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



Prepared by: Paul B. Marcum, Ian Draheim, Jason Zylka, and Dennis Skultety

Wetland Science Program
Illinois Natural History Survey
1816 South Oak Street
Champaign, Illinois, 61820

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PRAIRIE RESEARCH INSTITUTE

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

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

all E Plochs

Date: <u>August 4, 2011</u>

Conducted By: Paul B. Marcum (Vegetation, Hydrology, and GPS)

Ian Draheim (Soils and Hydrology)

Jason Zylka (Vegetation, Hydrology, and GPS)

Dennis Skultety (GIS)
University of Illinois
Prairie Research Institute
Illinois Natural History Survey
Wetland Science Program
1816 South Oak Street
Champaign, Illinois 61820

pmarcum@inhs.uiuc.edu (217) 333-8459 (Marcum)

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Cover Photo: Site 35, a seep site dominated by <u>Symplocarpus foetidus</u> (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 onsite 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 (VN), 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	NWI	Community	Area	>50% ²	FQI	Mean	ADID? ³	IEPA ⁴	Waters
No.	code	Type	(ac.) ¹			С			Туре
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	NWI	Community	Area	>50%²	FQI	Mean	ADID? ³	IEPA ⁴	Waters
No.	code	Туре	(ac.) ¹			С			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 mi²

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 mi² (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 mi²

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 mi²

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, Ra	nge: Section 35, T. 45 N., F	₹. 8 E.
Landform (hillslope, terrace, etc.): floodplain	Local relief	(concave, convex, none):	concave
Slope (%): <u>0-1%</u> Lat: 42.32952°N	Long: <u>-88.27418°W</u>		Datum: NAD83
Soil Map Unit Name: NRCS mapped as Houghton muck, revised to Ha	rpster silty clay loam	NWI classifica	ation: U
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes X No	(If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significantl	y disturbed? Are	'Normal Circumstances" p	resent? Yes X No
Are Vegetation , Soil , or Hydrology naturally p		eeded, explain any answer	
SUMMARY OF FINDINGS - Attach site map showing	g sampling point l	ocations, transects	, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	Is the Sampled within a Wetlan		No
Wet Meadow.			
VEGETATION – Use scientific names of plants.			
Absolute	e Dominant Indicator	Dominance Test works	sheet:
1 1 2	r Species? Status	Number of Dominant Sp That Are OBL, FACW, o	pecies
2		Total Number of Domina Species Across All Strat	
4.			, ,
5		Percent of Dominant Sp That Are OBL, FACW, of	
Capling/Charle Starture (Plat size, Whole Site	_ = Total Cover	Prevalence Index work	rehoot:
Sapling/Shrub Stratum (Plot size: whole site) 1		Total % Cover of:	
2.			x 1 =
3.			x 2 =
4.			x 3 =
5		FACU species	x 4 =
	_ = Total Cover	UPL species	x 5 =
Herb Stratum (Plot size: whole site) 1. Phalaris arundinacea	ves FACW+	Column Totals:	(A) (B)
1. Trialais autuliacea 2. Typha angustifolia	yes FACW+ OBL	Prevalence Index	= B/A =
	- 	Hydrophytic Vegetatio	
3		X 1 - Rapid Test for H	
4. 5.		2 - Dominance Test	
6.		3 - Prevalence Inde	4
7		4 - Morphological A	daptations ¹ (Provide supporting
8			s or on a separate sheet)
9.		Problematic Hydrop	ohytic Vegetation ¹ (Explain)
10		1	
Woody Vine Stratum (Plot size: whole site)	_ = Total Cover	'Indicators of hydric soil be present, unless distu	and wetland hydrology must irbed or problematic.
1		Hydrophytic	
2		Vegetation Present? Yes	s X No
	_ = Total Cover	riesentr fes	,
Remarks: (Include photo numbers here or on a separate sheet.)			

SOIL Sampling Point: 1A

Profile Desc	cription: (Describe	to the dep	th needed to docur	nent the	indicator	or confire	m the absence of	indicators.)
Depth	Matrix	0/		x Feature		12	Tandona	Damada
(inches) 0-13	Color (moist) 10YR 2/1	100	Color (moist)	%	Type ¹	_Loc ² _	Texture SICL	Remarks
13-19	2.5Y 4/1	95	2.5Y 4/4	. <u>5</u>	_ <u>C</u>	<u>M</u>	SICL _	
19-39	2.5Y 4/1	90	2.5Y 4/4	_ <u>10</u>	_ <u>C</u>	<u>M</u>	CL	
1Type: C=C	oncentration, D=Dep	letion PM-	Peduced Matrix MS	- ——— S=Maske	d Sand Gr	aine	2l ocation: P	PL=Pore Lining, M=Matrix.
Hydric Soil		Dietion, Itivi-	-reduced Matrix, Mic	J-Waske	u oanu on	airis.		r Problematic Hydric Soils ³ :
Histosol			Sandy 0	Gleyed M	atrix (S4)		_	airie Redox (A16)
Histic E	oipedon (A2)			Redox (S			Dark Surfa	ace (S7)
	stic (A3)			d Matrix (ganese Masses (F12)
	en Sulfide (A4)				ineral (F1)			low Dark Surface (TF12)
	d Layers (A5) uck (A10)			d Matrix (latrix (F2)		Other (Ex	plain in Remarks)
_	d Below Dark Surfac	e (A11)	= '	Dark Surf	. ,			
	ark Surface (A12)	,			urface (F7))	³ Indicators of	hydrophytic vegetation and
_	Mucky Mineral (S1)		Redox [Depression	ons (F8)			ydrology must be present,
	icky Peat or Peat (S						unless dis	sturbed or problematic.
l _	Layer (if observed)							
Type:	ah aa):						Hydric Soil Pre	esent? Yes X No
Depth (in	cnes):							
Remarks:								
HYDROLO	GY							
	drology Indicators:	:						
Primary India	cators (minimum of	one is requir	ed; check all that ap	ply)			Secondary	Indicators (minimum of two required)
Surface	Water (A1)		Water-Sta	ined Leav	ves (B9)		Surface	e Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic Fa	auna (B13	3)		Drainag	ge Patterns (B10)
Saturation	on (A3)		True Aqua	itic Plants	s (B14)		X Dry-Sea	ason Water Table (C2)
Water M	larks (B1)		Hydrogen	Sulfide C	dor (C1)		Crayfis	h Burrows (C8)
=	nt Deposits (B2)		Oxidized F			•	· · =	ion Visible on Aerial Imagery (C9)
	posits (B3)		Presence			,	_	d or Stressed Plants (D1)
ı = `	at or Crust (B4)		Recent Iro			d Soils (C	_	orphic Position (D2)
ı =	oosits (B5)	l (D	Thin Muck				X FAC-N	eutral Test (D5)
ı =	on Visible on Aerial v Vegetated Concav				. ,			
Field Obser		e Suriace (i	30) L Other (Lx)	Jani III IX	emarks)			
Surface Wat		es l	No Depth (in	ches).				
Water Table			No Depth (in		 6	_		
Saturation P			No Depth (in			— Wetl	land Hydrology P	resent? Yes X No
(includes car	oillary fringe)							
Describe Re	corded Data (stream	n gauge, mo	nitoring well, aerial _l	photos, p	revious ins	pections),	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 ye	ear? Yes X No					
Are Vegetation Soil , or Hydrology significantly		'Normal Circumstances" present? Yes X No				
Are Vegetation Soil , or Hydrology naturally pr		eeded, explain any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing						
Hydrophytic Vegetation Present? Yes No X						
Hydric Soil Present? Yes No X	Is the Sampled					
Wetland Hydrology Present? Yes No X	within a Wetlar	nd? Yes No X				
Remarks:						
Mesic Floodplain Forest.						
VEGETATION – Use scientific names of plants.						
Absolute		Dominance Test worksheet:				
Tree Stratum (Plot size: 30-ft radius) % Cover	<u>Species?</u> <u>Status</u> yes FACW-	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)				
2. Rhamnus cathartica	EACH	That Ale OBL, FACW, OF FAC(A)				
3.		Total Number of Dominant Species Across All Strata: 6 (B)				
4.						
5		Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)				
15 ft radius	_ = Total Cover	Prevalence Index worksheet:				
Sapling/Shrub Stratum (Plot size: 15-ft radius) 1. Rhamnus cathartica	ves FACU	Total % Cover of: Multiply by:				
1. Rhamnus cathartica 2		OBL species x 1 =				
3.		FACW species x 2 =				
4		FAC species x 3 =				
5.		FACU species x 4 =				
	_ = Total Cover	UPL species x 5 =				
Herb Stratum (Plot size: 5-ft radius) 1. Geum canadense	yes FAC	Column Totals: (A) (B)				
2. Glechoma hederacea	yes FACU	Prevalence Index = B/A =				
3. Rhamnus cathartica	yes FACU	Hydrophytic Vegetation Indicators:				
4	<u> </u>	1 - Rapid Test for Hydrophytic Vegetation				
5.		2 - Dominance Test is >50%				
6		3 - Prevalence Index is ≤3.0 ¹				
7		4 - Morphological Adaptations (Provide supporting				
8		data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)				
9		Problematic Hydrophytic vegetation (Explain)				
10		¹ Indicators of hydric soil and wetland hydrology must				
Woody Vine Stratum (Plot size: 30-ft radius)	_ = Total Cover	be present, unless disturbed or problematic.				
1		Hydrophytic				
2		Vegetation				
	_ = Total Cover	Present? Yes No X				
Remarks: (Include photo numbers here or on a separate sheet.)						

SOIL Sampling Point: 1B

Profile Des	cription: (Describe	to the dep	oth needed to docu	ment the	indicator	or confir	n the absence	e of indicators.)
Depth (inches)	Matrix	%		ox Feature %	Type ¹	Loc²	Taytura	Remarks
(inches) 0-14	Color (moist) 10YR 2/1	100	Color (moist)			LOC	Texture SIL	Remarks
			10)(D.1/1					
14-26	2.5Y 4/3	_ 100	10YR 4/1		CLF_	MPF_	SICL	Clay films in the matrix along faces of peds
Type: C=C	oncentration, D=Dep	letion RM	=Reduced Matrix M	S=Masked	d Sand Gr	ains	² Location	n: PL=Pore Lining, M=Matrix.
Hydric Soil		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Troudoud Mating M	- maono	<u> </u>	u		s for Problematic Hydric Soils ³ :
Histoso			Sandy	Gleyed Ma	atrix (S4)		Coast	t Prairie Redox (A16)
Histic E	pipedon (A2)		Sandy	Redox (S5	5)		Dark	Surface (S7)
_	istic (A3)			d Matrix (S				Manganese Masses (F12)
	en Sulfide (A4)			Mucky Mi				Shallow Dark Surface (TF12)
_	d Layers (A5) uck (A10)			Gleyed Maded Matrix (Other	(Explain in Remarks)
_	d Below Dark Surfac	e (A11)	= '	Dark Surfa	,			
· = -	ark Surface (A12)	(,	—	ed Dark Su	٠,)	3Indicator	s of hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)		Redox	Depressio	ns (F8)		wetlar	nd hydrology must be present,
_	ucky Peat or Peat (S						unles	s disturbed or problematic.
_	Layer (if observed)							
Type: Depth (in	ches):						Hydric Soi	Present? Yes No X
Remarks:								
HYDROLO								
· ·	drology Indicators:						0	land by displace (estatements of the area with di
	cators (minimum of o	one is requ			(DO)			lary Indicators (minimum of two required)
=	Water (A1)		=	ained Leav	, ,		=	rface Soil Cracks (B6)
Saturati	ater Table (A2)		= '	auna (B13 atic Plants	,		=	ainage Patterns (B10) <i>r-</i> Season Water Table (C2)
	Marks (B1)		= .	Sulfide O	, ,		=	ayfish Burrows (C8)
==	nt Deposits (B2)		= ' '	Rhizosphe	, ,	ina Roots	=	turation Visible on Aerial Imagery (C9)
=	posits (B3)		=	of Reduce		•	` ′ =	inted or Stressed Plants (D1)
==	at or Crust (B4)		=	on Reducti				omorphic Position (D2)
ı = `	posits (B5)		=	k Surface			<i>'</i>	C-Neutral Test (D5)
Inundat	ion Visible on Aerial	Imagery (B		Well Data			<u>—</u>	, ,
Sparsel	y Vegetated Concav	e Surface (B8) Other (Ex	plain in Re	emarks)			
Field Obser	vations:							
Surface Wat	ter Present? Y	es	No Depth (ir	iches):		_		
Water Table	Present? Y	es	No X Depth (ir	iches):		_		
Saturation P	resent? Y	es	No X Depth (ir	iches):		Wet	land Hydrolog	gy Present? Yes No X
	pillary fringe) corded Data (stream	n gauge, m	onitoring well, aerial	photos, pr	revious ins	pections)	, 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, Ra	nge: Section 35, T. 45 N., F	R. 8 E.
Landform (hillslope, terrace, etc.): floodplain	Local relief	(concave, convex, none):	concave
Slope (%): 0-1% Lat: 42.32873°N	Long: <u>-88.27370°W</u>		Datum: NAD83
Soil Map Unit Name: NRCS mapped as Houghton muck, revised to Pel	la silty clay loam	NWI classific	ation: PFO1/EMC
Are climatic / hydrologic conditions on the site typical for this time of you	ear? Yes X No	(If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are	'Normal Circumstances" p	oresent? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr		eeded, explain any answer	
SUMMARY OF FINDINGS - Attach site map showing	g sampling point l	ocations, transects	, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Yes X No Yes X No	Is the Sampled	I Area	
Hydric Soil Present? Wetland Hydrology Present? Yes X No Yes X N	within a Wetlar		No
Remarks:			
Wet Floodplain Forest.			
VEGETATION – Use scientific names of plants.			
Absolute Tree Stratum (Plot size: whole site) % Cover		Dominance Test works	sheet:
Tree Stratum (Plot size: Whole site)	<u>Species?</u> <u>Status</u> yes FACW-	Number of Dominant Sp That Are OBL, FACW, of	
2.			
3.		Total Number of Domina Species Across All Strat	
4.		'	, ,
5		Percent of Dominant Sp That Are OBL, FACW, of	
whole site	_ = Total Cover	Prevalence Index work	la baati
Sapling/Shrub Stratum (Plot size: whole site 1. Acer negundo	ves FACW-	Total % Cover of:	
	yes TAOW		x 1 =
3.			x 2 =
4		l	x 3 =
5		FACU species	x 4 =
	= Total Cover	UPL species	x 5 =
Herb Stratum (Plot size: whole site)	ves FACW+	Column Totals:	(A) (B)
1. Phalaris arundinacea 2. Pilea pumila	- 	Prevalence Index	= B/A =
	- 	Hydrophytic Vegetatio	
3		X 1 - Rapid Test for H	
4. 5.		2 - Dominance Test	
6.		3 - Prevalence Inde	
7		4 - Morphological A	Adaptations ¹ (Provide supporting
8.		l —	s or on a separate sheet)
9.		Problematic Hydrop	phytic Vegetation ¹ (Explain)
10		1	
Woody Vine Stratum (Plot size: whole site)	_ = Total Cover	be present, unless distu	l and wetland hydrology must urbed or problematic.
1		Hydrophytic	
2		Vegetation	
	_ = Total Cover	Present? Yes	s_X_ No
Remarks: (Include photo numbers here or on a separate sheet.)			

SOIL Sampling Point: 2A

Profile Des	cription: (Describe	to the de	pth needed to docu	ment the	indicator	or confin	m the absence	e of indicators.)
Depth (inches)	Matrix	0/		x Feature		1002	Taytura	Damadra
(inches) 0-24	Color (moist) 10YR 2/1	<u>%</u> 100	Color (moist)	%	Type ¹ _	_Loc ²	Texture SICL	Remarks
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		
Type: C=C	oncentration. D=Der	letion. RN	/=Reduced Matrix, M	- ——— S=Maske	d Sand Gr	ains.	² Location	n: PL=Pore Lining, M=Matrix.
Hydric Soil		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Troudou mann, m	o maono		u		s for Problematic Hydric Soils ³ :
Histoso	I (A1)		Sandy 0	Gleyed M	atrix (S4)		Coast	t Prairie Redox (A16)
	pipedon (A2)		_	Redox (S			_	Surface (S7)
	istic (A3)			d Matrix (Manganese Masses (F12)
	en Sulfide (A4) d Layers (A5)		_		ineral (F1)			Shallow Dark Surface (TF12)
	uck (A10)			ed Matrix	latrix (F2)		Other	(Explain in Remarks)
_	d Below Dark Surfac	e (A11)	= '	Dark Surf	` '			
	ark Surface (A12)	` ,	Deplete	d Dark S	urface (F7)	³ Indicator	s of hydrophytic vegetation and
	Mucky Mineral (S1)		Redox	Depression	ons (F8)		wetlar	nd hydrology must be present,
	ucky Peat or Peat (S	-					unless	s disturbed or problematic.
_	Layer (if observed)	:						
Type: Depth (in	ches):						Hydric Soi	Present? Yes X No
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators:	:						
Primary Indi	cators (minimum of o	one is requ	uired; check all that ap	oply)			<u>Second</u>	ary Indicators (minimum of two required)
=	Water (A1)		Water-Sta		, ,		=	rface Soil Cracks (B6)
= ~	ater Table (A2)		Aquatic Fa	,	,			ainage Patterns (B10)
Saturati	, ,		True Aqua		, ,		= '	y-Season Water Table (C2)
	Marks (B1)		Hydrogen		` '		=	ayfish Burrows (C8)
=	nt Deposits (B2)		=		eres on Liv	•	• •	turation Visible on Aerial Imagery (C9)
	posits (B3)		=		ed Iron (C	,	_	inted or Stressed Plants (D1)
= "	at or Crust (B4)		=		tion in Tille	a Solis (C		omorphic Position (D2)
=	posits (B5) ion Visible on Aerial	lmagan, /l	Thin Muck 37) Gauge or				X FA	C-Neutral Test (D5)
	y Vegetated Concav	• • •	· = ·					
Field Obser	· •	e ourrace	(Bo) Cirici (EX	piaiii iii i	emarks)			
		es	No X Depth (in	ches).				
Water Table		res X		ches): 2	0	_		
Saturation F		res X	1 —	ches): _2		— Wet	land Hydrolog	gy Present? Yes X No
(includes ca	pillary fringe)							gy resent: res no
Describe Re	corded Data (stream	n gauge, m	nonitoring well, aerial	photos, p	revious ins	spections)	, 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, 201
Applicant/Owner: Illinois Department of Transportation, District 1		State: Illinois	Sampling Point: 2B
Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka	Section, Township, Ran	ge: Section 35, T. 45 N., F	₹. 8 E.
Landform (hillslope, terrace, etc.): floodplain	Local relief (concave, convex, none):	concave to slightly sloping
Slope (%): <u>0-2%</u> Lat: <u>42.32876°N</u>	Long:88.27362°W		Datum: NAD83
Soil Map Unit Name: NRCS mapped as Houghton muck, revised to Bre	nton silt loam	NWI classifica	ation: PFO1/EMC
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significantly	/ disturbed? Are "N	Normal Circumstances" p	resent? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr		eded, explain any answer	
SUMMARY OF FINDINGS - Attach site map showing	g sampling point lo	cations, transects,	, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	Is the Sampled A		No X
Mesic Floodplain Forest.			
VEGETATION – Use scientific names of plants.			
Absolute	Dominant Indicator	Dominance Test works	sheet:
Tree Stratum (Plot size: 30-ft radius) % Cover 1. Acer negundo	Species? Status yes FACW-	Number of Dominant Sp That Are OBL, FACW, o	
2		Total Number of Domina Species Across All Strat	0
4.		Percent of Dominant Sp That Are OBL, FACW, o	
Sapling/Shrub Stratum (Plot size: 15-ft radius)	_ = Total Cover	Prevalence Index work	sheet:
1. Rhamnus cathartica	ves FACU	Total % Cover of:	
2.			x 1 =
3.		FACW species	x 2 =
4	l l	FAC species	x 3 =
5		FACU species	x 4 =
	_ = Total Cover	UPL species	x 5 =
Herb Stratum (Plot size: 5-ft radius) 1		Column Totals:	(A) (B)
2.		Prevalence Index	= B/A =
3.		Hydrophytic Vegetatio	n Indicators:
4.		1 - Rapid Test for H	lydrophytic Vegetation
5	I	2 - Dominance Test	t is >50%
6		3 - Prevalence Inde	x is ≤3.0 ¹
7		4 - Morphological A	daptations ¹ (Provide supporting s or on a separate sheet)
8	I		phytic Vegetation ¹ (Explain)
9			,
10	_ = Total Cover	¹ Indicators of hydric soil be present, unless distu	and wetland hydrology must irbed or problematic.
1		Hydrophytic	
2.		Vegetation	
	_ = Total Cover	Present? Yes	s No X
Remarks: (Include photo numbers here or on a separate sheet.)			

SOIL Sampling Point: 2B

Profile Des	cription: (Describe	to the depth	needed to docu	ment the i	ndicator	or confirm	n the absence of in	dicators.)
Depth	Matrix			ox Feature				
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ² _	Texture	Remarks
0-22	10YR 2/1	_ 100					SICL	
22-39	10YR 4/2	_ <u>100</u>					SICL	
	oncentration, D=Dep	oletion, RM=F	Reduced Matrix, M	IS=Masked	d Sand Gra	ains.		=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Hydric Soil			Candy.	Clayed Me	driv (CA)			•
Histoso	pipedon (A2)			Gleyed Ma Redox (S5			Dark Surface	ie Redox (A16)
	listic (A3)		_	d Matrix (S			=	nese Masses (F12)
_	en Sulfide (A4)			Mucky Mir				w Dark Surface (TF12)
Stratifie	d Layers (A5)			Gleyed Ma				ain in Remarks)
_	uck (A10)			ed Matrix (,			
	d Below Dark Surfac	e (A11)		Dark Surfa	٠,,		31	and and built are and attended
_	ark Surface (A12) Mucky Mineral (S1)			ed Dark Su Depressio	,			ydrophytic vegetation and drology must be present,
_	ucky Peat or Peat (S	3)	Redox	Depressio	113 (1 0)			urbed or problematic.
	Layer (if observed)							
Type:			_					
Depth (in	iches):						Hydric Soil Pres	sent? Yes No X
Remarks:								
HYDROLC	GY							
Wetland Hy	drology Indicators:	:						
Primary Indi	cators (minimum of	one is require	d; check all that a	pply)			Secondary In	dicators (minimum of two required)
Surface	Water (A1)		Water-Sta	ained Leav	es (B9)		Surface S	Soil Cracks (B6)
High W	ater Table (A2)		Aquatic F	auna (B13)		Drainage	Patterns (B10)
Saturati	ion (A3)		True Aqu	atic Plants	(B14)		Dry-Seas	son Water Table (C2)
	/larks (B1)		= ' '	Sulfide O	, ,		= '	Burrows (C8)
=	nt Deposits (B2)		=	Rhizosphe		•	· · =	n Visible on Aerial Imagery (C9)
	posits (B3)		=	of Reduce	•	,	=	or Stressed Plants (D1)
1 = °	at or Crust (B4)		=	on Reducti		d Soils (C6	<i>'</i> = .	phic Position (D2)
_	posits (B5) ion Visible on Aerial	Imagani (DZ)		k Surface (FAC-Net	utral Test (D5)
==	y Vegetated Concav	. , ,	= *	Well Data plain in Re	, ,			
Field Obser	<u> </u>	e Suriace (Bo	orilei (Ex	piaiii iii ixe	illaiks)			
		es No	Nenth (in	nches):				
Water Table		es No		nches):		_		
Saturation F		es No		nches):		- Wetl	and Hydrology Pre	esent? Yes No X
	pillary fringe)	C3	o Topai (ii	ici ica)		_ *****	and riyarology rite	No VV
Describe Re	ecorded Data (stream	n gauge, mon	itoring well, aerial	photos, pr	evious ins	pections),	if available:	
Dag::								
Remarks:								
I								

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	City/County: McHenry		Sampling Date: Septem	nber 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, Rar	nge: Section 35, T. 45 N., F	R. 8 E.	
Landform (hillslope, terrace, etc.): depression	Local relief ((concave, convex, none):	concave	
Slope (%): <u>0-1%</u> Lat: <u>42.32990°N</u>	Long: <u>-88.27460°W</u>		Datum: NAD83	
Soil Map Unit Name: NRCS mapped as Houghton muck, revised to unc	determined	NWI classific	ation: U	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Re	emarks.)	
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "I	Normal Circumstances" p	present? Yes X	No _
Are Vegetation, Soil, or Hydrology naturally pr		eded, explain any answer		
SUMMARY OF FINDINGS - Attach site map showing	g sampling point lo	ocations, transects	, important featur	es, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	Is the Sampled within a Wetlan		No	
Wet Meadow.				
VEGETATION – Use scientific names of plants.				
Absolute	Dominant Indicator	Dominance Test works	sheet:	
	Species? Status	Number of Dominant Sp That Are OBL, FACW, o	pecies	_ (A)
2		Total Number of Domina Species Across All Strat		(B)
4		Percent of Dominant Sp	necies	_
5		That Are OBL, FACW, of		_ (A/B)
Sapling/Shrub Stratum (Plot size: whole site)	_ = Total Cover	Prevalence Index work	ksheet:	
1		Total % Cover of:		
2.		OBL species	x 1 =	
3		FACW species	x 2 =	_
4		FAC species	x 3 =	_
5		FACU species	x 4 =	_
whole site	_ = Total Cover	UPL species	x 5 =	_
Herb Stratum (Plot size: whole site) 1. Phragmites australis	yes FACW+	Column Totals:	(A)	(B)
2		Prevalence Index	= B/A =	_
3.		Hydrophytic Vegetatio	on Indicators:	
4.		1 - Rapid Test for H	Hydrophytic Vegetation	
5		2 - Dominance Test	it is >50%	
6		3 - Prevalence Inde	ex is ≤3.0 ¹	
7		4 - Morphological A	Adaptations¹ (Provide su s or on a separate sheet	pporting
8		_	phytic Vegetation ¹ (Expl	-
9		Troblematic riyarop	priyac vegetation (Expi	all)
10		Indicators of hydric soil	I and wetland hydrology	must
Woody Vine Stratum (Plot size: whole site)	_ = Total Cover	be present, unless distu	urbed or problematic.	
1		Hydrophytic		
2		Vegetation Present? Yes	s X No	
Remarks: (Include photo numbers here or on a separate sheet.)	_ = Total Cover			
Tremains. (illicide prioto flumbers fiere of off a separate sfieet.)				

SOIL Sampling Point: 3A

Profile Des	cription: (Describe	to the dep	th needed to docur	ment the	indicator	or confin	m the absence of in	ndicators.)
Depth Matrix			Redox Features				T 4	D
(inches)	Color (moist)		Color (moist)		Type ¹	Loc ²	Texture	Remarks
0-15	N 4/	90	10YR 5/6	_ 10	- <u>C</u>	<u>M</u>	CL	
15-26	N 5/	80	10YR 5/4	_ <u>20</u>	_ <u>C</u>	<u>M</u>	<u>CL</u>	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :								
Hydric Soil Indicators:								•
Histosol (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5)						Dark Surface	ie Redox (A16)	
Black Histic (A3) Stripped Matrix (S6)						Iron-Manganese Masses (F12)		
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1)							ow Dark Surface (TF12)	
Stratified Layers (A5) X Loamy Gleyed Matrix (F2)							lain in Remarks)	
=	uck (A10)		= '	ed Matrix	. ,			
Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Redox Dark Surface (F6) Depleted Dark Surface (F7) Indicators of hydrophytic vegetation and								
Thick Dark Surface (A12) Depleted Dark Surface (F7)								
Sandy Mucky Mineral (S1) Sem Mucky Peat or Peat (S3) Redox Depressions (F8)						-	drology must be present, urbed or problematic.	
_	Layer (if observed)						arriodo diote	arbed or problemate.
Type:								
Depth (inches):						Hydric Soil Pres	sent? Yes X No No	
Remarks:								
HYDROLOGY								
	drology Indicators	:						
· ·	0,		red: check all that ar	(vlac			Secondary In	dicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)								
X High Water Table (A2) Aquatic Fauna (B13)							e Patterns (B10)	
X Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2)								, ,
Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8)								
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)								
☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Stunted or Stressed Plants (D1)								
Algal M	Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2)							
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ X FAC-Neutral Test (D5)								
Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9)								
Sparsel	y Vegetated Concav	e Surface (B8) Other (Exp	plain in R	emarks)			
Field Obser								
Surface Wa	ter Present?		No Depth (in			-		
Water Table Present? Yes No Depth (inches): 6								
							land Hydrology Pre	esent? Yes X No No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
,								
Remarks:								

No.	Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	City/County: McHenry	Sampling Date: September 9, 2010
Landform (hillslope, terrace, etc.); _upland	Applicant/Owner: Illinois Department of Transportation, District 1		State: Illinois Sampling Point: 3B
Slogle (%): 0-1% Lat: 42:33976 N Long: -88.27471W Datum NAD83 Scall Map Unit Name: NRCS mapped as Houghton muck, revised to undetermined NWI classification: U Are Vegetation Soil Or Hydrology Significantly disturbed? Are Vegetation Soil Or Hydrology Are Vegetation Soil Or Hydrology Are Vegetation Or Hydrology Are Vegetation Soil Or Hydrology Are Vegetation Soil Or Hydrology Are Vegetation Or Hydrology Are Vegetation Soil Or Hydrology Are Vegetation Or Hydrology Are Vegetation Or Hydrology Are Vegetation Or Hydrology Or Hydrology	Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka	Section, Township, Ra	nge: Section 35, T. 45 N., R. 8 E.
Soil Map Unit Name: NRCS mapped as Houghton muck, revised to undetermined NWI classification: U	Landform (hillslope, terrace, etc.): upland	Local relief	(concave, convex, none): none
Are climatic / hydrologic conditions on the site typical for this time of year? Yes \ No	Slope (%): 0-1% Lat: 42.32976°N	Long: <u>-88.27471°W</u>	Datum: NAD83
Are Vegetation Soil or Hydrology or Hydrolog	Soil Map Unit Name: NRCS mapped as Houghton muck, revised to unc	determined	NWI classification: U
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	Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Remarks.)
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	Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "	Normal Circumstances" present? Yes X No
Hydrophytic Vegetation Present? Yes	Are Vegetation, Soil, or Hydrology naturally pr		
Hydric Soil Present? Yes	SUMMARY OF FINDINGS - Attach site map showing	g sampling point l	ocations, transects, important features, etc.
Wetland Hydrology Present? Yes	The spring to getting the second to the seco	Is the Sampled	Area
Non-native Grassland. Non-		within a Wetlar	nd? Yes No X
Absolute Species Stratum (Plot size: 30-ft radius)	Remarks:		
Dominant Indicator Species Status Status Species Status Species Status Species Status Status Species Status Status Species Status Species Status Species Status Status Status Species Status	Non-native Grassland.		
Number of Dominant Species Status That Are OBL, FACW, or FAC: 1	VEGETATION – Use scientific names of plants.		
1.			Dominance Test worksheet:
3.			
Sapling/Shrub Stratum (Plot size: 15-ft radius 1.			0
That Are OBL, FACW, or FAC: 33% (A/B)	4		Percent of Dominant Species
Prevalence Index worksheet: Total % Cover of:	5		
1.	Sapling/Shrub Stratum (Plot size: 15-ft radius)	_ = Total Cover	Prevalence Index worksheet:
2. OBL species x 1 = 3. FACW species x 2 = 4. FAC species x 3 = 5. FACU species x 4 = UPL species x 5 = UPL species x 5 = 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 ≤ 3.0¹ 3 - Prevalence Index is ≤ 3.0¹ 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 10. Indicators of hydric soil and wetland hydrology must be precent unless dicturbed or problematic.			Total % Cover of: Multiply by:
3.	I .		OBL species x 1 =
4	I .		FACW species x 2 =
Herb Stratum (Plot size: 5-ft radius 1. Aster pilosus yes FACU- 2. Dipsacus laciniatus yes UPL yes UPL Prevalence Index = B/A =	I and the second		FAC species x 3 =
Herb Stratum (Plot size: 5-ft radius 1) 1. Aster pilosus yes FACU- 2. Dipsacus laciniatus yes UPL 3. Poa pratensis yes FAC- 4. Hydrophytic Vegetation Indicators: 5. 1 - Rapid Test for Hydrophytic Vegetation 5. 2 - Dominance Test is >50% 6. 3 - Prevalence Index is ≤3.0¹ 7. 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 9. Problematic Hydrophytic Vegetation¹ (Explain)	5		
1. Aster pilosus 2. Dipsacus laciniatus 3. Poa pratensis 4.	Horb Otratium (Diet einer 5-ft radius	_ = Total Cover	
2. Dipsacus laciniatus yes UPL Prevalence Index = B/A =		yes FACU-	Column Totals: (A) (B)
4		<u> </u>	Prevalence Index = B/A =
5	3. Poa pratensis	yes FAC-	Hydrophytic Vegetation Indicators:
6	4.		1 - Rapid Test for Hydrophytic Vegetation
7	5		2 - Dominance Test is >50%
8	6		3 - Prevalence Index is ≤3.0 ¹
9. Problematic Hydrophytic Vegetation¹ (Explain) 10. 1Indicators of hydric soil and wetland hydrology must	7		4 - Morphological Adaptations¹ (Provide supporting
9	8		
= Total Cover Indicators of hydric soil and wetland hydrology must	9		Problematic Hydrophytic vegetation (Explain)
= Total Cover he present upless disturbed or problematic	10		¹ Indicators of hydric soil and wetland hydrology must
, , , , , , , , , , , , , , , , , , , ,	Woody Vine Stratum (Plot size: 30-ft radius)	_ = Total Cover	
1 Hydrophytic	1		
2 Vegetation Present? Yes No X	2		
= Total Cover Remarks: (Include photo numbers here or on a separate sheet.)	Permarke: (Include photo numbers here or on a congrete sheet.)	_ = Total Cover	
Remains. (meleas prote numbers nere or on a separate sheet.)	Transition (molecule priorio flumbers fiere of off a separate siteet.)		

SOIL Sampling Point: 3B

Profile Desc	cription: (Describe	to the depth	needed to docu	ment the i	ndicator	or confirm	n the absence of i	ndicators.)
Depth	Matrix			ox Features	S		_	
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc [*] _	Texture	Remarks
0-6	2.5Y 5/4	_ 100					<u>SL</u>	
6+	Gravel							
	oncentration, D=Dep	oletion, RM=Re	educed Matrix, N	IS=Masked	Sand Gra	ains.		L=Pore Lining, M=Matrix.
Hydric Soil								Problematic Hydric Soils ³ :
Histosol				Gleyed Ma				rie Redox (A16)
	pipedon (A2) istic (A3)		_	Redox (S5 ed Matrix (S			Dark Surfa	anese Masses (F12)
_	en Sulfide (A4)			Mucky Mir				ow Dark Surface (TF12)
	d Layers (A5)			Gleyed Ma				plain in Remarks)
	uck (A10)			ed Matrix (F				,
_	d Below Dark Surfac	e (A11)	Redox	Dark Surfa	ce (F6)			
Thick D	ark Surface (A12)		Deplet	ed Dark Su	rface (F7)		³ Indicators of h	nydrophytic vegetation and
_	Mucky Mineral (S1)		Redox	Depression	ns (F8)		•	drology must be present,
_	ucky Peat or Peat (S						unless dist	urbed or problematic.
l _	Layer (if observed)							
			_				Hydric Soil Pre	sent? Yes No X
. ,	ches):						1.7	
Remarks:								
HYDROLO								
1	drology Indicators:							
	cators (minimum of o	one is required	: check all that a	pply)			Secondary Ir	ndicators (minimum of two required)
1=	Water (A1)			ained Leave	(,			Soil Cracks (B6)
ı =	ater Table (A2)		Aquatic F	auna (B13))		Drainage	e Patterns (B10)
Saturati	on (A3)		True Aqu	atic Plants	(B14)		Dry-Sea	ison Water Table (C2)
Water M	1arks (B1)		Hydroger	Sulfide Od	dor (C1)		Crayfish	Burrows (C8)
Sedime	nt Deposits (B2)		Oxidized	Rhizosphe	res on Livi	ing Roots	(C3) Saturation	on Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduce	d Iron (C4	ł)	Stunted	or Stressed Plants (D1)
1 = "	at or Crust (B4)		Recent Ir	on Reduction	on in Tilled	d Soils (C6	Geomor	phic Position (D2)
ı =	posits (B5)		Thin Muc	k Surface (C7)		FAC-Ne	utral Test (D5)
ı =	on Visible on Aerial	0 , , ,	= 1	Well Data	(D9)			
Sparsel	y Vegetated Concav	e Surface (B8)	Other (Ex	plain in Re	marks)			
Field Obser	vations:							
Surface Wat	er Present?	′esNo	Depth (in	nches):		-		
Water Table	Present?	′esNo	Depth (in	nches):		_		
Saturation P		'esNo	Depth (in	nches):		_ Wetl	and Hydrology Pr	esent? Yes No X
	pillary fringe) corded Data (stream	n gauge, monit	oring well, aerial	photos, pro	evious ins	pections).	if available:	
		99-,	g,	p, p		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Remarks:								

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	City/County: McHenry		Sampling Date: September 9, 201		
Applicant/Owner: Illinois Department of Transportation, District 1		State: Illinois	Sampling Point: 4A		
Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka	Section, Township, Rar	lange: Section 2, T. 44 N., R. 8 E.			
Landform (hillslope, terrace, etc.): pond	Local relief ((concave, convex, none):	concave		
Slope (%): <u>0-1%</u> Lat: <u>42.32132°N</u>	Long: <u>-88.27001</u> °W		Datum: NAD83		
Soil Map Unit Name: NRCS mapped as Griswold loam, revised to unde		NWI classifica	ation: U		
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Re	emarks.)		
Are Vegetation, Soil, or Hydrology significantly			oresent? Yes X No		
Are Vegetation , Soil , or Hydrology naturally pr		eded, explain any answer			
SUMMARY OF FINDINGS - Attach site map showing	g sampling point lo	ocations, transects	, important features, etc		
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	Is the Sampled within a Wetlan		_ No		
Wetland Pond.					
VEGETATION – Use scientific names of plants.					
Absolute	Dominant Indicator	Dominance Test works	sheet:		
Tree Stratum (Plot size: whole site) % Cover 1	Species? Status	Number of Dominant Sp That Are OBL, FACW, o			
2		Total Number of Domina Species Across All Strat			
4		Percent of Dominant Sp	、,		
5		That Are OBL, FACW, of			
Sapling/Shrub Stratum (Plot size: whole site)	_ = Total Cover	Prevalence Index work	ksheet:		
1		Total % Cover of:			
2.			x 1 =		
3.		FACW species	x 2 =		
4			x 3 =		
5		FACU species	x 4 =		
	_ = Total Cover	UPL species	x 5 =		
Herb Stratum (Plot size: whole site 1, Typha angustifolia	yes OBL	Column Totals:	(A) (B)		
2	·	Prevalence Index	= B/A =		
3.		Hydrophytic Vegetatio			
4.		X 1 - Rapid Test for H	lydrophytic Vegetation		
5		2 - Dominance Test	t is >50%		
6.		3 - Prevalence Inde	ex is ≤3.0 ¹		
7.		4 - Morphological A	Adaptations ¹ (Provide supporting		
8			s or on a separate sheet)		
9		Problematic Hydrop	phytic Vegetation ¹ (Explain)		
10		1 Indicators of hydric soil	I and wetland hydrology must		
Woody Vine Stratum (Plot size: whole site)	_ = Total Cover	be present, unless distu			
1		Hydrophytic			
2		Vegetation Present? Yes	s X No		
Remarks: (Include photo numbers here or on a separate sheet.)	_ = Total Cover		_ 		
Transacto (minute priorio manipora nere or on a separate sneet.)					

SOIL Sampling Point: 4A

Profile Desc	cription: (Describe	to the dep	th needed to docu	ment the	indicator	or confin	m the absence of	indicators.)
Depth (inches)	Matrix	%		x Feature	Type ¹	_Loc²	Taytura	Remarks
(inches) 0-8	Color (moist) 10YR 3/1	100	Color (moist)	%		LOC	<u>Texture</u> CL	Remarks
			40V/D 4/4					
8-14	10YR 5/2	90	10YR 4/4	_ <u>10</u>	<u> </u>	<u>M</u>	<u>CL</u> _	
1							2	
Hydric Soil	oncentration, D=Dep	oletion, RM=	Reduced Matrix, M	S=Maske	d Sand Gr	ains.		PL=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
			Candy (Clayed M	atrice (CA)		_	•
Histosol	pipedon (A2)			Gleyed Ma Redox (St			Dark Surfa	irie Redox (A16)
	istic (A3)		_	d Matrix (_	ganese Masses (F12)
	en Sulfide (A4)				neral (F1)			low Dark Surface (TF12)
Stratifie	d Layers (A5)		Loamy	Gleyed M	atrix (F2)		Other (Ex	plain in Remarks)
_	uck (A10)			ed Matrix (
	d Below Dark Surfac	e (A11)		Dark Surfa	٠,		31	hadaa kadaa ahadaa aa d
_	ark Surface (A12) Mucky Mineral (S1)			ed Dark Si Depressio	urface (F7))		hydrophytic vegetation and ydrology must be present,
_	ucky Peat or Peat (S	3)	Nedox	Depressio	nis (1-0)		-	sturbed or problematic.
_	Layer (if observed)						1	
Type:								
Depth (in							Hydric Soil Pre	esent? Yes X No
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
Primary Indi	cators (minimum of	one is requi	red; check all that a	oply)			Secondary I	Indicators (minimum of two required)
X Surface	Water (A1)		Water-Sta	ined Leav	/es (B9)		Surface	e Soil Cracks (B6)
X High Wa	ater Table (A2)		Aquatic Fa	auna (B13	3)		Drainag	ge Patterns (B10)
X Saturati	on (A3)		X True Aqua	atic Plants	(B14)		Dry-Sea	ason Water Table (C2)
X Water M	farks (B1)		Hydrogen	Sulfide O	dor (C1)		Crayfisl	h Burrows (C8)
Sedime	nt Deposits (B2)		Oxidized I	Rhizosphe	eres on Liv	ing Roots	(C3) Saturati	ion Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduce	ed Iron (C	4)		d or Stressed Plants (D1)
ı =	at or Crust (B4)		Recent Iro	on Reduct	ion in Tille	d Soils (C	6) X Geomo	rphic Position (D2)
_	posits (B5)		Thin Mucl				X FAC-Ne	eutral Test (D5)
	ion Visible on Aerial				` '			
	y Vegetated Concav	e Surface (B8) Other (Ex	plain in Re	emarks)			
Field Obser		. 🔽		m	octly z 72i	n		
Surface Wat				_	ostly < 72	<u>''</u>		
Water Table				iches): <u>0</u>		-		
Saturation P	resent? pillary fringe)	es X	NoDepth (in	iches): <u>0</u>		Wet	land Hydrology P	resent? Yes X No
	corded Data (strean	n gauge, mo	onitoring well, aerial	photos, p	revious ins	pections)	, if available:	
	-		-					
Remarks:								

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, Ra	nge: Section 2, T. 44 N., R. 8 E.
Landform (hillslope, terrace, etc.): hillslope	Local relief	(concave, convex, none): convex
Slope (%): <u><3%</u> Lat: <u>42.32134°N</u>	Long: <u>-88.27067°W</u>	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 y	rear? Yes X No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantl	y disturbed? Are	'Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally p		eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showin	g sampling point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No X	Is the Sampled	
Wetland Hydrology Present? Yes No X	within a Wetla	nd? Yes No A
Non-native Grassland.		
VEGETATION – Use scientific names of plants.		
Absolute Tree Stratum (Plot size: 30-ft radius) % Cove		Dominance Test worksheet:
1	r Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2		Total Number of Dominant
3		Species Across All Strata: 3 (B)
4		Percent of Dominant Species
5	= Total Cover	That Are OBL, FACW, or FAC: 33% (A/B)
Sapling/Shrub Stratum (Plot size: 15-ft radius)	_ = Total Cover	Prevalence Index worksheet:
1		Total % Cover of: Multiply by:
2		OBL species x 1 =
3		FACW species x 2 =
4		FAC species x 3 =
5		FACU species x 4 =
Herb Stratum (Plot size: 5-ft radius)	_ = Total Cover	UPL species x 5 =
1. Festuca arundinacea	yes FACU+	Column Totals: (A) (B)
2. Poa pratensis	yes FAC-	Prevalence Index = B/A =
3. Trifolium pratense	yes FACU+	Hydrophytic Vegetation Indicators:
4		1 - Rapid Test for Hydrophytic Vegetation
5		2 - Dominance Test is >50%
6		3 - Prevalence Index is ≤3.0 ¹
7		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
8		Problematic Hydrophytic Vegetation ¹ (Explain)
9		Problematic Hydrophytic Vegetation (Explain)
10		¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: 30-ft radius)	_ = Total Cover	be present, unless disturbed or problematic.
1		Hydrophytic
2		Vegetation Present? Yes No
	_ = Total Cover	165 10 7
Remarks: (Include photo numbers here or on a separate sheet.)		

