orthents, loamy, undulating
8776A - Comfrey loam, 0-2% slopes, occasionally flooded
W - Water

Project Boundary - Original
Project Boundary - Addendum C
Project Boundary - Addendum D
Project_Boundary - Addendum E
Addendum D - Omitted From Survey

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ILLINOIS NATURAL HISTORY SURVEY
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Figure 4A
Soil Survey Map
IL 31 (FAU 336) from Bull Valley Road to IL 176
McHenry County

Seq. No: 1340D,E

Meters 0 250
Feet 0 1,000

November 2014

N W E S

103A - Houghton muck, 0-2% slopes
104A - Virgil silt loam, 0-2% slopes
1082A - Millington silt loam, 0-2% slopes, undrained, occasionally flooded
1103A - Houghton muck, 0-2% slopes, undrained
1153A - Pella silty clay loam, 0-2% slopes, undrained
1210A - Lena muck, 0-2% slopes, undrained
1330A - Peotone silty clay loam, 0-2% slopes, undrained
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149A - Brenton silt loam, 0-2% slopes
153A - Pella silty clay loam, 0-2% slopes
197A - Troxel silt loam, 0-2% slopes
198A - Elburn silt loam, 0-2% slopes
210A - Lena muck, 0-2% slopes
219A - Millbrook silt loam, 0-2% slopes
290B - Warsaw loam, 2-4% slopes
290C2 - Warsaw loam, 4-6% slopes, eroded
297A - Ringwood silt loam, 0-2% slopes
297B - Ringwood silt loam, 2-4% slopes
310B - McHenry silt loam, 2-4% slopes
318C2 - Lorenzo loam, 4-6% slopes, eroded
318D2 - Lorenzo loam, 6-12% slopes, eroded
323D2 - Casco loam, 6-12% slopes, eroded
323D3 - Casco clay loam, 6-12% slopes, severely eroded
327B - Fox silt loam, 2-4% slopes
327C2 - Fox silt loam, 4-6% slopes, eroded
363D2 - Griswold loam, 6-12% slopes, eroded
369B - Waupecan silt loam, 2-4% slopes
488A - Hooppole loam, 0-2% slopes
523A - Dunham silty clay loam, 0-2% slopes
557A - Millstream silt loam, 0-2% slopes
791B - Rush silt loam, 2-4% slopes
802B - Orthents, loamy, undulating
8776A - Comfrey loam, 0-2% slopes, occasionally flooded
W - Water

Project Boundary - Original
Project Boundary - Addendum C
Project Boundary - Addendum D
Project_Boundary - Addendum E
Addendum D - Omitted From Survey

Figure 4A
Figure 4B
Figure 4C

31
Edgewood Rd
Ames Rd

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Figure 4B
Soil Survey Map
IL 31 (FAU 336) from Bull Valley Road to IL 176
McHenry County

Seq. No: 1340D,E

Meters 0 250
Feet 0 1,000

November 2014

N W E S

Ames Rd
Half Mile Trail
Oak Crest Rd
E Terra Cotta Ave
31
176

103A - Houghton muck, 0-2% slopes
104A - Virgil silt loam, 0-2% slopes
1082A - Millington silt loam, 0-2% slopes, undrained, occasionally flooded
1103A - Houghton muck, 0-2% slopes, undrained
1153A - Pella silty clay loam, 0-2% slopes, undrained
1210A - Lena muck, 0-2% slopes, undrained
1330A - Peotone silty clay loam, 0-2% slopes, undrained
134B - Camden silt loam, 2-5% slopes
149A - Brenton silt loam, 0-2% slopes
153A - Pella silty clay loam, 0-2% slopes
197A - Troxel silt loam, 0-2% slopes
198A - Elburn silt loam, 0-2% slopes
210A - Lena muck, 0-2% slopes
219A - Millbrook silt loam, 0-2% slopes
290B - Warsaw loam, 2-4% slopes
290C2 - Warsaw loam, 4-6% slopes, eroded
297A - Ringwood silt loam, 0-2% slopes
297B - Ringwood silt loam, 2-4% slopes
310B - McHenry silt loam, 2-4% slopes
318C2 - Lorenzo loam, 4-6% slopes, eroded
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323D2 - Casco loam, 6-12% slopes, eroded
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327B - Fox silt loam, 2-4% slopes
327C2 - Fox silt loam, 4-6% slopes, eroded
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488A - Hooppole loam, 0-2% slopes
523A - Dunham silty clay loam, 0-2% slopes
557A - Millstream silt loam, 0-2% slopes
791B - Rush silt loam, 2-4% slopes
802B - Orthents, loamy, undulating
8776A - Comfrey loam, 0-2% slopes, occasionally flooded
W - Water