SOIL Sampling Point: 4B

	cription: (Describe	to the acpth he	eaea to aocume	silt tile illulcator c	or confirm	the absence of	indicators.)
Depth	Matrix			Features			
(inches)	Color (moist)		Color (moist)	% Type ¹	_Loc ²	Texture	Remarks
0-13	10YR 3/2	100				SIL	
¹ Type: C=C	oncentration, D=Dep	letion, RM=Red	uced Matrix, MS=	Masked Sand Gra	ins.		L=Pore Lining, M=Matrix.
Hydric Soil	Indicators:					Indicators for	Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy Gl	eyed Matrix (S4)		Coast Pra	irie Redox (A16)
	pipedon (A2)		Sandy Re			Dark Surfa	
_	istic (A3)			Matrix (S6)			ganese Masses (F12)
	en Sulfide (A4)			ucky Mineral (F1)			low Dark Surface (TF12)
_	d Layers (A5)		_	eyed Matrix (F2)		Other (Ex	plain in Remarks)
=	uck (A10)	- (0.14)		Matrix (F3)			
	d Below Dark Surfac ark Surface (A12)	e (ATT)		ark Surface (F6) Dark Surface (F7)		3Indicators of	hydrophytic vegetation and
_	Mucky Mineral (S1)			epressions (F8)			ydrology must be present,
_	ucky Peat or Peat (S	3)	Redox Be	pressions (i o)		-	sturbed or problematic.
_	Layer (if observed):	-					naise of problematic.
	,						
	ches):					Hydric Soil Pre	esent? Yes No X
Remarks:			•				
HYDROLO	ic.						
	drology Indicators:					0	
	cators (minimum of o	ne is required; o		,,			Indicators (minimum of two required)
1=	Water (A1)			ed Leaves (B9)		=	e Soil Cracks (B6)
ı =	ater Table (A2)		Aquatic Fau	,		= '	ge Patterns (B10)
Saturati	on (A3)		True Aquation	c Plants (B14)		Dry-Se	M-t T-bl- (CO)
Water M	1arks (B1)					Diy-366	ason Water Table (C2)
. =			Hydrogen S	ulfide Odor (C1)		= '	h Burrows (C8)
=	nt Deposits (B2)		= ' '	ulfide Odor (C1) izospheres on Livii	ng Roots (Crayfisl	` '
Sedime	nt Deposits (B2) posits (B3)		Oxidized Rh	, ,	•	C3) Crayfisl	h Burrows (C8)
Sedime	,		Oxidized Rh	izospheres on Livi)	Crayfisl C3) Saturat Stunted	h Burrows (C8) ion Visible on Aerial Imagery (C9)
Sedime	posits (B3)		Oxidized Rh	izospheres on Livi Reduced Iron (C4 Reduction in Tilled)	Crayfisl C3) Saturat Stunted Geomo	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1)
Sedime Drift De Algal Ma	posits (B3) at or Crust (B4)	magery (B7)	Oxidized Rh Presence of Recent Iron Thin Muck S	izospheres on Livi Reduced Iron (C4 Reduction in Tilled)	Crayfisl C3) Saturat Stunted Geomo	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
Sedime Drift De Algal Ma Iron De Inundati	posits (B3) at or Crust (B4) posits (B5)		Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	izospheres on Livi Reduced Iron (C4 Reduction in Tilled surface (C7))	Crayfisl C3) Saturat Stunted Geomo	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
Sedime Drift De Algal Ma Iron De Inundati	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave		Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	izospheres on Livion Reduced Iron (C4) Reduction in Tilled Surface (C7) cell Data (D9))	Crayfisl C3) Saturat Stunted Geomo	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
Sedimel Drift De Algal Mi Iron De Inundati	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave vations:		Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	izospheres on Livii Reduced Iron (C4 Reduction in Tilled Surface (C7) fell Data (D9) hin in Remarks)) I Soils (C6	Crayfisl C3) Saturat Stunted Geomo	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
Sedime Drift De Algal Mi Iron De Inundati Sparsel Field Obser	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave rvations: ter Present? Y	e Surface (B8)	Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	izospheres on Livii Reduced Iron (C4 Reduction in Tilled Surface (C7) ell Data (D9) ain in Remarks)) I Soils (C6)	Crayfisl C3) Saturat Stunted Geomo	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
Sedime Drift De Algal Ma Iron De Inundati Sparse Field Obser Surface Wat Water Table	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave vations: ter Present? Y	e Surface (B8)	Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	izospheres on Livii Reduced Iron (C4 Reduction in Tilled Surface (C7) ell Data (D9) ain in Remarks) les):) I Soils (C6)	Crayfisl C3) Saturat Stuntec Geomo	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)
Sedimer Drift Der Algal Mai Iron Der Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave rvations: ter Present? Present? Y Present? Y pillary fringe)	e Surface (B8) es No es No es No	Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	izospheres on Livii Reduced Iron (C4 Reduction in Tilled Surface (C7) ell Data (D9) ain in Remarks) ees): ees):) Soils (C6)	Crayfisl C3) Saturat Stunted Geomo FAC-Ne	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)
Sedimer Drift Der Algal Mai Iron Der Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave rvations: ter Present? Present? Y Present? Y	e Surface (B8) es No es No es No	Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	izospheres on Livii Reduced Iron (C4 Reduction in Tilled Surface (C7) ell Data (D9) ain in Remarks) ees): ees):) Soils (C6)	Crayfisl C3) Saturat Stunted Geomo FAC-Ne	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)
Sedime Drift De Algal Mi Iron De Inundati Sparse! Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave rvations: ter Present? Present? Y Present? Y pillary fringe)	e Surface (B8) es No es No es No	Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	izospheres on Livii Reduced Iron (C4 Reduction in Tilled Surface (C7) ell Data (D9) ain in Remarks) ees): ees):) Soils (C6)	Crayfisl C3) Saturat Stunted Geomo FAC-Ne	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)
Sedimer Drift Der Algal Mai Iron Der Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave rvations: ter Present? Present? Y Present? Y pillary fringe)	e Surface (B8) es No es No es No	Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	izospheres on Livii Reduced Iron (C4 Reduction in Tilled Surface (C7) ell Data (D9) ain in Remarks) ees): ees):) Soils (C6)	Crayfisl C3) Saturat Stunted Geomo FAC-Ne	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)
Sedime Drift De Algal Mi Iron De Inundati Sparse! Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave rvations: ter Present? Present? Y Present? Y pillary fringe)	e Surface (B8) es No es No es No	Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	izospheres on Livii Reduced Iron (C4 Reduction in Tilled Surface (C7) ell Data (D9) ain in Remarks) ees): ees):) Soils (C6)	Crayfisl C3) Saturat Stunted Geomo FAC-Ne	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)
Sedime Drift De Algal Ma Iron De Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave rvations: ter Present? Present? Y Present? Y pillary fringe)	e Surface (B8) es No es No es No	Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	izospheres on Livii Reduced Iron (C4 Reduction in Tilled Surface (C7) ell Data (D9) ain in Remarks) ees): ees):) Soils (C6)	Crayfisl C3) Saturat Stunted Geomo FAC-Ne	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	City/County: McHenry		Sampling Date: September 9, 2	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, Rar	ange: Section 2, T. 44 N., R. 8 E.			
Landform (hillslope, terrace, etc.): pond	Local relief ((concave, convex, none):	concave		
Slope (%): <u>0-1%</u> Lat: <u>42.32186°N</u>	Long: <u>-88.27017</u> °W		Datum: NAD83		
Soil Map Unit Name: NRCS mapped as Brenton silt loam, revised to un		NWI classifica	ation: U		
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Re	emarks.)		
Are Vegetation , Soil , or Hydrology significantly	disturbed? Are "	Normal Circumstances" p	oresent? Yes X No	_	
Are Vegetation , Soil , or Hydrology naturally pr		eded, explain any answer			
SUMMARY OF FINDINGS - Attach site map showing	g sampling point lo	ocations, transects	, important features, et	tc.	
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes X No	Is the Sampled within a Wetlan		No		
Wetland Pond.					
VEGETATION – Use scientific names of plants.					
Absolute	Dominant Indicator	Dominance Test works	sheet:		
Tree Stratum (Plot size: whole site) % Cover 1	Species? Status	Number of Dominant Sp That Are OBL, FACW, o			
2		Total Number of Domina Species Across All Strat			
4		Percent of Dominant Sp	necies		
5		That Are OBL, FACW, o		3)	
Sapling/Shrub Stratum (Plot size: whole site)	_ = Total Cover	Prevalence Index work	ksheet:	_	
1		Total % Cover of:			
2.			x 1 =		
3.		FACW species	x 2 =		
4.		FAC species	x 3 =		
5		FACU species	x 4 =		
	_ = Total Cover	UPL species	x 5 =		
Herb Stratum (Plot size: whole site 1, Typha angustifolia	yes OBL	Column Totals:	(A) (B)	
2	- 	Prevalence Index	= B/A =		
3		Hydrophytic Vegetatio		_	
4.		1 - Rapid Test for H	lydrophytic Vegetation		
5		2 - Dominance Test	t is >50%		
6.		3 - Prevalence Inde	ex is ≤3.0 ¹		
7		4 - Morphological A	Adaptations¹ (Provide supportir	ng	
8.		_	s or on a separate sheet)		
9.		Problematic Hydrop	phytic Vegetation ¹ (Explain)		
10		1			
Woody Vine Stratum (Plot size: whole site)	_ = Total Cover	be present, unless distu	l and wetland hydrology must urbed or problematic.		
1		Hydrophytic			
2		Vegetation Present? Yes	s X No		
Demandra (Institute abote combined to the comb	_ = Total Cover	1.000			
Remarks: (Include photo numbers here or on a separate sheet.)					

SOIL Sampling Point: 5A

Profile Des	cription: (Describe	to the dep	th needed to docu	ment the	indicator	or confin	n the absence of ir	ndicators.)
Depth	Matrix			x Feature		. 2		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	_Loc ²	Texture	Remarks
0-8	10YR 3/1	_ 100					<u>CL</u>	
8-14	10YR 5/2	_ 90	10YR 4/4	_ <u>10</u>	<u> </u>	<u>M</u>	<u>CL</u>	
					- ——			
		pletion, RM	=Reduced Matrix, M	S=Maske	d Sand Gr	ains.		.=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Hydric Soil			Condition	Olaa d N4	-4-i (C.4)			-
Histosol	pipedon (A2)			Gleyed Ma Redox (St			Dark Surface	rie Redox (A16)
	istic (A3)			d Matrix (anese Masses (F12)
_	en Sulfide (A4)				neral (F1)			ow Dark Surface (TF12)
_	d Layers (A5)				latrix (F2)		Other (Exp	lain in Remarks)
_	uck (A10)			ed Matrix (
	d Below Dark Surfac	ce (A11)		Dark Surf	, ,		31-41-44	
	ark Surface (A12) Mucky Mineral (S1)		= '	Depression	urface (F7))		ydrophytic vegetation and drology must be present,
_	ucky Peat or Peat (S	33)	Redox	Боргоззіс) (1 O)		-	urbed or problematic.
_	Layer (if observed)							
Type:								
Depth (in	ches):						Hydric Soil Pres	sent? Yes X No
Remarks:								
HYDROLO	GY							
1 -	drology Indicators							
Primary Indi	cators (minimum of	one is requ	ired; check all that ap	oply)			Secondary In	ndicators (minimum of two required)
X Surface	Water (A1)		Water-Sta	ined Leav	/es (B9)		Surface	Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa	auna (B13	3)		Drainage	e Patterns (B10)
X Saturati	()		True Aqua		' '		= '	son Water Table (C2)
	farks (B1)		Hydrogen		` '		= '	Burrows (C8)
=	nt Deposits (B2)		=		eres on Liv	•	· · =	on Visible on Aerial Imagery (C9)
	posits (B3)		=		ed Iron (C	,	=	or Stressed Plants (D1)
	at or Crust (B4)		=		ion in Tille	a Solis (C	· = ·	phic Position (D2)
1 = '	posits (B5) ion Visible on Aerial	Imagan, /P	Thin Muck 7) Gauge or				X FAC-Net	utral Test (D5)
	y Vegetated Concav		· = ·		. ,			
Field Obser	, ,	C Gariage (Do) L other (Ex	piaiii iii ik	emarks,			
Surface Wat		res X	No Depth (in	ches). m	ostly < 72	n		
Water Table				ches): 0		_		
Saturation P		res X		ches): 0		— Wet	land Hydrology Pre	esent? Yes X No
(includes ca	pillary fringe)							
Describe Re	corded Data (strean	n gauge, m	onitoring well, aerial	photos, p	revious ins	pections)	, if available:	
Remarks:								
I								

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	nge: 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: <u>-88.26953°W</u>	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 y	ear? Yes X No	(If no, explain in Remarks.)		
Are Vegetation, Soil, or Hydrology significantl	y disturbed? Are	'Normal Circumstances" present? Yes X No		
Are Vegetation, Soil, or Hydrology naturally p		eeded, explain any answers in Remarks.)		
SUMMARY OF FINDINGS - Attach site map showing	g sampling point l	ocations, transects, important features, etc.		
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No X No X	Is the Sampled	Area		
Wetland Hydrology Present?	within a Wetlar			
Remarks:	<u> </u>			
Non-native Grassland.				
Trom matro Gradolana.				
VEGETATION – Use scientific names of plants.				
Absolute Tree Stratum (Plot size: 30-ft radius) % Cove	Dominant Indicator Species? Status	Dominance Test worksheet:		
1		Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)		
2		Total Number of Dominant		
3		Species Across All Strata: 2 (B)		
4		Percent of Dominant Species		
5	- Total Cavar	That Are OBL, FACW, or FAC: 50% (A/B)		
Sapling/Shrub Stratum (Plot size: 15-ft radius)	_ = Total Cover	Prevalence Index worksheet:		
1		Total % Cover of: Multiply by:		
2		OBL species x 1 =		
3		FACW species x 2 =		
4		FAC species x 3 =		
5		FACU species x 4 =		
Herb Stratum (Plot size: 5-ft radius)	_ = Total Cover	UPL species x 5 =		
1. Poa pratensis	yes FAC-	Column Totals: (A) (B)		
2. Trifolium repens	yes FACU+	Prevalence Index = B/A =		
3.		Hydrophytic Vegetation Indicators:		
4.		1 - Rapid Test for Hydrophytic Vegetation		
5		2 - Dominance Test is >50%		
6		3 - Prevalence Index is ≤3.0 ¹		
7		4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)		
8		Problematic Hydrophytic Vegetation ¹ (Explain)		
9		Problematic Hydrophytic vegetation (Explain)		
10		¹ Indicators of hydric soil and wetland hydrology must		
Woody Vine Stratum (Plot size: 30-ft radius)	_ = Total Cover	be present, unless disturbed or problematic.		
1		Hydrophytic		
2		Vegetation Present? Yes No		
	_ = Total Cover	Present? Yes No X		
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL Sampling Point: 5B

	cription: (Describe	to the acpth he	eaea to aocume	silt tile illulcator c	or confirm	the absence of	indicators.)
Depth	Matrix			Features			
(inches)	Color (moist)		Color (moist)	% Type ¹	_Loc ²	Texture	Remarks
0-13	10YR 3/2	100				SIL	
¹ Type: C=C	oncentration, D=Dep	letion, RM=Red	uced Matrix, MS=	Masked Sand Gra	ins.		L=Pore Lining, M=Matrix.
Hydric Soil	Indicators:					Indicators for	Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy Gl	eyed Matrix (S4)		Coast Pra	irie Redox (A16)
	pipedon (A2)		Sandy Re			Dark Surfa	
_	istic (A3)			Matrix (S6)			ganese Masses (F12)
	en Sulfide (A4)			ucky Mineral (F1)			low Dark Surface (TF12)
_	d Layers (A5)		_	eyed Matrix (F2)		Other (Ex	plain in Remarks)
=	uck (A10)	- (0.14)		Matrix (F3)			
	d Below Dark Surfac ark Surface (A12)	e (ATT)		ark Surface (F6) Dark Surface (F7)		3Indicators of	hydrophytic vegetation and
_	Mucky Mineral (S1)			epressions (F8)			ydrology must be present,
_	ucky Peat or Peat (S	3)	Redox Be	pressions (i o)		-	sturbed or problematic.
_	Layer (if observed):	-					naise of problematic.
	,						
	ches):					Hydric Soil Pre	esent? Yes No X
Remarks:			•				
HYDROLO	ic.						
	drology Indicators:					0	
	cators (minimum of o	ne is required; o		,,			Indicators (minimum of two required)
1=	Water (A1)			ed Leaves (B9)		=	e Soil Cracks (B6)
ı =	ater Table (A2)		Aquatic Fau	,		= '	ge Patterns (B10)
Saturati	on (A3)		True Aquation	c Plants (B14)		Dry-Se	M-t T-bl- (CO)
Water M	1arks (B1)					Diy-366	ason Water Table (C2)
. =			Hydrogen S	ulfide Odor (C1)		= '	h Burrows (C8)
=	nt Deposits (B2)		= ' '	ulfide Odor (C1) izospheres on Livii	ng Roots (Crayfisl	` '
Sedime	nt Deposits (B2) posits (B3)		Oxidized Rh	, ,	•	C3) Crayfisl	h Burrows (C8)
Sedime	,		Oxidized Rh	izospheres on Livi)	Crayfisl C3) Saturat Stunted	h Burrows (C8) ion Visible on Aerial Imagery (C9)
Sedime	posits (B3)		Oxidized Rh	izospheres on Livi Reduced Iron (C4 Reduction in Tilled)	Crayfisl C3) Saturat Stunted Geomo	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1)
Sedime Drift De Algal Ma	posits (B3) at or Crust (B4)	magery (B7)	Oxidized Rh Presence of Recent Iron Thin Muck S	izospheres on Livi Reduced Iron (C4 Reduction in Tilled)	Crayfisl C3) Saturat Stunted Geomo	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
Sedime Drift De Algal Ma Iron De Inundati	posits (B3) at or Crust (B4) posits (B5)		Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	izospheres on Livi Reduced Iron (C4 Reduction in Tilled surface (C7))	Crayfisl C3) Saturat Stunted Geomo	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
Sedime Drift De Algal Ma Iron De Inundati	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave		Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	izospheres on Livion Reduced Iron (C4) Reduction in Tilled Surface (C7) cell Data (D9))	Crayfisl C3) Saturat Stunted Geomo	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
Sedimel Drift De Algal Mi Iron De Inundati	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave vations:		Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	izospheres on Livii Reduced Iron (C4 Reduction in Tilled Surface (C7) fell Data (D9) hin in Remarks)) I Soils (C6	Crayfisl C3) Saturat Stunted Geomo	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
Sedime Drift De Algal Mi Iron De Inundati Sparsel Field Obser	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave rvations: ter Present? Y	e Surface (B8)	Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	izospheres on Livii Reduced Iron (C4 Reduction in Tilled Surface (C7) ell Data (D9) ain in Remarks)) I Soils (C6)	Crayfisl C3) Saturat Stunted Geomo	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
Sedime Drift De Algal Ma Iron De Inundati Sparse Field Obser Surface Wat	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave vations: ter Present? Y	e Surface (B8)	Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	izospheres on Livii Reduced Iron (C4 Reduction in Tilled Surface (C7) ell Data (D9) ain in Remarks) les):) I Soils (C6)	Crayfisl C3) Saturat Stuntec Geomo	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)
Sedimer Drift Der Algal Mai Iron Der Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave rvations: ter Present? Present? Y Present? Y pillary fringe)	e Surface (B8) es No es No es No	Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	izospheres on Livii Reduced Iron (C4 Reduction in Tilled Surface (C7) ell Data (D9) ain in Remarks) ees): ees):) Soils (C6)	Crayfisl C3) Saturat Stunted Geomo FAC-Ne	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)
Sedimer Drift Der Algal Mai Iron Der Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave rvations: ter Present? Present? Y Present? Y	e Surface (B8) es No es No es No	Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	izospheres on Livii Reduced Iron (C4 Reduction in Tilled Surface (C7) ell Data (D9) ain in Remarks) ees): ees):) Soils (C6)	Crayfisl C3) Saturat Stunted Geomo FAC-Ne	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)
Sedime Drift De Algal Mi Iron De Inundati Sparse! Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave rvations: ter Present? Present? Y Present? Y pillary fringe)	e Surface (B8) es No es No es No	Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	izospheres on Livii Reduced Iron (C4 Reduction in Tilled Surface (C7) ell Data (D9) ain in Remarks) ees): ees):) Soils (C6)	Crayfisl C3) Saturat Stunted Geomo FAC-Ne	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)
Sedimer Drift Der Algal Mai Iron Der Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave rvations: ter Present? Present? Y Present? Y pillary fringe)	e Surface (B8) es No es No es No	Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	izospheres on Livii Reduced Iron (C4 Reduction in Tilled Surface (C7) ell Data (D9) ain in Remarks) ees): ees):) Soils (C6)	Crayfisl C3) Saturat Stunted Geomo FAC-Ne	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)
Sedime Drift De Algal Mi Iron De Inundati Sparse! Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave rvations: ter Present? Present? Y Present? Y pillary fringe)	e Surface (B8) es No es No es No	Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	izospheres on Livii Reduced Iron (C4 Reduction in Tilled Surface (C7) ell Data (D9) ain in Remarks) ees): ees):) Soils (C6)	Crayfisl C3) Saturat Stunted Geomo FAC-Ne	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)
Sedime Drift De Algal Ma Iron De Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave rvations: ter Present? Present? Y Present? Y pillary fringe)	e Surface (B8) es No es No es No	Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	izospheres on Livii Reduced Iron (C4 Reduction in Tilled Surface (C7) ell Data (D9) ain in Remarks) ees): ees):) Soils (C6)	Crayfisl C3) Saturat Stunted Geomo FAC-Ne	h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	City/County: McHenry		Sampling Date: Septem	ber 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, Rar	nge: Section 3, T. 44 N., R.	. 8 E.	
Landform (hillslope, terrace, etc.): excavated depression	Local relief ((concave, convex, none):	concave	
Slope (%): <u>0-1%</u> Lat: <u>42.31474°N</u>	Long: <u>-88.27874</u> °W		Datum: NAD83	
Soil Map Unit Name: NRCS mapped as Ringwood silt loam, revised to	undetermined	NWI classifica	ation: U	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Re	emarks.)	
Are Vegetation, Soil, or Hydrology significantly		Normal Circumstances" p	resent? Yes X	No_
Are Vegetation , Soil , or Hydrology naturally pr		eded, explain any answer		
SUMMARY OF FINDINGS - Attach site map showing	g sampling point lo	ocations, transects	, important feature	es, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Yes X No Yes X No	Is the Sampled	Area		
Hydric Soil Present? Wetland Hydrology Present? Yes X No Yes X N	within a Wetlan		No	
Remarks:				
Marsh.				
iviaisii.				
VEGETATION – Use scientific names of plants.				
Absolute		Dominance Test works	sheet:	
Tree Stratum (Plot size: whole site) % Cover 1	Species? Status	Number of Dominant Sp That Are OBL, FACW, o		_ (A)
2		Total Number of Domina	ant	
3		Species Across All Strat		_ (B)
4		Percent of Dominant Sp	pecies	
5		That Are OBL, FACW, o	or FAC:	(A/B)
Sapling/Shrub Stratum (Plot size: whole site)	_ = Total Cover	Prevalence Index work	ksheet:	
1		Total % Cover of:	Multiply by:	_
2		OBL species	x 1 =	_
3		FACW species	x 2 =	_
4		FAC species	x 3 =	_
5		FACU species		
Herb Stratum (Plot size: whole site)	_ = Total Cover	UPL species		
1. Typha angustifolia	yes OBL	Column Totals:	(A)	(B)
2.		Prevalence Index	= B/A =	_
3.		Hydrophytic Vegetatio	on Indicators:	
4.		1 - Rapid Test for H	lydrophytic Vegetation	
5		2 - Dominance Test	t is >50%	
6		3 - Prevalence Inde	ex is ≤3.0 ¹	
7		4 - Morphological A	Adaptations¹ (Provide su s or on a separate sheet	pporting
8		l —	phytic Vegetation ¹ (Expla	
9		Problematic Hydrop	mytic vegetation (Expir	alli)
10		¹ Indicators of hydric soil	l and wetland hydrology	must
Woody Vine Stratum (Plot size: whole site)	_ = Total Cover	be present, unless distu		maot
1		Hydrophytic		
2		Vegetation Present? Yes	s × No	
	_ = Total Cover	rieseitr fes	s_X_ No	
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL Sampling Point: 6A

ı	cription: (Describe	to the de	oth needed to docur			or confirn	n the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature %	Type ¹	Loc²	Texture	Remarks
0-5	N 2.5/	100	Color (Inolst)				SICL	Remarks
	N 2.5/	- 100 75	5YR 3/4	25				
5-13	IN 2.5/		51K 3/4	_ 25	- —	M, PL	SICL	
¹ Type: C=C	oncentration D=Der	eletion RM	=Reduced Matrix, M	- ——— S=Maske	d Sand Gr	ains	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil		JIOTION, TUV	Troduced Matrix, M	o maone	a cana cr	anio.		for Problematic Hydric Soils ³ :
Histoso			Sandy 0	Gleyed M	atrix (S4)		Coast F	Prairie Redox (A16)
	pipedon (A2)		Sandy I	Redox (S	5)		Dark Sı	urface (S7)
_	istic (A3)			d Matrix (anganese Masses (F12)
	en Sulfide (A4)				neral (F1)			hallow Dark Surface (TF12)
_	d Layers (A5) uck (A10)			ed Matrix (latrix (F2)		Other (Explain in Remarks)
_	d Below Dark Surfac	e (A11)		Dark Surf	. ,			
 	ark Surface (A12)	,	Deplete	d Dark S	urface (F7)	3Indicators	of hydrophytic vegetation and
_	Mucky Mineral (S1)		Redox	Depression	ons (F8)			I hydrology must be present,
	ucky Peat or Peat (S						unless	disturbed or problematic.
_	Layer (if observed)							
Type:	-h \.						Hydric Soil	Present? Yes X No
Depth (in	cnes):							
Remarks:								
HYDROLO	GY.							
	drology Indicators:	:						
			ired; check all that ag	(vlac			Seconda	ry Indicators (minimum of two required)
	Water (A1)		Water-Sta		/es (B9)			ace Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa		, ,			nage Patterns (B10)
X Saturati	, ,		True Aqua	atic Plants	(B14)		Dry-9	Season Water Table (C2)
Water M	farks (B1)		Hydrogen	Sulfide C	dor (C1)		Cray	fish Burrows (C8)
Sedime	nt Deposits (B2)		Oxidized I	Rhizosphe	eres on Liv	ing Roots	(C3) Satu	ration Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduc	ed Iron (C	4)		ted or Stressed Plants (D1)
Algal Ma	at or Crust (B4)		Recent Iro	n Reduct	ion in Tille	d Soils (C6	_	morphic Position (D2)
_ =	posits (B5)		Thin Muck				X FAC	-Neutral Test (D5)
	ion Visible on Aerial	• • •			' '			
	y Vegetated Concav	e Surface	(B8) Other (Ex	plain in R	emarks)			
Field Obser		<i>,</i>	N. X 2	-1 \.				
Surface Wat		es Y	No Depth (in		<u> </u>	-		
Water Table		res X		ches): 10		- ,,, ,,,		Present? Yes X No
Saturation P	resent? Y pillary fringe)	es X	No Depth (in	ches): _10	<u> </u>	_ weti	and Hydrology	Present? Yes X No No
		n gauge, m	onitoring well, aerial	photos, p	revious ins	spections),	if available:	
Pamerka:								
Remarks:								

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, Ra	nge: Section 3, T. 44 N., R. 8 E.				
Landform (hillslope, terrace, etc.): excavated depression	Local relief	(concave, convex, none): convex to none				
Slope (%): <u>0-1%</u> Lat: <u>42.31464°N</u>	Long: <u>-88.27873°W</u>	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 y	ear? Yes X No	(If no, explain in Remarks.)				
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are	'Normal Circumstances" present? Yes X No				
Are Vegetation, Soil, or Hydrology naturally pr		eeded, explain any answers in Remarks.)				
SUMMARY OF FINDINGS - Attach site map showing	g sampling point l	ocations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes No X	Is the Sampled	A				
Hydric Soil Present? Wetland Hydrology Present? Yes No X No X	within a Wetlar					
Wetland Hydrology Present? Yes No X	within a vvetici	101 102 100 101				
Non-native Grassland.						
VEGETATION – Use scientific names of plants.						
Absolute		Dominance Test worksheet:				
Tree Stratum (Plot size: 30-ft radius) % Cove	r Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)				
2		Total Number of Dominant				
3		Species Across All Strata: 4 (B)				
4		Percent of Dominant Species				
5		That Are OBL, FACW, or FAC: 25% (A/B)				
Sapling/Shrub Stratum (Plot size: 15-ft radius)	_ = Total Cover	Prevalence Index worksheet:				
1		Total % Cover of: Multiply by:				
2.		OBL species x 1 =				
3		FACW species x 2 =				
4		FAC species x 3 =				
5		FACU species x 4 =				
Hart Otation (District Set radius	_ = Total Cover	UPL species x 5 =				
Herb Stratum (Plot size: 5-ft radius) 1. Digitaria ischaemum	yes FACU	Column Totals: (A) (B)				
2. Poa pratensis	yes FAC-	Prevalence Index = B/A =				
3. Taraxacum officinale	yes FACU	Hydrophytic Vegetation Indicators:				
4. Trifolium repens	yes FACU+	1 - Rapid Test for Hydrophytic Vegetation				
5.		2 - Dominance Test is >50%				
6		3 - Prevalence Index is ≤3.0 ¹				
7		4 - Morphological Adaptations ¹ (Provide supporting				
8		data in Remarks or on a separate sheet)				
9		Problematic Hydrophytic Vegetation ¹ (Explain)				
10		¹ Indicators of hydric soil and wetland hydrology must				
Woody Vine Stratum (Plot size: 30-ft radius)	_ = Total Cover	be present, unless disturbed or problematic.				
1		Hydrophytic				
2		Vegetation				
	_ = Total Cover	Present? Yes No X				
Remarks: (Include photo numbers here or on a separate sheet.)						

SOIL Sampling Point: 6B

I	cription. (Describe		n needed to docu	ment the	ilaicator (or confirm	n the absence of in	idicators.)
Depth	Matrix			ox Feature		. 2		
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ²	Texture	Remarks
0-6	10YR 2/2	_ 100					SIL	
6-13	10YR 4/3	_ <u>100</u>					SIL	
<u> </u>								
	Concentration, D=De	oletion, RM=	Reduced Matrix, M	S=Masked	d Sand Gra	ains.		=Pore Lining, M=Matrix.
Hydric Soil							_	Problematic Hydric Soils ³ :
Histoso				Gleyed Ma				ie Redox (A16)
	pipedon (A2) listic (A3)			Redox (S5 d Matrix (S			Dark Surfac	ce (S7) inese Masses (F12)
_	en Sulfide (A4)			Mucky Mir				ow Dark Surface (TF12)
	d Layers (A5)			Gleyed Ma				lain in Remarks)
2 cm Mi	uck (A10)		_	ed Matrix (,
Deplete	ed Below Dark Surface	ce (A11)	Redox	Dark Surfa	ace (F6)			
_	ark Surface (A12)		= '	ed Dark Su	, ,			ydrophytic vegetation and
_	Mucky Mineral (S1)		Redox	Depressio	ns (F8)		•	drology must be present,
_	ucky Peat or Peat (S						unless distu	urbed or problematic.
l _	Layer (if observed)							
Type:	nches):		_				Hydric Soil Pres	sent? Yes No X
Remarks:								
Remarks.								
HYDROLO	OGY							
	drology Indicators	:						
1	cators (minimum of		ed: check all that a	nnly)			Secondary In	dicators (minimum of two required)
	Water (A1)	one to require		ained Leav	as (BQ)			Soil Cracks (B6)
	ater Table (A2)			auna (B13	(,			e Patterns (B10)
ı =	ion (A3)		= '	atic Plants	,		Drainage	, rations (DTO)
	Лarks (В1)		mac / qu		(R14)		Dry-Seas	, ,
III I Water M			Hydrogen	Sulfide O	` '		= '	son Water Table (C2)
	. ,		= ' '	Sulfide O	dor (C1)	na Roots	Crayfish	son Water Table (C2) Burrows (C8)
Sedime	nt Deposits (B2)		Oxidized	Rhizosphe	dor (C1) res on Livi	•	Crayfish (C3) Saturation	son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9)
Sedime Drift De	ent Deposits (B2) eposits (B3)		Oxidized Presence	Rhizosphe of Reduce	dor (C1) res on Livi ed Iron (C4	-)	Crayfish (C3) Saturation Stunted	son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Sedime Drift De Algal M	ent Deposits (B2) eposits (B3) at or Crust (B4)		Oxidized Presence Recent In	Rhizosphe of Reduce on Reducti	dor (C1) res on Livi ed Iron (C4 on in Tilled	-)	Crayfish (C3) Saturation Stunted (G) Geomorp	son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Sedime Drift De Algal M: Iron De	ent Deposits (B2) eposits (B3) at or Crust (B4) posits (B5)	Imagery (B7	Oxidized Presence Recent In	Rhizosphe of Reduce on Reducti k Surface (dor (C1) res on Livi ed Iron (C4 on in Tilled	-)	Crayfish (C3) Saturation Stunted (G) Geomorp	son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Sedime Drift De Algal Malgal M	ent Deposits (B2) eposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial	0 , ,	Oxidized Presence Recent Irr Thin Muc	Rhizosphe of Reduce on Reducti k Surface (Well Data	dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9)	-)	Crayfish (C3) Saturation Stunted (G) Geomorp	son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Sedime Drift De Algal Malgal M	ent Deposits (B2) eposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial by Vegetated Concav	0 , ,	Oxidized Presence Recent Irr Thin Muc	Rhizosphe of Reduce on Reducti k Surface (dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9)	-)	Crayfish (C3) Saturation Stunted (G) Geomorp	son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Sedime Drift De Algal M: Iron De Inundati Sparsel	ent Deposits (B2) eposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial by Vegetated Concavervations:	e Surface (B	Oxidized Presence Recent In Thin Muc Gauge or Other (Ex	Rhizosphe of Reduce on Reducti k Surface (Well Data plain in Re	dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9)	-)	Crayfish (C3) Saturation Stunted (G) Geomorp	son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Sedime Drift De Algal M: Iron De Inundati Sparsel Field Obser	ent Deposits (B2) eposits (B3) at or Crust (B4) eposits (B5) ion Visible on Aerial ey Vegetated Concavervations: ter Present?	e Surface (B	Oxidized Presence Recent In Thin Muc Gauge or Other (Ex	Rhizosphe of Reduce on Reducti k Surface (Well Data plain in Re	dor (C1) res on Livi ed Iron (C4 on in Tilleo (C7) (D9) emarks)	-)	Crayfish (C3) Saturation Stunted (G) Geomorp	son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Sedime Drift De Algal Mi Iron De Inundati Sparsel Field Obser Surface Wat	ent Deposits (B2) eposits (B3) at or Crust (B4) eposits (B5) ion Visible on Aerial ey Vegetated Concavervations: ter Present?	e Surface (B	Oxidized Presence Recent In Thin Muc Gauge or Other (Ex	Rhizosphe of Reduce on Reducti k Surface (Well Data plain in Re nches): nches):	dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9) emarks)	d Soils (C6	Crayfish (C3) Saturation Stunted of Geomory FAC-Neu	son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5)
Sedime Drift De Algal Mi Iron De Inundati Sparsel Field Obser Surface Wat Water Table Saturation P	ent Deposits (B2) eposits (B3) at or Crust (B4) eposits (B5) ion Visible on Aerial ey Vegetated Concavervations: ter Present?	e Surface (B	Oxidized Presence Recent In Thin Muc Gauge or Other (Ex	Rhizosphe of Reduce on Reducti k Surface (Well Data plain in Re	dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9) emarks)	d Soils (C6	Crayfish (C3) Saturation Stunted (G) Geomorp	son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5)
Sedime Drift De Algal M: Iron De Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca	ent Deposits (B2) eposits (B3) at or Crust (B4) eposits (B5) ion Visible on Aerial ety Vegetated Concavervations: ter Present? eter Present?	e Surface (B	Oxidized Presence Recent Irr Thin Muc Gauge or Other (Ex Depth (ir	Rhizosphe of Reduce on Reducti k Surface (Well Data plain in Re nches): nches): nches):	dor (C1) res on Livi ed Iron (C4 on in Tilleo (C7) (D9) emarks)	d Soils (C6	Crayfish Crayfish Saturation Stunted of Geomorp FAC-Neu	son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5)
Sedime Drift De Algal M: Iron De Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	ent Deposits (B2) eposits (B3) at or Crust (B4) eposits (B5) ion Visible on Aerial ey Vegetated Concavervations: ter Present? e Present? expresent?	e Surface (B	Oxidized Presence Recent Irr Thin Muc Gauge or Other (Ex Depth (ir	Rhizosphe of Reduce on Reducti k Surface (Well Data plain in Re nches): nches): nches):	dor (C1) res on Livi ed Iron (C4 on in Tilleo (C7) (D9) emarks)	d Soils (C6	Crayfish Crayfish Saturation Stunted of Geomorp FAC-Neu	son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5)
Sedime Drift De Algal M: Iron De Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca	ent Deposits (B2) eposits (B3) at or Crust (B4) eposits (B5) ion Visible on Aerial ey Vegetated Concavervations: ter Present? e Present? expresent?	e Surface (B	Oxidized Presence Recent Irr Thin Muc Gauge or Other (Ex Depth (ir	Rhizosphe of Reduce on Reducti k Surface (Well Data plain in Re nches): nches): nches):	dor (C1) res on Livi ed Iron (C4 on in Tilleo (C7) (D9) emarks)	d Soils (C6	Crayfish Crayfish Saturation Stunted of Geomorp FAC-Neu	son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5)
Sedime Drift De Algal M: Iron De Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	ent Deposits (B2) eposits (B3) at or Crust (B4) eposits (B5) ion Visible on Aerial ey Vegetated Concavervations: ter Present? e Present? expresent?	e Surface (B	Oxidized Presence Recent Irr Thin Muc Gauge or Other (Ex Depth (ir	Rhizosphe of Reduce on Reducti k Surface (Well Data plain in Re nches): nches): nches):	dor (C1) res on Livi ed Iron (C4 on in Tilleo (C7) (D9) emarks)	d Soils (C6	Crayfish Crayfish Saturation Stunted of Geomorp FAC-Neu	son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5)

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	City/County: McHenry	Sampling Date: September 9, 2	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, Rai	nge: Section 15, T. 44 N., R. 8 E.	
Landform (hillslope, terrace, etc.): depression	Local relief	(concave, convex, none): concave to none	
Slope (%): <u>0-1%</u> Lat: <u>42.29905°N</u>	Long:88.28699°W	Datum: NAD83	
Soil Map Unit Name: NRCS mapped as Elburn silt loam, revised to Pell	a silty clay loam	NWI classification: U	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? 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 pr		eded, explain any answers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map showing	g sampling point l	ocations, transects, important features, e	tc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	Is the Sampled within a Wetlar		
Wet Meadow.			
VEGETATION – Use scientific names of plants.			
Absolute	Dominant Indicator	Dominance Test worksheet:	\neg
Tree Stratum (Plot size: whole site) % Cover 1.	Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC:(A)	,
2		Total Number of Dominant	
3		Species Across All Strata: (B)	
4		Percent of Dominant Species	
5		That Are OBL, FACW, or FAC: (A/I	B)
Sapling/Shrub Stratum (Plot size: whole site)	_ = Total Cover	Prevalence Index worksheet:	\dashv
1		Total % Cover of: Multiply by:	
2.		OBL species x 1 =	
3		FACW species x 2 =	
4		FAC species x 3 =	
5		FACU species x 4 =	
	_ = Total Cover	UPL species x 5 =	
Herb Stratum (Plot size: whole site) 1. Carex pellita	yes OBL	Column Totals: (A) (B	3)
2. Phalaris arundinacea	yes FACW+	Prevalence Index = B/A =	
	- 	Hydrophytic Vegetation Indicators:	\dashv
3		1 - Rapid Test for Hydrophytic Vegetation	
4. 5.		2 - Dominance Test is >50%	
6		3 - Prevalence Index is ≤3.0 ¹	
7		4 - Morphological Adaptations ¹ (Provide supporti	ng
8.		data in Remarks or on a separate sheet)	
9.		Problematic Hydrophytic Vegetation ¹ (Explain)	
10		1	
Woody Vine Stratum (Plot size: whole site)	_ = Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1		Hydrophytic	
2		Vegetation	
	_ = Total Cover	Present? Yes X No No	
Remarks: (Include photo numbers here or on a separate sheet.)			

SOIL Sampling Point: 7A

Profile Desc	cription: (Describe	to the de	oth needed to docur	ment the	indicator	or confin	n the absence of	indicators.)
Depth (inches)	Matrix	%		ox Feature %	Type ¹	_Loc²	Texture	Remarks
(inches) 0-24	Color (moist) 10YR 2/1	100	Color (moist)			LOC	SICL	Remarks
			40VD 5/0	45				
24-39	2.5Y 5/1	_ <u>85</u>	10YR 5/6	_ <u>15</u>	<u> </u>	<u>M</u>	CL _	
1								
Type: C=C Hydric Soil		oletion, RM	=Reduced Matrix, M	S=Maske	d Sand Gr	ains.		PL=Pore Lining, M=Matrix. r Problematic Hydric Soils ³ :
I —			Conduc	Olava d M	-4-i (C.4)			-
Histosol	pipedon (A2)			Gleyed Ma Redox (St			Dark Surf	airie Redox (A16)
	istic (A3)		_	d Matrix (ganese Masses (F12)
_	en Sulfide (A4)				neral (F1)			llow Dark Surface (TF12)
Stratifie	d Layers (A5)		Loamy	Gleyed M	latrix (F2)		Other (Ex	rplain in Remarks)
_	uck (A10)		= '	ed Matrix (. ,			
	d Below Dark Surfac	ce (A11)		Dark Surf	. ,		31	Unidea de de conseder de conseder
_	ark Surface (A12) Mucky Mineral (S1)		= '	ed Dark Si Depressio	urface (F7))		hydrophytic vegetation and ydrology must be present,
_	ucky Peat or Peat (S	(3)	Redox	Depressio	nis (FO)			sturbed or problematic.
	Layer (if observed)							starzed or presidentale.
Type:								
Depth (in							Hydric Soil Pr	esent? Yes X No
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
Primary Indi	cators (minimum of	one is requ	ired; check all that ap	oply)			Secondary	Indicators (minimum of two required)
Surface	Water (A1)		Water-Sta	ined Leav	ves (B9)		X Surface	e Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic Fa	auna (B13	3)		Draina	ge Patterns (B10)
Saturati	on (A3)		True Aqua	atic Plants	s (B14)		X Dry-Se	ason Water Table (C2)
Water N	farks (B1)		Hydrogen	Sulfide O	dor (C1)		Crayfis	h Burrows (C8)
==	nt Deposits (B2)		=		eres on Liv	•	· · =	tion Visible on Aerial Imagery (C9)
	posits (B3)		=		ed Iron (C	,		d or Stressed Plants (D1)
= `	at or Crust (B4)		=		ion in Tille	d Soils (C	_	orphic Position (D2)
= '	posits (B5)		Thin Muck				X FAC-N	eutral Test (D5)
	ion Visible on Aerial	• • •	· = ·		. ,			
X Sparsel	y Vegetated Concav	e Suriace	(B8) Other (Exp	piain in Re	emarks)			
Surface Wat		/00	No X Depth (in	abas):				
		res X		iches): _22	2	-		
Water Table		V				- _{\\\\\}	land Underland	Present? Yes X No
Saturation P	resent? \\ pillary fringe)	res X	No Depth (in	iches): <u>22</u>		_ wet	land Hydrology P	resent? Yes X No
		n gauge, m	onitoring well, aerial	photos, p	revious ins	pections)	, if available:	
Remarks:								

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, Ra	nge: Section 15, T. 44 N., R. 8 E.
Landform (hillslope, terrace, etc.): upland	Local relief	(concave, convex, none): convex to none
Slope (%): <u>0-1%</u> Lat: <u>42.29876°N</u>	Long: <u>-88.28712°W</u>	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 ye	ear? Yes X No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are	'Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr		eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	Is the Sampled within a Wetlan	
Non-native Grassland.		
Transfer Francischer		
VEGETATION – Use scientific names of plants.		
Tree Stratum (Plot size: 30-ft radius) Absolute % Cover		Dominance Test worksheet:
Tree Stratum (Plot size: 30-ft radius) % Cover	Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2		Total Number of Dominant Species Across All Strata: 3 (B)
4		Species Across All Strata: 3 (B)
5.		Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)
45 th radius	_ = Total Cover	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15-ft radius)		Total % Cover of: Multiply by:
1		OBL species x 1 =
3.		FACW species x 2 =
4		FAC species x 3 =
5.		FACU species x 4 =
	_ = Total Cover	UPL species x 5 =
Herb Stratum (Plot size: 5-ft radius)	- LIDI	Column Totals: (A) (B)
1. Asclepias syriaca	yes UPL	Dravalance Index = B/A =
2. Festuca arundinacea 3. Vitis riparia	yes FACU+ FACW-	Prevalence Index = B/A = Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
4		2 - Dominance Test is >50%
5		3 - Prevalence Index is ≤3.01
6		4 - Morphological Adaptations ¹ (Provide supporting
7	- — —	data in Remarks or on a separate sheet)
9.		Problematic Hydrophytic Vegetation ¹ (Explain)
10		
Woody Vine Stratum (Plot size: 30-ft radius)	_ = Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1		Hydrophytic
2.		Vegetation
	_ = Total Cover	Present? Yes No X
Remarks: (Include photo numbers here or on a separate sheet.)		

SOIL Sampling Point: 7B

Profile Des	cription: (Describe	to the de	pth needed to docu	ment the	indicator	or confir	m the absence of	indicators.)
Depth (inches)	Matrix Color (moist)	%		ox Feature %	es Type ¹	_Loc²	Touture	Remarks
(inches) 0-6	10YR 2/1	100	Color (moist)			LOC	Texture SIL	Remarks
			0.5\/.4/4					
6-14	5Y 4/3	90	2.5Y 4/4	_ <u>10</u>	<u> </u>	<u>M</u>	SICL _	
1							2	
Type: C=C Hydric Soil		oletion, RM	I=Reduced Matrix, M	S=Maske	d Sand Gr	ains.		PL=Pore Lining, M=Matrix. r Problematic Hydric Soils ³ :
I—			Candy	Clayed M	atrix (CA)			-
Histoso	pipedon (A2)			Gleyed Ma Redox (St			Dark Surf	airie Redox (A16)
	istic (A3)		_	d Matrix (ganese Masses (F12)
	en Sulfide (A4)		_		neral (F1)			llow Dark Surface (TF12)
	d Layers (A5)			Gleyed M				plain in Remarks)
_	uck (A10)		= '	ed Matrix (. ,			
 	d Below Dark Surfac	e (A11)		Dark Surf	٠,		31	hadaahada ahadaa aad
_	ark Surface (A12) Mucky Mineral (S1)		= -	ed Dark Si Depressio	urface (F7)		hydrophytic vegetation and ydrology must be present,
_	ucky Peat or Peat (S	3)	Redox	Depressio) (I-O)			sturbed or problematic.
	Layer (if observed)							stanza a. prosionidus.
Type:	,							
Depth (in							Hydric Soil Pr	esent? Yes No X
Remarks:								
HYDROLO	GY							
	drology Indicators	:						
Primary Indi	cators (minimum of	one is requ	ired; check all that ag	oply)			Secondary	Indicators (minimum of two required)
Surface	Water (A1)		Water-Sta	ined Leav	ves (B9)		Surface	e Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic Fa	auna (B13	3)		Drainag	ge Patterns (B10)
Saturati	on (A3)		True Aqua	atic Plants	(B14)		Dry-Se	ason Water Table (C2)
Water N	/larks (B1)		Hydrogen	Sulfide O	dor (C1)		Crayfis	h Burrows (C8)
Sedime	nt Deposits (B2)		Oxidized F	Rhizosphe	eres on Liv	ing Roots	(C3) Saturat	tion Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduc	ed Iron (C	4)	Stunted	d or Stressed Plants (D1)
Algal M	at or Crust (B4)		Recent Iro	on Reduct	ion in Tille	d Soils (C	6) Geomo	orphic Position (D2)
=	posits (B5)		Thin Muck				FAC-N	eutral Test (D5)
	ion Visible on Aerial				. ,			
	y Vegetated Concav	e Surface	(B8) Other (Ex	plain in Re	emarks)			
Field Obser								
		/es	1 😽 ' '	iches):		-		
Water Table		es	1 🗔 ' '					
Saturation P	resent? \ pillary fringe)	es	No X Depth (in	iches):		Wet	land Hydrology P	resent? Yes No X
		n gauge, m	onitoring well, aerial	photos, p	revious ins	spections)	, if available:	
Remarks:								

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	s Department of Transportation, District 1 State: Illinois Sampling Point: 8A					
Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka	Section, Township, Ra	nge: Section 15, T. 44 N., R	l. 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 Pell	a silty clay loam	NWI classifica	ation: U			
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Re	emarks.)			
Are Vegetation , Soil , or Hydrology significantly			resent? Yes X No			
Are Vegetation Soil naturally pr		eeded, explain any answers				
SUMMARY OF FINDINGS – Attach site map showing			ŕ			
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes X No Y	Is the Sampled		No			
Remarks:						
Wet Meadow.						
VEGETATION – Use scientific names of plants.						
Tree Stratum (Plot size: whole site) Absolute % Cover 1	Species? Status	Dominance Test works Number of Dominant Sp That Are OBL, FACW, o	ecies			
2		Total Number of Domina Species Across All Strate				
5		Percent of Dominant Spo That Are OBL, FACW, or				
Sapling/Shrub Stratum (Plot size: whole site) 1	_	Prevalence Index work Total % Cover of:				
2.			x 1 =			
3.		FACW species	x 2 =			
4		FAC species	x 3 =			
5		FACU species	x 4 =			
Herb Stratum (Plot size: whole site)	_ = Total Cover		x 5 =			
Herb Stratum (Plot size: Whole site 1, Bidens cernua	yes OBL	Column Totals:	(A) (B)			
2. Phalaris arundinacea	yes FACW+	Prevalence Index	= B/A =			
3. Xanthium strumarium	yes FAC	Hydrophytic Vegetation	n Indicators:			
4.		1	ydrophytic Vegetation			
5		2 - Dominance Test	is >50%			
6		3 - Prevalence Index				
7		4 - Morphological Adda in Remarks	daptations ¹ (Provide supporting or on a separate sheet)			
8		l 	hytic Vegetation ¹ (Explain)			
9		Troblematic Hydrop	Tytic vegetation (Explain)			
10	_ = Total Cover	¹ Indicators of hydric soil be present, unless distur	and wetland hydrology must rbed or problematic.			
1		Hydrophytic				
2.		Vegetation				
	_ = Total Cover	Present? Yes	X No			
Remarks: (Include photo numbers here or on a separate sheet.)						

SOIL Sampling Point: 8A

Profile Des	cription: (Describe	to the dep	oth needed to docur	ment the	indicator	or confir	m the absence of i	ndicators.)
Depth (inches)	Matrix Color (moist)	%		x Feature	Type ¹	_Loc²	Toytura	Remarks
(inches) 0-24	10YR 2/1	100	Color (moist)	%		LOC	Texture CL	Remarks
			40)/D 5/0					
24-39	2.5Y 4/1	_ <u>80</u>	10YR 5/6	_ 20	<u> </u>	<u>M</u>	<u>CL</u>	
1							2	
'Type: C=C Hydric Soil		oletion, RM	=Reduced Matrix, M	S=Maske	d Sand Gr	ains.		_=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
l —			Conduc	Olaa d N4	-t-i (C.1)		_	•
Histoso	pipedon (A2)			Gleyed Ma Redox (St			Dark Surfa	rie Redox (A16)
	istic (A3)		_	d Matrix (_	anese Masses (F12)
_	en Sulfide (A4)				neral (F1)			ow Dark Surface (TF12)
Stratifie	d Layers (A5)		Loamy	Gleyed M	atrix (F2)		Other (Exp	olain in Remarks)
	uck (A10)		= '	ed Matrix (,			
	d Below Dark Surfac	ce (A11)		Dark Surf	٠,,		31	
_	ark Surface (A12) Mucky Mineral (S1)			ed Dark Si Depressio	urface (F7))		nydrophytic vegetation and drology must be present,
_	ucky Peat or Peat (S	(3)	Nedox	Depressio	nis (FO)		-	surbed or problematic.
_	Layer (if observed)							and the promote that the promote the promote the promote that the promote that the promote that the promote
Type:								
Depth (in	iches):						Hydric Soil Pre	sent? Yes X No
Remarks:	· -							
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
Primary Indi	cators (minimum of	one is requi	ired; check all that ap	oply)			Secondary In	ndicators (minimum of two required)
Surface	Water (A1)		Water-Sta	ined Leav	/es (B9)		Surface	Soil Cracks (B6)
High W	ater Table (A2)		Aquatic Fa	auna (B13	3)		Drainag	e Patterns (B10)
Saturati	ion (A3)		True Aqua	atic Plants	(B14)		Dry-Sea	ison Water Table (C2)
Water N	/larks (B1)		Hydrogen	Sulfide O	dor (C1)		Crayfish	Burrows (C8)
Sedime	nt Deposits (B2)		Oxidized F	Rhizosphe	eres on Liv	ing Roots	(C3) Saturation	on Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduc	ed Iron (C	4)		or Stressed Plants (D1)
Algal M	at or Crust (B4)		Recent Iro	n Reduct	ion in Tille	d Soils (C	6) X Geomor	phic Position (D2)
=	posits (B5)		Thin Muck				X FAC-Ne	utral Test (D5)
=	ion Visible on Aerial				` '			
	y Vegetated Concav	e Surface (B8) Other (Ex	plain in Re	emarks)			
Field Obser		. \Box						
		es	No Depth (in			-		
Water Table		/es	No Depth (in			-		
Saturation F	resent? pillary fringe)	/es	No X Depth (in	ches):		Wet	land Hydrology Pr	esent? Yes X No
		n gauge, m	onitoring well, aerial	photos, p	revious ins	pections)	, if available:	
	•			•				
Remarks:								

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	tion, District 1 State: Illinois Sampling Point: 8B/9B					
Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka	Section, Township, Ra	nge: Section 15, T. 44 N., R. 8 E.				
	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 y	aar2 Vaa X Na	_				
Are Vegetation , Soil , or Hydrology significantly		'Normal Circumstances" present? Yes X No No				
Are Vegetation, Soil, or Hydrology naturally pr		eeded, explain any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing	g sampling point l	ocations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes No X		1				
Hydric Soil Present? Yes No X	ls the Sampled within a Wetlar					
Wetland Hydrology Present? Yes No X	within a vvetiar	id? TesNo				
Remarks:						
Forbland.						
VEGETATION – Use scientific names of plants.						
Absolute		Dominance Test worksheet:				
,	r Species? Status	Number of Dominant Species				
1		That Are OBL, FACW, or FAC: 2 (A)				
2		Total Number of Dominant				
3		Species Across All Strata: 5 (B)				
4		Percent of Dominant Species				
5	_ = Total Cover	That Are OBL, FACW, or FAC: 40% (A/B)				
Sapling/Shrub Stratum (Plot size: 15-ft radius)	_ = Total Cover	Prevalence Index worksheet:				
1		Total % Cover of: Multiply by:				
2		OBL species x 1 =				
3		FACW species x 2 =				
4		FAC species x 3 =				
5		FACU species x 4 =				
	_ = Total Cover	UPL species x 5 =				
Herb Stratum (Plot size: 5-ft radius 1, Aster pilosus	yes FACU-	Column Totals: (A) (B)				
2. Aster pinous		Prevalence Index = B/A =				
3. Dipsacus laciniatus	yes FACW yes UPL	Hydrophytic Vegetation Indicators:				
4. Helianthus grosseserratus	yes FACW-	1 - Rapid Test for Hydrophytic Vegetation				
5. Solidago canadensis	yes FACU	2 - Dominance Test is >50%				
6		3 - Prevalence Index is ≤3.0 ¹				
7		4 - Morphological Adaptations ¹ (Provide supporting				
8.		data in Remarks or on a separate sheet)				
9.		Problematic Hydrophytic Vegetation ¹ (Explain)				
10						
	_ = Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Woody Vine Stratum (Plot size: 30-ft radius)						
1		Hydrophytic				
2		Vegetation Present? Yes No X				
Remarks: (Include photo numbers here or on a separate sheet.)	_ = Total Cover					
Tremains. (include prioto fluffibers fiere of off a separate sfleet.)						

SOIL Sampling Point: 8B/9B

Profile Des	cription: (Describe	to the depth	needed to docu	ment the i	ndicator o	or confirm	n the absence o	of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ² _		Remarks
0-10	10YR 3/1	_ <u>100</u> _		- ——			SIL .	
10-16	10YR 4/3	_ 100 _					SIL	
1Type: C=C	oncentration, D=Dep	olotion PM-P	Poducod Matrix M	S-Maskad	Sand Gra	——	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil		Dietion, Kivi-K	teduced Matrix, M	O-Wasket	Garia Gra	III 15.		or Problematic Hydric Soils ³ :
Histoso	I (A1)		Sandy	Gleyed Ma	ıtrix (S4)		_	Prairie Redox (A16)
Histic E	pipedon (A2)			Redox (S5			Dark Su	ırface (S7)
_	istic (A3)		_	d Matrix (S				nganese Masses (F12)
	en Sulfide (A4) d Layers (A5)			Mucky Mir Gleyed Ma				nallow Dark Surface (TF12) Explain in Remarks)
_	uck (A10)			ed Matrix (I				Explain in Remarks)
_	d Below Dark Surfac	e (A11)	= :	Dark Surfa	,			
	ark Surface (A12)			ed Dark Su				of hydrophytic vegetation and
ı <u> </u>	Mucky Mineral (S1)	2)	Redox	Depression	ns (F8)			hydrology must be present, disturbed or problematic.
	ucky Peat or Peat (S Layer (if observed)	-					unless (disturbed of problematic.
Type:								
1	iches):						Hydric Soil F	Present? Yes No X
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
Primary Indi	cators (minimum of	one is require	d; check all that a	oply)			<u>Secondar</u>	y Indicators (minimum of two required)
	Water (A1)			ined Leav	, ,		=	ice Soil Cracks (B6)
ı =	ater Table (A2)		=	auna (B13			=	age Patterns (B10)
_	ion (A3)		_	atic Plants				Season Water Table (C2)
=	/larks (B1) nt Deposits (B2)		= ' '	Sulfide Oo Rhizosphe	` '	na Poote	= '	fish Burrows (C8) ration Visible on Aerial Imagery (C9)
_	posits (B3)		=	of Reduce		-	_	ted or Stressed Plants (D1)
=	at or Crust (B4)		=	n Reducti			=	norphic Position (D2)
	posits (B5)		=	Surface (`	_	Neutral Test (D5)
Inundat	ion Visible on Aerial	Imagery (B7)	Gauge or	Well Data	(D9)			
Sparsel	y Vegetated Concav	e Surface (B8	3) Other (Ex	plain in Re	marks)			
Field Obser								
Surface Wat		/esNo		ches):		-		
Water Table		/es No		ches):		-		
Saturation F	resent? pillary fringe)	esNo	Depth (ir	ches):		_ Wetl	and Hydrology	Present? Yes No X
	ecorded Data (stream	n gauge, mon	itoring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								

Project/Site: IL 31/FAU 336, original, Add. A, B, and C	City/County: McHenry	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 (%): <u>0-1%</u> Lat: 42.29915°N	Long: <u>-88.28645°W</u>		Datum: NAD83		
Soil Map Unit Name: NRCS mapped as Elburn silt loam, revised to Pell	la silty clay loam	NWI classific	ation: U		
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Re	emarks.)		
Are Vegetation, Soil, or Hydrology significantly		'Normal Circumstances" p	resent? Yes X No		
Are Vegetation , Soil , or Hydrology naturally pr		eeded, explain any answei			
SUMMARY OF FINDINGS - Attach site map showing	g sampling point l	ocations, transects	, important features, etc.		
Hydrophytic Vegetation Present? Yes X No					
Hydric Soil Present? Yes X No	Is the Sampled		- — I		
Wetland Hydrology Present? Yes X No	within a Wetlar	nd? Yes X	No		
Remarks: Community type: Farmed wetland					
VEGETATION – Use scientific names of plants.					
Absolute Tree Stratum (Plot size: whole site) % Cover	Dominant Indicator Species? Status	Dominance Test work			
1		Number of Dominant Sp That Are OBL, FACW, o	_		
2		Total Number of Domina			
3		Species Across All Stra	ta: <u>2</u> (B)		
4		Percent of Dominant Sp			
5	= Total Cover	That Are OBL, FACW, o	or FAC: 100% (A/B)		
Sapling/Shrub Stratum (Plot size: whole site)	_ = 10tai 00vei	Prevalence Index work	ksheet:		
1		Total % Cover of:	Multiply by:		
2			x 1 =		
3			x 2 =		
4			x 3 =		
5			x 4 = x 5 =		
Herb Stratum (Plot size: whole site)	_ = Total Cover	Column Totals:			
1. Cyperus esculentus	yes FACW	Column Totals.	(') (b)		
2. Xanthium strumarium	yes FAC	Prevalence Index	= B/A =		
3		Hydrophytic Vegetatio			
4		·	lydrophytic Vegetation		
5		2 - Dominance Tes			
6			Adaptations ¹ (Provide supporting		
7	- — —		s or on a separate sheet)		
8		Problematic Hydrop	ohytic Vegetation¹ (Explain)		
9					
Woody Vine Stratum (Plot size: whole site)	_ = Total Cover	¹ Indicators of hydric soil be present, unless distu	l and wetland hydrology must irbed or problematic.		
1		Livelyanhystia			
2.		Hydrophytic Vegetation			
	_ = Total Cover	Present? Yes	s X No		
Remarks: (Include photo numbers here or on a separate sheet.)		1			

SOIL Sampling Point: 9A

Profile Desc	ription: (Describe	to the dep	th needed to docur	nent the	indicator	or confire	n the absence o	f indicators.)
Depth	Matrix		Redo	x Feature				
(inches)	Color (moist)	%	Color (moist)	%	_Type ¹	_Loc ²	Texture	Remarks
0-24	10YR 2/1	100					CL _	
24-39	2.5Y 4/1	080	10YR 5/6	20	<u>C</u>	<u>M</u>	CL	
					- ——			
¹ Type: C=C	oncentration, D=Dep	oletion, RM:	Reduced Matrix, MS	S=Maske	d Sand Gr	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil							_	or Problematic Hydric Soils ³ :
Histosol	, ,			-	atrix (S4)			rairie Redox (A16)
	oipedon (A2)		_	Redox (S			_	rface (S7)
_	istic (A3) en Sulfide (A4)			d Matrix (neral (F1)			nganese Masses (F12) allow Dark Surface (TF12)
	d Layers (A5)		_		atrix (F2)			explain in Remarks)
	uck (A10)			d Matrix ((, and the state of
Deplete	d Below Dark Surfac	e (A11)	Redox	Dark Surf	ace (F6)			
_	ark Surface (A12)				urface (F7)		of hydrophytic vegetation and
_	lucky Mineral (S1)		Redox [Depressio	ns (F8)			hydrology must be present,
_	icky Peat or Peat (S						unless d	isturbed or problematic.
1	Layer (if observed)							
	-h >:						Hydric Soil P	resent? Yes X No
· `	ches):							
Remarks:								
HYDROLO								
1	drology Indicators:							
Primary India	cators (minimum of o	one is requi	red; c <u>heck all that ap</u>	ply)				y Indicators (minimum of two required)
Surface	Water (A1)		Water-Stai	ined Leav	/es (B9)		X Surface	ce Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic Fa	una (B13	3)		=	age Patterns (B10)
Saturation	on (A3)		True Aqua	tic Plants	(B14)		= '	eason Water Table (C2)
1=	larks (B1)		Hydrogen	Sulfide O	dor (C1)			sh Burrows (C8)
Sedimer	nt Deposits (B2)		Oxidized F	Rhizosphe	eres on Liv	ing Roots		ation Visible on Aerial Imagery (C9)
_	oosits (B3)		Presence	of Reduc	ed Iron (C	4)	=	ed or Stressed Plants (D1)
	at or Crust (B4)		Recent Iro			d Soils (C		norphic Position (D2)
1= '	oosits (B5)		Thin Muck				X FAC-1	Neutral Test (D5)
	on Visible on Aerial		· = ·		' '			
	y Vegetated Concav	e Surface (B8)	olain in Re	emarks)			
Field Obser								
Surface Wat			No Depth (inc			-		
Water Table	Present?	es	No Depth (inc	ches):		-		
Saturation P		es	No XDepth (in	ches):		_ Wet	land Hydrology	Present? Yes X No No
	oillary fringe) corded Data (stream	n dauge mo	onitoring well, aerial p	nhotos n	revious ins	nections)	if available:	
1		-	etland signature					d as wetland by the NWI?: No
Remarks:	. 3, (3, 5)	W		31.401	0070		3.13 3340	a as welland by the reversion to
	crop photo/NWI j	narcentac	ie: 50%					
Combined	CIOP PHOTO/NIVII	Jordonia	jo. 00 /0					
Does the si	ite possess wetla	and hydro	logy? Yes Ra	tionale:	Wetlan	d signatu	ure is evident i	n the majority of years examined.

Project/Site: IL 31/FAU 336, original, Add. A, B, and C	City/County: McHenry	mpling Date: September 9, 2010					
Applicant/Owner: Illinois Department of Transportation, District 1		State: IL Sar	npling 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): con	cave				
Slope (%): <u>0-1%</u> Lat: <u>42.29592°N</u>	Long: <u>-88.28746°W</u>	Dat	um: NAD83				
Soil Map Unit Name: Mapped as Pella silty clay loam		NWI classification	n: <u>U</u>				
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Rema	rks.)				
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are	Normal Circumstances" prese	ent? Yes X No No				
Are Vegetation, Soil, or Hydrology naturally pro	oblematic? (If ne	eded, 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	Is the Sampled						
Wetland Hydrology Present? Yes X No	within a Wetlar	id? Yes X	No				
Remarks: Community type: Farmed wetland							
VECETATION . He a significant and a findants							
VEGETATION – Use scientific names of plants.	Dominant Indicator	Daminanaa Taat warkaba	-4.				
Absolute Tree Stratum (Plot size: whole site) % Cover	Dominant Indicator Species? Status	Dominance Test workshee Number of Dominant Specie					
1		That Are OBL, FACW, or FA					
2		Total Number of Dominant					
3		Species Across All Strata:	(B)				
4		Percent of Dominant Specie					
5	_ = Total Cover	That Are OBL, FACW, or FA	AC: (A/B)				
Sapling/Shrub Stratum (Plot size: whole site)	_ 10.01.00101	Prevalence Index workshe	et:				
1	- — —	Total % Cover of:					
2		OBL species					
3		FACW species FAC species					
4		FACU species					
	= Total Cover	UPL species					
Herb Stratum (Plot size: Whole site)	- ODI	Column Totals:	_ (A) (B)				
1. Echinochloa muricata 2. Panicum dichotomiflorum	yes OBL FACW-	Prevalence Index = B	/Λ =				
	- <i>-</i>	Hydrophytic Vegetation In					
3		1 - Rapid Test for Hydro					
5		2 - Dominance Test is >					
6		3 - Prevalence Index is	≤3.0 ¹				
7			tations ¹ (Provide supporting on a separate sheet)				
8		Problematic Hydrophyti	' '				
9		Troblemade Hydrophlyd	o regetation (Explain)				
10		¹ Indicators of hydric soil and					
Woody Vine Stratum (Plot size: whole site)	_ = Total Cover	be present, unless disturbed	d or problematic.				
1		Hydrophytic					
2		Vegetation Present? Yes	X No				
Pomorko: (Include photo numbero bezo ex en a conseste chart	_ = Total Cover	163					
Remarks: (Include photo numbers here or on a separate sheet.)							

SOIL Sampling Point: 10A

Profile Desc	cription: (Describe	to the dep	oth needed to docu	ment the	indicator	or confire	n the absence of in	dicators.)		
Depth	Matrix			x Feature		1 2	T	Barrada		
(inches) 0-19	Color (moist)	%	Color (moist)	%	Type ¹	_Loc ² _	Texture	Remarks		
	10YR 2/1	_ 100					<u>CL</u>			
19-26	2.5Y 5/1	85	10YR 5/6	_ <u>15</u>	<u> </u>	<u>M</u>	<u>CL</u>			
1							2			
		oletion, RM	=Reduced Matrix, M	S=Maske	d Sand Gr	ains.		=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :		
Hydric Soil			Condu.	Clayed M	atrice (CA)		_	•		
Histosol	pipedon (A2)			Gleyed Ma Redox (St			Dark Surface	ie Redox (A16)		
	istic (A3)		_	d Matrix (_	nese Masses (F12)		
	en Sulfide (A4)				neral (F1)			w Dark Surface (TF12)		
Stratifie	d Layers (A5)			Gleyed M				ain in Remarks)		
_	uck (A10)		= '	ed Matrix (,					
	d Below Dark Surfac	e (A11)		Dark Surfa	٠,,		3			
_	ark Surface (A12)				urface (F7))		ydrophytic vegetation and		
	Mucky Mineral (S1) ucky Peat or Peat (S	3)	Redox	Depression	ons (Fo)		-	Irology must be present, irbed or problematic.		
	Layer (if observed)						The state of the s	in bed or problematio.		
Type:	, , , , , , , , , , , , , , , , , , , ,									
1							Hydric Soil Pres	sent? Yes X No No		
Remarks:	Depth (inches):									
HYDROLO	GY									
Wetland Hy	drology Indicators	1								
Primary Indi	cators (minimum of	one is requ	ired; check all that a	oply)			Secondary In	dicators (minimum of two required)		
Surface	Water (A1)		Water-Sta	ined Leav	/es (B9)		X Surface S	Soil Cracks (B6)		
=	ater Table (A2)		Aquatic Fa		(,			Patterns (B10)		
Saturati	on (A3)		True Aqua	atic Plants	(B14)		= -	son Water Table (C2)		
Water M	farks (B1)		Hydrogen	Sulfide O	dor (C1)		Crayfish	Burrows (C8)		
Sedime	nt Deposits (B2)		Oxidized I	Rhizosphe	eres on Liv	ing Roots	(C3) Saturatio	n Visible on Aerial Imagery (C9)		
Drift De	posits (B3)		Presence	of Reduce	ed Iron (C	4)	X Stunted	or Stressed Plants (D1)		
X Algal Ma	at or Crust (B4)		Recent Iro	on Reduct	ion in Tille	d Soils (C	6) X Geomorp	phic Position (D2)		
Iron De	posits (B5)		Thin Muck	s Surface	(C7)		X FAC-Neu	ıtral Test (D5)		
Inundati	ion Visible on Aerial	Imagery (B	7) Gauge or	Well Data	(D9)					
X Sparsel	y Vegetated Concav	e Surface (B8) Other (Ex	plain in Re	emarks)					
Field Obser	vations:									
Surface Wat		/es	No Depth (in			-				
Water Table	Present?	⁄es	No Depth (in	iches):		_				
Saturation P		/es	No XDepth (in	iches):		_ Wet	land Hydrology Pre	esent? Yes X No No		
	pillary fringe) corded Data (stream	n dalide m	onitoring well, aerial	nhotos n	revious ins	nections)	if available			
1			etland signature					as wetland by the NWI?: No		
Remarks:	2112107 71101		2. 2. 2. 2. 3							
	crop photo/NWI	percentac	ge: 50%							
					147 ::					
Does the s	Does the site possess wetland hydrology? Yes Rationale: Wetland signature is evident in the majority of years examined.									

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	Sampling Date: September 9, 201					
Applicant/Owner: Illinois Department of Transportation, District 1	State: Illinois Sampling Point: 10B					
Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka	Section, Township, R	Section, Township, Range: Section 15, T. 44 N., R. 8 E.				
Landform (hillslope, terrace, etc.): upland	Local relie	of (concave, convex, none): convex to none				
Slope (%): 0-2% Lat: 42.29571°N	Long: <u>-88.28752°W</u>	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	f year? Yes X No	(If no, explain in Remarks.)				
		e "Normal Circumstances" present? Yes X No				
Are Vegetation, Soil, or Hydrology naturally		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 No X	Is the Sample					
Wetland Hydrology Present? Yes No X	within a Wetla	and? Yes No X				
Remarks:						
Mesic Floodplain Forest.						
VEGETATION – Use scientific names of plants.						
Absolu						
Accompany	ver Species? Status yes FACW-	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)				
Acer negunao Maclura pomifera	<i>-</i>	(, ,				
3		Total Number of Dominant Species Across All Strata: 5 (B)				
4		Percent of Dominant Species				
5		That Are OBL, FACW, or FAC: 60% (A/B)				
Sapling/Shrub Stratum (Plot size: 15-ft radius)	= Total Cover	Prevalence Index worksheet:				
1. Rhamnus cathartica	yes FACU	Total % Cover of: Multiply by:				
2. Prunus virginiana	yes FAC-	OBL species x 1 =				
3		FACW species x 2 =				
4		FAC species x 3 =				
5		FACU species x 4 =				
Herb Stratum (Plot size: 5-ft radius)	= Total Cover	UPL species x 5 =				
1. Alliaria petiolata	yes FAC	Column Totals: (A) (B)				
2.		Prevalence Index = B/A =				
3		Hydrophytic Vegetation Indicators:				
4		1 - Rapid Test for Hydrophytic Vegetation				
5		2 - Dominance Test is >50%				
6		3 - Prevalence Index is ≤3.0¹				
7		4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)				
8		Problematic Hydrophytic Vegetation ¹ (Explain)				
9		-				
	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Woody Vine Stratum (Plot size: 30-ft radius)						
1		Vegetation				
2	= Total Cover	Present? Yes X No				
Remarks: (Include photo numbers here or on a separate sheet.)						

SOIL Sampling Point: 10B

Profile Des	cription: (Describe	to the depth r	needed to docu	ment the i	ndicator	or confirm	the absence of i	ndicators.)
Depth	Matrix			ox Features				
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ²		Remarks
0-13	10YR 3/1	_ 100					SIL	
1 _{Tuno:} C=C	oncentration, D=Dep	lotion DM=Do	duced Metrix M	- ———			² I continu	L=Doro Lining M=Matrix
Hydric Soil		oletion, Kivi-Ke	duced Matrix, N	io-wasked	i Sand Gra	airis.		L=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Histoso			Sandy	Gleyed Ma	trix (S4)			irie Redox (A16)
	pipedon (A2)			Redox (S5			Dark Surfa	
Black H	istic (A3)			ed Matrix (S				anese Masses (F12)
	en Sulfide (A4)			Mucky Mir				ow Dark Surface (TF12)
	d Layers (A5) uck (A10)			Gleyed Ma ed Matrix (f			Other (Ex	plain in Remarks)
_	d Below Dark Surfac	e (A11)	= '	Dark Surfa	,			
	ark Surface (A12)	· (· · ·)		ed Dark Su	. ,		³ Indicators of	hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)		Redox	Depression	ns (F8)		wetland hy	drology must be present,
	ucky Peat or Peat (S						unless dis	turbed or problematic.
l _	Layer (if observed)							
Type:			_				Hydric Soil Pre	esent? Yes No X
. ,	ches):						,	
Remarks:								
HYDROLO	GY							
	drology Indicators:							
1	cators (minimum of c		check all that a	(vlaa			Secondary I	ndicators (minimum of two required)
	Water (A1)	in to roquirou.		ained Leave	es (B9)			Soil Cracks (B6)
	ater Table (A2)			auna (B13)	(,			pe Patterns (B10)
Saturati	, ,		=	atic Plants	,		=	ason Water Table (C2)
Water N	larks (B1)		Hydroger	Sulfide Od	dor (C1)		Crayfish	n Burrows (C8)
Sedime	nt Deposits (B2)		Oxidized	Rhizosphe	res on Livi	ing Roots	(C3) Saturati	on Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduce	d Iron (C4	·)	Stunted	or Stressed Plants (D1)
1 = °	at or Crust (B4)		=	on Reduction		d Soils (C6	· =	rphic Position (D2)
1= '	posits (B5)			k Surface (FAC-Ne	eutral Test (D5)
ı = =	on Visible on Aerial	. , ,	= 1	Well Data	. ,			
Field Obser	y Vegetated Concav	e Surface (Bo)	Other (Ex	plain in Re	marks)			
Surface Wat		es No	X Depth (in	nches):				
Water Table		es No		nches):		_		
Saturation P		es No		nches):		- Wetl:	and Hydrology P	resent? Yes No X
(includes ca	pillary fringe)							esenti res ne
Describe Re	corded Data (stream	gauge, monito	oring well, aerial	photos, pro	evious ins	pections),	if available:	
Remarks:								
c.marko.								

Project/Site: IL 31/FAU 336, original, Add. A, B, and C	City/County: McHeni	eptember 9, 2010						
Applicant/Owner: Illinois Department of Transportation, District 1		State: IL Sampling Point: 1	1A					
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 ye	ear? Yes X No	(If no, explain in Remarks.)						
Are Vegetation , Soil , or Hydrology significantly	<u> </u>	e "Normal Circumstances" present? Yes						
Are Vegetation Soil naturally pr		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	Is the Sampl							
Wetland Hydrology Present? Yes X No	within a Wet	and? Yes X No No						
Remarks: Community type: Farmed wetland								
VEGETATION – Use scientific names of plants.								
Absolute Tree Stratum (Plot size: whole site) % Cover	Dominant IndicatoSpecies? Status							
1		 Number of Dominant Species That Are OBL, FACW, or FAC: 	(A)					
2.		Total Number of Dominant						
3		Species Across All Strata:	(B)					
4		Percent of Dominant Species						
5		That Are OBL, FACW, or FAC:	(A/B)					
Sapling/Shrub Stratum (Plot size: whole site)	_ = Total Cover	Prevalence Index worksheet:						
1		Total % Cover of: Multiply	by:					
2.		OBL species x 1 =						
3		FACW species x 2 =						
4	- ——	FAC species x 3 =						
5	- — —	_ FACU species x 4 =						
Herb Stratum (Plot size: Whole site)	_ = Total Cover	UPL species x 5 =						
1. Amaranthus tuberculatus	yes OBL	Column Totals: (A)	(B)					
2. Cyperus esculentus	yes FACW	Prevalence Index = B/A =						
3. Echinochloa muricata	yes OBL	Hydrophytic Vegetation Indicators:						
4		1 - Rapid Test for Hydrophytic Vegetat	tion					
5		2 - Dominance Test is >50%						
6	- — —	3 - Prevalence Index is ≤3.0¹						
7		4 - Morphological Adaptations ¹ (Provid data in Remarks or on a separate s	le supporting sheet)					
8		Problematic Hydrophytic Vegetation ¹ (l						
9		-						
10	= Total Cover	Indicators of hydric soil and wetland hydro						
Woody Vine Stratum (Plot size: whole site)	10(a) 00001	be present, unless disturbed or problemation	C.					
1	- —— ——	_ Hydrophytic						
2		Vegetation Present? Yes X No						
Pomorko: (Include phote numbers have as an account short)	_ = Total Cover							
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	Matrix									
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	_Loc ²	Texture	Remarks		
0-18	10YR 2/1	100					SICL			
18-26	2.5Y 5/2	80	10YR 5/6	_ 20	<u> </u>	<u>M</u>	<u>CL</u>			
1										
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Pl=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :										
ا ا				01	-t-:- (O 1)			•		
Histosol	(A1) pipedon (A2)			Gleyed Ma Redox (St				rairie Redox (A16) rface (S7)		
_	istic (A3)		_	d Matrix (_	nganese Masses (F12)		
_	en Sulfide (A4)				neral (F1)			allow Dark Surface (TF12)		
Stratifie	d Layers (A5)		Loamy	Gleyed M	atrix (F2)		Other (E	xplain in Remarks)		
_	uck (A10)		= '	d Matrix (,					
	d Below Dark Surfac	e (A11)		Dark Surf	, ,		31	f budges budge ve metation and		
_	ark Surface (A12) Mucky Mineral (S1)			ed Dark Si Depressio	urface (F7)		of hydrophytic vegetation and hydrology must be present,		
_	ucky Peat or Peat (S	3)	Redox I	Depressio	nis (FO)			isturbed or problematic.		
_	Layer (if observed)									
l _										
Depth (in	ches):						Hydric Soil P	resent? Yes X No		
Remarks:										
HYDROLO	GY									
	drology Indicators:	!								
1			red; check all that ar	(vlac			Secondary	/ Indicators (minimum of two required)		
	Water (A1)	one to requi	Water-Sta	. , ,	res (R9)			ce Soil Cracks (B6)		
I = I	ater Table (A2)		Aquatic Fa		(,			age Patterns (B10)		
Saturati	, ,		True Aqua	,	,			eason Water Table (C2)		
=	larks (B1)		Hydrogen		` ,		Crayfi	sh Burrows (C8)		
Sedime	nt Deposits (B2)		Oxidized F	Rhizosphe	eres on Liv	ing Roots	(C3) Satura	ation Visible on Aerial Imagery (C9)		
Drift De	posits (B3)		Presence	of Reduc	ed Iron (C	4)	X Stunte	ed or Stressed Plants (D1)		
Algal Ma	at or Crust (B4)		Recent Iro	n Reduct	ion in Tille	d Soils (C	6) X Geom	orphic Position (D2)		
1=	oosits (B5)		Thin Muck				X FAC-N	Neutral Test (D5)		
_	on Visible on Aerial		· <u> </u>		, ,					
	y Vegetated Concav	e Surface (l	B8) Other (Exp	plain in Re	emarks)					
Field Obser		. \square	🔽							
Surface Wat				ches):		-				
Water Table			No Depth (in			— I				
Saturation P	resent? \ pillary fringe)	es	No X Depth (in	ches):		Wet	land Hydrology l	Present? Yes X No		
		gauge, mo	onitoring well, aerial	photos, p	revious ins	spections)	, if available:			
Percent of	FSA crop photo	s with we	etland signature	eviden	t: 60%	ls	the site code	d as wetland by the NWI?: No		
Remarks:										
Combined	crop photo/NWI j	percentag	je: 50%							
_										
Does the site possess wetland hydrology? Yes Rationale: Wetland signature is evident in the majority of years examined.										

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	City/County: McHenry		Sampling Date: Septe	ember 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, Rar	nge: Section 15, T. 44 N., F	R. 8 E.	
Landform (hillslope, terrace, etc.): upland	Local relief ((concave, convex, none):	convex to none	
Slope (%): <u>0-2%</u> Lat: <u>42.29533°N</u>	Long: <u>-88.28754</u> °W		Datum: NAD83	
Soil Map Unit Name: NRCS mapped as Pella silty clay loam, revised to	Brenton silt loam	NWI classification	ation: U	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Re	emarks.)	
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "	Normal Circumstances" p	resent? Yes X	No_
Are Vegetation, Soil, or Hydrology naturally pr		eded, explain any answer		
SUMMARY OF FINDINGS - Attach site map showing	g sampling point lo	ocations, transects	, important featu	ıres, etc.
Hydrophytic Vegetation Present? Yes No X		_		
Hydric Soil Present? Yes No X	Is the Sampled		No X	
Wetland Hydrology Present? Yes No X	within a Wetlan	id? Yes	No X	
Remarks:				
Cropland.				
VEGETATION – Use scientific names of plants.				
Absolute	Dominant Indicator	Dominance Test works	sheet:	
Tree Stratum (Plot size: 30-ft radius) % Cover 1.	Species? Status	Number of Dominant Sp That Are OBL, FACW, o		(A)
2		Total Number of Domina	ant	
3		Species Across All Strat		(B)
4		Percent of Dominant Sp	pecies	
5		That Are OBL, FACW, o	or FAC: 0%	(A/B)
Sapling/Shrub Stratum (Plot size: 15-ft radius)	_ = Total Cover	Prevalence Index work	ksheet:	
1		Total % Cover of:	Multiply by	:
2.		OBL species	x 1 =	
3		FACW species	x 2 =	
4		FAC species	x 3 =	
5		FACU species		
Heat Otasture (Diet siese 5-ft radius	_ = Total Cover	UPL species		
Herb Stratum (Plot size: 5-ft radius 1, Glycine max	yes UPL	Column Totals:	(A)	(B)
2	- 	Prevalence Index	= B/A =	
3.		Hydrophytic Vegetatio	n Indicators:	
4.		1 - Rapid Test for H	Hydrophytic Vegetation	n
5.		2 - Dominance Test	t is >50%	
6		3 - Prevalence Inde	ex is ≤3.0 ¹	
7		4 - Morphological A	Adaptations ¹ (Provide s	supporting
8		l —	s or on a separate she phytic Vegetation ¹ (Ex	
9		Problematic Hydrop	onytic vegetation (Ex	piain)
10		Indicators of hydric soil	l and wetland hydrolog	ny must
Woody Vine Stratum (Plot size: 30-ft radius)	_ = Total Cover	be present, unless distu		gy mast
1		Hydrophytic		
2		Vegetation Present? Yes	s No X	٦
	_ = Total Cover	riesent: Tes	, HO X	_
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL Sampling Point: 11B/12B

Profile Desc	cription: (Describe	to the depth	needed to docur	nent the inc	dicator o	r confirm	n the absence of inc	dicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 2/1	_ 100					SIL	
6-13	10YR 4/2	100					SICL	
l ———								
¹ Type: C=C	oncentration, D=Dep	letion, RM=Re	educed Matrix, Ma	S=Masked S	Sand Gra	ins.	² Location: PL=	Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicators for P	roblematic Hydric Soils³:
Histosol	(A1)		Sandy (Sleyed Matri	ix (S4)		Coast Prairie	e Redox (A16)
	pipedon (A2)		_	Redox (S5)			Dark Surfac	` '
	istic (A3)			Matrix (S6)			_	nese Masses (F12)
	en Sulfide (A4)		_	Mucky Mine				v Dark Surface (TF12)
_	d Layers (A5)			Gleyed Matr			Other (Expla	in in Remarks)
=	uck (A10)	- (0.14)		d Matrix (F3	,			
	d Below Dark Surfac ark Surface (A12)	e (A11)		Dark Surface d Dark Surfa	٠,		3Indicators of by	drophytic vegetation and
_	Mucky Mineral (S1)			d Dark Suria Depressions				ology must be present,
_	ucky Peat or Peat (S	3)	itedox i	Jepi essions	(10)		•	rbed or problematic.
_	Layer (if observed):	-						i problemate.
	,							
	ches):		_				Hydric Soil Pres	ent? Yes No X
Remarks:	<u> </u>							
rtemarts.								
LIVEROLO								
HYDROLO								
1	drology Indicators:							
Primary Indi	cators (minimum of o	ne is required	; check all that ap	ply)			Secondary Inc	dicators (minimum of two required)
Surface	Water (A1)		Water-Sta	ined Leaves	(B9)		Surface S	oil Cracks (B6)
High Wa	ater Table (A2)		Aquatic Fa	iuna (B13)			Drainage	Patterns (B10)
Saturati	on (A3)		True Aqua	tic Plants (B	314)		Dry-Seas	on Water Table (C2)
Water M	1arks (B1)		Hydrogen	Sulfide Odo	r (C1)		Crayfish E	Burrows (C8)
Sedime	nt Deposits (B2)		Oxidized F	Rhizosphere	s on Livii	ng Roots	(C3) Saturation	n Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduced	Iron (C4))	Stunted o	r Stressed Plants (D1)
Algal Ma	at or Crust (B4)		Recent Iro	n Reduction	in Tilled	Soils (C6	Geomorp	hic Position (D2)
Iron De	oosits (B5)		Thin Muck	Surface (C7	7)		FAC-Neu	tral Test (D5)
Inundati	on Visible on Aerial I	magery (B7)	Gauge or	Well Data (D	09)			
Sparsel	y Vegetated Concave	e Surface (B8)	Other (Ex	lain in Rem	arks)			
Field Obser	vations:							
Surface Wat	er Present? Y	esNo	Depth (in	ches):		_		
Water Table	Present? Y	esNo	X Depth (in	ches):		_		
Saturation P	resent? Y	es No	X Depth (in	ches):		Wetla	and Hydrology Pres	sent? Yes No X
	pillary fringe)							
Describe Re	corded Data (stream	gauge, monit	oring well, aerial	ohotos, prev	ious insp	pections),	if available:	
Remarks:								
i tomarko.								