Figure 4A
Figure 4B
Figure 4C

Project Boundary - Original
Project Boundary - Addendum C
Project Boundary - Addendum D
Project_Boundary - Addendum E
Addendum D - Omitted From Survey

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Figure 4C
Soil Survey Map
IL 31 (FAU 336) from Bull Valley Road to IL 176
McHenry County

Seq. No: 1340D,E

Meters 0 250
Feet 0 1,000

November 2014

N W E S

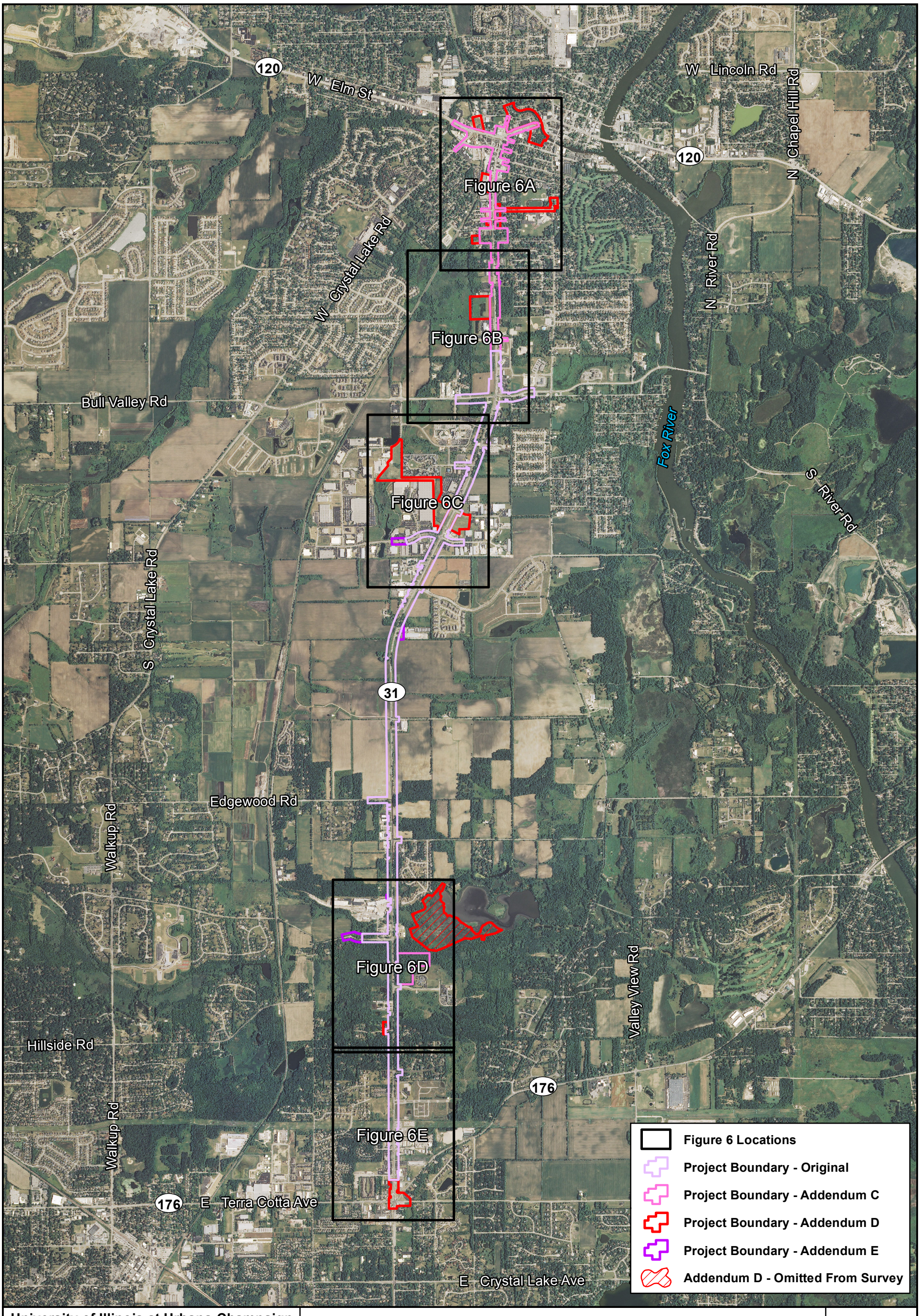

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Figure 5
Wetland Delineation Overview Map
IL 31 (FAU 336) from Bull Valley Road to IL 176
McHenry County