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, Rar	nge: Section 15, T. 44 N., F	₹. 8 E.				
Landform (hillslope, terrace, etc.): depression	Local relief ((concave, convex, none):	concave				
Slope (%): <u>0-1%</u> Lat: <u>42.29510°N</u>	Long: <u>-88.28739</u> °W		Datum: NAD83				
Soil Map Unit Name: Mapped as Pella silty clay loam		NWI classifica	ation: U				
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Re	emarks.)				
Are Vegetation, Soil, or Hydrology significantly			resent? Yes X No				
Are Vegetation , Soil , or Hydrology naturally pr		eded, explain any answer					
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	Is the Sampled within a Wetlan		No				
Wet Meadow.							
VEGETATION – Use scientific names of plants.							
Absolute	Dominant Indicator	Dominance Test works	sheet:				
Tree Stratum (Plot size: whole site) % Cover 1	Species? Status	Number of Dominant Sp That Are OBL, FACW, o)			
2		Total Number of Domina Species Across All Strat		,			
4		Percent of Dominant Sp	、,				
5		That Are OBL, FACW, of		B)			
Sapling/Shrub Stratum (Plot size: whole site)	_ = Total Cover	Prevalence Index work	ksheet:				
1		Total % Cover of:					
2.		OBL species	x 1 =				
3.		FACW species	x 2 =				
4		FAC species	x 3 =				
5		FACU species	x 4 =				
	_ = Total Cover	UPL species	x 5 =				
Herb Stratum (Plot size: whole site) 1. Phalaris arundinacea	yes FACW	Column Totals:	(A) (B	3)			
2.	- 	Prevalence Index	= B/A =				
3		Hydrophytic Vegetatio	n Indicators:				
4.		X 1 - Rapid Test for H	lydrophytic Vegetation				
5		2 - Dominance Test	t is >50%				
6.		3 - Prevalence Inde	ex is ≤3.0 ¹				
7		4 - Morphological A	Adaptations ¹ (Provide supporti	ng			
8			s or on a separate sheet) ohytic Vegetation¹ (Explain)				
9		Froblematic Hydrop	hiytic vegetation (Explain)				
10		¹ Indicators of hydric soil	l and wetland hydrology must				
Woody Vine Stratum (Plot size: whole site)	_ = Total Cover	be present, unless distu					
1		Hydrophytic					
2		Vegetation Present? Yes	s X No				
Remarks: (Include photo numbers here or on a separate sheet.)	_ = Total Cover			_			
(and the second							

SOIL Sampling Point: 12A

Profile Desc	cription: (Describe	to the dept	h needed to docun	nent the	indicator	or confirn	n the absence	of indicators.)
Depth	Matrix			x Feature		. 2		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	_Loc ² _	Texture	Remarks
0-13	10YR 2/1	100	2 = 1/2 = /2				SICL	
13-18	5Y 4/1		2.5Y 5/6	10	. <u>C</u>	<u>M</u>	CL	
18-30	5Y 5/1	80	2.5Y 5/6	20	<u> </u>	<u>M</u>	CL	
¹ Type: C=Ce	oncentration, D=Dep	letion. RM=	Reduced Matrix, MS	S=Masked	d Sand Gr	ains.	2Location	: PL=Pore Lining, M=Matrix.
Hydric Soil			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					for Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy G	Sleyed Ma	atrix (S4)		Coast	Prairie Redox (A16)
ı —	oipedon (A2)			Redox (S5			_	urface (S7)
_	stic (A3) en Sulfide (A4)			Matrix (S	36) neral (F1)			anganese Masses (F12)
	d Layers (A5)			Sleyed Ma	, ,			hallow Dark Surface (TF12) Explain in Remarks)
	ick (A10)			d Matrix (,,
ı —	d Below Dark Surfac	e (A11)	_	Dark Surfa				
_	ark Surface (A12)				urface (F7))		of hydrophytic vegetation and
	lucky Mineral (S1) icky Peat or Peat (S	3)	Redox L	Depressio	ns (F8)			d hydrology must be present, disturbed or problematic.
	Layer (if observed)						uniess	distarbed of problematic.
Type:	,							
	ches):						Hydric Soil	Present? Yes X No No
Remarks:			<u> </u>					
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary India	cators (minimum of c	ne is requir	ed; check all that ap	ply)			<u>Seconda</u>	ry Indicators (minimum of two required)
_	Water (A1)		Water-Stai		, ,			ace Soil Cracks (B6)
ı =	ater Table (A2)		Aquatic Fa	,	,			nage Patterns (B10)
Saturation	, ,		True Aqua					Season Water Table (C2)
==	larks (B1) nt Deposits (B2)		Hydrogen Oxidized R		, ,	ina Poote		rfish Burrows (C8) rration Visible on Aerial Imagery (C9)
	posits (B3)		Presence					nation visible on Aerial imagery (C3)
ı 🚝 💮 .	at or Crust (B4)		Recent Iro			,		morphic Position (D2)
	posits (B5)		Thin Muck			, , ,	· =	-Neutral Test (D5)
Inundati	on Visible on Aerial	magery (B7	Gauge or \	Well Data	(D9)			
Sparsely	Vegetated Concav	e Surface (E	88) Other (Exp	lain in Re	emarks)			
Field Obser	vations:							
Surface Wat	er Present? Y		lo Depth (inc			-		
Water Table	Present? Y		lo Depth (inc			-		
Saturation P (includes car		es X	loDepth (inc	ches): <u>20</u>)	_ Wetl	and Hydrology	Present? Yes X No
	corded Data (stream	gauge, mo	nitoring well, aerial p	ohotos, pr	evious ins	pections),	if available:	
Remarks:								

Project/Site: IL 31/FAU 336, original, Add. A, B, and C	City/County: McHenr	Sampling Date: September 9, 2010					
Applicant/Owner: Illinois Department of Transportation, District 1		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 classific	ation: U				
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in R	emarks.)				
Are Vegetation , Soil , or Hydrology significantly	·		oresent? Yes X No				
Are Vegetation Soil , or Hydrology naturally pro		needed, explain any answe					
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	Is the Sample		- —				
Wetland Hydrology Present? Yes X No	within a Wetl	and? Yes X	No				
Remarks: Community type: Wet Meadow/Farmed Wetland							
VEGETATION – Use scientific names of plants.							
Absolute			sheet:				
·	Species? Status	 Number of Dominant State Are OBL, FACW, or 					
1		_ Mat Ale Obl., FACW, t) FAC (A)				
3		Total Number of DominSpecies Across All Stra					
4							
5		 Percent of Dominant Sp That Are OBL, FACW, or 					
- whole site	_ = Total Cover						
Sapling/Shrub Stratum (Plot size: whole site)		Prevalence Index work Total % Cover of:					
1		-	x 1 =				
2		-	x 2 =				
4		-	x 3 =				
5.		FACU species	x 4 =				
	_ = Total Cover	UPL species	x 5 =				
Herb Stratum (Plot size: whole site) 1. Cyperus esculentus	yes FACW	Column Totals:	(A) (B)				
2. Echinochloa muricata	yes OBL	- Prevalence Index	= B/A =				
3. Leersia oryzoides	yes OBL	Hydrophytic Vegetation					
4. Typha angustifolia	yes OBL	1 - Rapid Test for H	lydrophytic Vegetation				
5.		2 - Dominance Tes	t is >50%				
6		3 - Prevalence Inde					
7		4 - Morphological A	Adaptations ¹ (Provide supporting s or on a separate sheet)				
8	- — —		phytic Vegetation ¹ (Explain)				
9		-	my to regetation (Explain)				
10		Indicators of hydric soi	I and wetland hydrology must				
Woody Vine Stratum (Plot size: whole site)	_ = Total Cover	be present, unless distu	irbed or problematic.				
1		_ Hydrophytic					
2		Vegetation	┌ ─				
	_ = Total Cover	Present? Yes	s X No				
Remarks: (Include photo numbers here or on a separate sheet.)							

SOIL Sampling Point: 13A

Profile Desc	cription: (Describe	to the dep	oth needed to docu	ment the	indicator	or confin	n the absence of	indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature %	es Type ¹ _	Loc ²	Texture	Remarks
(inches) 0-14	10YR 2/1	100	Coloi (moist)		_ Type		SICL	Remarks
-			0.577.574	40				
14-26	2.5Y 4/1	_ 90	2.5Y 5/4	_ <u>10</u>	_ <u>C</u>	<u>M</u>	SICL _	
1- 0.0							2,	
Hydric Soil		oletion, RM	=Reduced Matrix, M	S=Maske	d Sand Gr	ains.		PL=Pore Lining, M=Matrix. r Problematic Hydric Soils ³ :
Histosol			Sandy	Cleved M	atrix (S4)		_	airie Redox (A16)
	pipedon (A2)			Redox (S			Dark Surl	, ,
	istic (A3)		_	d Matrix (ganese Masses (F12)
Hydroge	en Sulfide (A4)		Loamy	Mucky Mi	ineral (F1)		Very Sha	llow Dark Surface (TF12)
_	d Layers (A5)				latrix (F2)		Other (Ex	rplain in Remarks)
_	uck (A10)	(Δ14)		ed Matrix				
	d Below Dark Surfac ark Surface (A12)	ce (ATT)		Dark Surf	ace (F6) urface (F7	`	3Indicators of	hydrophytic vegetation and
_	Mucky Mineral (S1)		= '	Depression		,		lydrology must be present,
	ucky Peat or Peat (S	3)		_ оргоооп	(, ,			sturbed or problematic.
Restrictive	Layer (if observed)	:						
Type:								
Depth (in	ches):						Hydric Soil Pr	resent? Yes X No
Remarks:								
HYDROLO								
1	drology Indicators		inadi ahaali allithat as				Cocondoni	Indicators (minimum of two so suited)
		one is requ	ired; check all that a		(DO)			Indicators (minimum of two required)
1=	Water (A1) ater Table (A2)		Water-Sta		, ,			e Soil Cracks (B6) ge Patterns (B10)
Saturati	, ,		True Aqua	,	,		=	ge Patterns (B10) eason Water Table (C2)
_	larks (B1)		Hydrogen		, ,		= '	sh Burrows (C8)
_	nt Deposits (B2)		= ' '		eres on Liv	ina Roots	= '	tion Visible on Aerial Imagery (C9)
_	posits (B3)		=		ed Iron (C	•	_	d or Stressed Plants (D1)
	at or Crust (B4)		=		tion in Tille		=	orphic Position (D2)
	posits (B5)		Thin Muck				´ =	leutral Test (D5)
-	on Visible on Aerial	Imagery (B			, ,		<u>—</u>	, ,
X Sparsel	y Vegetated Concav	e Surface (B8) Other (Ex	plain in R	emarks)			
Field Obser	vations:							
Surface Wat	er Present?	/es	No Depth (in	ches):		_		
Water Table	Present?	/es	No X Depth (in	ches):		_		
Saturation P	resent?	/es	No X Depth (in	ches):		Wet	land Hydrology P	Present? Yes X No
	pillary fringe)						if a vallable.	
1			onitoring well, aerial					d as watland by the NIV/I2: No
	1 SA CIOP PHOLO	o willi W	etland signature	eviden	ι. 100%	18	tile site codec	d as wetland by the NWI?: No
Remarks:	0400 mb c t = /NINA/I	n a u a 4	ma. 020/					
Combined	crop photo/NWI	percenta(კ e . გა‰					
Does the s	ite possess wetla	and hydro	logy? Yes Ra	ationale:	Wetlan	d signatı	ure is evident in	the majority of years examined.

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	City/County: McHenry	Sampling Date: S	eptember 9, 2010
Applicant/Owner: Illinois Department of Transportation, District 1		State: Illinois Sampling Point: 1	13B
Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka	Section, Township, Ra	nge: Section 15, T. 44 N., R. 8 E.	
Landform (hillslope, terrace, etc.): upland	Local relief	concave, convex, none): convex to none	
Slope (%): <u>0-2%</u> Lat: <u>42.29601°N</u>	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 ye	ear? Yes X No	(If no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are	Normal Circumstances" present? Yes	No _
Are Vegetation, Soil, or Hydrology naturally pr		eded, explain any answers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map showing	g sampling point l	ocations, transects, important fea	atures, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	Is the Sampled within a Wetlar		
Cropland.			
VEGETATION – Use scientific names of plants.			
Absolute	Dominant Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 30-ft radiuis) % Cover 1.	Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: 1	(A)
2		Total Number of Dominant Species Across All Strata: 2	(B)
4.			(b)
5.		Percent of Dominant Species That Are OBL, FACW, or FAC: 50%	(A/B)
Sapling/Shrub Stratum (Plot size: 15-ft radius)	_ = Total Cover	Prevalence Index worksheet:	
1			by:
2.		OBL species x 1 =	
3.		FACW species x 2 =	
4		FAC species x 3 =	
5		FACU species x 4 =	
	_ = Total Cover	UPL species x 5 =	
Herb Stratum (Plot size: 5-ft radius) 1. Cyperus esculentus	ves FACW	Column Totals: (A)	(B)
		Prevalence Index = B/A =	
2. Zea mays	yes UPL	Hydrophytic Vegetation Indicators:	
3		1 - Rapid Test for Hydrophytic Vegeta	ution
4		2 - Dominance Test is >50%	
5		3 - Prevalence Index is ≤3.0 ¹	
6		4 - Morphological Adaptations ¹ (Provide	de supporting
7		data in Remarks or on a separate s	
9.		Problematic Hydrophytic Vegetation ¹	(Explain)
10			
Woody Vine Stratum (Plot size: 30-ft radius)	_ = Total Cover	¹ Indicators of hydric soil and wetland hydrobe present, unless disturbed or problemati	ology must ic.
1		Hydrophytic	
2		Vegetation	_
	_ = Total Cover	Present? Yes No	의
Remarks: (Include photo numbers here or on a separate sheet.)			

SOIL Sampling Point: 13B

		•				0. 00	n the absence of in	
Depth	Matrix			ox Feature		. 2		
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ² _	Texture	Remarks
0-8	10YR 2/1	_ 100					SIL	
8-15	10YR 3/1	_ <u>100</u>					SICL	
	oncentration, D=Der	oletion, RM=	Reduced Matrix, M	IS=Masked	d Sand Gra	ains.		=Pore Lining, M=Matrix.
Hydric Soil								Problematic Hydric Soils ³ :
Histoso				Gleyed Ma				ie Redox (A16)
_	pipedon (A2) listic (A3)			Redox (S5 ed Matrix (S			Dark Surfac	nese Masses (F12)
_	en Sulfide (A4)			Mucky Mi				w Dark Surface (TF12)
	d Layers (A5)			Gleyed M				ain in Remarks)
2 cm M	uck (A10)		_	ed Matrix (•
Deplete	d Below Dark Surfac	ce (A11)		Dark Surfa	. ,		_	
_	ark Surface (A12)		=	ed Dark Su	,)		ydrophytic vegetation and
_	Mucky Mineral (S1)		Redox	Depressio	ns (F8)			rology must be present,
_	ucky Peat or Peat (S Layer (if observed)	-					unless distu	urbed or problematic.
l _								
Type: Depth (in	iches):						Hydric Soil Pres	ent? Yes No X
Remarks:								
rtomants.								
ı								
HYDROLO)GY							
HYDROLO								
Wetland Hy	drology Indicators		ed: check all that a	pply)			Secondary In	dicators (minimum of two required)
Wetland Hy	drology Indicators				oo (B0)			dicators (minimum of two required)
Wetland Hy Primary Indi Surface	rdrology Indicators cators (minimum of o Water (A1)		Water-Sta	ained Leav	(,		Surface S	Soil Cracks (B6)
Wetland Hy Primary Indi Surface High Wa	rdrology Indicators cators (minimum of o Water (A1) ater Table (A2)		Water-Sta	ained Leav auna (B13)		Surface S	Soil Cracks (B6) Patterns (B10)
Wetland Hy Primary Indi Surface High Wi	rdrology Indicators cators (minimum of one Water (A1) ater Table (A2) ion (A3)		Water-Sta Aquatic F True Aqu	ained Leav auna (B13 atic Plants) (B14)		Surface S Drainage Dry-Seas	Soil Cracks (B6) Patterns (B10) Son Water Table (C2)
Wetland Hy Primary Indi Surface High Water M	edrology Indicators cators (minimum of of Water (A1) ater Table (A2) ion (A3) Marks (B1)		Water-Sta Aquatic F True Aqu Hydroger	ained Leav auna (B13 atic Plants n Sulfide O) (B14) dor (C1)	ing Roots	Surface S Drainage Dry-Seas Crayfish	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8)
Wetland Hy Primary Indi Surface High W: Saturati Water M Sedime	cators (minimum of of water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2)		Water-Sta Aquatic F True Aqu Hydroger Oxidized	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe	(B14) dor (C1) res on Liv	•	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9)
Wetland Hy Primary Indi Surface High W: Saturati Water M Sedime Drift De	cators (minimum of of water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3)		Water-Sta Aquatic F True Aqu Hydroger Oxidized Presence	ained Leav auna (B13 atic Plants a Sulfide O Rhizosphe of Reduce	(B14) (B14) dor (C1) eres on Lived ed Iron (C4	1)	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1)
Wetland Hy Primary Indi Surface High Water Mater Mater Mater Drift De Algal M	cators (minimum of of the water (A1) atter Table (A2) from (A3) Marks (B1) att Deposits (B2) posits (B3) at or Crust (B4)		Water-Sta Aquatic F True Aqu Hydroger Oxidized Presence Recent In	ained Leav auna (B13 atic Plants a Sulfide O Rhizosphe of Reduce on Reducti	(B14) (B14) dor (C1) res on Lived ed Iron (C4) on in Tilled	1)	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted G Geomorp	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Shic Position (D2)
Wetland Hy Primary Indi Surface High Water M Sedime Drift De Algal M Iron De	cators (minimum of of the water (A1) atter Table (A2) from (A3) Marks (B1) att Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	one is require	Water-Sta Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc	ained Leav auna (B13 atic Plants a Sulfide O Rhizosphe of Reducti on Reducti k Surface	(B14) dor (C1) eres on Livided Iron (C4) fron in Tilled	1)	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted G Geomorp	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1)
Wetland Hy Primary Indi Surface High Water Mater	edrology Indicators: cators (minimum of of the Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial	one is require	Water-Sta Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc	ained Leav fauna (B13 atic Plants a Sulfide O Rhizosphe of Reducti on Reducti k Surface ((B14) dor (C1) eres on Lived Iron (C4) on in Tilled (C7) (D9)	1)	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted G Geomorp	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Shic Position (D2)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel	cators (minimum of of the cators (minimum of of of the cators (minimum of	one is require	Water-Sta Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc	ained Leav auna (B13 atic Plants a Sulfide O Rhizosphe of Reducti on Reducti k Surface	(B14) dor (C1) eres on Lived Iron (C4) on in Tilled (C7) (D9)	1)	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted G Geomorp	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Shic Position (D2)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel	cators (minimum of of water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations:	Imagery (B7 e Surface (B	Water-Sta Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or S8) Other (Ex	ained Leav fauna (B13 atic Plants a Sulfide O Rhizosphe of Reduce on Reducti k Surface (Well Data cplain in Re	(B14) dor (C1) eres on Lived Iron (C4) on in Tilled (C7) (D9)	1)	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted G Geomorp	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Shic Position (D2)
Wetland Hy Primary Indi Surface High Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser	cators (minimum of of the Water (A1) atter Table (A2) fon (A3) Marks (B1) for Deposits (B2) posits (B3) at or Crust (B4) posits (B5) fon Visible on Aerial by Vegetated Concavervations:	Imagery (B7 e Surface (B	Water-Sta Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or S8) Other (Ex	ained Leav auna (B13 atic Plants a Sulfide O Rhizosphe of Reduce on Reducti k Surface (Well Data cplain in Re	(B14) (B14) dor (C1) eres on Liv ed Iron (C4 on in Tilled (C7) (D9) emarks)	1)	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted G Geomorp	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Shic Position (D2)
Wetland Hy Primary Indi Surface High Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Water Table	rdrology Indicators: cators (minimum of of the Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavery rvations: ter Present?	Imagery (B7 e Surface (B	Water-Sta Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or BB) Other (Ex	ained Leav fauna (B13 atic Plants a Sulfide O Rhizosphe of Reduce on Reducti k Surface (Well Data cplain in Re	(B14) (B14) (dor (C1) (res on Livited Iron (C4) (C7) (D9) (D9) (D9)	t) d Soils (Ce	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted of Geomorp FAC-Neu	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Shic Position (D2) Itral Test (D5)
Wetland Hy Primary Indi Surface High Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obsel Surface Water Table Saturation F	rdrology Indicators: cators (minimum of of the Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavery rvations: ter Present?	Imagery (B7 e Surface (B	Water-Sta Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or BB) Other (Ex	ained Leav auna (B13 atic Plants a Sulfide O Rhizosphe of Reduce on Reducti k Surface (Well Data cplain in Re	(B14) (B14) (dor (C1) (res on Livited Iron (C4) (C7) (D9) (D9) (D9)	t) d Soils (Ce	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted G Geomorp	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Shic Position (D2) Itral Test (D5)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wa' Water Table Saturation F (includes ca	rdrology Indicators: cators (minimum of of the Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations: ter Present?	Imagery (B7 e Surface (B /es	Water-Sta Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or BB) Other (Ex	ained Leaverage and Leaverage	(B14) (B14) dor (C1) eres on Liv ed Iron (C4 on in Tilled (C7) (D9) emarks)	d Soils (Ce	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted of FAC-Neu	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Shic Position (D2) Itral Test (D5)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wat Water Table Saturation F (includes ca Describe Re	rdrology Indicators: cators (minimum of of the Water (A1) ater Table (A2) fon (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations: ter Present?	Imagery (B7 e Surface (B /es	Water-Sta Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or BB) Other (Ex	ained Leaverage and Leaverage	(B14) (B14) dor (C1) eres on Liv ed Iron (C4 on in Tilled (C7) (D9) emarks)	d Soils (Ce	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted of FAC-Neu	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Shic Position (D2) Itral Test (D5)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wa' Water Table Saturation F (includes ca	rdrology Indicators: cators (minimum of of the Water (A1) ater Table (A2) fon (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations: ter Present?	Imagery (B7 e Surface (B /es	Water-Sta Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or BB) Other (Ex	ained Leaverage and Leaverage	(B14) (B14) dor (C1) eres on Liv ed Iron (C4 on in Tilled (C7) (D9) emarks)	d Soils (Ce	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted of FAC-Neu	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Shic Position (D2) Itral Test (D5)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wat Water Table Saturation F (includes ca Describe Re	rdrology Indicators: cators (minimum of of the Water (A1) ater Table (A2) fon (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations: ter Present?	Imagery (B7 e Surface (B /es	Water-Sta Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or BB) Other (Ex	ained Leaverage and Leaverage	(B14) (B14) dor (C1) eres on Liv ed Iron (C4 on in Tilled (C7) (D9) emarks)	d Soils (Ce	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted of FAC-Neu	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Shic Position (D2) Itral Test (D5)

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, Ra	nge: Section 15, T. 44 N., R. 8 E.
Landform (hillslope, terrace, etc.): depression	Local relief	(concave, convex, none): concave
Slope (%): <u>0-1%</u> Lat: <u>42.29439°N</u>	Long: <u>-88.28669°W</u>	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 y	/ear? Yes X No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantl	ly disturbed? Are	"Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally p		eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	Is the Sampled within a Wetlan	
Shrub-scrub Wetland.		
VEGETATION – Use scientific names of plants.		
Absolute	e Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: whole site) % Cover 1.	sr Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2		Total Number of Dominant Species Across All Strata: (B)
4.		
5		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size: whole site)	_ = Total Cover	Prevalence Index worksheet:
1. Salix exigua	ves OBL	Total % Cover of: Multiply by:
2		OBL species x 1 =
3		FACW species x 2 =
4		FAC species x 3 =
5		FACU species x 4 =
	_ = Total Cover	UPL species x 5 =
Herb Stratum (Plot size: Whole site)	ves FACW	Column Totals: (A) (B)
1. Aster simplex Phalaris arundinacea	- 	Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
3		X 1 - Rapid Test for Hydrophytic Vegetation
4		2 - Dominance Test is >50%
5		3 - Prevalence Index is ≤3.0¹
7		4 - Morphological Adaptations ¹ (Provide supporting
8		data in Remarks or on a separate sheet)
9.		Problematic Hydrophytic Vegetation ¹ (Explain)
10		
Woody Vine Stratum (Plot size: whole site)	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1		Hydrophytic
2		Vegetation Present? Yes X No
	_ = Total Cover	Liesenti ies V MO
Remarks: (Include photo numbers here or on a separate sheet.)		
I .		

SOIL Sampling Point: 14A

Profile Desc	cription: (Describe	to the de	oth needed to docum	nent the	indicator	or confir	m the absence of	of indicators.)
Depth	Matrix			x Feature	es			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹ _	_Loc ² _		Remarks
0-14	10YR 2/1	_ 100					SICL	
14-20	5Y 4/1	90	2.5Y 5/6	5	<u> </u>	<u>M</u>	CL	
			5Y 6/2	5	<u>D</u>	<u>M</u>		
20-26	5Y 5/1	85	2.5Y 5/6	15	С	M	CL	
1 _{Tuno:} C=C	encentration D=Der	lotion DM	= Paduaad Matrix MS	S=Maaka	d Sand Cr		² l coation:	DI = Doro Liping M=Motriy
Hydric Soil		delion, Kivi	=Reduced Matrix, MS	3-Maske	u Sanu Gi	all 15.		PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol			Sandy 0	Gleved M	atrix (S4)		_	Prairie Redox (A16)
	pipedon (A2)			Redox (S				urface (S7)
Black H	istic (A3)		Stripped	d Matrix (S6)		Iron-Ma	nganese Masses (F12)
	en Sulfide (A4)				ineral (F1)			nallow Dark Surface (TF12)
	d Layers (A5)				latrix (F2)		Other (E	Explain in Remarks)
_	uck (A10) d Below Dark Surfac	·ο (Δ11)	= :	d Matrix Dark Surf	. ,			
ı —	ark Surface (A12)	e (ATT)			urface (F7)	1	3Indicators	of hydrophytic vegetation and
	Mucky Mineral (S1)			Depression		•		hydrology must be present,
	ucky Peat or Peat (S	3)	<u>—</u>	·	` ,			disturbed or problematic.
Restrictive	Layer (if observed)	:						
Type:							Hudria Sail I	Present? Yes X No
Depth (in	ches):						Hydric Soil F	Present? Tes No No
Remarks:							•	
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary Indi	cators (minimum of c	one is requ	ired; check all that ap	ply)			<u>Secondar</u>	y Indicators (minimum of two required)
Surface	Water (A1)		Water-Stai	ined Leav	ves (B9)		Surfa	ace Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic Fa	auna (B13	3)		Drain	nage Patterns (B10)
Saturati	on (A3)		True Aqua	itic Plants	s (B14)		Dry-S	Season Water Table (C2)
==	1arks (B1)		Hydrogen				= '	fish Burrows (C8)
_	nt Deposits (B2)		Oxidized F			•	· · =	ration Visible on Aerial Imagery (C9)
= '	posits (B3)		Presence		•	,	=	ted or Stressed Plants (D1)
1 = 1	at or Crust (B4)		Recent Iro			d Soils (C	<i>'</i>	morphic Position (D2)
= '	posits (B5)	lmagan, (E	Thin Muck		` '		X FAC-	Neutral Test (D5)
==	on Visible on Aerial y Vegetated Concav				, ,			
Field Obser		e ouridoe	(BO) Cirici (Exp	J.C.III III I	emarks)			
Surface Wat		'es	No X Depth (inc	ches):				
Water Table		'es	No X Depth (inc			_		
Saturation P		'es	No X Depth (inc			— Wet	land Hydrology	Present? Yes X No
(includes ca	pillary fringe)		,					
Describe Re	corded Data (stream	n gauge, m	onitoring well, aerial p	photos, p	revious ins	pections)	, if available:	
Remarks:								

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, Ra	nge: Section 15, T. 44 N., R. 8 E.
Landform (hillslope, terrace, etc.): upland	Local relief	(concave, convex, none): convex to none
Slope (%): <u>0-1%</u> Lat: <u>42.29424°N</u>	Long: <u>-88.28686°W</u>	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 y	rear? Yes X No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantI	y disturbed? Are	'Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally p		eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showin	g sampling point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No		
Hydric Soil Present? Yes	Is the Sampled	
Wetland Hydrology Present? Yes No X	within a Wetla	nd? Yes No X
Remarks:		
Non-native Grassland.		
VEGETATION – Use scientific names of plants.		
Absolute		Dominance Test worksheet:
Tree Stratum (Plot size: 30-ft radius) % Cove	r Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2		Total Number of Dominant
3		Species Across All Strata: 4 (B)
4		Percent of Dominant Species
5		That Are OBL, FACW, or FAC: 50% (A/B)
Sapling/Shrub Stratum (Plot size: 15-ft radius)	_ = Total Cover	Prevalence Index worksheet:
1		Total % Cover of: Multiply by:
2.		OBL species x 1 =
3		FACW species x 2 =
4		FAC species x 3 =
5		FACU species x 4 =
Herb Stratum (Plot size: 5-ft radius)	_ = Total Cover	UPL species x 5 =
1. Festuca arundinacea	yes FACU+	Column Totals: (A) (B)
2 Helianthus grosseserratus	yes FACW-	Prevalence Index = B/A =
3. Poa pratensis	yes FAC-	Hydrophytic Vegetation Indicators:
4. Solidago canadensis	yes FACU	1 - Rapid Test for Hydrophytic Vegetation
5		2 - Dominance Test is >50%
6		3 - Prevalence Index is ≤3.0 ¹
7		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
8		Problematic Hydrophytic Vegetation ¹ (Explain)
9		Problematic Hydrophytic Vegetation (Explain)
10		¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: 30-ft radius)	_ = Total Cover	be present, unless disturbed or problematic.
1		Hydrophytic
2		Vegetation
	_ = Total Cover	Present? Yes No X
Remarks: (Include photo numbers here or on a separate sheet.)		

SOIL Sampling Point: 14B/15B/16B

Profile Des	cription: (Describe	to the depth i	needed to docu	ment the i	ndicator	or confirm	the absence of i	ndicators.)
Depth	Matrix			ox Features				
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ²		Remarks
0-13	10YR 3/2	_ <u>100</u>					SIL	
1 _{Tunor} 0=0	oncentration, D=Dep	lotion DM-Da	duced Metrix N	- ——	Cond Cr		² l continu	L-Dara Lining M-Matrix
Hydric Soil		oletion, Kivi-Ke	duced Matrix, IV	io-wasked	Sand Gra	airis.		L=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Histoso			Sandy	Gleyed Ma	trix (S4)			irie Redox (A16)
	pipedon (A2)			Redox (S5			Dark Surfa	
Black H	istic (A3)			ed Matrix (S				anese Masses (F12)
	en Sulfide (A4)			Mucky Mir				ow Dark Surface (TF12)
	d Layers (A5) uck (A10)			Gleyed Ma ed Matrix (f			Other (Ex	plain in Remarks)
_	d Below Dark Surfac	e (A11)	= '	Dark Surfa	,			
	ark Surface (A12)	· (· · ·)		ed Dark Su	, ,		³ Indicators of	hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)		Redox	Depression	ns (F8)		wetland hy	drology must be present,
	ucky Peat or Peat (S						unless dis	turbed or problematic.
l _	Layer (if observed)							
Type:			_				Hydric Soil Pre	esent? Yes No X
. ,	ches):						,	
Remarks:								
HYDROLO	GY							
	drology Indicators:							
1	cators (minimum of c		check all that a	(vlaa			Secondary I	ndicators (minimum of two required)
	Water (A1)	nio io rodanoa		ained Leave	es (B9)			Soil Cracks (B6)
	ater Table (A2)			auna (B13)	(,			pe Patterns (B10)
Saturati	, ,		= :	atic Plants			=	ason Water Table (C2)
Water N	larks (B1)		Hydroger	Sulfide Od	dor (C1)		Crayfish	n Burrows (C8)
Sedime	nt Deposits (B2)		Oxidized	Rhizosphe	res on Livi	ing Roots	(C3) Saturati	on Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduce	d Iron (C4	1)	Stunted	or Stressed Plants (D1)
1 = °	at or Crust (B4)		=	on Reduction		d Soils (C6	· =	rphic Position (D2)
1= '	posits (B5)	(5.7)		k Surface (FAC-Ne	eutral Test (D5)
ı = =	on Visible on Aerial	0 , , ,	= 1	Well Data				
Field Obser	y Vegetated Concav	e Suriace (Bo)	Other (Ex	plain in Re	marks)			
Surface Wat		es No	X Denth (i	nches):				
Water Table		es No		nches):		-		
Saturation P		es No		nches):		- Wetl	and Hydrology Pi	resent? Yes No X
(includes ca	pillary fringe)		(esent: res no
Describe Re	corded Data (stream	gauge, monito	oring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
c.marko.								

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, Ra	nge: 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 y	ear? Yes X No	(If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly		'Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally pr		eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing		
Hydrophytic Vegetation Present? Hydric Soil Present? Yes X No Yes X No	Is the Sampled	
Wetland Hydrology Present? Yes X No Remarks:	within a vvetici	103 100 1
Marsh.		
VEGETATION – Use scientific names of plants.		
Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: whole site) % Cover 1	Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2		Total Number of Dominant Species Across All Strata: (B)
4		Percent of Dominant Species
5		That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size: whole site)	_ = Total Cover	Prevalence Index worksheet:
1		Total % Cover of: Multiply by:
2.		OBL species x 1 =
3.		FACW species x 2 =
4		FAC species x 3 =
5		FACU species x 4 =
Liet Otester (Diet eier Whole Site	_ = Total Cover	UPL species x 5 =
Herb Stratum (Plot size: whole site 1, Eleocharis erythropoda	yes OBL	Column Totals: (A) (B)
7. Typha angustifolia	yes OBL	Prevalence Index = B/A =
3	- 	Hydrophytic Vegetation Indicators:
4.		1 - Rapid Test for Hydrophytic Vegetation
5.		2 - Dominance Test is >50%
6		3 - Prevalence Index is ≤3.0 ¹
7		4 - Morphological Adaptations ¹ (Provide supporting
8		data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
9		Problematic Hydrophytic Vegetation (Explain)
10		¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: whole site)	_ = Total Cover	be present, unless disturbed or problematic.
1		Hydrophytic
2		Vegetation Present? Yes X No
Remarks: (Include photo numbers here or on a separate sheet.)	_ = Total Cover	
(more of full a separate sileet.)		
I .		

SOIL Sampling Point: 15A

Profile Desc	cription: (Describe	to the dep	th needed to docur	nent the	indicator	or confirn	n the absence	of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ² _	Texture	Remarks
0-15	10YR 2/1	_ 100	0.71/.7/2				CL	
15-26	5Y 5/1	90	2.5Y 5/8	10	<u> </u>	<u>M</u>	SIC	
¹ Type: C=C	oncentration D=Der	eletion RM	=Reduced Matrix, MS	S=Maske	d Sand Gr	ains	2l ocation	: PL=Pore Lining, M=Matrix.
Hydric Soil		Jiouon, ruvi	rioddodd matrix, mi	o maone.	a cana ch	unio.		for Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy (Gleyed Ma	atrix (S4)		Coast I	Prairie Redox (A16)
	pipedon (A2)		_	Redox (S			_	urface (S7)
_	istic (A3)			d Matrix (S				anganese Masses (F12)
_ ` `	en Sulfide (A4) d Layers (A5)			-	neral (F1) atrix (F2)		_	hallow Dark Surface (TF12) (Explain in Remarks)
	uck (A10)			d Matrix ((Explain in Normano)
· –	d Below Dark Surfac	e (A11)		Dark Surfa	٠,,			
	ark Surface (A12)				urface (F7))		of hydrophytic vegetation and
_	/lucky Mineral (S1) ucky Peat or Peat (S	2)	Redox I	Depressio	ons (F8)			d hydrology must be present, disturbed or problematic.
	Layer (if observed)						unless	disturbed of problematic.
Type:								
	ches):						Hydric Soil	Present? Yes X No
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators:	:						
Primary India	cators (minimum of o	one is requ	ired; check all that ap	ply)			<u>Seconda</u>	ry Indicators (minimum of two required)
Surface	Water (A1)		Water-Sta	ined Leav	res (B9)			ace Soil Cracks (B6)
ı —	ater Table (A2)		Aquatic Fa	,	,			nage Patterns (B10)
Saturation	, ,		True Aqua					Season Water Table (C2)
==	larks (B1)		Hydrogen Oxidized F		, ,	ina Dooto		rfish Burrows (C8)
_	nt Deposits (B2) posits (B3)		Presence					ration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
= '	at or Crust (B4)		Recent Iro					morphic Position (D2)
	posits (B5)		Thin Muck			u 00110 (01	· =	:-Neutral Test (D5)
=	on Visible on Aerial	Imagery (B	=		` '			,
Sparsely	y Vegetated Concav	e Surface (B8) Other (Exp	olain in Re	emarks)			
Field Obser	vations:							
Surface Wat	er Present?	/es	No Depth (in	ches):		_		
Water Table	Present?	/es X	NoDepth (in	ches): <u>20</u>)	_		
Saturation P		res X	NoDepth (in	ches): <u>20</u>)	_ Wetl	and Hydrology	y Present? Yes X No No
	pillary fringe) corded Data (stream	n gauge, m	onitoring well, aerial ı	photos, pr	revious ins	pections).	if available:	
	,					,		
Remarks:								

Project/Site: IL 31/FAU 336, original, Add. A, B, and C	City/County: McHenry 0	County Sampling Date: September 9, 20			
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 ye	ear? Yes X No	(If no, explain in Remarks.)			
Are Vegetation , Soil , or Hydrology significantly		'Normal Circumstances" present? Yes X No			
Are Vegetation Soil naturally pr		eeded, explain any answers in Remarks.)			
SUMMARY OF FINDINGS – Attach site map showing		•			
Hydrophytic Vegetation Present? Yes X No					
Hydric Soil Present? Yes X No	Is the Sampled				
Wetland Hydrology Present? Yes X No	within a Wetlan	nd? Yes X No			
Remarks: Community type: Farmed wetland					
VECETATION . He a significant and a significant					
VEGETATION – Use scientific names of plants.	Daminant Indicator	L Downing on Took workshook			
Absolute Tree Stratum (Plot size: whole site) % Cover	Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species			
1		That Are OBL, FACW, or FAC: (A)			
2		Total Number of Dominant			
3		Species Across All Strata: (B)			
4		Percent of Dominant Species			
5		That Are OBL, FACW, or FAC: (A/B)			
Sapling/Shrub Stratum (Plot size: whole site)	_ = Total Cover	Prevalence Index worksheet:			
1		Total % Cover of: Multiply by:			
2		OBL species x 1 =			
3		FACW species x 2 =			
4		FAC species x 3 =			
5		FACU species x 4 = UPL species x 5 =			
Herb Stratum (Plot size: whole site)	_ = Total Cover	Column Totals: (A) (B)			
1. Cyperus esculentus	yes FACW	Column rotals.			
2. Echinochoa muricata	yes OBL	Prevalence Index = B/A =			
3	- — —	Hydrophytic Vegetation Indicators:			
4	- — — —	1 - Rapid Test for Hydrophytic Vegetation			
5		2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹			
6		4 - Morphological Adaptations ¹ (Provide supporting			
7		data in Remarks or on a separate sheet)			
9.		Problematic Hydrophytic Vegetation ¹ (Explain)			
10		1			
Woody Vine Stratum (Plot size: whole site)	_ = Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
1		Hydrophytic			
2		Vegetation			
	_ = Total Cover	Present? Yes X No No			
Remarks: (Include photo numbers here or on a separate sheet.)					

SOIL Sampling Point: 16A

Profile Desc	cription: (Describe	to the de	oth needed to docur	nent the	indicator	or confire	n the absence of i	ndicators.)
Depth	Matrix			x Feature		. ,		
(inches)	Color (moist)		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	_ <u>5</u>	_ <u>C</u>	<u>M</u>	<u>CL</u>	
			2.5Y 6/2	_ <u>5</u>	_ <u>C</u>	<u>M</u>		
20-26	5Y 5/1	85	2.5Y 5/6	15	<u>C</u>	<u>M</u>	<u>CL</u>	
¹ Type: C=C	oncentration D=Der	letion RM	=Reduced Matrix, M	- ——— S=Maske	d Sand Gr	ains	2l ocation: Pl	L=Pore Lining, M=Matrix.
Hydric Soil		olotion, raiv	-reduced Matrix, Mr	o-waske	a Garia Gr	ums.		Problematic Hydric Soils ³ :
Histosol			Sandy (Gleyed M	atrix (S4)		_	rie Redox (A16)
Histic E	pipedon (A2)			Redox (S			Dark Surfa	ice (S7)
	istic (A3)		_	d Matrix (anese Masses (F12)
	en Sulfide (A4)		_		ineral (F1)			ow Dark Surface (TF12)
	d Layers (A5) uck (A10)			Gleyed M d Matrix	latrix (F2)		Other (Exp	olain in Remarks)
_	d Below Dark Surfac	e (A11)	= '	Dark Surf	. ,			
	ark Surface (A12)	C (/11)			urface (F7))	3Indicators of h	nydrophytic vegetation and
Sandy N	Mucky Mineral (S1)			Depression		,		drology must be present,
_	ucky Peat or Peat (S	-					unless dist	urbed or problematic.
Restrictive	Layer (if observed)	:						
Type:							Hydric Soil Pre	sent? Yes X No
Depth (in	ches):						Tiyane con Tre	sent: res no
Remarks:								
HYDROLO								
1	drology Indicators:							
	•	one is requ	ired; check all that ar					ndicators (minimum of two required)
=	Water (A1)		Water-Sta		, ,			Soil Cracks (B6)
= ~	ater Table (A2)		Aquatic Fa	,	,		= `	e Patterns (B10)
Saturation	. ,		True Aqua		, ,		= '	son Water Table (C2)
	larks (B1) nt Deposits (B2)		Hydrogen		eres on Liv	ina Poete	= '	Burrows (C8) on Visible on Aerial Imagery (C9)
_	posits (B3)		=	•	ed Iron (C	•		or Stressed Plants (D1)
	at or Crust (B4)		=		tion in Tille	,	_	phic Position (D2)
	posits (B5)		Thin Muck			u 00110 (0	· =	eutral Test (D5)
1 == '	on Visible on Aerial	Imagery (E						,
X Sparsely	y Vegetated Concav	e Surface			, ,			
Field Obser	vations:							
Surface Wat	er Present? Y	'es	No XDepth (in	ches):		_		
Water Table	Present? Y	'es	No X Depth (in	ches):		_		
Saturation P	resent? Y	'es	No X Depth (in	ches):		Wet	land Hydrology Pr	esent? Yes X No
	pillary fringe)			-1			16	
1			onitoring well, aerial					as wetland by the NIM/I2: No
	1 3A CIOP PHOTO	o willi W	etland signature	evidei	11. 00%	15	the site coded	as wetland by the NWI?: No
Remarks:	oron photo/NIVA/I	aaraant-	70: 6 7 0/					
Combined	crop photo/NWI p	Jercenta;	ye. 0/%					
Does the s	ite possess wetla	ınd hydro	ology? Yes Ra	itionale:	Wetland	d signatu	ure is evident in	the majority of years examined.

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	City/County: McHenry		Sampling Date: Septer	nber 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, Rar	nge: Section 15, T. 44 N., F	R. 8 E.	
Landform (hillslope, terrace, etc.): depression	Local relief ((concave, convex, none):	concave	
Slope (%): <u>0-1%</u> Lat: <u>42.29081°N</u>	Long: <u>-88.28738</u> °W		Datum: NAD83	
Soil Map Unit Name: Mapped as Pella silty clay loam		NWI classification	ation: U	
Are climatic / hydrologic conditions on the site typical for this time of year	ear? Yes X No	(If no, explain in Re	emarks.)	
Are Vegetation , Soil , or Hydrology significantly		Normal Circumstances" p	resent? Yes X	No
Are Vegetation , Soil , or Hydrology naturally pr		eded, explain any answer		
SUMMARY OF FINDINGS - Attach site map showing	sampling point lo	ocations, transects	, important featur	es, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	Is the Sampled within a Wetlan		No	
Wet Meadow.				
VEGETATION – Use scientific names of plants.				
Absolute	Dominant Indicator	Dominance Test works	sheet:	
Tree Stratum (Plot size: whole site) % Cover 1	Species? Status	Number of Dominant Sp That Are OBL, FACW, o		_ (A)
2		Total Number of Domina Species Across All Strat		(B)
4		Percent of Dominant Sp		_ ()
5		That Are OBL, FACW, of		_ (A/B)
Sapling/Shrub Stratum (Plot size: whole site)	_ = Total Cover	Prevalence Index work	ksheet:	
1		Total % Cover of:		
2.		OBL species	x 1 =	
3.		FACW species	x 2 =	
4		FAC species	x 3 =	
5		FACU species	x 4 =	
	_ = Total Cover	UPL species	x 5 =	_
Herb Stratum (Plot size: whole site 1, Phalaris arundinacea	yes FACW+	Column Totals:	(A)	(B)
2.	- 	Prevalence Index	= B/A =	
3		Hydrophytic Vegetatio	on Indicators:	
4.		X 1 - Rapid Test for H	Hydrophytic Vegetation	
5		2 - Dominance Test	t is >50%	
6.		3 - Prevalence Inde	ex is ≤3.0 ¹	
7		4 - Morphological A	Adaptations¹ (Provide su	upporting
8		l —	s or on a separate shee phytic Vegetation¹ (Exp	-
9		Problematic riyurop	mytic vegetation (Exp	iaiii)
10		Indicators of hydric soil	l and wetland hydrolog	v must
Woody Vine Stratum (Plot size: whole site)	_ = Total Cover	be present, unless distu		
1		Hydrophytic		
2	= Total Cover	Vegetation Present? Yes	s X No	
Remarks: (Include photo numbers here or on a separate sheet.)	Total Cover			
, , , , , , , , , , , , , , , , , , , ,				

SOIL Sampling Point: 17A

Profile Des	cription: (Describe	to the dep	th needed to docu	ment the	indicator	or confir	n the absence of	indicators.)
Depth (inches)	Matrix	%		x Feature %	Type ¹	_Loc²	Taytura	Remarks
(inches) 0-15	Color (moist) 10YR 2/1	100	Color (moist)			LOC	Texture SICL	Remarks
			40)/D 5/0					
15-26	2.5Y 4/2	_ 70	10YR 5/6	30	<u> </u>	<u>M</u>	SICL _	
1								
	oncentration, D=Dep	oletion, RM	=Reduced Matrix, M	S=Maske	d Sand Gr	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil			Const.	Olavad M	-t-i (C.1)			r Problematic Hydric Soils ³ :
Histoso	pipedon (A2)			Gleyed Ma Redox (St			Dark Surf	airie Redox (A16)
_	istic (A3)		_	d Matrix (_	ganese Masses (F12)
_	en Sulfide (A4)				neral (F1)			llow Dark Surface (TF12)
	d Layers (A5)		_	Gleyed M				rplain in Remarks)
_	uck (A10)			ed Matrix (,			
	d Below Dark Surfac	e (A11)		Dark Surfa	٠,,		31	Unidea de de consedera en el
_	ark Surface (A12) Mucky Mineral (S1)		= '	ed Dark Si Depressio	urface (F7))		hydrophytic vegetation and ydrology must be present,
_	ucky Peat or Peat (S	3)	Redux	Depressio) (FO)			sturbed or problematic.
_	Layer (if observed)						amoss an	starbed of problematic.
Type:	, , , , , , , , , , , , , , , , , , , ,							
Depth (in							Hydric Soil Pr	esent? Yes X No
Remarks:								
HYDROLO	GY							
	drology Indicators:	:						
Primary Indi	cators (minimum of	one is requi	red; check all that ap	oply)			Secondary	Indicators (minimum of two required)
Surface	Water (A1)		Water-Sta	ined Leav	/es (B9)		X Surface	e Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic Fa	auna (B13	3)			ge Patterns (B10)
Saturati	on (A3)		True Aqua	atic Plants	(B14)		Dry-Se	ason Water Table (C2)
Water N	farks (B1)		Hydrogen	Sulfide O	dor (C1)		Crayfis	h Burrows (C8)
Sedime	nt Deposits (B2)		Oxidized I	Rhizosphe	eres on Liv	ing Roots	(C3) Saturat	tion Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduce	ed Iron (C	4)	Stunted	d or Stressed Plants (D1)
Algal M	at or Crust (B4)		Recent Iro	n Reduct	ion in Tille	d Soils (C	6) X Geomo	orphic Position (D2)
Iron De	posits (B5)		Thin Muck	Surface	(C7)		X FAC-N	eutral Test (D5)
Inundat	ion Visible on Aerial	Imagery (B	7) Gauge or	Well Data	(D9)			
Sparsel	y Vegetated Concav	e Surface (B8) Dther (Exp	plain in Re	emarks)			
Field Obser	vations:							
Surface Wat	ter Present?	/es	No Depth (in	ches):		_		
Water Table	Present?	/es	No Depth (in	ches):		_		
Saturation P		es	No X Depth (in	ches):		_ Wet	land Hydrology P	resent? Yes X No No
	pillary fringe) corded Data (strean	n dalide mo	onitoring well aerial	nhotos n	revious ins	nections)	if available:	
Describe No	oorded Data (orlean	r gaage, me	omening wen, denar	priotos, pr	i e vious inic	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ii avallabio.	
Remarks:								

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, Rar	ange: Section 15, T. 44 N., R. 8 E.		
Landform (hillslope, terrace, etc.): upland	Local relief	(concave, convex, none):	convex to none	
Slope (%): <u>0-2%</u> Lat: <u>42.29085</u> N	Long: <u>-88.28777</u> °W		Datum: NAD83	
Soil Map Unit Name: Mapped as Pella silty clay loam		NWI classific	ation: U	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Re	emarks.)	
			oresent? Yes X No	
Are Vegetation , Soil , or Hydrology naturally pr		eded, explain any answei		
SUMMARY OF FINDINGS - Attach site map showing	g sampling point lo	ocations, transects	, important features, etc.	
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No X Workling No X Yes No X	Is the Sampled within a Wetlan		_ No X	
Remarks:	'			
Cropland.				
VEGETATION – Use scientific names of plants.				
	Species? Status	Dominance Test works Number of Dominant Sp	pecies	
1		That Are OBL, FACW, o	or FAC: 0 (A)	
3		Total Number of Domina Species Across All Stra	4	
4. 5.		Percent of Dominant Sp That Are OBL, FACW, o		
15 ft radius	_ = Total Cover			
Sapling/Shrub Stratum (Plot size: 15-ft radius) 1		Prevalence Index work Total % Cover of:		
2.			x 1 =	
3.			x 2 =	
4			x 3 =	
5		FACU species	× 4 =	
	= Total Cover		x 5 =	
Herb Stratum (Plot size: 5-ft radius) 1. Glycine max	yes UPL	Column Totals:	(A) (B)	
2	<u> </u>	Prevalence Index	= B/A =	
3.		Hydrophytic Vegetation	on Indicators:	
4		1 - Rapid Test for H	Hydrophytic Vegetation	
5		2 - Dominance Tes	t is >50%	
6		3 - Prevalence Inde	ex is ≤3.0 ¹	
7.			Adaptations ¹ (Provide supporting s or on a separate sheet)	
8		l 	phytic Vegetation ¹ (Explain)	
9			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
10	_ = Total Cover	¹ Indicators of hydric soil be present, unless distu	l and wetland hydrology must urbed or problematic.	
Woody Vine Stratum (Plot size: 30-ft radius) 1		Hydrophytic		
2		Vegetation		
	_ = Total Cover	Present? Yes	s No X	
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL Sampling Point: 17B

Profile Des	cription: (Describe	to the depth i	needed to docu	ment the i	ndicator	or confirm	the absence of i	ndicators.)
Depth	Matrix			ox Features				
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ²		Remarks
0-13	10YR 3/2	_ <u>100</u>					SIL	
1 _{Tunor} 0=0	oncentration, D=Dep	lotion DM-Da	duced Metrix N	- ——	Cond Cr		² l continu	L-Dara Lining M-Matrix
Hydric Soil		oletion, Kivi-Ke	duced Matrix, IV	io-wasked	Sand Gra	airis.		L=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Histoso			Sandy	Gleyed Ma	trix (S4)			irie Redox (A16)
	pipedon (A2)			Redox (S5			Dark Surfa	
Black H	istic (A3)			ed Matrix (S				anese Masses (F12)
	en Sulfide (A4)			Mucky Mir				ow Dark Surface (TF12)
	d Layers (A5) uck (A10)			Gleyed Ma ed Matrix (f			Other (Ex	plain in Remarks)
_	d Below Dark Surfac	e (A11)	= '	Dark Surfa	,			
	ark Surface (A12)	· (· · ·)		ed Dark Su	, ,		³ Indicators of	hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)		Redox	Depression	ns (F8)		wetland hy	drology must be present,
	ucky Peat or Peat (S						unless dis	turbed or problematic.
l _	Layer (if observed)							
Type:			_				Hydric Soil Pre	esent? Yes No X
. ,	ches):						,	
Remarks:								
HYDROLO	GY							
	drology Indicators:							
1	cators (minimum of c		check all that a	(vlaa			Secondary I	ndicators (minimum of two required)
	Water (A1)	nio io rodanoa		ained Leave	es (B9)			Soil Cracks (B6)
	ater Table (A2)			auna (B13)	(,			pe Patterns (B10)
Saturati	, ,		= :	atic Plants			=	ason Water Table (C2)
Water N	larks (B1)		Hydroger	Sulfide Od	dor (C1)		Crayfish	n Burrows (C8)
Sedime	nt Deposits (B2)		Oxidized	Rhizosphe	res on Livi	ing Roots	(C3) Saturati	on Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduce	d Iron (C4	1)	Stunted	or Stressed Plants (D1)
1 = °	at or Crust (B4)		=	on Reduction		d Soils (C6	· =	rphic Position (D2)
1= '	posits (B5)	(5.7)		k Surface (FAC-Ne	eutral Test (D5)
ı = =	on Visible on Aerial	0 , , ,	= 1	Well Data				
Field Obser	y Vegetated Concav	e Suriace (Bo)	Other (Ex	plain in Re	marks)			
Surface Wat		es No	X Depth (i	nches):				
Water Table		es No		nches):		-		
Saturation P		es No		nches):		- Wetl	and Hydrology Pi	resent? Yes No X
(includes ca	pillary fringe)		(esent: res no
Describe Re	corded Data (stream	gauge, monito	oring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
c.marko.								