Seq. No: 1340D,E

Meters: 0 — 1,000
Feet: 0 — 3,000

November 2014

N W E S

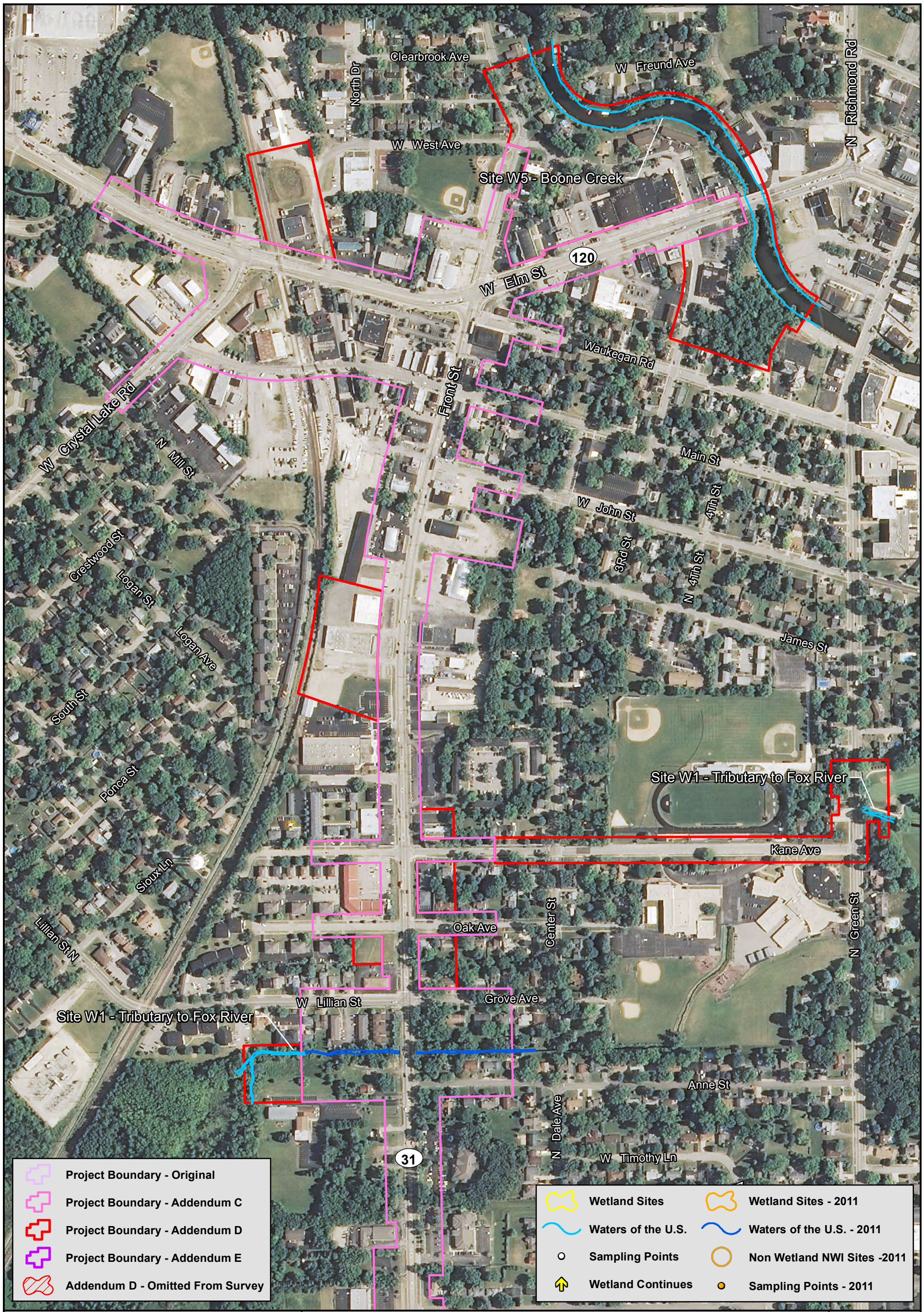

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Figure 6A
Wetland Delineation Map
IL 31 (FAU 336) from Bull Valley Road to IL 176
McHenry County

Seq. No: 1340D,E

Meters 0 100
Feet 0 400

November 2014

N W E S

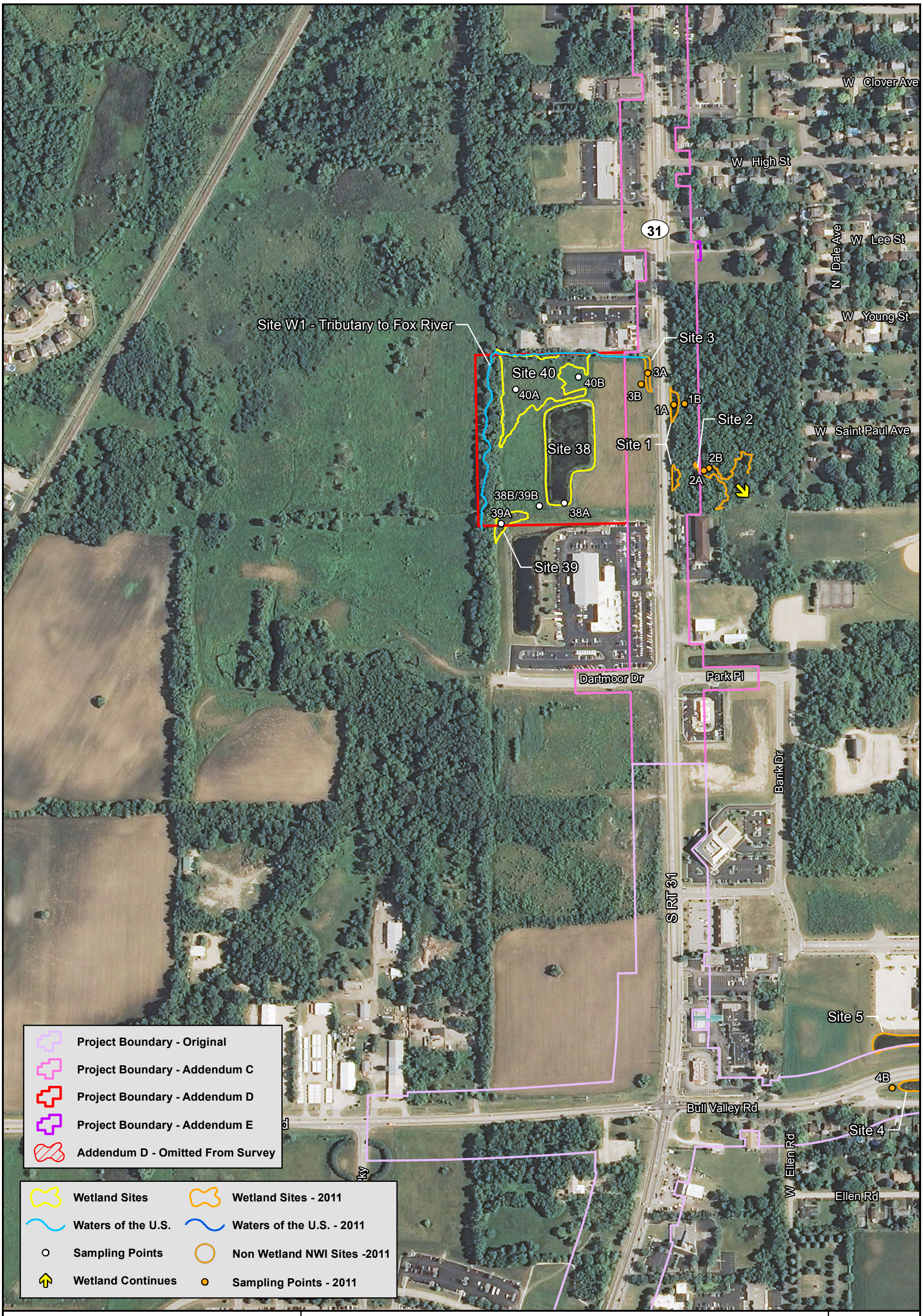

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Figure 6B
Wetland Delineation Map
IL 31 (FAU 336) from Bull Valley Road to IL 176
McHenry County