Project/Site: IL 31/FAU 336, original, Add. A, B, and C	City/County: McHenry 0	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, Rai	nge: Section 15, T. 44 N.,	R. 8 E.
Landform (hillslope, terrace, etc.): depression	Local relief	(concave, convex, none):	concave
Slope (%): <u>0-1%</u> Lat: <u>42.28813°N</u>	Long: <u>-88.28644</u> °W		Datum: NAD83
Soil Map Unit Name: Mapped as Pella silty clay loam		NWI classifica	ation: U
Are climatic / hydrologic conditions on the site typical for this time of you	ear? Yes X No	(If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "	Normal Circumstances" p	resent? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If ne	eded, explain any answer	's in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point le	ocations, transects,	, important features, etc.
Hydrophytic Vegetation Present? Yes X No			
Hydric Soil Present? Yes X No	Is the Sampled		No X
Wetland Hydrology Present? Yes No X	within a Wetlan	nd? Yes	No L
Remarks: Community type: Cropland			
Although this site met the three criteria of a wetland, it failed to have wetland signate wetter than normal year and during two past delineations conducted by the first authorized that the first authorized the first authorized that the first authorize			
VEGETATION – Use scientific names of plants.			
Absolute		Dominance Test works	sheet:
Tree Stratum (Plot size: whole site) % Cover 1.	r Species? Status	Number of Dominant Sp That Are OBL, FACW, o	
2		Total Number of Domina	ant
3		Species Across All Strat	0
4		Percent of Dominant Sp	
5	_ = Total Cover	That Are OBL, FACW, o	or FAC: 100% (A/B)
Sapling/Shrub Stratum (Plot size: whole site)	_ = Total Cover	Prevalence Index work	rsheet:
1		Total % Cover of:	Multiply by:
2			x 1 =
3			x 2 =
4			x 3 =
5	- 	1	x 4 =
Herb Stratum (Plot size: whole site)	_ = Total Cover	1	x 5 = (A) (B)
1. Panicum dichotomiflorum	yes FACW-	Column Totals.	(A) (B)
2. Portulaca oleracea	yes FAC-	Prevalence Index	= B/A =
3		Hydrophytic Vegetatio	
4			lydrophytic Vegetation
5		2 - Dominance Test	
6		3 - Prevalence Inde	
7	- — — —	data in Remarks	daptations ¹ (Provide supporting s or on a separate sheet)
8		l —	phytic Vegetation¹ (Explain)
9			
10	_ = Total Cover	¹ Indicators of hydric soil be present, unless distu	and wetland hydrology must
Woody Vine Stratum (Plot size: whole site)		bo processi, assect asta	Table of problematic.
1		Hydrophytic	
2		Vegetation Present? Yes	s X No
Remarks: (Include photo numbers here or on a separate sheet.)	_ = Total Cover		
(management management of on a separate shoul)			

SOIL Sampling Point: 18A

Profile Des	cription: (Describe	to the de	oth needed to docu	ment the	indicator	or confir	m the absence of ir	ndicators.)
Depth	Matrix			x Feature			_	
(inches)	Color (moist)		Color (moist)	%	Type¹	_Loc²	Texture	Remarks
0-10	10YR 2/1	90	10YR 3/6	_ 10	_ <u>C</u>	<u>M</u>	SICL	
10-26	2.5Y 4/2	90	2.5Y 5/6	_ <u>10</u>	_ <u>C</u>	<u>M</u>		
		oletion, RM	I=Reduced Matrix, M	S=Maske	d Sand Gr	ains.		=Pore Lining, M=Matrix.
Hydric Soil							_	Problematic Hydric Soils ³ :
Histoso	, ,				atrix (S4)			rie Redox (A16)
	pipedon (A2) istic (A3)		_	Redox (Sa d Matrix (Dark Surfa	anese Masses (F12)
_	en Sulfide (A4)				ineral (F1)			ow Dark Surface (TF12)
	d Layers (A5)				latrix (F2)			lain in Remarks)
2 cm M	uck (A10)		X Deplete	ed Matrix	(F3)			
	d Below Dark Surfac	e (A11)		Dark Surf	, ,		2	
_	ark Surface (A12)		= '		urface (F7)		ydrophytic vegetation and
_	Mucky Mineral (S1) ucky Peat or Peat (S	3)	Redox	Depression	ons (F8)			drology must be present, urbed or problematic.
_	Layer (if observed)						unless disti	urbed of problematic.
Type:								
							Hydric Soil Pres	sent? Yes X No
Depth (inches):								
Nemans.								
HYDROLO	GY							
	drology Indicators							
1	0,		ired; check all that a	(vlaa			Secondary In	dicators (minimum of two required)
	Water (A1)		Water-Sta		ves (B9)			Soil Cracks (B6)
_	ater Table (A2)		Aquatic F		, ,			e Patterns (B10)
Saturati	,		True Aqua	,	,		= -	son Water Table (C2)
_	/larks (B1)		Hydrogen	Sulfide C	dor (C1)		Crayfish	Burrows (C8)
Sedime	nt Deposits (B2)		Oxidized	Rhizosph	eres on Liv	ing Roots	(C3) Saturation	on Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduc	ed Iron (C	4)	X Stunted	or Stressed Plants (D1)
X Algal Ma	at or Crust (B4)		Recent Iro	on Reduct	tion in Tille	d Soils (C	(6) X Geomor	phic Position (D2)
-	posits (B5)		Thin Muck	k Surface	(C7)		X FAC-Ne	utral Test (D5)
💻	ion Visible on Aerial	• , ,	' = '		, ,			
	y Vegetated Concav	e Surface	(B8) Other (Ex	plain in R	emarks)			
Field Obser								
	ter Present?	/es	No Depth (in			-		
	Water Table Present? Yes No Depth (inches):							
Water Table			1 🗔 🗀			-		
Water Table Saturation P	Present?	resres	1 🗔 🗀	iches):		Wet	land Hydrology Pre	esent? Yes No X
Water Table Saturation P (includes ca	resent? \ pillary fringe)	/es	No X Depth (in	iches):				esent? Yes No X
Water Table Saturation P (includes ca Describe Re	resent? pillary fringe) corded Data (strean	r gauge, m	1 🗔 🗀	photos, p	revious ins	spections)	, if available:	esent? Yes No X as wetland by the NWI?: No
Water Table Saturation P (includes ca Describe Re	resent? pillary fringe) corded Data (strean	r gauge, m	No Depth (in	photos, p	revious ins	spections)	, if available:	
Water Table Saturation P (includes ca Describe Re Percent of Remarks:	Present? pillary fringe) corded Data (strean FSA crop photo	es n gauge, m os with w	No Depth (in onitoring well, aerial vetland signature	photos, p	revious ins	spections)	, if available:	
Water Table Saturation P (includes ca Describe Re Percent of Remarks: Combined	resent? pillary fringe) corded Data (strean	r gauge, mos with weercentag	No Depth (in Dep	photos, p e evider	revious ins at: 20%	spections)	, if available: the site coded a	

Project/Site: IL 31/FAU 336, original, Add. A, B, and C	City/County: McHenry C	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, Rar	nge: Section 15, T. 44 N.,	R. 8 E.
Landform (hillslope, terrace, etc.): depression	Local relief ((concave, convex, none):	concave
Slope (%): <u>0-1%</u> Lat: <u>42.28721°N</u>	Long: <u>-88.28629</u> °W		Datum: NAD83
Soil Map Unit Name: NRCS mapped as McHenry silt loam, revised to P	ella silty clay loam	NWI classifica	ation: U
Are climatic / hydrologic conditions on the site typical for this time of you	ear? Yes X No	(If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "	Normal Circumstances" p	resent? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr		eded, explain any answer	
SUMMARY OF FINDINGS - Attach site map showing	g sampling point lo	ocations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes X No			
Hydric Soil Present? Yes X No	Is the Sampled		
Wetland Hydrology Present? Yes X No	within a Wetlan	id? Yes	No X
Remarks: Community type: Cropland			
Although this site met the three criteria of a wetland, it failed to have wetland signate wetter than normal year and during two past delineations conducted by the first authorized to the signature of the signa			
VEGETATION – Use scientific names of plants.			
Absolute		Dominance Test works	sheet:
Tree Stratum (Plot size: whole site) % Cover 1.	Species? Status	Number of Dominant Sp That Are OBL, FACW, o	
2		Total Number of Domina	ant
3		Species Across All Strat	4
4		Percent of Dominant Sp	pecies
5		That Are OBL, FACW, o	
Sapling/Shrub Stratum (Plot size: whole site)	_ = Total Cover	Prevalence Index work	ksheet:
1		Total % Cover of:	Multiply by:
2.		OBL species	x 1 =
3		FACW species	x 2 =
4		FAC species	x 3 =
5			x 4 =
Lieb Cheture (Diet eier Whole site	_ = Total Cover		x 5 =
Herb Stratum (Plot size: whole site 1, Panicum dichotomiflorum	yes FACW-	Column Totals:	(A) (B)
2		Prevalence Index	= B/A =
3		Hydrophytic Vegetatio	on Indicators:
4.		1 - Rapid Test for H	lydrophytic Vegetation
5		2 - Dominance Test	t is >50%
6		3 - Prevalence Inde	ex is ≤3.0 ¹
7		4 - Morphological A	Adaptations ¹ (Provide supporting s or on a separate sheet)
8		l —	ohytic Vegetation ¹ (Explain)
9		Problematic Hydrop	mytic vegetation (Explain)
10		¹ Indicators of hydric soil	l and wetland hydrology must
Woody Vine Stratum (Plot size: whole site)	_ = Total Cover	be present, unless distu	
1		Hydrophytic	
2		Vegetation Present? Yes	s X No
	_ = Total Cover	riesentr fes	7
Remarks: (Include photo numbers here or on a separate sheet.)			

SOIL Sampling Point: 19A

Profile Desc	cription: (Describe	to the dep	th needed to docu	ment the	indicator	or confir	n the absence of ir	ndicators.)
Depth	Matrix			x Feature		1 2	T 1	D to
(inches) 0-14	Color (moist) 10YR 2/1	400	Color (moist)	%	Type ¹	_Loc ²	Texture SICL	Remarks
-		100						
14-26	2.5Y 5/2	95	10YR 4/6	_ <u>5</u>	<u> </u>	<u>M</u>	CL	
1							2	
		oletion, RM	=Reduced Matrix, M	S=Maske	d Sand Gr	ains.		.=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Hydric Soil			Candy	Claused M	atrice (CA)			-
Histosol	pipedon (A2)			Gleyed Ma Redox (St			Dark Surfa	rie Redox (A16)
	istic (A3)			d Matrix (anese Masses (F12)
	en Sulfide (A4)				neral (F1)			ow Dark Surface (TF12)
Stratifie	d Layers (A5)			Gleyed M				lain in Remarks)
_	uck (A10)		= '	ed Matrix (,			
	d Below Dark Surfac	e (A11)	_	Dark Surfa	٠,,		31	decade diade
_	ark Surface (A12) Mucky Mineral (S1)		= -	ed Dark Si Depressio	urface (F7))		lydrophytic vegetation and drology must be present,
	ucky Peat or Peat (S	3)	Nedox	Depressio	nis (FO)		-	urbed or problematic.
	Layer (if observed)							
Type:								
Depth (in	ches):						Hydric Soil Pres	sent? Yes X No No
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary Indi	cators (minimum of o	one is requi	ired; check all that ap	oply)			Secondary Ir	ndicators (minimum of two required)
Surface	Water (A1)		Water-Sta	ined Leav	res (B9)		X Surface	Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic Fa	auna (B13	3)		Drainage	e Patterns (B10)
Saturati	on (A3)		True Aqua	atic Plants	(B14)		= '	son Water Table (C2)
=	farks (B1)		Hydrogen		, ,		= '	Burrows (C8)
_	nt Deposits (B2)		=		eres on Liv	•		on Visible on Aerial Imagery (C9)
_	posits (B3)		Presence				=	or Stressed Plants (D1)
	at or Crust (B4)		=		ion in Tille	a Solis (C		phic Position (D2) utral Test (D5)
-	posits (B5) ion Visible on Aerial	lmagery (B	Thin Muck 7) Gauge or				AC-Ne	utial Test (D3)
💻	y Vegetated Concav		' = '					
Field Obser		- Carrage (20) Other (Ex	piani iii r	- Indiko			
Surface Wat		'es	No X Depth (in	ches):				
Water Table		'es	No X Depth (in			_		
Saturation P		es es		ches):		— Wet	land Hydrology Pro	esent? Yes X No
(includes ca	pillary fringe)							
1		-	onitoring well, aerial					
	FSA crop photo	s with w	etland signature	eviden	t: 20%	Is	the site coded a	as wetland by the NWI?: No
Remarks:								
Combined	crop photo/NWI p	ercentage	e: 16.7%					
Does the si	ite possess wetlar	nd hvdrol	ogy? No Ratio	nale: W	etland si	gnature	is not evident in t	the majority of years examined.
= = = = = = = = = = = = = = = = = = =	poodoo motiai	,	- J		2	J S. G. O		

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	City/County: McHenry	;	Sampling Date: September 1	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, Rar	nge: Section 22, T. 44 N., R	∴8 E.	
Landform (hillslope, terrace, etc.): depression	Local relief (concave, convex, none): concave			
Slope (%): <u>0-2%</u> Lat: <u>42.27452°N</u>	Long: <u>-88.28663°W</u>	1	Datum: NAD83	
Soil Map Unit Name: NRCS mapped as Lena muck, revised to undeterm	nined	NWI classifica	ition: PFO1B	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Re	emarks.)	
Are Vegetation, Soil, or Hydrology significantly		Normal Circumstances" pre	esent? Yes X No	
Are Vegetation, Soil, or Hydrology naturally pr		eded, explain any answers		
SUMMARY OF FINDINGS - Attach site map showing	g sampling point lo	ocations, transects,	important features,	etc.
Hydrophytic Vegetation Present? Yes X No				
Hydric Soil Present? Yes X No	Is the Sampled		1 🗀	
Wetland Hydrology Present? Yes X No No	within a Wetlan	d? Yes X	No No	
Remarks:				
Wet Floodplain Forest.				
VEGETATION – Use scientific names of plants.				
Absolute Tree Stratum (Plot size: whole site) % Cover		Dominance Test works	heet:	
1. Acer saccharinum	<u>Species?</u> <u>Status</u> yes FACW	Number of Dominant Spe That Are OBL, FACW, or		(A)
2.				(1)
3.		Total Number of Domina Species Across All Strata		(B)
4		·		,
5		Percent of Dominant Spe That Are OBL, FACW, or		(A/B)
	_ = Total Cover	Prevalence Index work	shoot:	
Sapling/Shrub Stratum (Plot size: Whole site) 1		Total % Cover of:		
2.			x 1 =	
3			x 2 =	
4.			x 3 =	
5		FACU species	x 4 =	
	_ = Total Cover	UPL species	x 5 =	
Herb Stratum (Plot size: whole site)		Column Totals:	(A)	(B)
1		Prevalence Index :	= B/A =	
3		Hydrophytic Vegetation		
4.		1 - Rapid Test for Hy	ydrophytic Vegetation	
5.		2 - Dominance Test	is >50%	
6		3 - Prevalence Index	x is ≤3.0 ¹	
7		4 - Morphological Ad	daptations¹ (Provide suppo	orting
8		l 	or on a separate sheet)	
9		Problematic Hydropi	hytic Vegetation ¹ (Explain)	,
10		¹ Indicators of hydric soil	and wetland hydrology mu	ıet
Woody Vine Stratum (Plot size: whole site)	_ = Total Cover	be present, unless distur	bed or problematic.	131
1		Hydrophytic		
2		Vegetation Present? Yes	X No	
	_ = Total Cover	rieseitr fes		
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL Sampling Point: 20A

Profile Desc	cription: (Describe	to the dep	oth needed to docur	ment the	indicator	or confirm	n the absence	of indicators.)
Depth	Matrix			x Feature		. ,		
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ² _		Remarks
0-6	10YR 2/1	_ 100					SIL	
6-16	10YR 6/1	90	10YR 8/1	_ <u>10</u>	_ <u>D</u>	<u>M</u>	SIL	
¹ Type: C=C	oncentration D=Der	eletion RM	=Reduced Matrix, M	S=Maske	d Sand Gr	ains	² Location	: PL=Pore Lining, M=Matrix.
Hydric Soil		Jiouon, ruvi	rtoddod matrix, m	o maono.	a cana cr	anio.		for Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy 0	Gleyed Ma	atrix (S4)		Coast	Prairie Redox (A16)
	pipedon (A2)		_	Redox (S				urface (S7)
_	istic (A3)			d Matrix (_	anganese Masses (F12)
	en Sulfide (A4) d Layers (A5)			Mucky Mi Gleyed M	neral (F1)			hallow Dark Surface (TF12) (Explain in Remarks)
	uck (A10)			ed Matrix (Other ((Explain in Nemarks)
_	d Below Dark Surfac	ce (A11)	= :	Dark Surf	. ,			
_	ark Surface (A12)				urface (F7)		of hydrophytic vegetation and
_	Mucky Mineral (S1)		Redox	Depression	ons (F8)			d hydrology must be present,
	ucky Peat or Peat (S Layer (if observed)						unless	disturbed or problematic.
Type:	Layer (II Observed)							
	ches):						Hydric Soil	Present? Yes X No No
Remarks:								
rtemants.								
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
Primary India	cators (minimum of	one is requ	ired; check all that ap	oply)			Seconda	ry Indicators (minimum of two required)
X Surface	Water (A1)		Water-Sta	ined Leav	/es (B9)		X Surf	ace Soil Cracks (B6)
_	ater Table (A2)		Aquatic Fa	auna (B13	3)		Drai	nage Patterns (B10)
X Saturation			True Aqua					Season Water Table (C2)
	larks (B1)		Hydrogen		, ,			rfish Burrows (C8)
=	nt Deposits (B2)		Oxidized F					ration Visible on Aerial Imagery (C9)
	posits (B3) at or Crust (B4)		Presence			4) d Soils (C	=	nted or Stressed Plants (D1) morphic Position (D2)
ı = . * _	posits (B5)		Thin Muck			u oolis (Ci	<i>'</i>	:-Neutral Test (D5)
I == '	on Visible on Aerial	Imagery (B	=		` '		77,1710	riodial root (20)
	y Vegetated Concav		· = ·		, ,			
Field Obser	vations:							
Surface Wat	er Present?	res X	No Depth (in	ches): <u>8</u>		_		
Water Table	Present?	res X	NoDepth (in	ches): <u>0</u>		_		
Saturation P	resent?	res X	NoDepth (in	ches): <u>0</u>		Wetl	and Hydrology	y Present? Yes X No
	pillary fringe) corded Data (stream	n daude m	onitoring well, aerial	nhotos n	revious ins	nections)	if available:	
20001120110	50,404 Data (61.64).	. 990,	ormormig won, domai	priotoo, pr		,,,	n aranazio.	
Remarks:								

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	City/County: McHenry		Sampling Date: S	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, Rar	nge: Section 22, T. 44 N., F	₹. 8 E.	
Landform (hillslope, terrace, etc.): upland	Local relief ((concave, convex, none):	convex to none	
Slope (%): 0-3% Lat: 42.27457°N	Long: <u>-88.28650°W</u>		Datum: NAD83	
Soil Map Unit Name: NRCS mapped as Lena muck, revised to Rush silf	t loam	NWI classifica	ation: PFO1B	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Re	emarks.)	
Are Vegetation , Soil , or Hydrology significantly		Normal Circumstances" p	resent? Yes	No I
Are Vegetation , Soil , or Hydrology naturally pro		eded, explain any answer		
SUMMARY OF FINDINGS - Attach site map showing	g sampling point lo	ocations, transects,	, important fe	atures, etc.
Hydrophytic Vegetation Present? Yes No X				
Hydric Soil Present? Yes No X	Is the Sampled		1 [V]	
Wetland Hydrology Present? Yes No X	within a Wetlan	id? Yes	No X	
Remarks:				
Mesic Floodplain Forest.				
VEGETATION – Use scientific names of plants.				
Absolute		Dominance Test works	sheet:	
	<u>Species?</u> <u>Status</u> yes FAC+	Number of Dominant Sp		(4)
	- 	That Are OBL, FACW, o	or FAC: 1	(A)
2		Total Number of Domina	_	(D)
3		Species Across All Strat	ta: <u>2</u>	(B)
5		Percent of Dominant Sp		(A/D)
	= Total Cover	That Are OBL, FACW, o	5r FAC: 30%	(A/B)
Sapling/Shrub Stratum (Plot size: 15-ft radius)		Prevalence Index work	ksheet:	
1		Total % Cover of:		y by:
2	- — —	OBL species		
3		FACW species		
4			x 3 =	
5		FACU species		
Herb Stratum (Plot size: 5-ft radius)	_ = Total Cover	UPL species		
1. Eupatorium rugosum	yes FACU	Column Totals:	(A)	(B)
2		Prevalence Index	= B/A =	
3.		Hydrophytic Vegetatio	n Indicators:	
4.		1 - Rapid Test for H	lydrophytic Vegeta	ation
5		2 - Dominance Test	t is >50%	
6		3 - Prevalence Inde	x is ≤3.0 ¹	
7		4 - Morphological A	daptations ¹ (Provi	de supporting
8		Problematic Hydrop	s or on a separate	-
9		Problematic Hydrop	mytic vegetation	(Explain)
10		Indicators of hydric soil	l and wetland hydr	rology must
Woody Vine Stratum (Plot size: 30-ft radius)	_ = Total Cover	be present, unless distu		
1		Hydrophytic		
2		Vegetation		
	_ = Total Cover	Present? Yes	sNo	<u>×</u>
Remarks: (Include photo numbers here or on a separate sheet.)		1		

SOIL Sampling Point: 20B

Profile Des	cription: (Describe	to the depth	needed to docu	ment the i	ndicator	or confirm	n the absence of i	ndicators.)
Depth	Matrix			ox Feature:				
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ²	Texture	Remarks
0-13	10YR 4/3	_ 100					SIL	
1- 0.0							21	
Hydric Soil	oncentration, D=Dep	etion, Rivi=Re	educed Matrix, IV	IS=Masked	Sand Gra	ains.		L=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Histoso			Sandy	Gleyed Ma	trix (S4)			rie Redox (A16)
	pipedon (A2)			Redox (S5			Dark Surfa	
	istic (A3)		_	ed Matrix (S			_	anese Masses (F12)
	en Sulfide (A4)			Mucky Mir				ow Dark Surface (TF12)
	d Layers (A5)			Gleyed Ma			Other (Exp	olain in Remarks)
_	uck (A10) d Below Dark Surfac	ο (Δ11)	= '	ed Matrix (I Dark Surfa	,			
	ark Surface (A12)	e (ATT)		ed Dark Suna	٠,	,	3Indicators of h	nydrophytic vegetation and
_	Mucky Mineral (S1)		= '	Depression	, ,			drology must be present,
5 cm M	ucky Peat or Peat (S	3)					unless dist	urbed or problematic.
Restrictive	Layer (if observed)	:						
Type:			_				Hydric Soil Pre	sent? Yes No X
Depth (in	ches):		_				Tryunc 3011 Fre	sent: Tes No No
Remarks:								
HYDROLO	NCV							
	drology Indicators:							
1	cators (minimum of c		· chock all that a	nnly)			Socondary	ndicators (minimum of two required)
	Water (A1)	ne is required		ained Leav	oo (PO)			
1=	ater Table (A2)			aineo Leav	(,			Soil Cracks (B6) e Patterns (B10)
Saturati	, ,		= '	atic Plants	,		=	ison Water Table (C2)
_	/arks (B1)		= '	Sulfide O	,		= '	Burrows (C8)
	nt Deposits (B2)		= ' '	Rhizosphe	, ,	ing Roots	= '	on Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduce	d Iron (C4	1)	Stunted	or Stressed Plants (D1)
Algal M	at or Crust (B4)		Recent Ir	on Reducti	on in Tille	d Soils (C6	Geomor	phic Position (D2)
Iron De	posits (B5)		Thin Muc	k Surface (C7)		FAC-Ne	utral Test (D5)
==	ion Visible on Aerial	. , ,	= '	Well Data	(D9)			
	y Vegetated Concav	e Surface (B8)	Other (Ex	plain in Re	marks)			
Field Obser								
		'esNo		nches):		-		
Water Table		'es No		nches):		_		
Saturation P	resent? Y pillary fringe)	'esNo	Depth (in	nches):		_ Wetl	and Hydrology Pr	esent? Yes No X
	corded Data (stream	gauge, monit	oring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
I								

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, Ra	ange: Section 22, T. 44 N., R. 8 E.
Landform (hillslope, terrace, etc.): depression	Local relief	(concave, convex, none): concave
Slope (%): <u>0-1%</u> Lat: <u>42.27465°N</u>	Long: <u>-88.28621°W</u>	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 y	ear? Yes X No	(If no, explain in Remarks.)
		"Normal Circumstances" present? Yes X No
		eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes X No Wetland Hydrology Present? Yes X No Wetland Hydrology Present?	Is the Sampled	
Remarks:		
Shrub-scrub Wetland.		
VEGETATION – Use scientific names of plants.		
Absolute		Dominance Test worksheet:
Tree Stratum (Plot size: whole site) % Cove	r Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2		Total Number of Dominant
3		Species Across All Strata: (B)
4		Percent of Dominant Species
5	= Total Cover	That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size: whole site)	_ = 10tal 00vel	Prevalence Index worksheet:
1. Salix exigua	yes OBL	Total % Cover of: Multiply by:
2		OBL species x 1 =
3		FACW species x 2 =
4		FAC species x 3 =
5		FACU species x 4 =
Herb Stratum (Plot size: whole site)	_ = Total Cover	UPL species x 5 =
1. Carex trichocarpa	yes OBL	Column Totals: (A) (B)
2 Impatiens capensis	yes FACW	Prevalence Index = B/A =
3. Phalaris arundinacea	yes FACW+	Hydrophytic Vegetation Indicators:
4		1 - Rapid Test for Hydrophytic Vegetation
5.		2 - Dominance Test is >50%
6.		3 - Prevalence Index is ≤3.0 ¹
7		4 - Morphological Adaptations ¹ (Provide supporting
8		data in Remarks or on a separate sheet)
9		Problematic Hydrophytic Vegetation ¹ (Explain)
10		1
Woody Vine Stratum (Plot size: whole site)	_ = Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1		Hydrophytic
2		Vegetation
	_ = Total Cover	Present? Yes X No No
Remarks: (Include photo numbers here or on a separate sheet.)		

SOIL Sampling Point: 21A

Profile Des	cription: (Describe	to the depth	needed to docu	ment the i	ndicator	or confirn	n the absence of i	ndicators.)
Depth	Matrix			ox Feature:				
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-39	N 2.5/	_ 100					Muck	
1							2	
Hydric Soil	oncentration, D=Dep	oletion, RM=Re	educed Matrix, N	IS=Masked	Sand Gra	ains.		_=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
X Histosol			Sandy	Gleyed Ma	triv (SA)			rie Redox (A16)
	pipedon (A2)			Redox (S5			Dark Surfa	
	istic (A3)			ed Matrix (S				anese Masses (F12)
_	en Sulfide (A4)			Mucky Mir				ow Dark Surface (TF12)
_	d Layers (A5)		_	Gleyed Ma			Other (Exp	olain in Remarks)
_	uck (A10)	- (844)		ed Matrix (I	,			
	d Below Dark Surfac ark Surface (A12)	e (A11)		Dark Surfa ed Dark Su	٠,,		3Indicators of h	nydrophytic vegetation and
_	Mucky Mineral (S1)			Depression	, ,			drology must be present,
_	ucky Peat or Peat (S	3)			()		-	urbed or problematic.
Restrictive	Layer (if observed)	•						
Type:			_					
Depth (in	ches):		_				Hydric Soil Pre	sent? Yes X No
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary Indi	cators (minimum of o	one is required	; check all that a	pply)			Secondary Ir	ndicators (minimum of two required)
_	Water (A1)		X Water-Sta	ained Leav	es (B9)		Surface	Soil Cracks (B6)
	ater Table (A2)		=	auna (B13			= -	e Patterns (B10)
X Saturati	,		= '	atic Plants	, ,		= '	son Water Table (C2)
	flarks (B1)		= ' '	Sulfide O	` '		= '	Burrows (C8)
=	nt Deposits (B2)		=	Rhizosphe		•	• • =	on Visible on Aerial Imagery (C9)
	posits (B3) at or Crust (B4)		=	of Reduce	`	,	=	or Stressed Plants (D1) phic Position (D2)
ı =	posits (B5)		=	k Surface (u Solis (Co	′ =	utral Test (D5)
1 = '	ion Visible on Aerial	Imagery (B7)		Well Data			Z I AO-NO	uliai rest (55)
==	y Vegetated Concav			plain in Re	, ,			
Field Obser	, ,				,			
Surface Wat	ter Present? Y	es X No	Depth (in	nches): 4				
Water Table		es X No		nches): 0		_		
Saturation P		es X No		nches): 0		— Wetl	and Hydrology Pr	esent? Yes X No
(includes ca	pillary fringe)							
Describe Re	corded Data (stream	ı gauge, monit	oring well, aerial	photos, pr	evious ins	pections),	if available:	
Domarka								
Remarks:								
I								

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	City/County: McHenry	s	Sampling Date: September 10, 2010
Applicant/Owner: Illinois Department of Transportation, District 1		State: Illinois S	Sampling Point: 21B
Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka	Section, Township, Rar	nge: Section 22, T. 44 N., R.	8 E.
Landform (hillslope, terrace, etc.): upland	Local relief	(concave, convex, none): <u>c</u>	onvex
Slope (%): <u>1-5%</u> Lat: <u>42.27506°N</u>	Long: <u>-88.28597</u> °W	0	Datum: NAD83
Soil Map Unit Name: Mapped as Orthents, loamy, undulating		NWI classificat	tion: U
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Rer	marks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "	Normal Circumstances" pre	esent? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr		eded, explain any answers	
SUMMARY OF FINDINGS - Attach site map showing	g sampling point k	ocations, transects, i	important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	Is the Sampled within a Wetlan		No X
Mesic Upland Forest.			
VEGETATION – Use scientific names of plants.			
Tree Stratum (Plot size: 30-ft radius) Absolute % Cover	r Species? Status	Dominance Test worksh Number of Dominant Spe	ecies
1. Quercus macrocarpa		That Are OBL, FACW, or	FAC: 1 (A)
2		Total Number of Dominar Species Across All Strata	_
4		Percent of Dominant Spe	
5	= Total Cover	That Are OBL, FACW, or	FAC: <u>33%</u> (A/B)
Sapling/Shrub Stratum (Plot size: 15-ft radius)	_ = Total Cover	Prevalence Index works	heet:
1. Lonicera maackii	yes UPL	Total % Cover of:	Multiply by:
2. Rhamnus cathartica	yes FACU	OBL species	x 1 =
3		FACW species	x 2 =
4		FAC species	x 3 =
5		FACU species	
Herb Stratum (Plot size: 5-ft radius	_ = Total Cover	UPL species	
1.		Column Totals:	(A) (B)
2		Prevalence Index =	= B/A =
3		Hydrophytic Vegetation	Indicators:
4		1 - Rapid Test for Hy	drophytic Vegetation
5		2 - Dominance Test i	s >50%
6		3 - Prevalence Index	is ≤3.0 ¹
7			aptations ¹ (Provide supporting or on a separate sheet)
8			nytic Vegetation ¹ (Explain)
9			
10	_ = Total Cover	¹ Indicators of hydric soil a be present, unless disturb	and wetland hydrology must bed or problematic.
1		Hydrophytic	
2		Vegetation Present? Yes	No X
	_ = Total Cover	riesent? res	NO A
Remarks: (Include photo numbers here or on a separate sheet.)			

SOIL Sampling Point: 21B

Depth			eeded to docum	nent the indicator	or confirm	i the absence	of indicators.)
(*** - 1 · · · · · · · · · · · · · · · · · ·	Matrix		Redox	x Features			
(inches)	Color (moist)		Color (moist)	%Type ¹ _	_Loc ²	Texture	Remarks
0-4	10YR 3/1	100				SIL	
4+	Gravel						
l ———							
¹ Type: C=C	oncentration, D=Dep	letion, RM=Red	luced Matrix, MS	S=Masked Sand Gra	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:		_			<u>Indi</u> cators	for Problematic Hydric Soils ³ :
Histosol	, ,		_	Gleyed Matrix (S4)			Prairie Redox (A16)
	pipedon (A2)		_	Redox (S5)		_	urface (S7)
_	istic (A3) en Sulfide (A4)		_	Matrix (S6) Mucky Mineral (F1)			anganese Masses (F12) nallow Dark Surface (TF12)
	d Layers (A5)		_	Gleyed Matrix (F2)			Explain in Remarks)
	uck (A10)			d Matrix (F3)			explain in Normanio)
	d Below Dark Surface	e (A11)	Redox D	ark Surface (F6)			
Thick D	ark Surface (A12)			d Dark Surface (F7)			of hydrophytic vegetation and
_	lucky Mineral (S1)		Redox D	Depressions (F8)			hydrology must be present,
_	ucky Peat or Peat (S3					unless	disturbed or problematic.
1	Layer (if observed):						
" —						Hydric Soil	Present? Yes No X
. `	ches):		-				
Remarks:							
1							
HYDROLO	GY						
	GY drology Indicators:						
Wetland Hy		ne is required; o	check all that ap	ply)		Seconda	ry Indicators (minimum of two required)
Wetland Hy	drology Indicators:	ne is required; o		ply) ned Leaves (B9)			ry Indicators (minimum of two required) ace Soil Cracks (B6)
Wetland Hy Primary India Surface	drology Indicators: cators (minimum of o	ne is required; o		ned Leaves (B9)		Surfa	, , , , , , , , , , , , , , , , , , , ,
Wetland Hy Primary India Surface	drology Indicators: cators (minimum of o Water (A1) ater Table (A2)	ne is required; o	Water-Stai	ned Leaves (B9)		Surfa	ace Soil Cracks (B6)
Wetland Hy Primary Indi Surface High Wa	drology Indicators: cators (minimum of o Water (A1) ater Table (A2)	ne is required; o	Water-Stail Aquatic Fa True Aquatic	ned Leaves (B9) una (B13)		Surfa	ace Soil Cracks (B6) nage Patterns (B10)
Wetland Hy Primary Indi Surface High Wa Saturati Water M	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3)	ne is required; o	Water-Stai Aquatic Fa True Aquat Hydrogen	ned Leaves (B9) una (B13) tic Plants (B14)	ng Roots (Surfa Drain Dry- Cray	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedime	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1)	ne is required; o	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R	ned Leaves (B9) una (B13) tic Plants (B14) Sulfide Odor (C1)	•	Surfa Drain Dry- Cray Satu	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedime	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2)	ne is required; o	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of	ned Leaves (B9) una (B13) tic Plants (B14) Sulfide Odor (C1) thizospheres on Livi	-)	Surfa Drain Dry- Cray CC3) Satu	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen Drift De Algal Ma	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3)	ne is required; o	Water-Stail Aquatic Fa True Aquat Hydrogen S Oxidized R Presence C Recent Iron	ned Leaves (B9) una (B13) tic Plants (B14) Sulfide Odor (C1) thizospheres on Livi of Reduced Iron (C4	-)	Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedime Drift De Algal Ma	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Water-Stail Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iron Thin Muck	ned Leaves (B9) una (B13) tic Plants (B14) Sulfide Odor (C1) thizospheres on Livi of Reduced Iron (C4 n Reduction in Tilled	-)	Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron Dep Inundati Sparse!	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial In y Vegetated Concave	magery (B7)	Water-Stail Aquatic Fa True Aquat Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or V	una (B13) tic Plants (B14) Sulfide Odor (C1) thizospheres on Livi of Reduced Iron (C4 n Reduction in Tilled Surface (C7)	-)	Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)
Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron Dep	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial In y Vegetated Concave	magery (B7)	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or V Other (Exp	ned Leaves (B9) una (B13) tic Plants (B14) Sulfide Odor (C1) thizospheres on Livi of Reduced Iron (C4 n Reduction in Tilled Surface (C7) Well Data (D9)	d Soils (C6	Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron Dep Inundati Sparse!	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial In y Vegetated Concave vations:	magery (B7)	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or V Other (Exp	una (B13) una (B13) tic Plants (B14) Sulfide Odor (C1) thizospheres on Livi of Reduced Iron (C4 n Reduction in Tilled Surface (C7) Well Data (D9)	d Soils (C6	Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron Dep Inundati Sparse	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial II by Vegetated Concave vations: er Present?	magery (B7) e Surface (B8)	Water-Stail Aquatic Fa True Aquat Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or V Other (Exp	ned Leaves (B9) una (B13) tic Plants (B14) Sulfide Odor (C1) thizospheres on Livi of Reduced Iron (C4 n Reduction in Tilled Surface (C7) Well Data (D9)	d Soils (C6	Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron Dep Inundati Sparsel Field Obser Surface Wat Water Table Saturation P	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial II y Vegetated Concave vations: er Present? Present? Yeresent?	magery (B7) e Surface (B8)	Water-Stail Aquatic Fa True Aquat Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or V Other (Exp	ned Leaves (B9) una (B13) tic Plants (B14) Sulfide Odor (C1) thizospheres on Livi of Reduced Iron (C4 on Reduction in Tilled Surface (C7) Well Data (D9) ches):	d Soils (C6	Surfa Drain Dry-i Cray Cray Satu Stun Geo FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron Dep Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial II y Vegetated Concave vations: er Present? Present? Yeresent? Yeresent? Yeresent?	magery (B7) e Surface (B8) es No es No es No	Water-Stail Aquatic Fa True Aquat Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or V Other (Exp	una (B13) tic Plants (B14) Sulfide Odor (C1) thizospheres on Livi of Reduced Iron (C4 n Reduction in Tilled Surface (C7) Well Data (D9) dain in Remarks) thes):	S) d Soils (C6	Surfa Drain Dry-i Cray (C3) Satu Stun FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron Dep Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial II y Vegetated Concave vations: er Present? Present? Yeresent?	magery (B7) e Surface (B8) es No es No es No	Water-Stail Aquatic Fa True Aquat Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or V Other (Exp	una (B13) tic Plants (B14) Sulfide Odor (C1) thizospheres on Livi of Reduced Iron (C4 n Reduction in Tilled Surface (C7) Well Data (D9) dain in Remarks) thes):	S) d Soils (C6	Surfa Drain Dry-i Cray (C3) Satu Stun FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron De Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial II y Vegetated Concave vations: er Present? Present? Yeresent? Yeresent? Yeresent?	magery (B7) e Surface (B8) es No es No es No	Water-Stail Aquatic Fa True Aquat Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or V Other (Exp	una (B13) tic Plants (B14) Sulfide Odor (C1) thizospheres on Livi of Reduced Iron (C4 n Reduction in Tilled Surface (C7) Well Data (D9) dain in Remarks) thes):	S) d Soils (C6	Surfa Drain Dry-i Cray (C3) Satu Stun FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron Dep Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial II y Vegetated Concave vations: er Present? Present? Yeresent? Yeresent? Yeresent?	magery (B7) e Surface (B8) es No es No es No	Water-Stail Aquatic Fa True Aquat Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or V Other (Exp	una (B13) tic Plants (B14) Sulfide Odor (C1) thizospheres on Livi of Reduced Iron (C4 n Reduction in Tilled Surface (C7) Well Data (D9) dain in Remarks)	S) d Soils (C6	Surfa Drain Dry-i Cray (C3) Satu Stun FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron De Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial II y Vegetated Concave vations: er Present? Present? Yeresent? Yeresent? Yeresent?	magery (B7) e Surface (B8) es No es No es No	Water-Stail Aquatic Fa True Aquat Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or V Other (Exp	una (B13) tic Plants (B14) Sulfide Odor (C1) thizospheres on Livi of Reduced Iron (C4 n Reduction in Tilled Surface (C7) Well Data (D9) dain in Remarks)	S) d Soils (C6	Surfa Drain Dry-i Cray (C3) Satu Stun FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)

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, Rar	nge: Section 22, T. 44 N., F	₹. 8 E.
Landform (hillslope, terrace, etc.): floodplain	Local relief	(concave, convex, none):	concave to none
Slope (%): 0-1% Lat: 42.27381°N	Long: <u>-88.28641</u> °W		Datum: NAD83
Soil Map Unit Name: NRCS mapped as Rush silt loam, revised to Lena	muck	NWI classific	ation: PFO1B and U
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "	Normal Circumstances" p	resent? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr		eded, explain any answei	
SUMMARY OF FINDINGS - Attach site map showing	g sampling point l	ocations, transects	, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes X No Yes X No	Is the Sampled within a Wetlan		No No
Wet Meadow.			
VEGETATION – Use scientific names of plants.			
Absolute		Dominance Test works	sheet:
Tree Stratum (Plot size: whole site) % Cover 1.	Species? Status	Number of Dominant Sp That Are OBL, FACW, of	
2		Total Number of Domina	ant
3		Species Across All Stra	
4		Percent of Dominant Sp	
5	= Total Cover	That Are OBL, FACW, o	or FAC: (A/B)
Sapling/Shrub Stratum (Plot size: whole site)	_ = Total Cover	Prevalence Index work	ksheet:
1		Total % Cover of:	Multiply by:
2		l	x 1 =
3			x 2 =
4			x 3 =
5			x 4 =
Herb Stratum (Plot size: whole site)	_ = Total Cover		x 5 =
1. Phalaris arundinacea	yes FACW+	Column Totals:	(A) (B)
2		Prevalence Index	= B/A =
3		Hydrophytic Vegetation	
4		1 - Rapid Test for H	
5		2 - Dominance Tes	
6		3 - Prevalence Inde	
7			Adaptations ¹ (Provide supporting s or on a separate sheet)
8		_	ohytic Vegetation¹ (Explain)
9		_	
10	= Total Cover	¹ Indicators of hydric soil be present, unless distu	l and wetland hydrology must irbed or problematic.
1		Hydrophytic	
2.		Vegetation	
	_ = Total Cover	Present? Yes	s_X_No
Remarks: (Include photo numbers here or on a separate sheet.)			

SOIL Sampling Point: 22A

ı						0. 00	n the absence of ir	,
Depth	Matrix	0/		ox Feature		1 2	Touture	Damada
(inches) 0-15	Color (moist) N 2.5/	90	Color (moist)	%	Type ¹	_Loc ² _	Texture Muck	Remarks
0-13							iviuck	
	7.5YR 2.5/2	_ 10						
15-26	N 2.5/	100					Muck	
1							2	
	concentration, D=Dep	oletion, RM=	=Reduced Matrix, M	S=Masked	d Sand Gra	ains.		.=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Hydric Soil X Histoso			Condu	Clayed Me	atric (CA)		_	•
	pipedon (A2)			Gleyed Ma Redox (S5			Dark Surfa	rie Redox (A16)
_	listic (A3)			d Matrix (S			_	anese Masses (F12)
_	en Sulfide (A4)			Mucky Mir				ow Dark Surface (TF12)
Stratifie	d Layers (A5)			Gleyed Ma			Other (Exp	lain in Remarks)
_	uck (A10)		= '	ed Matrix (,			
ı —	d Below Dark Surface	ce (A11)		Dark Surfa	ace (F6) urface (F7)		31 - 41 - 24 - 2 - 2 - 6	
_	ark Surface (A12) Mucky Mineral (S1)		= '	Depressio	,			ydrophytic vegetation and drology must be present,
_	ucky Peat or Peat (S	3)	ricdox	Depressio	113 (1 0)		-	urbed or problematic.
	Layer (if observed)							
Type:								
Depth (in	iches):						Hydric Soil Pres	sent? Yes X No
Remarks:								
ı								
HYDROLO	OGY							
	OGY drology Indicators	:						
Wetland Hy			red; check all that a	pply)			Secondary Ir	ndicators (minimum of two required)
Wetland Hy	drology Indicators			pply) ained Leav	res (B9)			ndicators (minimum of two required) Soil Cracks (B6)
Wetland Hy Primary Indi Surface	drology Indicators		Water-Sta		, ,		Surface	
Wetland Hy Primary Indi Surface	rdrology Indicators cators (minimum of o Water (A1) ater Table (A2)		Water-Sta	ained Leav)		Surface Drainage	Soil Cracks (B6)
Primary Indi Surface X High Water M	edrology Indicators cators (minimum of of Water (A1) ater Table (A2) ion (A3) Marks (B1)		Water-Sta Aquatic F. True Aqua Hydrogen	ained Leav auna (B13 atic Plants Sulfide O	(B14) dor (C1)		Surface Drainage Dry-Sea Crayfish	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8)
Wetland Hy Primary Indi Surface X High W: X Saturati Water M Sedime	cators (minimum of of water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2)		Water-Sta Aquatic F True Aqua Hydrogen Oxidized	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe	(B14) dor (C1) eres on Liv	•	Surface Drainage Dry-Sea Crayfish (C3) Saturatio	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9)
Wetland Hy Primary Indi Surface X High W: X Saturati Water M Sedime Drift De	cators (minimum of of water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3)		Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce	(B14) (B14) dor (C1) eres on Lived ed Iron (C4	1)	Surface Drainage Dry-Sea Crayfish (C3) Saturatio	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Wetland Hy Primary Indi Surface High Water Mater Mater Drift De Algal M	cators (minimum of of the work) Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Iro	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti	(B14) (B14) dor (C1) eres on Lived ed Iron (C4) ion in Tilled	1)	Surface Drainage Dry-Sea Crayfish (C3) Saturation Stunted G Geomore	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2)
Wetland Hy Primary Indi Surface X High Water M Sedime Drift De Algal M Iron De	cators (minimum of of the water (A1) atter Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	one is requi	Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Iro	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti k Surface ((B14) dor (C1) eres on Livi ed Iron (C4 ion in Tilled	1)	Surface Drainage Dry-Sea Crayfish (C3) Saturation Stunted G Geomore	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Wetland Hy Primary Indi Surface X High Water Mater Mat	edrology Indicators: cators (minimum of of the Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial	one is requi	Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Ird Thin Mucl 7) Gauge or	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti k Surface (Well Data	(B14) dor (C1) eres on Livided Iron (C4) don in Tilled (C7) (D9)	1)	Surface Drainage Dry-Sea Crayfish (C3) Saturation Stunted G Geomore	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2)
Wetland Hy Primary Indi Surface X High Wi X Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel	cators (minimum of of the cators (minimum of of of the cators (minimum of	one is requi	Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Ird Thin Mucl 7) Gauge or	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti k Surface ((B14) dor (C1) eres on Livided Iron (C4) don in Tilled (C7) (D9)	1)	Surface Drainage Dry-Sea Crayfish (C3) Saturation Stunted G Geomore	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2)
Wetland Hy Primary Indi Surface X High W: X Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel	cators (minimum of of water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations:	Imagery (B'	Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Iru Thin Mucl To Gauge or B8) Other (Ex	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti k Surface (Well Data plain in Re	(B14) dor (C1) eres on Livided Iron (C4) don in Tilled (C7) (D9)	1)	Surface Drainage Dry-Sea Crayfish (C3) Saturation Stunted G Geomore	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser	cators (minimum of of the Water (A1) atter Table (A2) fon (A3) Marks (B1) att Deposits (B2) posits (B3) at or Crust (B4) posits (B5) fon Visible on Aerial y Vegetated Concavervations:	Imagery (B)	Water-Sta Aquatic F. Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Ira Thin Mucl To Gauge or B8) Other (Ex	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti k Surface (Well Data plain in Re	(B14) dor (C1) eres on Livided Iron (C4) don in Tilled (C7) (D9)	1)	Surface Drainage Dry-Sea Crayfish (C3) Saturation Stunted G Geomore	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2)
Wetland Hy Primary Indi Surface X High Wi X Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Water Table	rdrology Indicators: cators (minimum of of the Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavery rvations: ter Present?	Imagery (Bine Surface (I	Water-Sta Aquatic F. Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Ird Thin Mucl 7) Gauge or B8) Other (Ex	ained Leavauna (B13 atic Plants Sulfide OR Reduce on Reduction Red	(B14) dor (C1) eres on Livided Iron (C4) don in Tilled (C7) (D9)	d Soils (Co	Surface Drainage Dry-Sea Crayfish (C3) Saturatic Stunted X Geomory X FAC-Nei	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2) utral Test (D5)
Wetland Hy Primary Indi Surface X High Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obsel Surface Water Table Saturation F	rdrology Indicators: cators (minimum of of the Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations: ter Present?	Imagery (B'e Surface (I	Water-Sta Aquatic F. Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Ird Thin Mucl 7) Gauge or B8) Other (Ex	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti k Surface (Well Data plain in Re	(B14) dor (C1) eres on Livided Iron (C4) don in Tilled (C7) (D9)	d Soils (Co	Surface Drainage Dry-Sea Crayfish (C3) Saturation Stunted G Geomore	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2) utral Test (D5)
Wetland Hy Primary Indi Surface X High Wi X Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wa' Water Table Saturation F (includes ca	rdrology Indicators: cators (minimum of of the Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavery rvations: ter Present?	Imagery (B) The Surface (Interpretation of the Surface (Interp	Water-Sta Aquatic F. Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Ird Thin Mucl 7) Gauge or B8) Other (Ex	ained Leavauna (B13 atic Plants Sulfide Of Reduce of Reduce on Reduction Red	(B14) (B14) dor (C1) eres on Liv ed Iron (C4 don in Tilled (C7) (D9) emarks)	d Soils (Co	Surface Drainage Dry-Sea Crayfish (C3) Saturatic Stunted X Geomor X FAC-Net	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2) utral Test (D5)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wat Water Table Saturation F (includes ca Describe Re	rdrology Indicators: cators (minimum of of the Water (A1) ater Table (A2) fon (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations: ter Present?	Imagery (B) The Surface (Interpretation of the Surface (Interp	Water-Sta Aquatic F. Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Ird Thin Mucl 7) Gauge or B8) Other (Ex	ained Leavauna (B13 atic Plants Sulfide Of Reduce of Reduce on Reduction Red	(B14) (B14) dor (C1) eres on Liv ed Iron (C4 don in Tilled (C7) (D9) emarks)	d Soils (Co	Surface Drainage Dry-Sea Crayfish (C3) Saturatic Stunted X Geomor X FAC-Net	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2) utral Test (D5)
Wetland Hy Primary Indi Surface X High Wi X Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wa' Water Table Saturation F (includes ca	rdrology Indicators: cators (minimum of of the Water (A1) ater Table (A2) fon (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations: ter Present?	Imagery (B) The Surface (Interpretation of the Surface (Interp	Water-Sta Aquatic F. Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Ird Thin Mucl 7) Gauge or B8) Other (Ex	ained Leavauna (B13 atic Plants Sulfide Of Reduce of Reduce on Reduction Red	(B14) (B14) dor (C1) eres on Liv ed Iron (C4 don in Tilled (C7) (D9) emarks)	d Soils (Co	Surface Drainage Dry-Sea Crayfish (C3) Saturatic Stunted X Geomor X FAC-Net	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2) utral Test (D5)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wat Water Table Saturation F (includes ca Describe Re	rdrology Indicators: cators (minimum of of the Water (A1) ater Table (A2) fon (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations: ter Present?	Imagery (B) The Surface (Interpretation of the Surface (Interp	Water-Sta Aquatic F. Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Ird Thin Mucl 7) Gauge or B8) Other (Ex	ained Leavauna (B13 atic Plants Sulfide Of Reduce of Reduce on Reduction Red	(B14) (B14) dor (C1) eres on Liv ed Iron (C4 don in Tilled (C7) (D9) emarks)	d Soils (Co	Surface Drainage Dry-Sea Crayfish (C3) Saturatic Stunted X Geomor X FAC-Net	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2) utral Test (D5)

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, Ra	ange: Section 22, T. 44 N.,	R. 8 E.
Landform (hillslope, terrace, etc.): upland	Local relief	(concave, convex, none):	convex
Slope (%): <u>1-5%</u> Lat: <u>42.27387°N</u>	Long: <u>-88.28645°W</u>		Datum: NAD83
Soil Map Unit Name: Mapped as Rush silt loam, revised to undetermine	ed	NWI classific	ation: U
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are	"Normal Circumstances" p	present? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr		eeded, explain any answe	
SUMMARY OF FINDINGS - Attach site map showing	g sampling point	locations, transects	, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes No X No X No X Remarks:	Is the Sample within a Wetla		No X
Shrubland.			
VEGETATION – Use scientific names of plants.			
Absolute		Dominance Test work	sheet:
Tree Stratum (Plot size: 30-ft radius) % Cover 1.	r Species? Status	Number of Dominant Sp That Are OBL, FACW, of	
2		Total Number of Domin	
3		Species Across All Stra	ta: <u>3</u> (B)
4		Percent of Dominant Sp	
5	= Total Cover	That Are OBL, FACW, o	or FAC: 0% (A/B)
Sapling/Shrub Stratum (Plot size: 15-ft radius)	_ = 10101 00401	Prevalence Index work	ksheet:
1. Rhus glabra	_ <u>yes</u> <u>UPL</u>	Total % Cover of:	
2			x 1 =
3			x 2 =
4			x 3 =
5			x 4 =
Herb Stratum (Plot size: 5-ft radius	_ = Total Cover		x 5 =
1. Daucus carota	yes FACU-	Column Totals:	(A) (B)
2. Solidago canadensis	yes FACU	Prevalence Index	= B/A =
3		Hydrophytic Vegetation	on Indicators:
4		1 - Rapid Test for H	Hydrophytic Vegetation
5		2 - Dominance Tes	t is >50%
6		3 - Prevalence Inde	
7			Adaptations ¹ (Provide supporting sor on a separate sheet)
8			phytic Vegetation ¹ (Explain)
9			my no regeration (Explain)
10	 _ = Total Cover	¹ Indicators of hydric soil be present, unless distu	I and wetland hydrology must urbed or problematic.
Woody Vine Stratum (Plot size: 30-ft radius)			
1		Hydrophytic Vegetation	
	= Total Cover	Present? Yes	s No X
Remarks: (Include photo numbers here or on a separate sheet.)		1	

SOIL Sampling Point: 22B

Profile Desc	cription: (Describe	to the depth ne	eeded to docu	ment the i	ndicator	or confirm	the absence of	of indicators.)
Depth	Matrix			ox Feature:		. 2		
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 3/1	100					SIL	
6+	Gravel							
1Type: C=C	oncentration, D=Dep	lotion PM-Pool	luced Matrix M	S-Maskad	Sand Gr		2l coation:	PL=Pore Lining, M=Matrix.
Hydric Soil		ellon, Rivi-Red	iuceu iviatiix, ivi	3-Wasket	i Sanu Gra	aii i 5.		or Problematic Hydric Soils ³ :
Histosol			Sandy	Gleyed Ma	trix (S4)		_	Prairie Redox (A16)
Histic E	pipedon (A2)			Redox (S5				ırface (S7)
_	istic (A3)			d Matrix (S				nganese Masses (F12)
	en Sulfide (A4)			Mucky Mir				nallow Dark Surface (TF12)
	d Layers (A5) uck (A10)			Gleyed Ma ed Matrix (I			Other (E	Explain in Remarks)
_	d Below Dark Surfac	e (A11)	= '	Dark Surfa	,			
Thick Da	ark Surface (A12)			ed Dark Su	, ,		³ Indicators	of hydrophytic vegetation and
_	Mucky Mineral (S1)		Redox	Depression	ns (F8)			hydrology must be present,
	ucky Peat or Peat (S: Layer (if observed):	*					unless	disturbed or problematic.
_								<u></u>
	ches):						Hydric Soil F	Present? Yes No X
Remarks:	cries).		•					
Remarks.								
HYDROLO	GY							
Wetland Hy	drology Indicators:							
	cators (minimum of o	ne is required;	check all that a	pply)			Secondar	y Indicators (minimum of two required)
Surface	Water (A1)		Water-Sta	ained Leave	es (B9)		Surfa	ice Soil Cracks (B6)
	ater Table (A2)		Aquatic F	auna (B13)		=	age Patterns (B10)
Saturation	on (A3)		True Aqua	atic Plants	(B14)		Dry-S	Season Water Table (C2)
Water M	larks (B1)		Hydrogen	Sulfide O	dor (C1)		Cray	fish Burrows (C8)
Sedimer	nt Deposits (B2)		Oxidized	Rhizosphe	res on Livi	ing Roots	(C3) Satur	ration Visible on Aerial Imagery (C9)
	posits (B3)		=	of Reduce		,		ed or Stressed Plants (D1)
1 = *	at or Crust (B4)		=	on Reducti		d Soils (C6	´ =	norphic Position (D2)
1= '	oosits (B5)	(DZ)	_	k Surface (FAC-	Neutral Test (D5)
=	on Visible on Aerial I v Vegetated Concave			Well Data	` '			
Field Obser		Surface (Bo)	Other (Ex	plain in Re	illaiks)			
Surface Wat		es No	X Denth (in	nches):				
Water Table		es No		nches):		_		
Saturation P		es No		nches):		_	and Hydrology	Present? Yes No X
(includes car	pillary fringe)		,					Tresent: 100 No
Describe Re	corded Data (stream	gauge, monitor	ring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								

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, Ra	nge: Section 22, T. 44 N., R. 8 E.
Landform (hillslope, terrace, etc.): depression	Local relief	(concave, convex, none): concave
Slope (%): <u>0-2%</u> Lat: <u>42.27520°N</u>	_ 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 significant	ly disturbed? Are	'Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally p		eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	ng sampling point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	ls the Sampled within a Wetla	
Shrub-scrub Wetland.		
VECETATION . Has assign tiffe manner of plants		
VEGETATION – Use scientific names of plants. Absolut	e Dominant Indicator	Dominance Test worksheet:
	er Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2		Total Number of Dominant Species Across All Strata: (B)
4		
5		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
ubele eite	_ = Total Cover	
Sapling/Shrub Stratum (Plot size: whole site)	ves OBL	Prevalence Index worksheet: Total % Cover of: Multiply by:
1. Salix exigua		OBL species x 1 =
2		FACW species x 2 =
3		FAC species x 3 =
5		FACU species x 4 =
	= Total Cover	UPL species x 5 =
Herb Stratum (Plot size: whole site)	-	Column Totals: (A) (B)
1. Eleocharis erythropoda	_ yes OBL	5
2. Typha angustifolia	yes OBL	Prevalence Index = B/A = Hydrophytic Vegetation Indicators:
3		X 1 - Rapid Test for Hydrophytic Vegetation
4		2 - Dominance Test is >50%
5		3 - Prevalence Index is ≤3.01
6		4 - Morphological Adaptations ¹ (Provide supporting
7		data in Remarks or on a separate sheet)
8		Problematic Hydrophytic Vegetation ¹ (Explain)
10		
Woody Vine Stratum (Plot size: whole site)	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1		Hydrophytic
2		Vegetation
	= Total Cover	Present? Yes X No No
Remarks: (Include photo numbers here or on a separate sheet.)		

SOIL Sampling Point: 23A

Profile Desc	cription: (Describe	to the depth	n needed to docui	nent the	indicator	or confirn	n the absence	of indicators.)
Depth	Matrix			x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	_Loc ² _	Texture	Remarks
0-6	2.5Y 4/2	85	10YR 4/4	_ 15	<u> </u>	<u>M</u>	SICL	
6+	Gravel							
¹ Type: C=C	oncentration, D=De	pletion, RM=F	Reduced Matrix, M	S=Maske	d Sand Gr	ains.		: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						_	for Problematic Hydric Soils ³ :
Histosol	. ,			Gleyed Ma				Prairie Redox (A16)
	pipedon (A2)			Redox (St			_	Surface (S7)
_	istic (A3) en Sulfide (A4)			d Matrix (S	56) neral (F1)			anganese Masses (F12) Shallow Dark Surface (TF12)
	d Layers (A5)			Gleyed M				(Explain in Remarks)
_	uck (A10)		X Deplete					(Explain in Nomano)
Deplete	d Below Dark Surfac	ce (A11)		Dark Surfa				
Thick Da	ark Surface (A12)		Deplete	d Dark Su	urface (F7)	³ Indicators	of hydrophytic vegetation and
-	Mucky Mineral (S1)		Redox	Depressio	ns (F8)			d hydrology must be present,
	ucky Peat or Peat (S						unless	disturbed or problematic.
	Layer (if observed)							
" —							Hydric Soil	Present? Yes X No
Depth (in	ches):						11,741.10 0011	
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
Primary India	cators (minimum of	one is require	ed; check all that ap	oply)			Seconda	ary Indicators (minimum of two required)
Surface	Water (A1)		Water-Sta	ined Leav	res (B9)		Surf	face Soil Cracks (B6)
=	ater Table (A2)		Aguatic Fa	auna (B13	3)			inage Patterns (B10)
X Saturati	, ,		True Aqua	,	,			Season Water Table (C2)
=	larks (B1)		Hydrogen		` '		= '	yfish Burrows (C8)
	nt Deposits (B2)		= ' '		, ,	ing Roots	= '	uration Visible on Aerial Imagery (C9)
	posits (B3)		Presence			•	· · =	nted or Stressed Plants (D1)
	at or Crust (B4)		=		,	d Soils (C	=	omorphic Position (D2)
1 = "	posits (B5)		Thin Muck			`	_	-Neutral Test (D5)
ı 	on Visible on Aerial	Imagery (B7)	=		` '			,
Sparsel	y Vegetated Concav	e Surface (B			, ,			
Field Obser	vations:							
Surface Wat	er Present?	res N	o X Depth (in	ches):		_		
Water Table	Present?	res X N	o Depth (in	ches): 1		_		
Saturation P		res X N		ches): 1		— Wetl	and Hydrolog	y Present? Yes X No
(includes ca	pillary fringe)							,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Describe Re	corded Data (stream	n gauge, mor	nitoring well, aerial	photos, p	revious ins	spections),	if available:	
D								
Remarks:								
I								

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	City/County: McHenry	S	ampling Date: September 10, 2010
Applicant/Owner: Illinois Department of Transportation, District 1		State: Illinois S	ampling Point: 23B
Investigator(s): Paul B. Marcum, Ian Draheim, Jason Zylka	_ Section, Township, Ra	nge: Section 22, T. 44 N., R.	8 E.
Landform (hillslope, terrace, etc.): upland	Local relief	(concave, convex, none): co	onvex
Slope (%): <u>1-5%</u> Lat: <u>42.27533°N</u>	Long: <u>-88.28625°W</u>	D	atum: NAD83
Soil Map Unit Name: Mapped as Orthents, loamy, undulating		NWI classificati	on: U
Are climatic / hydrologic conditions on the site typical for this time of y	vear? Yes X No	(If no, explain in Rem	narks.)
		Normal Circumstances" pre	sent? Yes X No
		eded, explain any answers	
SUMMARY OF FINDINGS - Attach site map showin	g sampling point l	ocations, transects, i	mportant features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No X X	Is the Sampled		No X
Wetland Hydrology Present? Yes No X	within a Wetlar	nd? Yes	No X
Non-native Grassland.			
INOTI-HALIVE Grassianu.			
VEGETATION – Use scientific names of plants.			
Absolute Tree Stratum (Plot size: 30-ft radius) % Cove	e Dominant Indicator r Species? Status	Dominance Test worksh	
1		Number of Dominant Spec That Are OBL, FACW, or I	
2		Total Number of Dominan	_
3		Species Across All Strata:	<u>2</u> (B)
4.		Percent of Dominant Spec That Are OBL, FACW, or	
	_ = Total Cover		(==,
Sapling/Shrub Stratum (Plot size: 15-ft radius)		Prevalence Index works Total % Cover of:	
1		OBL species	
3		FACW species	
4			x 3 =
5		FACU species	
	= Total Cover	UPL species	
Herb Stratum (Plot size: 5-ft radius)		Column Totals:	
1. Lolium perenne 2. Poa pratensis	yes FACU FAC-	Prevalence Index =	B/A =
3		Hydrophytic Vegetation	
4		1 - Rapid Test for Hyd	
5		2 - Dominance Test is	
6.		3 - Prevalence Index	is ≤3.0 ¹
7		4 - Morphological Ada	aptations ¹ (Provide supporting
8		l —	r on a separate sheet)
9.		Problematic Hydrophy	ytic Vegetation ¹ (Explain)
10		1	
Woody Vine Stratum (Plot size: 30-ft radius)	_ = Total Cover	be present, unless disturb	nd wetland hydrology must ed or problematic.
1		Hydrophytic	
2		Vegetation	
	_ = Total Cover	Present? Yes	No X
Remarks: (Include photo numbers here or on a separate sheet.)			

SOIL Sampling Point: 23B

Profile Desc	cription: (Describe	to the depth	needed to docu	ment the i	ndicator	or confirm	the absence of i	ndicators.)
Depth	Matrix			ox Feature:				
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²		Remarks
0-3	10YR 3/3	_ 100					SIL	
3+	Gravel							
1							2, ,,	
Hydric Soil	oncentration, D=Dep	oletion, RM=Re	educed Matrix, N	IS=Masked	Sand Gra	ains.		L=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Histosol			Sandy	Gleyed Ma	triv (SA)			rie Redox (A16)
	pipedon (A2)			Redox (S5			Dark Surfa	
	istic (A3)		_	ed Matrix (S			=	anese Masses (F12)
_	en Sulfide (A4)			Mucky Mir				ow Dark Surface (TF12)
	d Layers (A5)		_	Gleyed Ma			Other (Exp	olain in Remarks)
_	uck (A10)	- (844)		ed Matrix (I	,			
	d Below Dark Surfac ark Surface (A12)	e (A11)		Dark Surfa ed Dark Su	. ,		3Indicators of h	nydrophytic vegetation and
_	Mucky Mineral (S1)			Depression	, ,			drology must be present,
_	ucky Peat or Peat (S	3)	110001	Боргоссіс.	(. 0)		•	urbed or problematic.
_	Layer (if observed)	-						
Туре:			_					
Depth (in	ches):		_				Hydric Soil Pre	sent? Yes No X
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary Indi	cators (minimum of o	ne is required	l; check all that a	pply)			Secondary In	ndicators (minimum of two required)
Surface	Water (A1)		Water-Sta	ained Leav	es (B9)		Surface	Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic F	auna (B13)		Drainag	e Patterns (B10)
Saturati	on (A3)		True Aqu	atic Plants	(B14)		Dry-Sea	ison Water Table (C2)
=	larks (B1)		= ' '	Sulfide O	, ,		= '	Burrows (C8)
=	nt Deposits (B2)		=	Rhizosphe		•	· · =	on Visible on Aerial Imagery (C9)
	posits (B3)		=	of Reduce	•	,	=	or Stressed Plants (D1)
1 = "	at or Crust (B4)		=	on Reducti		d Soils (C6	· =	phic Position (D2)
ı =	oosits (B5) on Visible on Aerial	Imagen (D7)		k Surface (FAC-Ne	utral Test (D5)
ı =	y Vegetated Concav	. , ,		Well Data	. ,			
Field Obser		e odnace (bo)) Li other (Ex	piaiii iii ike	marks)			
Surface Wat		es No	X Depth (ii	nches):				
Water Table		es No		nches):		_		
Saturation P		es No		nches):		- Wetl:	and Hydrology Pr	esent? Yes No X
	pillary fringe)	63140	Deptii (ii	ici ies)		_ ****	and Hydrology Fr	esent: res No N
Describe Re	corded Data (stream	gauge, monit	toring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	City/County: McHe	enry	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., I	R. 8 E.
Landform (hillslope, terrace, etc.): depression	Local re	elief (concave, convex, none):	concave to convex(seepage zone)
Slope (%): 0-5% Lat: 42.27627°N	Long: <u>-88.28597°V</u>	V	Datum: NAD83
Soil Map Unit Name: Mapped as Orthents, loamy, undulating, revised to	undetermined	NWI classific	ation: U
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X	No (If no, explain in R	emarks.)
Are Vegetation , Soil , or Hydrology significantly	' 	Are "Normal Circumstances" p	present? Yes X No
Are Vegetation , Soil , or Hydrology naturally pro		(If needed, explain any answe	
SUMMARY OF FINDINGS - Attach site map showing	sampling poi	nt locations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sam	nlad Araa	
Hydric Soil Present? Wetland Hydrology Present? Yes X No Yes X N	within a We		No
Wetland Hydrology Present? Yes X No Remarks:	Within a VV	tiana: res	
Calcareous Seep.			
VEGETATION – Use scientific names of plants.			
Absolute			sheet:
Tree Stratum (Plot size: whole site) % Cover 1	Species? Statu	US Number of Dominant Sp That Are OBL, FACW, o	
2		Total Number of Domin	ant
3		Species Across All Stra	
4		Percent of Dominant Sp	necies
5		— That Are OBL, FACW, o	
Sapling/Shrub Stratum (Plot size: whole site)	_ = Total Cover	Prevalence Index work	ksheet.
1		Total % Cover of:	
2.		—	x 1 =
3.		— ı · · —	x 2 =
4			x 3 =
5		_	x 4 =
	= Total Cover	_	x 5 =
Herb Stratum (Plot size: whole site)	_	Column Totals:	(A)(B)
1. Phragmites australis	yes FACV	<u> </u>	
2. Solidago ohiensis	yes OBL		= B/A =
3. Typha angustifolia	yes OBL	Hydrophytic Vegetation	
4		1 - Rapid Test for H	
5		2 - Dominance Tes	
6		3 - Prevalence Inde	
7		4 - Morphological A	Adaptations ¹ (Provide supporting s or on a separate sheet)
8		I —	phytic Vegetation ¹ (Explain)
9	- — —	- -	, , ,
10		— Indicators of hydric soil	l and wetland hydrology must
Woody Vine Stratum (Plot size: whole site)	_ = Total Cover	be present, unless distu	urbed or problematic.
1		Hydrophytic	
2		Vegetation	
	= Total Cover	Present? Yes	s X No
Remarks: (Include photo numbers here or on a separate sheet.)			

SOIL Sampling Point: 24A

Profile Des	cription: (Describe	to the depth				or confirn	n the absence of	indicators.)
Depth	Matrix			ox Feature	Type ¹	Loc ²	Texture	Damarka
(inches) 0-10	Color (moist) 2.5Y 2.5/1	- 70 — 100	Color (moist)	%		LOC	Muck	Remarks
							IVIUCK	
10+	Bedrock							
¹ Type: C=C	Concentration, D=Dep	oletion, RM=Re	educed Matrix, M	IS=Masked	d Sand Gra	ains.	² Location: F	PL=Pore Lining, M=Matrix.
	Indicators:							r Problematic Hydric Soils³:
X Histoso	ol (A1)		Sandy	Gleyed Ma	atrix (S4)		Coast Pra	airie Redox (A16)
Histic E	pipedon (A2)			Redox (S5			Dark Surf	face (S7)
Black H	listic (A3)			ed Matrix (S				ganese Masses (F12)
	en Sulfide (A4)			Mucky Mi	, ,			llow Dark Surface (TF12)
_	ed Layers (A5)			Gleyed M			Other (Ex	rplain in Remarks)
_	luck (A10)	- (844)		ed Matrix (
	ed Below Dark Surfac	e (A11)		Dark Surfa ed Dark Su	٠,,		3Indicators of	budrophytic vogotation and
_	Oark Surface (A12) Mucky Mineral (S1)		= '	Depressio	, ,			hydrophytic vegetation and ydrology must be present,
-	lucky Peat or Peat (S	3)	Redox	Depressio	113 (170)			sturbed or problematic.
	Layer (if observed)	-					111000 010	starbed of problematic.
ı	aralithic contact							
	nches): _10		_				Hydric Soil Pr	esent? Yes X No
Remarks:	iciica). <u></u>							
HYDROLO	OGY							
Wetland Hy	drology Indicators	:						
Primary Ind	icators (minimum of	one is required	; check all that a	pply)			Secondary	Indicators (minimum of two required)
Surface	Water (A1)		Water-Sta	ained Leav	res (B9)		Surface	e Soil Cracks (B6)
X High W	ater Table (A2)		Aquatic F	auna (B13	3)		Drainag	ge Patterns (B10)
X Saturat	ion (A3)		True Aqu	atic Plants	(B14)		X Dry-Se	ason Water Table (C2)
Water N	Marks (B1)		Hydrogen	Sulfide O	dor (C1)		Crayfis	h Burrows (C8)
Sedime	ent Deposits (B2)		Oxidized	Rhizosphe	eres on Liv	ing Roots	(C3) Saturat	tion Visible on Aerial Imagery (C9)
Drift De	eposits (B3)		Presence	of Reduce	ed Iron (C4	1)	Stunted	d or Stressed Plants (D1)
X Algal M	lat or Crust (B4)		Recent Ire	on Reducti	ion in Tilled	d Soils (Ce	6) X Geomo	orphic Position (D2)
Iron De	posits (B5)		Thin Muc	k Surface	(C7)		X FAC-N	eutral Test (D5)
Inundat	tion Visible on Aerial	Imagery (B7)	Gauge or	Well Data	(D9)			
Sparse	ly Vegetated Concav	e Surface (B8)	Other (Ex	plain in Re	emarks)			
Field Obse	rvations:							
Surface Wa	ter Present?	resNo	Depth (ir	nches):		_		
Water Table	e Present?	res X No	Depth (ir	nches): 0		_		
Saturation F	Present?	res X No	Depth (in	nches): 0		Wetl	and Hydrology P	resent? Yes X No
	pillary fringe)							
Describe Re	ecorded Data (strean	n gauge, monit	oring well, aerial	photos, pr	revious ins	pections),	if available:	
Remarks:								
Marl der	oosits are pre	sent in the	e seepage	area.				
			90					

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, Ra	nge: Section 22, T. 44 N., R. 8 E.
Landform (hillslope, terrace, etc.): upland	Local relief	(concave, convex, none): convex
Slope (%): <u>0-3%</u> Lat: <u>42.27630°N</u>	Long: <u>-88.28626°W</u>	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 y	ear? Yes X No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are	'Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr		edded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No X No X	Is the Sampled	Area
Wetland Hydrology Present?	within a Wetlar	
Remarks:	·	
Non-native Grassland.		
VEGETATION – Use scientific names of plants.		
Absolute Tree Stratum (Plot size: 30-ft radius) % Cove	Dominant Indicator Species? Status	Dominance Test worksheet:
1		Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2		Total Number of Dominant
3		Species Across All Strata: 2 (B)
4		Percent of Dominant Species
5		That Are OBL, FACW, or FAC: 50% (A/B)
Sapling/Shrub Stratum (Plot size: 15-ft radius)	_ = Total Cover	Prevalence Index worksheet:
1		Total % Cover of: Multiply by:
2.		OBL species x 1 =
3		FACW species x 2 =
4		FAC species x 3 =
5		FACU species x 4 =
5 ft radius	_ = Total Cover	UPL species x 5 =
Herb Stratum (Plot size: 5-ft radius) 1. Poa pratensis	yes FAC-	Column Totals: (A) (B)
7. Taraxacum officinale	yes FACU	Prevalence Index = B/A =
3.		Hydrophytic Vegetation Indicators:
4		1 - Rapid Test for Hydrophytic Vegetation
5		2 - Dominance Test is >50%
6		3 - Prevalence Index is ≤3.0 ¹
7		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
8		Problematic Hydrophytic Vegetation ¹ (Explain)
9		Problematic Hydrophytic Vegetation (Explain)
10		¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: 30-ft radius)	_ = Total Cover	be present, unless disturbed or problematic.
1		Hydrophytic
2		Vegetation
	_ = Total Cover	Present? Yes No X
Remarks: (Include photo numbers here or on a separate sheet.)		

SOIL Sampling Point: 24B

Profile Desc	ription: (Describe	to the depth	needed to docu	ment the i	ndicator	or confirm	n the absence of	indicators.)
Depth	Matrix			ox Feature			_	
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10YR 2/1	_ 100					SIL _	
4-8	10YR 3/3	_ <u>100</u> _					SIL	
8+	Gravel			_				
		- — –						
		- — —						
	oncentration, D=Dep	oletion, RM=Re	educed Matrix, M	IS=Masked	Sand Gra	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil				01	+:·· (O.1)			Problematic Hydric Soils ³ :
Histosol	(A1) pipedon (A2)			Gleyed Ma Redox (S5			Dark Surfa	irie Redox (A16)
Black Hi	. , ,		_	d Matrix (S			_	ganese Masses (F12)
	n Sulfide (A4)		_	Mucky Mir				low Dark Surface (TF12)
Stratified	d Layers (A5)		Loamy	Gleyed Ma	atrix (F2)			plain in Remarks)
_	ıck (A10)			ed Matrix (I	,			
ı —	d Below Dark Surfac	e (A11)		Dark Surfa	٠,		31	handanahadia arabatian and
_	ark Surface (A12) lucky Mineral (S1)			ed Dark Su Depression	, ,			hydrophytic vegetation and ydrology must be present,
_	icky Peat or Peat (S	3)	ricaox	Depression	113 (1 0)		•	sturbed or problematic.
	_ayer (if observed)							
Type:			_					
Depth (inc	ches):		_				Hydric Soil Pre	esent? Yes No X
Remarks:								
HYDROLO	GY							
Wetland Hyd	drology Indicators:							
Primary India	cators (minimum of o	one is required	; check all that a	pply)			Secondary I	Indicators (minimum of two required)
Surface	Water (A1)		Water-Sta	ained Leav	es (B9)		Surface	e Soil Cracks (B6)
High Wa	iter Table (A2)		Aquatic F	auna (B13)		Drainag	ge Patterns (B10)
Saturation	on (A3)		True Aqu	atic Plants	(B14)		Dry-Sea	ason Water Table (C2)
_	arks (B1)		= ' '	Sulfide O	, ,		= '	h Burrows (C8)
=	nt Deposits (B2)		=	Rhizosphe		•	` ' =	ion Visible on Aerial Imagery (C9)
1 = '	posits (B3)		=	of Reduce				d or Stressed Plants (D1)
1 = *	at or Crust (B4)		=	on Reducti		d Soils (Ct	´ =	orphic Position (D2)
ı =	oosits (B5) on Visible on Aerial	Imagen/(B7)	=	k Surface (Well Data			FAC-N	eutral Test (D5)
	Vegetated Concav			plain in Re	, ,			
Field Obser				piani iii i ke	arico,			
Surface Water		'es No	X Depth (in	nches):				
Water Table		'es No		nches):		_		
Saturation P		'es No		nches):		_	and Hydrology P	resent? Yes No X
(includes car	oillary fringe)							
Describe Re	corded Data (stream	n gauge, monit	oring well, aerial	photos, pr	evious ins	pections),	if available:	
Domortica								
Remarks:								
1								

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, Rai	nge: Section 22, T. 44 N., R. 8 E.
Landform (hillslope, terrace, etc.): depression	Local relief	(concave, convex, none): concave
Slope (%): <u>0-1%</u> Lat: <u>42.27183°N</u>	Long: <u>-88.28706</u> °W	Datum: NAD83
Soil Map Unit Name: NRCS mapped as Hooppole loam, revised to Lens	a muck	NWI classification: U
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly		Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr		eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No		
Hydric Soil Present? Yes X No	Is the Sampled	
Wetland Hydrology Present? Yes X No Remarks:	within a Wetlan	nd? Yes X No
Wet Floodplain Forest.		
VEGETATION – Use scientific names of plants.		
Absolute		Dominance Test worksheet:
Tree Stratum (Plot size: whole site) % Cover 1. Acer negundo	<u>Species?</u> <u>Status</u> yes FACW-	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2. Populus deltoides	yes FAC+	(*,
3.		Total Number of Dominant Species Across All Strata: 3 (B)
4.		
5		Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)
Continue Observations (Districtions Whole site	_ = Total Cover	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: whole site) 1. Rhamnus cathartica	yes FACU	Total % Cover of: Multiply by:
1. Kriamnus catnatica 2		OBL species x 1 =
3		FACW species x 2 =
4.		FAC species x 3 =
5		FACU species x 4 =
	_ = Total Cover	UPL species x 5 =
Herb Stratum (Plot size: whole site		Column Totals: (A) (B)
1		Prevalence Index = B/A =
2		Hydrophytic Vegetation Indicators:
4		1 - Rapid Test for Hydrophytic Vegetation
5		2 - Dominance Test is >50%
6		3 - Prevalence Index is ≤3.0 ¹
7		4 - Morphological Adaptations (Provide supporting
8		data in Remarks or on a separate sheet)
9		Problematic Hydrophytic Vegetation ¹ (Explain)
10		¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: whole site)	_ = Total Cover	be present, unless disturbed or problematic.
1		Hydrophytic
2		Vegetation Present? Yes X No
	_ = Total Cover	Present? Yes X No No
Remarks: (Include photo numbers here or on a separate sheet.)		

SOIL Sampling Point: 25A

Depth Matrix Redox Features (inches) Color (moist) % Color (moist) % Type Loc Muck N 2.5/ 100 Muck Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. N 2.5/ 100 Muck Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. N 2.5/ 100 Muck Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. N 3.5 Muck N 2.5/ 100 Muck Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. N 4.5 Muck N 2.5/ 100 Muck N 2.5/ 100 Muck N 2.5 Muck N 3.5 Muck Indicators for Problematic Hydric Soils Signature (S5) Dast Surface (S7) Dast Surface (S7) Dast Surface (S7) Depleted Matrix (S6) Depleted Matrix (F3) Depleted Below Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) N 3.5 Mucky Mineral (S1) Redox Depressions (F8) N 4.5 Muck N 5.5 Mucky Mineral (S1) Redox Depressions (F8) N 5.5 m Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: Depth (inches): Depth (inches): Depth (inches): N 5.5 Mucky Mineral (S1) Redox Depressions (F8) Hydric Soil Present? Yes X No Muck Nuck No N 2.5 Loanion: N 2. Loanion: N 2. Loanion: N 2. Loanion: N 3. Loanion: N 4.5 Loanion: N 4.5 Loanion: N 5.5 Loanion: N 6.5 Loanion: N 7.5 Loanion: N 8.6 Loanion: N 9.6 Loanion: N 9.6 Loanion: N 1.6 Loanion:
0-39 N 2.5/ 100 Muck Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Hydric Soil Indicators: Histor Soil Indicators for Problematic Hydric Soils 3: Indicators for Problematic Hydric Soils 3: Indicators for Problematic Hydric Soils 3: Coast Prairie Redox (A16) Dark Surface (S7) Dark
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1)
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1)
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1)
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1)
Hydric Soil Indicators: Histosol (A1)
Hydric Soil Indicators: Histosol (A1)
Hydric Soil Indicators: Histosol (A1)
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1)
Histosol (A1)
Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (F1) Depleted Dark Surface (A12) Sandy Mucky Mineral (S1) Sem Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: Depth (inches): Thydroc Off Remarks: Sandy Redox (S5) Dark Surface (S7) Iron-Manganese Masses (F12) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks) Other (Explain in Remarks) Iron-Manganese Masses (F12) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Iron-Manganese Masses (F12) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Iron-Manganese Masses (F12) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No
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) Sem Mucky Mineral (S1) Sem Mucky Mineral (S1) Sem Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: Depth (inches): ThyDROLOGY Stratified Layers (A3) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F2) Depleted Matrix (F2) Depleted Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Thick Dark Surface (A11) Type: Depleted Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes X No
Hydrogen Sulfide (A4) Stratified Layers (A5)
Stratified Layers (A5) 2 cm Muck (A10) Depleted Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) 5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: Depth (inches): Remarks: Hydric Soil Present? Yes X No Cher (Explain in Remarks) Other (Explain in Remarks) All Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes X No HYDROLOGY
2 cm Muck (A10)
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Some Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: Depth (inches): Remarks: Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No Hydric Soil Present? Yes No HYDROLOGY
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Som Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: Depth (inches): Remarks: Depleted Dark Surface (F7) Redox Depressions (F8) Depleted Dark Surface (F7) Redox Depressions (F8) Wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes X No Hydric Soil Present? Yes X No
Sandy Mucky Mineral (S1) Redox Depressions (F8) wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No Remarks:
S cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: Depth (inches): Remarks: Hydric Soil Present? Yes X No HYDROLOGY
Restrictive Layer (if observed): Type: Depth (inches): Remarks: Hydric Soil Present? Yes X No HYDROLOGY
Depth (inches): Hydric Soil Present? Yes X No Remarks: HYDROLOGY
Remarks: HYDROLOGY
HYDROLOGY
HYDROLOGY
Wetland Hydrology indicators.
Primary Indicators (minimum of one is required; shock all that apply)
Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2)
Water Marks (B1)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ ☐ FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9)
X Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)
Field Observations:
Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches): 15
Saturation Present? Yes X No Depth (inches): 15 Wetland Hydrology Present? Yes X No
(includes capillary fringe)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:
romano.