Seq. No: 1340D,E

Meters 0 100
Feet 0 400

November 2014

N W E S

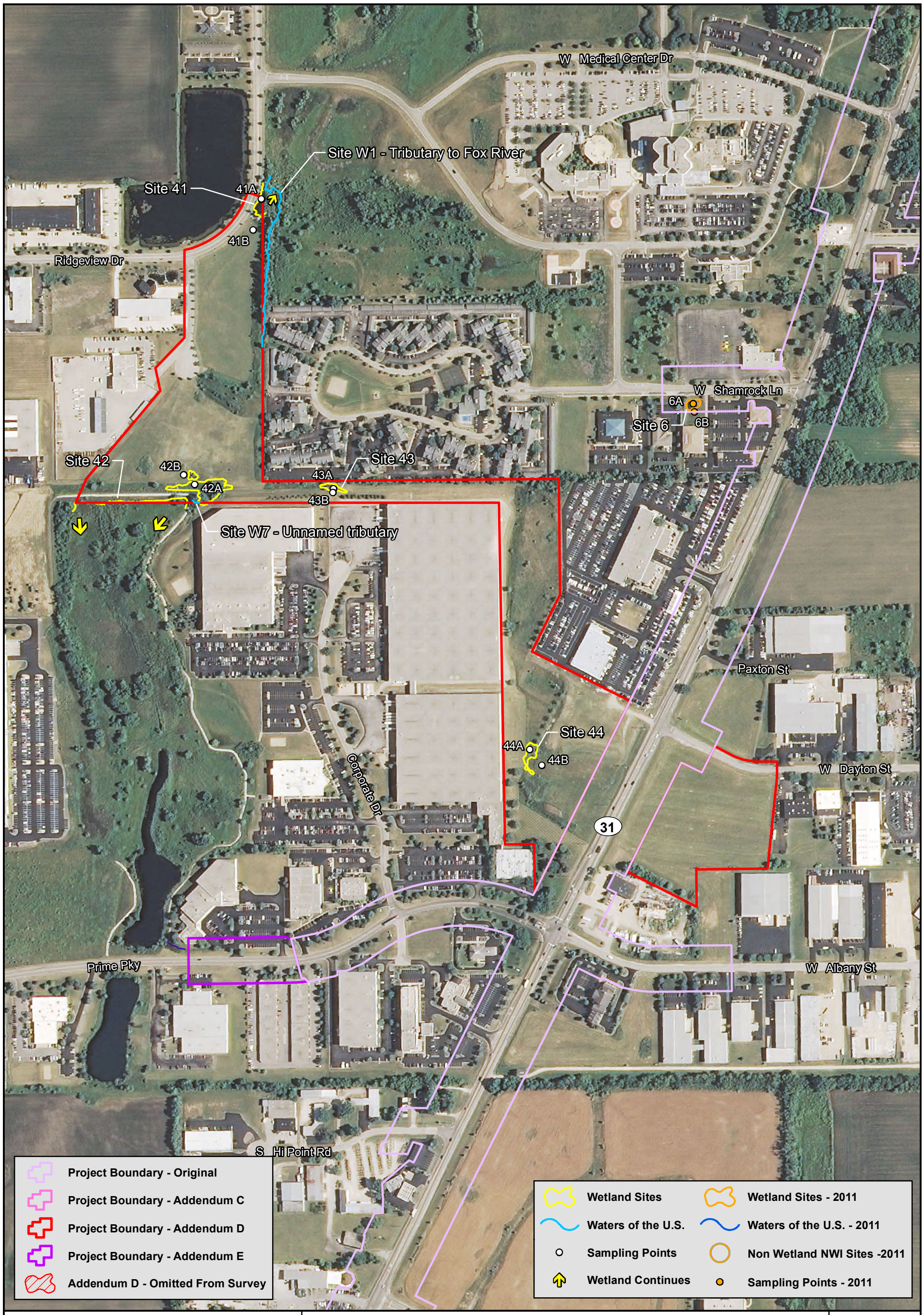

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Figure 6C
Wetland Delineation Map
IL 31 (FAU 336) from Bull Valley Road to IL 176
McHenry County