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	City/County: McHenry		Sampling Date: 5	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, Rar	nge: Section 22, T. 44 N., F	R. 8 E.	
Landform (hillslope, terrace, etc.): upland	Local relief ((concave, convex, none):	convex to none	
Slope (%): 0-2% Lat: 42.27181°N	Long: <u>-88.28749</u> °W		Datum: NAD83	
Soil Map Unit Name: NRCS mapped as Rush silt loam, revised to unde	termined	NWI classification	ation: U	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Re	emarks.)	
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "I	Normal Circumstances" p	resent? Yes	X No _
Are Vegetation, Soil, or Hydrology naturally pr		eded, explain any answer		
SUMMARY OF FINDINGS - Attach site map showing	g sampling point lo	ocations, transects	, important fe	atures, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes X No X Yes No X	Is the Sampled within a Wetlan		No X	
Remarks:				,
Mesic Floodplain Forest.				
VEGETATION – Use scientific names of plants.				
Absolute	Dominant Indicator	Dominance Test works	sheet:	
Tree Stratum (Plot size: 30-ft radius) % Cover 1. Populus deltoides	yes FAC+	Number of Dominant Sp That Are OBL, FACW, o		(A)
3		Total Number of Domina Species Across All Strat	_	(B)
4. 5.		Percent of Dominant Sp That Are OBL, FACW, of		(A/B)
Continue Observe Observe (Distriction 15-ft radius	_ = Total Cover	Prevalence Index work	kahaat:	
Sapling/Shrub Stratum (Plot size: 15-ft radius) 1. Rhamnus cathartica	ves FACU	Total % Cover of:		y by:
2	- 900 17100	OBL species		
3.		FACW species		
4			x 3 =	
5		FACU species	x 4 =	
	_ = Total Cover	UPL species	x 5 =	
Herb Stratum (Plot size: 5-ft radius) 1. Parthenocissus quinquefolia	yes FAC-	Column Totals:	(A)	(B)
2	- 	Prevalence Index	= B/A =	
3.		Hydrophytic Vegetatio	n Indicators:	
4.		1 - Rapid Test for H	lydrophytic Vegeta	ation
5.		2 - Dominance Test	t is >50%	
6		3 - Prevalence Inde	ex is ≤3.0 ¹	
7		4 - Morphological A	daptations¹ (Provi s or on a separate	ide supporting
8		Problematic Hydrop		-
9		Troblematic Hydrop	my to vegetation	(Explain)
	 _ = Total Cover	¹ Indicators of hydric soil be present, unless distu		
Woody Vine Stratum (Plot size:) 1		Harden aller de		
2		Hydrophytic Vegetation		
	_ = Total Cover	Present? Yes	s X No	
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL Sampling Point: 25B

Profile Des	cription: (Describe	to the depth n	eeded to docur	nent the	indicator	or confirn	n the absence	of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		Color (moist)	%	_Type ¹	_Loc ²	Texture	Remarks
0-13	10YR 3/1	100					SIL	
¹ Type: C=C	oncentration, D=Dep	letion, RM=Red	duced Matrix, M	S=Masked	d Sand Gra	ains.		: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicators	for Problematic Hydric Soils ³ :
Histoso	(A1)		Sandy (Gleyed Ma	atrix (S4)		Coast	Prairie Redox (A16)
	pipedon (A2)			Redox (S5			_	Surface (S7)
_	istic (A3)		_	Matrix (S				anganese Masses (F12)
	en Sulfide (A4)				neral (F1)			Shallow Dark Surface (TF12)
_	d Layers (A5)			Gleyed Ma			Other ((Explain in Remarks)
	uck (A10)	- (0.14)	= '	d Matrix (,			
	d Below Dark Surfac ark Surface (A12)	e (ATT)		Dark Surfa	ace (F6) urface (F7)		3Indicators	s of hydrophytic vegetation and
_	Mucky Mineral (S1)			o Dark Sc Depressio	, ,)		d hydrology must be present,
_	ucky Peat or Peat (S:	3)	Redox	Jehi essio	113 (1-0)			disturbed or problematic.
_	Layer (if observed):	-					uniess	disturbed of problematic.
	ches):		•				Hydric Soil	Present? Yes No X
Remarks:			-					
T tomario.								
HYDROLO	ocv							
1	drology Indicators:							
	cators (minimum of o	ne is required;		•				ary Indicators (minimum of two required)
Surface	Water (A1)		Water-Sta		(,		Surf	face Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic Fa	una (B13	3)		Drai	inage Patterns (B10)
Saturati	on (A3)		True Aqua	tic Plants	(B14)		Dry-	-Season Water Table (C2)
Water M	1arks (B1)		Hydrogen	Sulfide O	dor (C1)		Cray	yfish Burrows (C8)
Sedime	nt Deposits (B2)		Oxidized F	Rhizosphe	eres on Liv	ing Roots	(C3) Satu	uration Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduce	ed Iron (C4	1)	Stur	nted or Stressed Plants (D1)
Algal Ma	at or Crust (B4)		Recent Iro	n Reducti	ion in Tille	d Soils (C	6) Geo	omorphic Position (D2)
Iron De	posits (B5)		Thin Muck	Surface ((C7)		FAC	C-Neutral Test (D5)
Inundati	ion Visible on Aerial I	magery (B7)	Gauge or	Well Data	(D9)			
Sparsel	y Vegetated Concave	Surface (B8)	Other (Exp	olain in Re	emarks)			
Field Obser	vations:							
Surface Wat	ter Present? Y	es No	X Depth (in	ches):				
Water Table		es No	<u> </u>			- 1		
Saturation P		es No	X Depth (in				and Hydrolog	y Present? Yes No X
	pillary fringe)	es	Deptil (iii	ci ies)		_ ""	and riyurolog	y Present: Tes No N
Describe Re	corded Data (stream	gauge, monitor	ring well, aerial	photos, pr	revious ins	pections),	if available:	
Remarks:								
I								

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	(City/County	McHenry		Sampling Date: M	ay 23, 2011		
Applicant/Owner: Illinois Department of Transportation, District		State: Illinois	Sampling Point: 20	6A				
Investigator(s): Paul B. Marcum, Ian Draheim		Section, Township, Range: Section 22, T. 44 N., R. 8 E.						
Landform (hillslope, terrace, etc.): floodplain				(concave, convex, none):				
		Long: -88.28649°W Datum: NAD83						
Soil Map Unit Name: Mapped as Hooppole loam				NWI classific				
Are climatic / hydrologic conditions on the site typical for this	time of ve	ar2 Ves	X No	(If no, explain in R				
		disturbed?		Normal Circumstances" p				
	aturally pro			eded, explain any answe				
Are Vegetation, Soil, or Hydrology na SUMMARY OF FINDINGS - Attach site map s			`		,	tures. etc.		
			3 p		,			
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No Yes No		ls th	e Sampled	Area				
Wetland Hydrology Present?		with	in a Wetlan	d? 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	Dominance Test work				
1. Acer negundo	60%	yes	FACW-	Number of Dominant Sp That Are OBL, FACW, o		(A)		
2. Morus alba	5%	no	FAC			(//		
3. Rhamnus cathartica	2%	no	FACU	Total Number of Domini Species Across All Stra	4	(B)		
4.						(-/		
5				Percent of Dominant Sp That Are OBL, FACW, or		(A/B)		
45 ft and live	67%	= Total Cov	er er					
Sapling/Shrub Stratum (Plot size: 15-ft radius)	40%	1/00	FACU	Prevalence Index work		h		
Rhamnus cathartica Lonicera tatarica	20%	yes yes	FACU	Total % Cover of: OBL species				
3 Ulmus americana	5%	no	FACW-	FACW species				
4. Acer negundo	4%	no	FACW-	FAC species				
5.				FACU species				
	69%	= Total Cov	er		x 5 =			
Herb Stratum (Plot size: 5-ft radius)				Column Totals:		(B)		
1. Alliaria petiolata	65%	yes	FAC					
2. Rhamnus cathartica	5%	no	FACU	Prevalence Index				
3. Circaea lutetiana 4. Galium aparine	2% 1%	no	FACU FACU	Hydrophytic Vegetation	on indicators: Hydrophytic Vegetat	ion		
5 Parthenocissus quinquefolia	1%	no no	FAC-	2 - Dominance Tes		IOH		
•				3 - Prevalence Inde				
6				4 - Morphological A		e supporting		
7 8.				data in Remarks	s or on a separate s	heet)		
9				Problematic Hydrop	ohytic Vegetation ¹ (Explain)		
10								
	74%	= Total Cov	er	Indicators of hydric soil be present, unless distu				
Woody Vine Stratum (Plot size: 30-ft radius)								
1				Hydrophytic Vegetation				
		= Total Cov	er	Present? Yes	s No			
Remarks: (Include photo numbers here or on a separate si		. 3.0. 000						

SOIL Sampling Point: 26A

l =			piii noodod to dood		maicator	or commi	n the absence of ir	idicators.)
Depth	Matrix			ox Feature				
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ² _	Texture	Remarks
0-17	10YR 2/1	100					SIL	
17-26	5Y 4/2	90	10YR 4/4	_ <u>10</u>	<u> </u>	<u>M</u>	<u>SL</u>	
								_
1							2	
Hydric Soil		pletion, RN	1=Reduced Matrix, M	S=Maske	d Sand Gr	ains.		=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Histoso			Condy	Gleyed M	otriv (CA)			ie Redox (A16)
	pipedon (A2)			Redox (S			Dark Surface	
	istic (A3)		_	d Matrix (=	nese Masses (F12)
_	en Sulfide (A4)				neral (F1)			w Dark Surface (TF12)
_	d Layers (A5)			Gleyed M			Other (Exp	ain in Remarks)
_	uck (A10)		= '	ed Matrix	,			
	d Below Dark Surfac ark Surface (A12)	ce (A11)		Dark Surf	ace (F6) urface (F7)		3Indicators of b	udraphytic vagatation and
_	Mucky Mineral (S1)			Depression	, ,			ydrophytic vegetation and drology must be present,
ı <u> </u>	ucky Peat or Peat (S	33)	Nedex	Боргосок	///o (1 0)			urbed or problematic.
	Layer (if observed)	-						
Type:								
Depth (in	ches):						Hydric Soil Pres	sent? Yes X No
Remarks:								
I								
HYDROLC	OGY							
	OGY drology Indicators	:						
Wetland Hy	drology Indicators		uired; check all that a	pply)			Secondary In	dicators (minimum of two required)
Wetland Hy	drology Indicators		uired; check all that a		ves (B9)			idicators (minimum of two required) Soil Cracks (B6)
Wetland Hy Primary Indi Surface	drology Indicators			ained Leav	(,		Surface	
Wetland Hy Primary Indi Surface High Wi	cators (minimum of o Water (A1) ater Table (A2) on (A3)		Water-Sta Aquatic F True Aqua	ained Leav auna (B13 atic Plants	3) s (B14)		Surface Drainage Dry-Seas	Soil Cracks (B6) Patterns (B10) son Water Table (C2)
Wetland Hy Primary Indi Surface High Water M	cators (minimum of o Water (A1) ater Table (A2) on (A3) Marks (B1)		Water-Sta Aquatic F True Aqua Hydrogen	ained Leav auna (B13 atic Plants Sulfide C	3) s (B14) edor (C1)		Surface Drainage Dry-Seas Crayfish	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8)
Wetland Hy Primary Indi Surface High W: Saturati Water M Sedime	cators (minimum of of water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2)		Water-Sta Aquatic F True Aqua Hydrogen Oxidized	ained Leav auna (B13 atic Plants Sulfide C Rhizosphe	B) s (B14) edor (C1) eres on Liv	•	Surface Drainage Dry-Sea: Crayfish (C3) Saturation	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9)
Wetland Hy Primary Indi Surface High W: Saturati Water M Sedime Drift De	cators (minimum of of water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3)		Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence	ained Leav auna (B13 atic Plants Sulfide C Rhizosphe of Reduc	B) (B14) dor (C1) eres on Liv ed Iron (C4	1)	Surface Drainage Dry-Seas Crayfish (C3) Saturation Stunted	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) Or Stressed Plants (D1)
Wetland Hy Primary Indi Surface High W: Saturati Water M Sedime Drift De Algal M	cators (minimum of of water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Iro	ained Leav auna (B13 atic Plants Sulfide C Rhizosphe of Reduct on Reduct	B) (B14) (dor (C1) eres on Liv ed Iron (C4) ion in Tille	1)	Surface Drainage Dry-Seas Crayfish (C3) Saturation Stunted G	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Ohic Position (D2)
Wetland Hy Primary Indi Surface High Water M Sedime Drift De Algal M Iron De	cators (minimum of of water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	one is requ	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ira	ained Leav auna (B13 atic Plants Sulfide C Rhizosphe of Reduct k Surface	B) is (B14) indor (C1) inderes on Live ed Iron (C4) indon in Tille (C7)	1)	Surface Drainage Dry-Seas Crayfish (C3) Saturation Stunted G	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) Or Stressed Plants (D1)
Wetland Hy Primary Indi Surface High Water Mater	cators (minimum of of water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial	one is requ	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ira Thin Mucl	ained Leav auna (B13 atic Plants Sulfide C Rhizosphe of Reduct on Reduct k Surface Well Data	B) s (B14) dor (C1) eres on Liv ed Iron (C4) ion in Tille (C7) a (D9)	1)	Surface Drainage Dry-Seas Crayfish (C3) Saturation Stunted G	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Ohic Position (D2)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel	cators (minimum of of water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concav	one is requ	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ira Thin Mucl	ained Leav auna (B13 atic Plants Sulfide C Rhizosphe of Reduct on Reduct k Surface Well Data	B) s (B14) dor (C1) eres on Liv ed Iron (C4) ion in Tille (C7) a (D9)	1)	Surface Drainage Dry-Seas Crayfish (C3) Saturation Stunted G	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Ohic Position (D2)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel	drology Indicators: cators (minimum of of water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations:	Imagery (Free Surface	Water-Sta Aquatic F Aquatic F True Aqua Hydrogen Oxidized Presence Recent In Thin Mucl Thin Mucl Gauge or (B8) Other (Ex	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct k Surface Well Data plain in Re	B) s (B14) dor (C1) eres on Liv ed Iron (C4) ion in Tille (C7) a (D9)	1)	Surface Drainage Dry-Seas Crayfish (C3) Saturation Stunted G	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Ohic Position (D2)
Wetland Hy Primary Indi Surface High Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser	cators (minimum of of water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concaverations: ater Present?	Imagery (Ere Surface	Water-Sta Aquatic F Aquatic F True Aqua Hydrogen Oxidized Presence Recent In Thin Muci 37) Gauge or (B8) Other (Ex	ained Leavauna (B13 atic Plants Sulfide Con Reduct & Surface Well Data plain in Reductes):	(B14) dor (C1) eres on Lived Iron (C4) ion in Tille (C7) in (D9) emarks)	1)	Surface Drainage Dry-Seas Crayfish (C3) Saturation Stunted G	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Ohic Position (D2)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Water Table	drology Indicators: cators (minimum of of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavery vations: ter Present?	Imagery (Interpretation of the Surface of the Surfa	Water-Sta Aquatic F Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ind Thin Mucl 37) Gauge or (B8) Other (Ex	ained Leavaluna (B13 atic Plants Sulfide Con Reduction R	B) Idor (C1) Idor (C1) Idor (C1) Idor (C1) Idor (C4) Idor (C4) Idor (C7) Idor (D9) Ido	t) d Soils (Co	Surface Drainage Dry-Seas Crayfish (C3) Saturatic Stunted Geomory FAC-Net	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Orbic Position (D2) Utral Test (D5)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wa' Water Table Saturation F (includes ca	cators (minimum of of water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concaverations: ater Present?	Imagery (Interpretation of the Surface of the Surfa	Water-Sta Aquatic F Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ind Thin Mucl 37) Gauge or (B8) Other (Ex	ained Leavauna (B13 atic Plants Sulfide Con Reduct & Surface Well Data plain in Reducted Surface Surface Surface):	(B14) dor (C1) eres on Lived Iron (C4) ion in Tille (C7) in (D9) emarks)	d Soils (Co	Surface Drainage Dry-Seas Crayfish (C3) Saturatio Stunted FAC-Net	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Orbic Position (D2) Utral Test (D5)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wa' Water Table Saturation F (includes ca	cators (minimum of of water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concaverations: ater Present?	Imagery (Ere Surface	Water-Sta Aquatic F Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ind Thin Mucl 37) Gauge or (B8) Other (Ex	ained Leavauna (B13 atic Plants Sulfide Con Reduct & Surface Well Data plain in Reducted Surface Surface Surface):	(B14) dor (C1) eres on Lived Iron (C4) ion in Tille (C7) in (D9) emarks)	d Soils (Co	Surface Drainage Dry-Seas Crayfish (C3) Saturatio Stunted FAC-Net	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Orbic Position (D2) Utral Test (D5)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wat Water Table Saturation F (includes ca Describe Re	cators (minimum of of water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concaverations: ater Present?	Imagery (Ere Surface	Water-Sta Aquatic F Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ind Thin Mucl 37) Gauge or (B8) Other (Ex	ained Leavauna (B13 atic Plants Sulfide Con Reduct & Surface Well Data plain in Reducted Surface Surface Surface):	(B14) dor (C1) eres on Lived Iron (C4) ion in Tille (C7) in (D9) emarks)	d Soils (Co	Surface Drainage Dry-Seas Crayfish (C3) Saturatio Stunted FAC-Net	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Orbic Position (D2) Utral Test (D5)
Wetland Hy Primary Indi Surface High Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wat Water Table Saturation F (includes ca	cators (minimum of of water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concaverations: ater Present?	Imagery (Ere Surface	Water-Sta Aquatic F Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ind Thin Mucl 37) Gauge or (B8) Other (Ex	ained Leavauna (B13 atic Plants Sulfide Con Reduct & Surface Well Data plain in Reducted Surface Surface Surface):	(B14) dor (C1) eres on Lived Iron (C4) ion in Tille (C7) in (D9) emarks)	d Soils (Co	Surface Drainage Dry-Seas Crayfish (C3) Saturatio Stunted FAC-Net	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Orbic Position (D2) Utral Test (D5)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wat Water Table Saturation F (includes ca Describe Re	cators (minimum of of water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concaverations: ater Present?	Imagery (Ere Surface	Water-Sta Aquatic F Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ind Thin Mucl 37) Gauge or (B8) Other (Ex	ained Leavauna (B13 atic Plants Sulfide Con Reduct & Surface Well Data plain in Reducted Surface Surface Surface):	(B14) dor (C1) eres on Lived Iron (C4) ion in Tille (C7) in (D9) emarks)	d Soils (Co	Surface Drainage Dry-Seas Crayfish (C3) Saturatio Stunted FAC-Net	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Orbic Position (D2) Utral Test (D5)

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	(City/County	y: 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, To	ownship, Rar	nge: 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	ו	Long: <u>-88.</u>	28216°W		Datum: NAD83	
Soil Map Unit Name: NRCS mapped as Lena muck, revised to	o Palms mu	ıck		NWI classific	ation: U	
Are climatic / hydrologic conditions on the site typical for this	time of year	ar? Yes	X No	(If no, explain in R	emarks.)	
Are Vegetation, Soil, or Hydrology signs and,	gnificantly o	disturbed?	Are "	Normal Circumstances" p	present? Yes X	\Box
Are Vegetation, Soil, or Hydrology na	aturally prol	blematic?	(If ne	eded, explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS - Attach site map s	howing	samplir	ng point lo	ocations, transects	, important features	s, etc.
Hydrophytic Vegetation Present? Yes X No						
Hydric Soil Present? Yes X No			ne Sampled		7 —	
Wetland Hydrology Present? Yes X No	<u> </u>	Witi	nin a Wetlan	id? Yes	No	
Remarks: Wet Meadow.						
Wet Meadow.						
VEGETATION – Use scientific names of plants.						
Tree Stratum (Plot size: ~15 x 60 ft)	Absolute % Cover		t Indicator	Dominance Test work		
1				Number of Dominant Sp That Are OBL, FACW, of		(A)
2				Total Number of Domin	ant	. ,
3				Species Across All Stra		(B)
4				Percent of Dominant Sp	pecies	
5				That Are OBL, FACW, o	or FAC:	(A/B)
Sapling/Shrub Stratum (Plot size: ~15 x 60 ft)		= Total Co	ver	Prevalence Index worl	ksheet:	
1. Cornus obliqua	2%	no	FACW+	Total % Cover of:	Multiply by:	_
2					x 1 =	_
3					x 2 =	
4				'	x 3 = x 4 =	_
5	2%	= Total Co	- ———		x 4 x 5 =	
Herb Stratum (Plot size: 5-ft radius)	270	- Total Co			(A)	
1. Phragmites australis	25%	yes	FACW+			_ ` /
2. Impatiens capensis	10%	yes	FACW_		= B/A =	
3				Hydrophytic Vegetation 1 - Rapid Test for H		
4				2 - Dominance Tes		
5 6.				3 - Prevalence Inde		
7					Adaptations ¹ (Provide supp	porting
8				data in Remarks	s or on a separate sheet)	
9.				Problematic Hydrop	phytic Vegetation ¹ (Explai	n)
10				1		
Woody Vine Stratum (Plot size: ~15 x 60 ft)	35%	= Total Co	ver	be present, unless distu	l and wetland hydrology n urbed or problematic.	nust
1				Hydrophytic		
2				Vegetation	- V N-	
		= Total Co	ver	Present? Yes	s_X_ No	
Remarks: (Include photo numbers here or on a separate si	heet.)					

SOIL Sampling Point: 27A

Profile Desc	cription: (Describe	to the dep	th needed to docur	nent the	indicator	or confirm	n the absence	of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ² _	Texture	Remarks
0-15	N 2.5/	_ 100	10)/5 ///				Muck	
15-26	2.5Y 5/1	_ <u>80</u>	10YR 4/4	_ 20	<u> </u>	<u>M</u>	LS	
¹ Type: C=C	oncentration D=Der	letion RM	=Reduced Matrix, MS	S=Maske	d Sand Gr	ains	² Location	: PL=Pore Lining, M=Matrix.
Hydric Soil		olotion, rtivi	rteduced matrix, me	o maone.	a cana ch	unio.		for Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy 0	Gleyed Ma	atrix (S4)		Coast	Prairie Redox (A16)
	oipedon (A2)		_	Redox (S			_	Surface (S7)
Black Hi				d Matrix (anganese Masses (F12)
	en Sulfide (A4) d Layers (A5)			Mucky Mi Gleyed M	neral (F1)		_	hallow Dark Surface (TF12) (Explain in Remarks)
	ıck (A10)			d Matrix (Other	(Explain in Nemarks)
_	d Below Dark Surfac	ce (A11)		Dark Surfa	,			
_	ark Surface (A12)				urface (F7))		of hydrophytic vegetation and
ı <u> </u>	Mucky Mineral (S1)		Redox [Depressio	ns (F8)			d hydrology must be present,
	ucky Peat or Peat (S Layer (if observed)						unless	disturbed or problematic.
Type:	Layer (II Observed)							
	ches):						Hydric Soil	Present? Yes X No No
Remarks:								
rtemarks.								
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
Primary India	cators (minimum of	one is requi	red; check all that ap	ply)			Seconda	ary Indicators (minimum of two required)
Surface	Water (A1)		X Water-Sta	ined Leav	res (B9)		Surf	ace Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa	auna (B13	3)		Drai	nage Patterns (B10)
X Saturation	. ,		True Aqua					Season Water Table (C2)
==	larks (B1)		X Hydrogen		, ,			yfish Burrows (C8)
_	nt Deposits (B2)		Oxidized F					uration Visible on Aerial Imagery (C9)
ı —	oosits (B3)		Presence Recent Iro			,	=	nted or Stressed Plants (D1)
	at or Crust (B4) posits (B5)		Thin Muck			u Solis (Co	<i>'</i>	morphic Position (D2) -Neutral Test (D5)
ı ==	on Visible on Aerial	Imagery (B					Z I AC	-Neutral Test (Do)
ı ==	Vegetated Concav		′ =		. ,			
Field Obser	vations:							
Surface Wat	er Present?	/es	No X Depth (in	ches):		_		
Water Table	Present?	res X	NoDepth (in	ches): 2		_		
Saturation P	resent?	res X	No Depth (in	ches): 2		Wetl	and Hydrology	y Present? Yes X No
	oillary fringe)	n dalide im	onitoring well, aerial i	nhotos ni	revious ins	nections)	if available:	
Describe ive	corded Data (Stream	i gauge, iii	orinoring well, aerial j	priotos, pr	evious iris	pections),	ii avallable.	
Remarks:								

Applicant/Owner: Illinois Department of Transportation, District 1 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 (%): 9-3% Lat: 42.27032'N Long: -88.28214"W Datum: NAD83 Soil Map Unit Name: NRCS mapped as Lena muck, revised to undetermined Are climatic / hydrologic conditions on the site typical for this time of year? Yes X Are Vegetation 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, Hydrocogy Present? Yes No X Hydrophytic Vegetation Present? Hydrophytic Vegetation Present? Yes No X Wetland Hydrology Present? Yes No X Wetland Hydrology Present? Mesic Floodplain Forest.	etc.
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: PF01B 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	etc.
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: PF01B Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No	etc.
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: PF01B Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No	etc.
Soil Map Unit Name: NRCS mapped as Lena muck, revised to undetermined Are climatic / hydrologic conditions on the site typical for this time of year? Yes Are "Normal Circumstances" present? Yes No Are "Normal Circumstances" present? Yes No Are "Normal Circumstances" present? Yes No SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, Hydrophytic Vegetation Present? Yes No Hydrophytic Vegetation Present? Yes No No No No No Hydrology Present? Yes No No No No Remarks:	etc.
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 (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, Hydrophytic Vegetation Present? Yes No X Is the Sampled Area within a Wetland? Yes No X No X Within a Wetland? Yes No X No X Within a Wetland?	etc.
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, Hydrophytic Vegetation Present? Yes No X Is the Sampled Area Wetland Hydrology Present? Yes No X Within a Wetland? Yes No X Remarks:	etc.
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, Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Wetland Hydrology Present? Remarks: Is the Sampled Area within a Wetland? Yes NoX	etc.
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Wetland Hydrology Present? Remarks:	etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: No X Is the Sampled Area within a Wetland? Yes No X Remarks:	etc.
Hydric Soil Present? Wetland Hydrology Present? Remarks: Is the Sampled Area within a Wetland? Yes No X No X	
Wetland Hydrology Present? Ves No X within a Wetland? No X within a Wetland? No X	
Remarks:	
IMESIC Floodplain Forest.	
VEGETATION – Use scientific names of plants.	
Absolute Dominant Indicator Dominance Test worksheet:	
Tree Stratum (Plot size: 30-ft radius)	
1. Acer negundo 50% yes FACW- That Are OBL, FACW, or FAC: 2 (A Paramous cathartica 15% yes FACU - 15% yes FACU	.)
Total Number of Dominant	
3 Species Across All Strata: 4 (E	,)
4 Percent of Dominant Species	(D)
5 That Are OBL, FACW, or FAC: 50% (A	VB)
Sapling/Shrub Stratum (Plot size: 15-ft radius) Prevalence Index worksheet:	
1. Rhamnus cathartica 40% yes FACU Total % Cover of: Multiply by:	
2. <u>Lonicera maackii</u> <u>5% no UPL</u> OBL species x 1 =	
3. <u>Acer negundo</u> 2% no <u>FACW-</u> FACW species x 2 =	
4 FAC species x 3 =	
5 FACU species x 4 =	
Herb Stratum (Plot size: 5-ft radius	
Herb Stratum (Plot size: 3-11 ladius)	(B)
2. Circaea lutetiana 2% no FACU Prevalence Index = B/A =	
3. Lonicera maackii 1% no UPL Hydrophytic Vegetation Indicators:	
4. Rhamnus cathartica 1% no FACU 1 - Rapid Test for Hydrophytic Vegetation	
5 Geum canadense <1% no FAC 2 - Dominance Test is >50%	
6 3 - Prevalence Index is ≤3.0 ¹	
7 4 - Morphological Adaptations ¹ (Provide suppor	ting
data in Remarks or on a separate sneet)	
9. Problematic Hydrophytic Vegetation ¹ (Explain)	
10	
Woody Vine Stratum (Plot size:) 54% = Total Cover be present, unless disturbed or problematic.	t
<u> </u>	
1 Hydrophytic 2. Vegetation	
Present? Yes No X	
= Ioial Cover	
= Total Cover Remarks: (Include photo numbers here or on a separate sheet.)	

SOIL Sampling Point: 27B

Profile Des	cription: (Describe	to the dept	h needed to docur	nent the	indicator	or confirn	n the absence	of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	%	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	<u>D</u>	_M	<u>LS</u>	
					- ——			
l ———					- ——			
¹ Type: C=C	oncentration, D=Dep	oletion, RM=	Reduced Matrix, MS	S=Maske	d Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicators	for Problematic Hydric Soils ³ :
Histoso	l (A1)		Sandy 0	Gleyed Ma	atrix (S4)		Coast F	Prairie Redox (A16)
_	pipedon (A2)			Redox (S			=	urface (S7)
_	istic (A3)		_	Matrix (anganese Masses (F12)
	en Sulfide (A4)		_		neral (F1)			hallow Dark Surface (TF12)
_	d Layers (A5) uck (A10)				atrix (F2)		Other (Explain in Remarks)
	d Below Dark Surfac	· (Δ11)	= '	d Matrix (Dark Surfa	,			
	ark Surface (A12)	æ (ATT)			urface (F7)	1	3Indicators	of hydrophytic vegetation and
_	Mucky Mineral (S1)			Depressio		,		I hydrology must be present,
_	ucky Peat or Peat (S	3)			()			disturbed or problematic.
_	Layer (if observed)	-						
Type:								
Depth (in	ches):						Hydric Soil	Present? Yes No X
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators	<u> </u>						
1	cators (minimum of		ed: check all that an	noly)			Seconda	ry Indicators (minimum of two required)
	Water (A1)	one to requir	Water-Sta	• - /	(es (BQ)			ace Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa		(,		=	nage Patterns (B10)
Saturati	, ,		True Aqua	,	,		=	Season Water Table (C2)
=	Marks (B1)		Hydrogen		, ,		= '	rfish Burrows (C8)
	nt Deposits (B2)		Oxidized F		, ,	ina Roots	= '	ration Visible on Aerial Imagery (C9)
_	posits (B3)		Presence			•	` ' =	ted or Stressed Plants (D1)
	at or Crust (B4)		Recent Iro			,		morphic Position (D2)
1 = °	posits (B5)		Thin Muck			u 00113 (01	_	-Neutral Test (D5)
1=	ion Visible on Aerial	Imagery (B7	=				LINO	reducti rest (50)
	y Vegetated Concav				. ,			
Field Obser			,o, outer (Exp	, , , , , , , , , , , , , , , , , , ,	Jillarko,			
Surface Wat		es l	No X Depth (in	ches).				
Water Table						- 1		
							and Undualan	Present? Yes No X
Saturation P (includes ca	pillary fringe)	es	No XDepth (in	cries)		_ weii	and nydrology	Present? Yes No X
	corded Data (stream	n gauge, mo	nitoring well, aerial _l	photos, p	revious ins	pections),	if available:	
Remarks:								

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	(City/County	McHenry		Sampling Date: May 23	3, 2011
Applicant/Owner: Illinois Department of Transportation, District	1			State: Illinois	Sampling Point: 28A	
Investigator(s): Paul B. Marcum, Ian Draheim	;	Section, To	wnship, Rar	nge: Section 27, T. 44 N.,	R. 8 E.	
Landform (hillslope, terrace, etc.): depression		ı	_ocal relief ((concave, convex, none):	concave	
Slope (%): 0-1% Lat: 42.26890°N		Long: <u>-88.2</u>	8472°W		Datum: NAD83	
Soil Map Unit Name: NRCS mapped as Lena muck, revised to	o Hooppole	loam		NWI classifica	ation: PEMB	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes	X No [(If no, explain in Re	emarks.)	
Are Vegetation, Soil, or Hydrology signs and,	gnificantly	disturbed?	Are "I	Normal Circumstances" p	resent? Yes X	lo_
Are Vegetation , Soil , or Hydrology na	aturally pro	blematic?		eded, explain any answer		
SUMMARY OF FINDINGS - Attach site map s	howing	samplin	g point lo	ocations, transects,	, important feature	s, etc.
Hydrophytic Vegetation Present? Yes X No						
Hydric Soil Present? Yes X No			e Sampled		- —	
Wetland Hydrology Present? Yes X No		with	in a Wetlan	d? Yes X	No	
Remarks:						
Wet Meadow.						
VEGETATION – Use scientific names of plants.						
	Absolute	Dominant	Indicator	Dominance Test works	sheet:	
		Species?		Number of Dominant Sp		
1				That Are OBL, FACW, o	or FAC:	(A)
3				Total Number of Domina Species Across All Strat		(B)
4				Species Across All Strat		. (Б)
5				Percent of Dominant Sp That Are OBL, FACW, o		(A/B)
		= Total Cov	er .			. (,,,,
Sapling/Shrub Stratum (Plot size: whole site)				Prevalence Index work		
1				Total % Cover of: OBL species		_
3.				FACW species		_
4					x 3 =	
5				FACU species	x 4 =	
		= Total Cov	ver	UPL species	x 5 =	
Herb Stratum (Plot size: 5-ft radius) 1. Eleocharis erythropoda	10%	VOC	OBL	Column Totals:	(A)	(B)
	10%	yes yes	FACW+	Prevalence Index	= B/A =	
2. Phalaris arundinacea 3. Lycopus americanus	3%	no	OBL	Hydrophytic Vegetatio		
4 Populus deltoides	<1%	no	FAC+	X 1 - Rapid Test for H		
5. Solanum carolinense	<1%	no	FACU-	2 - Dominance Test	t is >50%	
6.				3 - Prevalence Inde	ex is ≤3.0 ¹	
7				4 - Morphological A	daptations¹ (Provide sup	porting
8				_	s or on a separate sheet)	
9				Problematic Hydrop	ohytic Vegetation ¹ (Expla	ain)
10				¹ Indicators of hydric soil	l and wetland hydrology	must
Woody Vine Stratum (Plot size: whole site)	23%	= Total Cov	er	be present, unless distu		must
1				Hydrophytic		
2.				Vegetation		
		= Total Cov	/er	Present? Yes	s X No	
Remarks: (Include photo numbers here or on a separate si	heet.)					

SOIL Sampling Point: 28A

Profile Des	cription: (Describe	to the de	pth needed to docu	ment the	indicator	or confire	n the absence of i	ndicators.)
Depth (inches)	Matrix	%		ox Feature	Type ¹	_Loc²	Touture	Domarko
(inches) 0-20	Color (moist) N 2.5/	100	Color (moist)	%		LOC	Texture SICL	Remarks
			0.51/.5/4					
20-30	5Y 5/2	90	2.5Y 5/4	_ <u>10</u>	<u> </u>	<u>M</u>	SICL	
1							2	
	Concentration, D=Dep Indicators:	oletion, RN	/I=Reduced Matrix, M	IS=Maske	d Sand Gr	ains.		_=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Histoso			Condy	Gleyed Ma	atrix (CA)		_	rie Redox (A16)
	pipedon (A2)			Redox (S			Dark Surfa	
	listic (A3)			d Matrix (_	anese Masses (F12)
	en Sulfide (A4)				neral (F1)			ow Dark Surface (TF12)
	d Layers (A5)			Gleyed M			Other (Exp	lain in Remarks)
_	uck (A10)			ed Matrix (. ,			
	ed Below Dark Surfac	e (A11)		Dark Surf	ace (F6) urface (F7		3Indicators of h	yydronbytic y gastation and
_	ark Surface (A12) Mucky Mineral (S1)		= -	Depression)		nydrophytic vegetation and drology must be present,
_	ucky Peat or Peat (S	3)	Nedex	Боргосою) (i o)		-	urbed or problematic.
_	Layer (if observed)							·
Туре:								
Depth (in	nches):						Hydric Soil Pre	sent? Yes X No
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
Primary Indi	cators (minimum of	one is requ	uired; check all that a	pply)			Secondary Ir	ndicators (minimum of two required)
Surface	Water (A1)		Water-Sta	ained Leav	/es (B9)		Surface	Soil Cracks (B6)
X High W	ater Table (A2)		Aquatic F	auna (B13	3)		Drainage	e Patterns (B10)
X Saturati	ion (A3)		= '	atic Plants	, ,		= '	son Water Table (C2)
	Лarks (В1)		= ' '	Sulfide O	` '		= '	Burrows (C8)
_	nt Deposits (B2)		=		eres on Liv	•	· / =	on Visible on Aerial Imagery (C9)
	posits (B3)		=		ed Iron (C	,	=	or Stressed Plants (D1)
 	at or Crust (B4)		=		ion in Tille	d Soils (C	_	phic Position (D2)
	posits (B5)	lmagaan. /l	=	k Surface			X FAC-Ne	utral Test (D5)
=	ion Visible on Aerial y Vegetated Concav	• • •	′ = ~	Well Data plain in Re	' '			
Field Obser	<u> </u>	e Suriace	(B6) Ciller (Ex	pall III K	emarks)			
		es	No X Depth (ir	ochoe).				
Water Table		es X		nches):		-		
Saturation F		es X	1 —	nches): 1		_ Wot	land Hydrology Pr	esent? Yes X No
	pillary fringe)	65 /	Jivo j Deptii (ii	icries)		_ wet	ialiu nyurology Pri	esent? Tes / No
		n gauge, n	nonitoring well, aerial	photos, p	revious ins	pections),	, if available:	
Damerter								
Remarks:								
Remarks:								

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	(City/County: McHenry Sampling Date: Ma						
Applicant/Owner: Illinois Department of Transportation, District	1			State: Illinois	Sampling Point: 2	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			`					
Soil Map Unit Name: NRCS mapped as Lena muck, revised to			.0.00 11	NWI classific				
•			▽ ┌					
Are climatic / hydrologic conditions on the site typical for this						7 —		
Are Vegetation , Soil , or Hydrology sign	gnificantly of	disturbed?	Are "I	Normal Circumstances" p	resent? Yes	No		
Are Vegetation, Soil, or Hydrology na	aturally pro	blematic?	(If ne	eded, explain any answei	rs in Remarks.)			
SUMMARY OF FINDINGS - Attach site map s	howing	samplin	g point lo	ocations, transects	, important fea	atures, etc.		
Hydrophytic Vegetation Present? Yes No	X							
Hydric Soil Present? Yes No			e Sampled		1 [\textsize]			
Wetland Hydrology Present? Yes No	<u>LX</u>	with	in a Wetlan	d? Yes	No X			
Remarks:								
Shrubland.								
VEGETATION – Use scientific names of plants.								
Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?		Dominance Test work				
1		Species?	Status	Number of Dominant Sp That Are OBL, FACW, of		(A)		
2						(^,)		
3				Total Number of Domina Species Across All Stra		(B)		
4				Species Across Air Otra	ia. <u>-</u>	(b)		
5.				Percent of Dominant Sp That Are OBL, FACW, of		(A/B)		
		= Total Cov	/er			(٨/٥)		
Sapling/Shrub Stratum (Plot size: 15-ft radius)				Prevalence Index work	ksheet:			
1. Rhamnus cathartica	40%	yes	FACU_	Total % Cover of:		by:		
2. Lonicera maackii	2%	no	UPL	OBL species				
3. Rubus occidentalis	1%	no	FACU_	FACW species				
4				FAC species				
5				FACU species				
Herb Stratum (Plot size: 5-ft radius)	43%	= Total Cov	/er	UPL species				
1. Bromus inermis	20%	yes	UPL	Column Totals:	(A)	(B)		
2. Solidago canadensis	20%	yes	FACU	Prevalence Index	= B/A =			
3. Daucus carota	10%	no	UPL	Hydrophytic Vegetatio	on Indicators:			
4. Poa compressa	10%	no	FACU+	1 - Rapid Test for H	lydrophytic Vegeta	ition		
5. Rhamnus cathartica	10%	no	FACU	2 - Dominance Tes	t is >50%			
6. Carex granularis	1%	no	FACW+	3 - Prevalence Inde	ex is ≤3.0 ¹			
7. Leucanthemum vulgare	1%	no	UPL	4 - Morphological A	daptations¹ (Provid	de supporting		
8. Penstemon digitalis	<1%	no	FAC-		s or on a separate s			
9				Problematic Hydron	ohytic Vegetation ((Explain)		
10				1				
Woody Vine Stratum (Plot size: 30-ft radius)	72%	= Total Cov	/er	¹ Indicators of hydric soil be present, unless distu				
1								
1				Hydrophytic Vegetation				
		= Total Cov		Present? Yes	s No	X		
Remarks: (Include photo numbers here or on a separate si		- Total COV	.01					
, , ,	,							
I .								

SOIL Sampling Point: 28B

Profile Desc	cription: (Describe	to the dep	th needed to docur	nent the	indicator	or confirr	n the absence of in	ndicators.)
Depth	Matrix			x Feature		1 - 2	T	B tu
(inches)	Color (moist)		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	_ <u>5</u>	_ <u>C</u>	<u>M</u>	SICL	
14-26	5Y 5/2	90	2.5Y 5/6	_ <u>10</u>	_ <u>C</u>	<u>M</u>	SICL	
1 _{Tunor} 0-0		olotion DM	- Dadwood Motrix M	S-Maaka			21 costion: DI	-Dave Lining M-Metric
Hydric Soil		Dietion, Rivi-	=Reduced Matrix, MS	5-Maske	d Sand Gr	allis.		.=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Histosol			Sandy (Gleved M	atrix (S4)			rie Redox (A16)
	pipedon (A2)			Redox (S			Dark Surface	
Black Hi	istic (A3)			d Matrix (anese Masses (F12)
	en Sulfide (A4)				ineral (F1)			ow Dark Surface (TF12)
_	d Layers (A5)				latrix (F2)		Other (Expl	lain in Remarks)
_	uck (A10) d Below Dark Surfac	e (Δ11)	= '	d Matrix Dark Surf	. ,			
ı —	ark Surface (A12)	æ (ATT)			urface (F7))	3Indicators of h	ydrophytic vegetation and
_	Mucky Mineral (S1)		= '	Depression	, ,			drology must be present,
	ucky Peat or Peat (S						unless distu	urbed or problematic.
Restrictive	Layer (if observed)	:						
Type:							Hydric Soil Pres	sent? Yes No X
Depth (in	ches):						Tiyunc 30h Fres	Sent: Tes NO 7
Remarks:								
HYDROLO								
1	drology Indicators							
		one is requi	red; check all that ap	. ,,	.=.:			ndicators (minimum of two required)
	Water (A1)		Water-Sta		, ,			Soil Cracks (B6)
Saturation	ater Table (A2)		Aquatic Fa	,	,			e Patterns (B10) son Water Table (C2)
	larks (B1)		Hydrogen		, ,		= '	Burrows (C8)
	nt Deposits (B2)		= ' '		eres on Liv	ina Roots	= '	on Visible on Aerial Imagery (C9)
	posits (B3)		=		ed Iron (C	•	· / =	or Stressed Plants (D1)
	at or Crust (B4)		=		tion in Tille	,		phic Position (D2)
Iron Dep	posits (B5)		Thin Muck	Surface	(C7)		FAC-Neu	utral Test (D5)
Inundati	on Visible on Aerial	Imagery (B	7) Gauge or	Well Data	a (D9)			
Sparsely	y Vegetated Concav	e Surface (B8) Dther (Exp	olain in R	emarks)			
Field Obser	vations:							
Surface Wat	er Present?	/es	No Depth (in	ches):		_		
Water Table	Present?	/es	No Depth (in	ches):		_		
Saturation P		/es	No XDepth (in	ches):		_ Wet	land Hydrology Pre	esent? Yes No X
(includes cap Describe Re		n gauge, mo	onitoring well, aerial i	photos, p	revious ins	pections).	if available:	
	,		•					
Remarks:								

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	(City/County: McHenry Sampling Date: M						
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		լ	ocal relief ((concave, convex, none):	none to convex			
Slope (%): 0-2% Lat: 42.26901°N								
Soil Map Unit Name: NRCS mapped as Lena muck, revised to				NWI classification				
Are climatic / hydrologic conditions on the site typical for this			X No					
				Normal Circumstances" p		1 _{No} [
	gnificantly] NO _		
Are Vegetation, Soil, or Hydrology na SUMMARY OF FINDINGS - Attach site map s	aturally pro		•	eded, explain any answer	,	iros oto		
			g point ic	Cations, transects,	, important leatt	1165, 616.		
Hydrophytic Vegetation Present? Yes No		ls th	e Sampled	Δrea				
Hydric Soil Present? Wetland Hydrology Present? Yes X No Yes No			in a Wetlan		No X			
Remarks:								
Mesic Floodplain Forest.								
Woole Floodplan Forest.								
VEGETATION – Use scientific names of plants.								
Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test works				
1. Acer saccharinum	55%	yes	FACW	Number of Dominant Sp That Are OBL, FACW, o		(A)		
2. Populus deltoides	5%	no	FAC+			(','		
3. Rhamnus cathartica	5%	no	FACU	Total Number of Domina Species Across All Strat		(B)		
4. Salix fragilis	5%	no	FAC			(5)		
5.				Percent of Dominant Sp That Are OBL, FACW, of		(A/B)		
	70%	= Total Cov	er			(///		
Sapling/Shrub Stratum (Plot size: 15-ft radius)				Prevalence Index work				
1. Rhamnus cathartica	75%	yes	FACU_	Total % Cover of:				
2. Lonicera maackii	3%	no	UPL	OBL species				
3				FACW species				
4				FACIL analisa				
5				FACU species UPL species	x 4 = x 5 =			
Herb Stratum (Plot size: 5-ft radius)	7070	= Total Cov	er			(B)		
1. Rhamnus cathartica	5%	yes	FACU	Column Totals:	(^)	(b)		
2. Circaea lutetiana	3%	yes	FACU	Prevalence Index	= B/A =			
3. Parthenocissus quinquefolia	<1%	no	FAC-	Hydrophytic Vegetatio	on Indicators:			
4				1 - Rapid Test for H	Hydrophytic Vegetation	n		
5				2 - Dominance Test	t is >50%			
6				3 - Prevalence Inde				
7				4 - Morphological A	Adaptations¹ (Provide : s or on a separate she	supporting		
8					phytic Vegetation ¹ (Ex			
9				Troblematic riyarop	Silytic vegetation (Ex	.piairi)		
10				¹ Indicators of hydric soil	I and wetland hydrolo	av must		
Woody Vine Stratum (Plot size: 30-ft radius)	8%	= Total Cov	er	be present, unless distu		9,		
1				Hydrophytic				
2				Vegetation		7		
		= Total Cov	er	Present? Yes	s No X	_		
Remarks: (Include photo numbers here or on a separate sl	heet.)							