Seq. No: 1340D,E

Meters 0 100
Feet 0 400

November 2014

N W E S

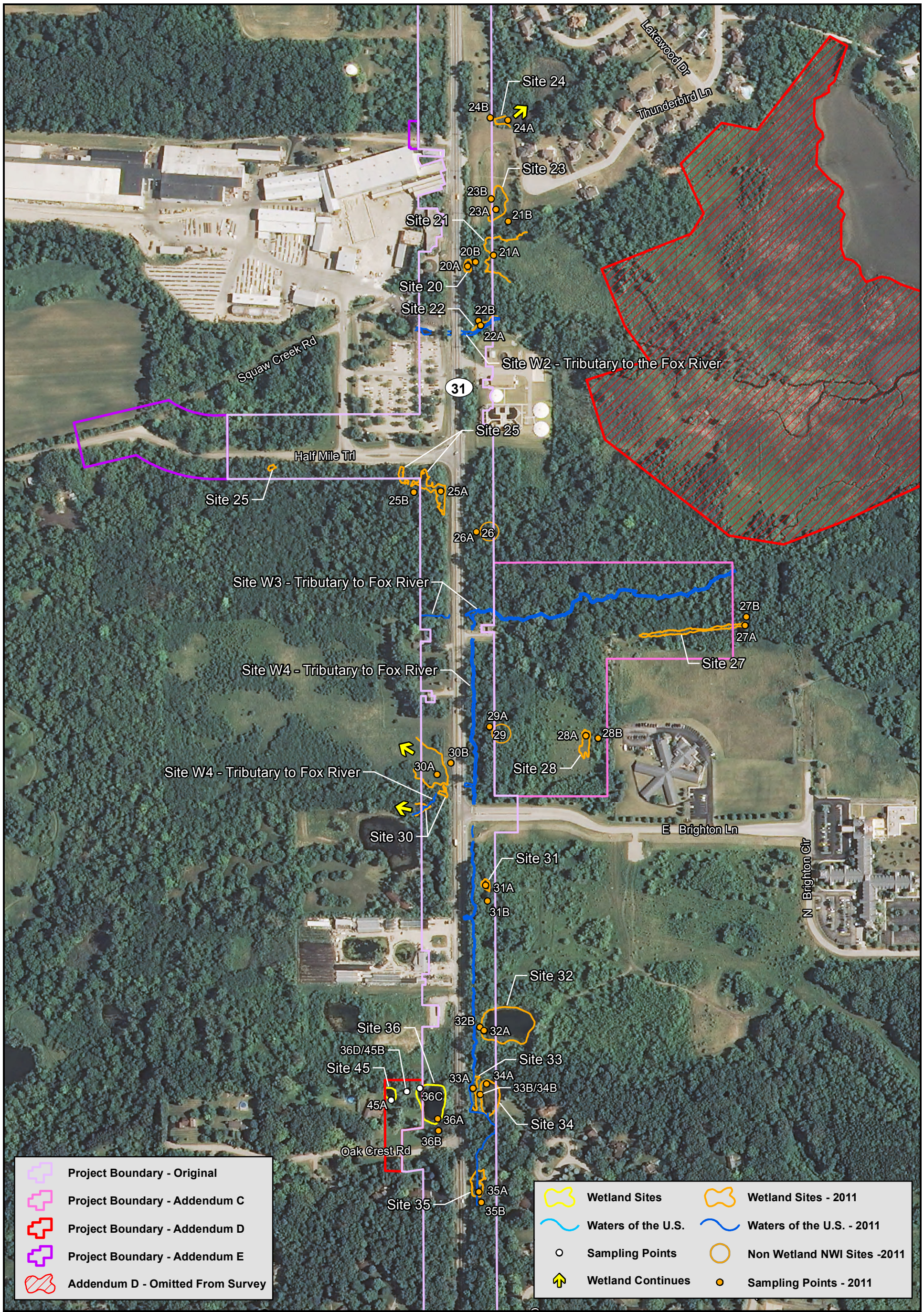

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Figure 6D
Wetland Delineation Map
IL 31 (FAU 336) from Bull Valley Road to IL 176
McHenry County

Seq. No: 1340D,E

Meters 0 100
Feet 0 400

November 2014

N W E S

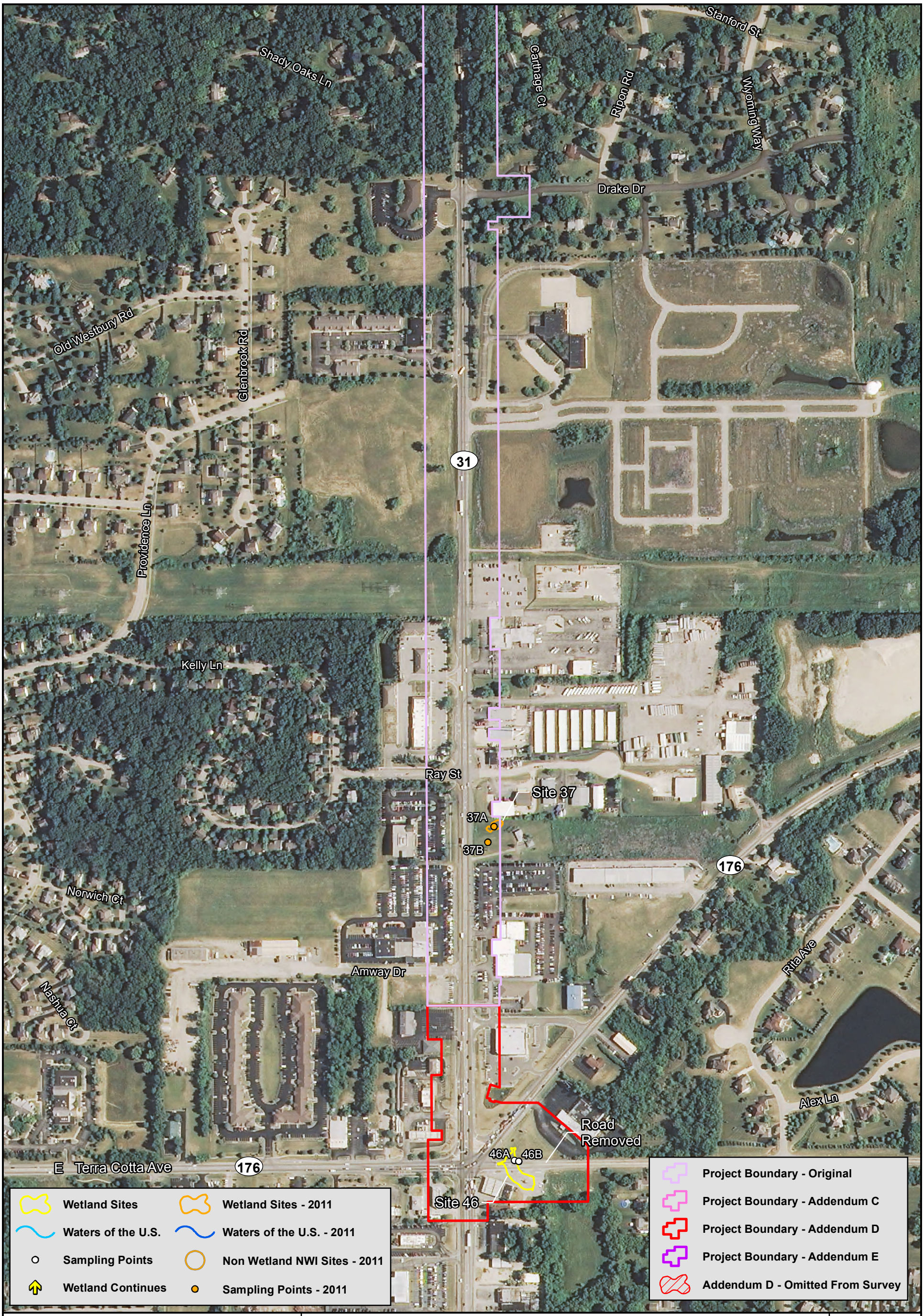

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Figure 6E
Wetland Delineation Map
IL 31 (FAU 336) from Bull Valley Road to IL 176
McHenry County

Seq. No: 1340D,E

Meters 0 100 Feet 0 400

November 2014

N W E S