SOIL Sampling Point: 29A

Depth (inches)							n the absence o	,
	Matrix	%		ox Feature %	Type ¹	_Loc²	Texture	Remarks
0-15	N 2.5/	100	Color (moist)		_ Type_	LOC	Muck	Remarks
			0.577.570					
15-26	2.5Y 5/1	_ <u>80</u>	2.5Y 5/6	_ 20	<u> </u>	<u>M</u>	LS	
1							2	
Hydric Soil I		pletion, RN	M=Reduced Matrix, M	S=Maske	d Sand Gr	ains.		PL=Pore Lining, M=Matrix. or Problematic Hydric Soils ³ :
Histosol			Candy	Gleyed Ma	atrix (CA)			rairie Redox (A16)
I ——	ipedon (A2)			Redox (S				rame Redox (A16)
X Black His			_	d Matrix (nganese Masses (F12)
_	n Sulfide (A4)				neral (F1)			allow Dark Surface (TF12)
_	Layers (A5)			Gleyed M			Other (E	Explain in Remarks)
2 cm Mu	, ,		= '	ed Matrix (,			
ı —	l Below Dark Surfac irk Surface (A12)	ce (A11)		Dark Surf	ace (F6) urface (F7)		3Indicators	of hydrophytic vegetation and
_	ucky Mineral (S1)			Depression				hydrology must be present,
_	cky Peat or Peat (S	3)		Бор. осо	(1 0)			disturbed or problematic.
_	ayer (if observed)							
Туре:								
Depth (inc	ches):						Hydric Soil F	Present? Yes X No
Remarks:								
I								
HYDROLO	GY							
	GY Irology Indicators:							
Wetland Hyd	Irology Indicators:		uired; check all that a	pply)			Secondar	y Indicators (minimum of two required)
Wetland Hyd	Irology Indicators:			pply) ained Leav	ves (B9)			y Indicators (minimum of two required) ce Soil Cracks (B6)
Primary Indic	Irology Indicators: ators (minimum of o Water (A1) ter Table (A2)		Water-Sta		(,		Surfa	
Wetland Hyd Primary Indic Surface High Wa Saturatio	trology Indicators: ators (minimum of o Water (A1) ter Table (A2) on (A3)		Water-Sta Aquatic F	ained Leav auna (B13 atic Plants	3) s (B14)		Surfa Drain Dry-S	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2)
Wetland Hyd Primary Indic Surface High Wa Saturatic Water M	trology Indicators: ators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1)		Water-Sta Aquatic Factor True Aqua Hydrogen	ained Leav auna (B13 atic Plants Sulfide O	3) s (B14) edor (C1)		Surfa Drain Dry-S Crayf	ce Soil Cracks (B6) age Patterns (B10) Geason Water Table (C2) fish Burrows (C8)
Primary Indic Surface High Wa Saturatic Water M Sedimen	Arology Indicators: ators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2)		Water-Sta Aquatic F True Aqua Hydrogen Oxidized	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe	B) s (B14) edor (C1) eres on Liv	•	Surfa Drain Dry-S Crayf (C3) Satur	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) sish Burrows (C8) ation Visible on Aerial Imagery (C9)
Wetland Hyd Primary India Surface High Wa Saturatia Water M Sedimen Drift Dep	Arclogy Indicators: ators (minimum of of of other (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3)		Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce	B) (B14) dor (C1) eres on Liv ed Iron (C4	1)	Surfa Drain Dry-S Crayf (C3) Satur	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) sish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1)
Wetland Hyd Primary India Surface High Wa Saturatia Water M Sedimen Drift Dep	Archogy Indicators: ators (minimum of		Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Iro	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct	B) (B14) (dor (C1) eres on Liv ed Iron (C4) ion in Tille	1)	Surfa Drain Dry-S Crayf (C3) Satur Stunt Geon	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) sish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Wetland Hyd Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma	ators (minimum of of of water (A1) ter Table (A2) on (A3) arks (B1) tt Deposits (B2) oosits (B3) t or Crust (B4) oosits (B5)	one is requ	Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Iro	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct k Surface	B) is (B14) indor (C1) inderes on Live ed Iron (C4) indon in Tille (C7)	1)	Surfa Drain Dry-S Crayf (C3) Satur Stunt Geon	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) sish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1)
Wetland Hyd Primary Indice Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	Arology Indicators: ators (minimum of of other (A1) ter Table (A2) on (A3) arks (B1) tt Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial	one is requ	Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Ird Thin Mucl	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct k Surface Well Data	B) s (B14) dor (C1) eres on Liv ed Iron (C4 ion in Tille (C7) a (D9)	1)	Surfa Drain Dry-S Crayf (C3) Satur Stunt Geon	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) sish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Wetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatio Sparsely	Arology Indicators: ators (minimum of of other (A1) ter Table (A2) on (A3) arks (B1) of Deposits (B2) oosits (B3) t or Crust (B4) oosits (B5) on Visible on Aerial Vegetated Concav	one is requ	Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Ird Thin Mucl	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct k Surface	B) s (B14) dor (C1) eres on Liv ed Iron (C4 ion in Tille (C7) a (D9)	1)	Surfa Drain Dry-S Crayf (C3) Satur Stunt Geon	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) sish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Wetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatic Sparsely Field Observ	Arology Indicators: ators (minimum of of other (A1) ter Table (A2) on (A3) arks (B1) arks (B1) t Deposits (B2) oosits (B3) t or Crust (B4) oosits (B5) on Visible on Aerial Vegetated Concav vations:	Imagery (lee Surface	Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent In Thin Mucl B7) Gauge or (B8) Other (Ex	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct k Surface Well Data plain in Re	B) s (B14) dor (C1) eres on Liv ed Iron (C4 ion in Tille (C7) a (D9)	1)	Surfa Drain Dry-S Crayf (C3) Satur Stunt Geon	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) sish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Wetland Hyden Primary Indice Surface High Water M Saturation Sediment Drift Dep Algal Mallor Inon Dep Inundation Sparsely Field Observations	ators (minimum of of of other (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial Vegetated Concaverations:	Imagery (lee Surface	Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Ira Thin Mucl B7) Gauge or (B8) Other (Ex	ained Leavauna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct k Surface Well Data plain in Ro	(B14) dor (C1) eres on Lived Iron (C4) ion in Tille (C7) in (D9) emarks)	t) d Soils (C	Surfa Drain Dry-S Crayf (C3) Satur Stunt Geon	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) sish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Wetland Hyden Primary India Surface High Water M Sedimen Drift Dep Algal Ma Iron Dep Inundation Sparsely Field Observ Surface Water Table	ators (minimum of of water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) oosits (B3) or Crust (B4) oosits (B5) on Visible on Aerial Vegetated Concav vations: er Present?	Imagery (lee Surface	Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Ind Thin Mucl B7) Gauge or (B8) Other (Ex	ained Leavauna (B13 atic Plants Sulfide OR Reduct Surface Well Data plain in Reductes):nches]	B) Idor (C1) Idor (C1) Ideres on Liv Ideres	t) d Soils (C	Surfa Drain Dry-S Crayf (C3) Satur Stunt 6) Geon FAC-	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) Sish Burrows (C8) sation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)
Wetland Hyden Primary Indice Surface High Water M Sedimen Drift Dep Algal Ma Iron Dep Inundation Sparsely Field Observ Surface Water Table Saturation Pricincludes cap	Arks (B1) to Crust (B2) on Visible on Aerial Vegetated Concav vations: er Present? estators (minimum of o	Imagery (lee Surface	Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Ind Thin Mucl B7) Gauge or (B8) Other (Ex	ained Leavauna (B13 atic Plants Sulfide OR Reduct R	(B14) dor (C1) eres on Lived Iron (C4) ion in Tille (C7) in (D9) emarks)	t) d Soils (C	Surfa Drain Dry-S Crayf (C3) Satur Stunt Geon FAC-	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) sish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Wetland Hyden Primary Indice Surface High Water M Sedimen Drift Dep Algal Ma Iron Dep Inundation Sparsely Field Observ Surface Water Table Saturation Pricincludes cap	Arks (B1) to Crust (B2) on Visible on Aerial Vegetated Concav vations: er Present? estators (minimum of o	Imagery (lee Surface	Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Ind Thin Mucl B7) Gauge or (B8) Other (Ex	ained Leavauna (B13 atic Plants Sulfide OR Reduct R	(B14) dor (C1) eres on Lived Iron (C4) ion in Tille (C7) in (D9) emarks)	t) d Soils (C	Surfa Drain Dry-S Crayf (C3) Satur Stunt Geon FAC-	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) Sish Burrows (C8) sation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)
Wetland Hyden Primary Indice Surface High Water M Sedimen Drift Dep Algal Ma Iron Dep Inundation Sparsely Field Observ Surface Water Table Saturation Pr (includes cap Describe Receivers)	Arks (B1) to Crust (B2) on Visible on Aerial Vegetated Concav vations: er Present? estators (minimum of o	Imagery (lee Surface	Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Ind Thin Mucl B7) Gauge or (B8) Other (Ex	ained Leavauna (B13 atic Plants Sulfide OR Reduct R	(B14) dor (C1) eres on Lived Iron (C4) ion in Tille (C7) in (D9) emarks)	t) d Soils (C	Surfa Drain Dry-S Crayf (C3) Satur Stunt Geon FAC-	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) Sish Burrows (C8) sation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)
Wetland Hyden Primary Indice Surface High Water M Sedimen Drift Dep Algal Ma Iron Dep Inundation Sparsely Field Observ Surface Water Table Saturation President Surful President	Arks (B1) to Crust (B2) on Visible on Aerial Vegetated Concav vations: er Present? estators (minimum of o	Imagery (lee Surface	Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Ind Thin Mucl B7) Gauge or (B8) Other (Ex	ained Leavauna (B13 atic Plants Sulfide OR Reduct R	(B14) dor (C1) eres on Lived Iron (C4) ion in Tille (C7) in (D9) emarks)	t) d Soils (C	Surfa Drain Dry-S Crayf (C3) Satur Stunt Geon FAC-	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) Sish Burrows (C8) sation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)
Wetland Hyden Primary Indice Surface Saturation Pries Saturation Sparsely Field Observ Surface Water Table Saturation Princludes cap Describe Receivers Surface Saturation Princludes Cap Describe Receivers Saturation Princludes Cap Desc	Arks (B1) to Crust (B2) on Visible on Aerial Vegetated Concav vations: er Present? estators (minimum of o	Imagery (lee Surface	Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Ind Thin Mucl B7) Gauge or (B8) Other (Ex	ained Leavauna (B13 atic Plants Sulfide OR Reduct R	(B14) dor (C1) eres on Lived Iron (C4) ion in Tille (C7) in (D9) emarks)	t) d Soils (C	Surfa Drain Dry-S Crayf (C3) Satur Stunt Geon FAC-	ce Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) Sish Burrows (C8) sation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	(City/County:	McHenry		Sampling Date: May 23	3, 2011
Applicant/Owner: Illinois Department of Transportation, District	1			State: Illinois	Sampling Point: 30A	
Investigator(s): Paul B. Marcum, Ian Draheim	;	Section, To	wnship, Ran	nge: Section 27, T. 44 N.,	R. 8 E.	
Landform (hillslope, terrace, etc.): depression		ι	ocal relief (concave, convex, none):	concave to none	
Slope (%): 0-1% Lat: 42.26844°N	ו	Long: <u>-88.2</u>	8712°W		Datum: NAD83	
Soil Map Unit Name: NRCS mapped as Lena muck, revised to	o Hooppole	loam		NWI classifica	ation: PEMC	
Are climatic / hydrologic conditions on the site typical for this	time of year	ar? Yes	X No [(If no, explain in Re	emarks.)	
Are Vegetation, Soil, or Hydrology si	gnificantly of	disturbed?	Are "I	Normal Circumstances" p	resent? Yes X	No_
Are Vegetation, Soil, or Hydrology na	aturally prol	blematic?		eded, explain any answer		
SUMMARY OF FINDINGS - Attach site map s	showing	sampling	g point lo	cations, transects,	, important featur	es, etc.
Hydrophytic Vegetation Present? Yes X No						
Hydric Soil Present? Yes X No	· 🔲		e Sampled		1 	
Wetland Hydrology Present? Yes X No		with	n a Wetlan	d? Yes X	No	
Remarks:						
Wet Meadow.						
VEGETATION – Use scientific names of plants.						
22.6	Absolute	Dominant	Indicator	Dominance Test works	sheet:	
Tree Stratum (Plot size: 30-ft radius) 1		Species?		Number of Dominant Sp. That Are OBL, FACW, of		(A)
2			- 1	, ,		_ (//)
3				Total Number of Domina Species Across All Strat		_ (B)
4				Percent of Dominant Sp	necies	
5				That Are OBL, FACW, o		_ (A/B)
Sapling/Shrub Stratum (Plot size: 15-ft radius)		= Total Cov	er	Prevalence Index work	sheet:	
1				Total % Cover of:		
2.				OBL species		_
3				FACW species	x 2 =	_
4				FAC species	x 3 =	_
5				FACU species		
Herb Stratum (Plot size: 5-ft radius)		= Total Cov	er	UPL species		
1. Phalaris arundinacea	90%	yes	FACW+	Column Totals:	(A)	(B)
2 Cirsium arvense	5%	no	FACU	Prevalence Index	= B/A =	
3. Urtica dioica	2%	no	FAC+	Hydrophytic Vegetatio	n Indicators:	
4				1 - Rapid Test for H	lydrophytic Vegetation	
5				2 - Dominance Test		
6				3 - Prevalence Inde		
7				4 - Morphological A	daptations¹ (Provide su s or on a separate sheet	pporting
8					phytic Vegetation ¹ (Explanation	-
9			——	,	,,	,
10	97%	= Total Cov		¹ Indicators of hydric soil	and wetland hydrology	must
Woody Vine Stratum (Plot size: 30-ft radius)		- Total Cov	eı	be present, unless distu	rbed or problematic.	
1				Hydrophytic		
2				Vegetation Present? Yes	s X No	
Demontos (Include photo purchase have		= Total Cov	er			
Remarks: (Include photo numbers here or on a separate s	neet.)					

SOIL Sampling Point: 30A

Profile Desc	cription: (Describe	to the dep	th needed to docum	nent the	indicator	or confirn	n the absence of	of indicators.)
Depth	Matrix			x Feature	es			
(inches)	Color (moist)		Color (moist)	%	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	<u> </u>	<u>M</u>	SICL	
¹ Type: C=C	oncentration D=Der	letion RM	=Reduced Matrix, MS	S=Maske	d Sand Gr	ains	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil		olotion, rtivi	rtoddodd Matrix, Mc	- WIGORO	a cana ch	anio.		for Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy 0	Gleyed Ma	atrix (S4)		Coast F	Prairie Redox (A16)
	pipedon (A2)		_	Redox (S			_	urface (S7)
_	istic (A3) en Sulfide (A4)			Matrix (anganese Masses (F12)
	d Layers (A5)				neral (F1) latrix (F2)			nallow Dark Surface (TF12) Explain in Remarks)
	uck (A10)		_	d Matrix (
ı —	d Below Dark Surfac	ce (A11)		Dark Surf	. ,		2	
	ark Surface (A12)				urface (F7))		of hydrophytic vegetation and
	Mucky Mineral (S1) ucky Peat or Peat (S	(3)	Redox L	Depressio	ons (F8)			hydrology must be present, disturbed or problematic.
_	Layer (if observed)	-						distance of promotination
Type:								
Depth (in	ches):						Hydric Soil I	Present? Yes X No
Remarks:								
HYDROLO								
1	drology Indicators							
		one is requi	red; check all that ap	• - /				ry Indicators (minimum of two required)
	Water (A1)		Water-Stai		, ,		=	ace Soil Cracks (B6)
Saturation	ater Table (A2)		Aquatic Fa	,	,		=	nage Patterns (B10) Season Water Table (C2)
1=	larks (B1)		Hydrogen		. ,			fish Burrows (C8)
==	nt Deposits (B2)		Oxidized F			ing Roots	= '	ration Visible on Aerial Imagery (C9)
_	posits (B3)		Presence of			-		ted or Stressed Plants (D1)
Algal Ma	at or Crust (B4)		Recent Iro	n Reduct	ion in Tille	d Soils (Ce	6) X Geor	morphic Position (D2)
Iron Dep	posits (B5)		Thin Muck	Surface	(C7)		X FAC-	-Neutral Test (D5)
==	on Visible on Aerial	• • •						
	y Vegetated Concav	e Surface (B8) Other (Exp	olain in Re	emarks)			
Field Obser Surface Wat		es	No Depth (inc	oboo):				
Water Table			No Depth (inc		4	-		
Saturation P			No Depth (inc			— Wetl	and Hydrology	Present? Yes X No
(includes ca	pillary fringe)							
Describe Re	corded Data (strean	n gauge, m	onitoring well, aerial p	ohotos, p	revious ins	spections),	if available:	
Remarks:								
Acmarks.								

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	(City/County	: McHenry		Sampling Date: May	y 23, 2011
Applicant/Owner: Illinois Department of Transportation, District	1			State: Illinois	Sampling Point: 30F	3
Investigator(s): Paul B. Marcum, Ian Draheim	;	Section, To	wnship, Rar	nge: 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	ו	Long: <u>-88.2</u>	28690°W		Datum: NAD83	
Soil Map Unit Name: NRCS mapped as Lena muck, revised to	o undetermi	ined		NWI classific	ation: <u>U</u>	
Are climatic / hydrologic conditions on the site typical for this	time of year	ar? Yes	X No [(If no, explain in R	emarks.)	
Are Vegetation, Soil, or Hydrology si	gnificantly o	disturbed?	Are "I	Normal Circumstances" p	resent? Yes X	No_
Are Vegetation , Soil , or Hydrology na	aturally prol	blematic?		eded, explain any answe		
SUMMARY OF FINDINGS - Attach site map s	howing	samplin	g point lo	ocations, transects	, important feat	ures, etc.
Hydrophytic Vegetation Present? Yes X No						
Hydric Soil Present? Yes No			e Sampled		7 🖂	
Wetland Hydrology Present? Yes No	×	with	in a Wetlan	d? Yes	No X	
Remarks:						
Non-native Grassland.						
VEGETATION – Use scientific names of plants.						
To a control of the c	Absolute	Dominant		Dominance Test work	sheet:	
Tree Stratum (Plot size: 30-ft radius) 1	% Cover			Number of Dominant Sp That Are OBL, FACW, o		(A)
2				Total Number of Domin	eant	
3				Species Across All Stra	4	(B)
4				Percent of Dominant Sp	pecies	
5				That Are OBL, FACW, o		(A/B)
Sapling/Shrub Stratum (Plot size: 15-ft radius)		= Total Co	ver	Prevalence Index worl	ksheet:	
1				Total % Cover of:	Multiply by	y:
2				OBL species	x 1 =	
3				FACW species	x 2 =	
4				FAC species	x 3 =	
5				FACU species		
Herb Stratum (Plot size: 5-ft radius)		= Total Co	ver	UPL species		
1. Poa pratensis	80%	yes	FAC-	Column Totals:	(A)	(B)
2 Taraxacum officinale	10%	no	FACU	Prevalence Index	= B/A =	
3.				Hydrophytic Vegetation	on Indicators:	
4					Hydrophytic Vegetatio	on
5				2 - Dominance Tes		
6				3 - Prevalence Inde		
7				4 - Morphological A	Adaptations¹ (Provide s or on a separate sh	supporting eet)
8					phytic Vegetation ¹ (E	-
9						
10	90%	= Total Co		¹ Indicators of hydric soil	I and wetland hydrolo	gy must
Woody Vine Stratum (Plot size: 30-ft radius)		- Total Co	/CI	be present, unless distu	irbed or problematic.	
1				Hydrophytic		
2				Vegetation Present? Yes	s X No	٦
		= Total Co	/er	Tresentr 16	s_X_ No	_
Remarks: (Include photo numbers here or on a separate s	heet.)					

SOIL Sampling Point: 30B

Profile Desc	cription: (Describe	to the depth	needed to docu	ment the i	ndicator	or confirm	the absence of i	ndicators.)
Depth	Matrix			ox Feature:				
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ² _	Texture	Remarks
0-6	10YR 3/1	_ 100					SIL	
6+	Gravel							
1							2	
Hydric Soil	oncentration, D=Dep	oletion, RM=R	educed Matrix, N	IS=Masked	Sand Gra	ains.		L=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Histosol			Sandy	Gleyed Ma	triv (SA)			rie Redox (A16)
	pipedon (A2)			Redox (S5			Dark Surfa	
	istic (A3)		_	ed Matrix (S			=	anese Masses (F12)
_	en Sulfide (A4)			Mucky Mir				ow Dark Surface (TF12)
	d Layers (A5)		_	Gleyed Ma			Other (Exp	olain in Remarks)
_	uck (A10)	- (844)		ed Matrix (I	,			
	d Below Dark Surfac ark Surface (A12)	e (A11)		Dark Surfa ed Dark Su	٠,,		3Indicators of h	nydrophytic vegetation and
_	Mucky Mineral (S1)		= '	Depression	, ,			drology must be present,
_	ucky Peat or Peat (S	3)	rtodox	Боргоссіс.	(1 0)		•	urbed or problematic.
_	Layer (if observed)							
Type:			_					
Depth (in	ches):		_				Hydric Soil Pre	sent? Yes No X
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary Indi	cators (minimum of o	one is required	l; check all that a	pply)			Secondary In	ndicators (minimum of two required)
Surface	Water (A1)		Water-Sta	ained Leav	es (B9)		Surface	Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic F	auna (B13)		Drainag	e Patterns (B10)
Saturati	on (A3)		True Aqu	atic Plants	(B14)		Dry-Sea	ison Water Table (C2)
=	larks (B1)		= ' '	Sulfide O	` '		= '	Burrows (C8)
=	nt Deposits (B2)		=	Rhizosphe		•	· · =	on Visible on Aerial Imagery (C9)
	posits (B3)		=	of Reduce	•	,	=	or Stressed Plants (D1)
1 = "	at or Crust (B4)		=	on Reducti		d Soils (C6	· =	phic Position (D2)
ı =	oosits (B5) on Visible on Aerial	Imagani (D7)		k Surface (FAC-Ne	utral Test (D5)
ı =	y Vegetated Concav			Well Data	, ,			
Field Obser		e odnace (bo) Li other (Ex	piaiii iii ike	marks)			
Surface Wat		es No	X Depth (ii	nches):				
Water Table		es No		nches):		_		
Saturation P		es No		nches):		- Wetl	and Hydrology Pr	esent? Yes No X
	pillary fringe)	63 110	Deptii (ii	ici ies)		_ ****	and Hydrology Fr	esent: res No N
Describe Re	corded Data (stream	n gauge, monit	toring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								

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, To	ownship, Rar	nge: 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	ι	_ong:88.	28634°W		Datum: NAD83	
Soil Map Unit Name: NRCS mapped as Grundelein silt loam,	revised to F	looppole lo	am	NWI classific	ation: U	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ır? Yes	X No	(If no, explain in Re	emarks.)	
Are Vegetation , Soil , or Hydrology sig				Normal Circumstances" p	· —	。
Are Vegetation , Soil , or Hydrology na				eded, explain any answei		
SUMMARY OF FINDINGS – Attach site map s			,		•	s, etc.
Hydrophytic Vegetation Present? Yes X No						
Hydric Soil Present? Yes X No			ne Sampled		1	
Wetland Hydrology Present? Yes X No		with	nin a Wetlan	nd? Yes X	No	
Remarks:						
Wetland Pond.						
VEGETATION – Use scientific names of plants.						
	Absolute		Indicator	Dominance Test work	sheet:	
Tree Stratum (Plot size: 30-ft radius) 1	% Cover		Status_	Number of Dominant Sp That Are OBL, FACW, o		(A)
2				Total Number of Domina	ant	
3				Species Across All Stra		(B)
4				Percent of Dominant Sp		
5				That Are OBL, FACW, o	or FAC:	(A/B)
Sapling/Shrub Stratum (Plot size: 15-ft radius)		= Total Co	ver	Prevalence Index work	ksheet:	
1				Total % Cover of:	Multiply by:	_
2				OBL species	x 1 =	_
3					x 2 =	
4					x 3 =	_
5					x 4 =	_
Herb Stratum (Plot size: 5-ft radius)		= Total Co	ver		x 5 = (A)	
1. Phalaris arundinacea	7%	yes	FACW+	Coldilli Totals.	(^)	_ (b)
2. Leersia oryzoides	3%	yes	OBL	Prevalence Index	= B/A =	_
3				Hydrophytic Vegetatio		
4				1 - Rapid Test for H		
5				2 - Dominance Tes 3 - Prevalence Inde		
6				==	ex is ≤3.0 Adaptations¹ (Provide sup	norting
7				data in Remarks	s or on a separate sheet)	porting
8 9				Problematic Hydror	phytic Vegetation ¹ (Explai	in)
10						
Woody Vine Stratum (Plot size:)	10%	= Total Co	ver	¹ Indicators of hydric soil be present, unless distu	l and wetland hydrology n urbed or problematic.	nust
1				Hydrophytic		
2.				Vegetation		
		= Total Co	ver	Present? Yes	s X No	
Remarks: (Include photo numbers here or on a separate sh	neet.)					

SOIL Sampling Point: 31A

Profile Des	cription: (Describe	to the dept	h needed to docui	ment the	indicator	or confirn	n the absence of i	ndicators.)
Depth	Matrix			x Feature		. 2		
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc²	Texture	Remarks
0-10	2.5Y 2.5/1		10YR 3/4	_ <u>15</u>	<u> </u>	M, PL	SICL _	
10-16	2.5Y 4/1	_ <u>90</u>	10YR 4/4	_ <u>10</u>	<u> </u>	<u>M</u>	SICL	
					- ——			
	oncentration, D=Dep	oletion, RM=	Reduced Matrix, M	S=Maske	d Sand Gr	ains.		L=Pore Lining, M=Matrix.
Hydric Soil				01	-4-i (O.4)		_	Problematic Hydric Soils ³ :
Histoso	i (A1) pipedon (A2)			Gleyed M Redox (S	atrix (S4)		Dark Surfa	irie Redox (A16)
	istic (A3)			d Matrix (_	anese Masses (F12)
	en Sulfide (A4)				neral (F1)			ow Dark Surface (TF12)
_ ` `	d Layers (A5)				latrix (F2)			olain in Remarks)
_	uck (A10)		= '	ed Matrix	. ,			
	d Below Dark Surfac	ce (A11)		Dark Surf	٠,,		3	
_	ark Surface (A12)			ed Dark Si Depressio	urface (F7)		hydrophytic vegetation and
_	Mucky Mineral (S1) ucky Peat or Peat (S	(3)	Redox	Depressio	ons (Fo)			drology must be present, turbed or problematic.
	Layer (if observed)							tarbea or problematic.
Type:	, , , , , , , , , , , , , , , , , , , ,							
Depth (in							Hydric Soil Pre	esent? Yes X No
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
Primary Indi	cators (minimum of	one is require	ed; check all that ap	oply)			Secondary I	ndicators (minimum of two required)
X Surface	Water (A1)		X Water-Sta	ined Leav	/es (B9)		Surface	Soil Cracks (B6)
_	ater Table (A2)		Aquatic Fa		, ,		=	e Patterns (B10)
X Saturati	, ,		True Aqua	atic Plants	(B14)		Dry-Sea	ason Water Table (C2)
X Water N	Marks (B1)		Hydrogen	Sulfide C	dor (C1)		Crayfish	Burrows (C8)
Sedime	nt Deposits (B2)		Oxidized F	Rhizosphe	eres on Liv	ing Roots	(C3) Saturati	on Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduc	ed Iron (C	4)	_	or Stressed Plants (D1)
Algal M	at or Crust (B4)		Recent Iro	on Reduct	ion in Tille	d Soils (C6	Geomo	rphic Position (D2)
=	posits (B5)		Thin Muck		` '		X FAC-Ne	eutral Test (D5)
	ion Visible on Aerial				, ,			
	y Vegetated Concav	e Surface (B	8) Other (Ex	plain in R	emarks)			
Field Obser		. 🔽	. —	0				
				ches): 8		-		
Water Table				ches): <u>0</u>		-		
Saturation P		res X	loDepth (in	iches): <u>0</u>		Wetl	and Hydrology P	resent? Yes X No
	pillary fringe) corded Data (strean	n gauge, moi	nitoring well, aerial	photos, p	revious ins	spections),	if available:	
	•			•				
Remarks:								

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	(City/County: McHenry Sampling Date: Ma							
Applicant/Owner: Illinois Department of Transportation, District	1			State: Illinois	Sampling Point: 31B				
Investigator(s): Paul B. Marcum, Ian Draheim	:	Section, To	wnship, Rar	nge: Section 27, T. 44 N.,	R. 8 E.				
Landform (hillslope, terrace, etc.): upland		ι	_ocal relief ((concave, convex, none):	convex to none				
Slope (%): 0-2% Lat: 42.26692°N		Long: <u>-</u> 88.2	8631°W		Datum: NAD83				
Soil Map Unit Name: Mapped as Grundelein silt loam				NWI classific	ation: U				
Are climatic / hydrologic conditions on the site typical for this	time of vea	ar? Yes	X No	(If no, explain in Re	emarks.)				
	gnificantly			Normal Circumstances" p		No			
	aturally pro			eded, explain any answer		-			
SUMMARY OF FINDINGS – Attach site map s			•		,	res, etc.			
Hydrophytic Vegetation Present? Yes No	X								
Hydric Soil Present? Yes No			e Sampled		7 . 🔽				
Wetland Hydrology Present? Yes No	<u>LX</u>	with	in a Wetlan	nd? Yes	No X				
Remarks:									
Mesic Upland Forest.									
VEGETATION – Use scientific names of plants.									
Tree Stratum (Plot size: 30-ft radius)	Absolute	Dominant		Dominance Test work					
Tree Stratum (Plot size: 30-π radius) 1. Acer platanoides	55%	Species? yes	<u>Status</u> UPL	Number of Dominant Sp That Are OBL, FACW, of		(A)			
2 Pinus strobus	20%	yes	FACU	, ,		_ (^)			
3				Total Number of Domina Species Across All Strate	_	(B)			
4.						_ (-)			
5				Percent of Dominant Sp That Are OBL, FACW, of		(A/B)			
Carling/Obach Otatura (Distriction 15-ft radius	75%	= Total Cov	er	Prevalence Index work	kahaati				
Sapling/Shrub Stratum (Plot size: 15-ft radius)	20%	yes	UPL	Total % Cover of:					
2. Rhamnus cathartica	10%	yes	FACU	OBL species					
3				FACW species					
4				FAC species					
5				FACU species					
that grade (But to 5 ft radius	30%	= Total Cov	er	UPL species	x 5 =				
Herb Stratum (Plot size: 5-ft radius) 1. Rhamnus cathartica	5%	yes	FACU	Column Totals:	(A)	(B)			
2 Acer platanoides	<1%	no	UPL	Prevalence Index	= B/A =				
3.				Hydrophytic Vegetation					
4				1 - Rapid Test for F	Hydrophytic Vegetation	ı			
5				2 - Dominance Tes	t is >50%				
6				3 - Prevalence Inde					
7				4 - Morphological A	Adaptations¹ (Provide s s or on a separate she	supporting			
8				l —	phytic Vegetation ¹ (Ex				
9					on to vogetation (Ex	piani,			
10	5%			¹ Indicators of hydric soil	l and wetland hydrolog	gy must			
Woody Vine Stratum (Plot size: 30-ft radius)	376	= Total Cov	er	be present, unless distu	irbed or problematic.				
1				Hydrophytic					
2		Vegetation				7			
		= Total Cov	er	Present? Yes	s No X				
Remarks: (Include photo numbers here or on a separate si	heet.)								

SOIL Sampling Point: 31B

Profile Des	cription: (Describe	to the depth i	needed to docu	ment the i	ndicator	or confirm	the absence of i	ndicators.)
Depth	Matrix			ox Features				
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ²		Remarks
0-13	10YR 3/2	_ <u>100</u>					SIL	
1 _{Tunor} 0=0	oncentration, D=Dep	lotion DM-Da	duced Metrix N	- ——	Cond Cr		² l continu	L-Dara Lining M-Matrix
Hydric Soil		oletion, Kivi-Ke	duced Matrix, IV	io-wasked	Sand Gra	airis.		L=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Histoso			Sandy	Gleyed Ma	trix (S4)			irie Redox (A16)
	pipedon (A2)			Redox (S5			Dark Surfa	
Black H	istic (A3)			ed Matrix (S				anese Masses (F12)
	en Sulfide (A4)			Mucky Mir				ow Dark Surface (TF12)
	d Layers (A5) uck (A10)			Gleyed Ma ed Matrix (f			Other (Ex	plain in Remarks)
_	d Below Dark Surfac	e (A11)	= '	Dark Surfa	,			
	ark Surface (A12)	· (· · ·)		ed Dark Su	, ,		³ Indicators of	hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)		Redox	Depression	ns (F8)		wetland hy	drology must be present,
	ucky Peat or Peat (S						unless dis	turbed or problematic.
l _	Layer (if observed)							
Type:			_				Hydric Soil Pre	esent? Yes No X
. ,	ches):						,	
Remarks:								
HYDROLO	GY							
	drology Indicators:							
1	cators (minimum of c		check all that a	(vlaa			Secondary I	ndicators (minimum of two required)
	Water (A1)	nio io rodanoa		ained Leave	es (B9)			Soil Cracks (B6)
	ater Table (A2)			auna (B13)	(,			pe Patterns (B10)
Saturati	, ,		= .	atic Plants			=	ason Water Table (C2)
Water N	larks (B1)		Hydroger	Sulfide Od	dor (C1)		Crayfish	n Burrows (C8)
Sedime	nt Deposits (B2)		Oxidized	Rhizosphe	res on Livi	ing Roots	(C3) Saturati	on Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduce	d Iron (C4	1)	Stunted	or Stressed Plants (D1)
1 = °	at or Crust (B4)		=	on Reduction		d Soils (C6	· =	rphic Position (D2)
1= '	posits (B5)	(5.5)		k Surface (FAC-Ne	eutral Test (D5)
ı = =	on Visible on Aerial	0 , , ,	= 1	Well Data				
Field Obser	y Vegetated Concav	e Suriace (Bo)	Other (Ex	plain in Re	marks)			
Surface Wat		es No	X Depth (i	nches):				
Water Table		es No		nches):		-		
Saturation P		es No		nches):		- Wetl	and Hydrology Pi	resent? Yes No X
(includes ca	pillary fringe)		(esent: res no
Describe Re	corded Data (stream	gauge, monito	oring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
c.marko.								

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C		City/Coun	ty: McHenry		Sampling Date: May 2	4, 2011
Applicant/Owner: Illinois Department of Transportation, District	1			State: Illinois	Sampling Point: 32A	
Investigator(s): Paul B. Marcum, Ian Draheim		Section, T	ownship, Rar	nge: 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	ι	Long: <u>-88</u>	.28637°W		Datum: NAD83	
Soil Map Unit Name: NRCS mapped as Water, revised to und	etermined			NWI classific	ation: U	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes	X No	(If no, explain in R	emarks.)	
Are Vegetation , Soil , or Hydrology sig				Normal Circumstances" p	· —	No
Are Vegetation , Soil , or Hydrology na				eded, explain any answe		_
SUMMARY OF FINDINGS – Attach site map s			,		,	es, etc.
Hydrophytic Vegetation Present? Yes X No						
Hydric Soil Present? Yes X No			the Sampled		¬ —	
Wetland Hydrology Present? Yes X No		wit	thin a Wetlan	d? Yes X	No	
Remarks:						
Wetland Pond.						
VEGETATION – Use scientific names of plants.						
To a Objective (Diet size 30 ft radius	Absolute		nt Indicator	Dominance Test work	sheet:	
Tree Stratum (Plot size: 30-ft radius) 1			? Status	Number of Dominant Sp That Are OBL, FACW, o		_ (A)
2				Total Number of Domin	ant	
3				Species Across All Stra		_ (B)
4				Percent of Dominant Sp		
5				That Are OBL, FACW, o	or FAC:	_ (A/B)
Sapling/Shrub Stratum (Plot size: 15-ft radius)		= Total C	over	Prevalence Index worl	ksheet:	
1				Total % Cover of:	Multiply by:	_
2				OBL species	x 1 =	_
3				FACW species		
4				FAC species		
5				FACU species		_
Herb Stratum (Plot size: 5-ft radius)		= Total C	over	UPL species Column Totals:		
1. Phragmites australis	50%	yes	FACW+	Column Totals.	(^)	(b)
2. Najas flexilis	10%	no	OBL	Prevalence Index	= B/A =	
3				Hydrophytic Vegetatio		
4				1 - Rapid Test for H		
5				2 - Dominance Tes		
6				3 - Prevalence Inde	ex is ≤3.0 Adaptations¹ (Provide su	nnorting
7				data in Remarks	s or on a separate shee	t)
8 9				Problematic Hydrop	phytic Vegetation ¹ (Expl	ain)
10						
Woody Vine Stratum (Plot size: 30-ft radius)	60%	= Total C	over	¹ Indicators of hydric soil be present, unless distu		must
1				Hydrophytic		
2.				Vegetation		
		= Total C	over	Present? Yes	s X No	
Remarks: (Include photo numbers here or on a separate sl	heet.)					

SOIL Sampling Point: 32A

Depth		to the dept	h needed to document	tile illulcator (n the absence o	i ilidicators.)
Dopui	Matrix		Redox Fe				•
(inches)	Color (moist)	%	Color (moist)	%Type ¹ _	_Loc ²	Texture	Remarks
0-4	N 2.5/	_ <u>100</u> _				Muck	
4-14	2.5Y 5/1	100				SICL	
¹ Type: C=C	oncentration, D=Dep	oletion, RM=	Reduced Matrix, MS=Ma	sked Sand Gra	ains.	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:					Indicators for	or Problematic Hydric Soils ³ :
Histosol	, ,			d Matrix (S4)			rairie Redox (A16)
	pipedon (A2)		Sandy Redo			_	rface (S7)
_	istic (A3) en Sulfide (A4)		Stripped Mat	y Mineral (F1)			nganese Masses (F12) allow Dark Surface (TF12)
_ ` `	d Layers (A5)			ed Matrix (F2)			explain in Remarks)
	uck (A10)		X Depleted Ma			(,,,p.a.ii iii rtemante,
Deplete	d Below Dark Surfac	ce (A11)	Redox Dark	Surface (F6)			
_	ark Surface (A12)			rk Surface (F7)			of hydrophytic vegetation and
	Mucky Mineral (S1)		Redox Depre	essions (F8)			hydrology must be present,
	ucky Peat or Peat (S					unless d	listurbed or problematic.
_	Layer (if observed)						<u></u>
Type:			_			Hydric Soil P	resent? Yes X No
	ches):						
Remarks:							
LIVEROLO							
HYDROLO	l ¬ Y						
1	drology Indicators						
Primary India	drology Indicators		ed; check all that apply)				y Indicators (minimum of two required)
Primary India X Surface	drology Indicators cators (minimum of o Water (A1)		Water-Stained	, ,		Surfa	ce Soil Cracks (B6)
Primary India Surface High Wa	drology Indicators cators (minimum of o Water (A1) ater Table (A2)		Water-Stained X Aquatic Fauna	(B13)		Surfa	ce Soil Cracks (B6) age Patterns (B10)
Primary India X Surface X High Wa X Saturation	drology Indicators cators (minimum of o Water (A1) ater Table (A2) on (A3)		Water-Stained X Aquatic Fauna X True Aquatic P	(B13) ants (B14)		Surfai Draina Dry-S	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2)
Primary India X Surface X High Wa X Saturation Water M	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) farks (B1)		Water-Stained X Aquatic Fauna X True Aquatic P Hydrogen Sulfi	(B13) lants (B14) de Odor (C1)	ng Doots	Surfar Draina Dry-S Crayfi	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8)
Primary India Surface High Wa Saturatia Water M Sedimen	drology Indicators: cators (minimum of of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2)		Water-Stained X Aquatic Fauna X True Aquatic P Hydrogen Sulfi Oxidized Rhizo	(B13) lants (B14) de Odor (C1) spheres on Livi		Surfar Drain: Dry-S Crayfi (C3) Saturi	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9)
Primary India Surface High Wa Saturati Water M Sedimer Drift Dep	drology Indicators: cators (minimum of of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3)		Water-Stained X Aquatic Fauna X True Aquatic P Hydrogen Sulfi Oxidized Rhizo	(B13) lants (B14) de Odor (C1) spheres on Livi	.)	Surfar Drain: Dry-S Crayfi (C3) Saturi	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1)
Primary India Surface High Wa Saturation Water Modern Sediment Drift Dep	drology Indicators: cators (minimum of of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Water-Stained X Aquatic Fauna X True Aquatic P Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re	(B13) lants (B14) de Odor (C1) spheres on Livi duced Iron (C4 duction in Tilled	.)	Surface Surface Surface Drain: Dry-S Crayfice Saturate Stunte Stun	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Primary India Surface High Wa Saturation Water M Sedimen Drift Dep Algal Ma	drology Indicators: cators (minimum of of other (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	one is require	Water-Stained X Aquatic Fauna X True Aquatic P Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surf	(B13) lants (B14) de Odor (C1) spheres on Livi duced Iron (C4 duction in Tilled ace (C7)	.)	Surface Surface Surface Drain: Dry-S Crayfice Saturate Stunte Stun	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1)
Primary India Surface High Wa Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Inundati	drology Indicators: cators (minimum of of other (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial	one is require	Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surf	(B13) lants (B14) de Odor (C1) spheres on Livi duced Iron (C4 duction in Tilled ace (C7) Data (D9)	.)	Surface Surface Surface Drain: Dry-S Crayfice Saturate Stunte Stun	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Primary India Surface High Wa Saturatia Water M Sedimer Drift Der Algal Ma Iron Der Inundati Sparsely	drology Indicators: cators (minimum of of other (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial y Vegetated Concav	one is require	Water-Stained X Aquatic Fauna X True Aquatic P Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surf	(B13) lants (B14) de Odor (C1) spheres on Livi duced Iron (C4 duction in Tilled ace (C7) Data (D9)	.)	Surface Surface Surface Drain: Dry-S Crayfice Saturate Stunte Stun	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Primary India Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Inundati Sparsely	drology Indicators: cators (minimum of of other (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial by Vegetated Concavivations:	Imagery (B7	Water-Stained X Aquatic Fauna X True Aquatic P Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surf Gauge or Well Other (Explain	(B13) lants (B14) de Odor (C1) spheres on Livi duced Iron (C4 duction in Tilled ace (C7) Data (D9) in Remarks)	.)	Surface Surface Surface Drain: Dry-S Crayfice Saturate Stunte Stun	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Primary India Surface High Wa Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Inundati Sparsely Field Obser Surface Water	drology Indicators: cators (minimum of of other (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial by Vegetated Concavivations: er Present?	Imagery (B7	Water-Stained X Aquatic Fauna X True Aquatic P Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surf Sauge or Well Other (Explain	(B13) lants (B14) de Odor (C1) spheres on Livi duced Iron (C4 duction in Tilled ace (C7) Data (D9) in Remarks)	.)	Surface Surface Surface Drain: Dry-S Crayfice Saturate Stunte Stun	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Primary India Surface High Wa Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep X Inundati Sparsely Field Obser Surface Wat	drology Indicators: cators (minimum of of other (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial by Vegetated Concavivations: er Present?	Imagery (B7 e Surface (B	Water-Stained X Aquatic Fauna X True Aquatic P Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surf Gauge or Well So Depth (inches	(B13) lants (B14) de Odor (C1) spheres on Livi educed Iron (C4 duction in Tillec ace (C7) Data (D9) in Remarks) $\frac{< 72}{0}$	d Soils (Ce	Surfar Drain: Dry-S Crayfi (C3) Saturi Stunte X Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) horphic Position (D2) Neutral Test (D5)
Primary India Surface High Wa Saturatio Water M Sedimer Drift Der Algal Ma Iron Der Sparsely Field Obser Surface Wat Water Table Saturation P	drology Indicators: cators (minimum of of other (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial by Vegetated Concavivations: er Present?	Imagery (B7 e Surface (B	Water-Stained X Aquatic Fauna X True Aquatic P Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surf Sauge or Well Other (Explain	(B13) lants (B14) de Odor (C1) spheres on Livi educed Iron (C4 duction in Tillec ace (C7) Data (D9) in Remarks) $\frac{< 72}{0}$	d Soils (Ce	Surfar Drain: Dry-S Crayfi (C3) Saturi Stunte X Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Primary India Surface High Wa Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Inundati Sparsely Field Obser Surface Wat Water Table Saturation P (includes cal	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial by Vegetated Concavivations: er Present? Present?	Imagery (B7 e Surface (B /es X /es X	Water-Stained X Aquatic Fauna X True Aquatic P Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surf Gauge or Well So Depth (inches	(B13) lants (B14) de Odor (C1) spheres on Livi duced Iron (C4 duction in Tilled ace (C7) Data (D9) in Remarks) $\frac{< 72}{2}$ $\frac{0}{2}$ $\frac{0}{2}$	d Soils (Co	Surface Drain: Drain: Dry-S Crayfi (C3) Saturit Stunte Style FAC-I	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) horphic Position (D2) Neutral Test (D5)
Primary India Surface High Wa Saturatio Water M Sedimer Drift Der Algal Ma Iron Der Inundati Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca) Describe Re	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial by Vegetated Concavivations: er Present? Present?	Imagery (B7 e Surface (B /es X /es X	Water-Stained X Aquatic Fauna X True Aquatic P Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surf Gauge or Well Other (Explain Depth (inches Lo Depth (inches	(B13) lants (B14) de Odor (C1) spheres on Livi duced Iron (C4 duction in Tilled ace (C7) Data (D9) in Remarks) $\frac{< 72}{2}$ $\frac{0}{2}$ $\frac{0}{2}$	d Soils (Co	Surface Drain: Drain: Dry-S Crayfi (C3) Saturit Stunte Style FAC-I	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) horphic Position (D2) Neutral Test (D5)
Primary India Surface High Wa Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Inundati Sparsely Field Obser Surface Wat Water Table Saturation P (includes cal	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial by Vegetated Concavivations: er Present? Present?	Imagery (B7 e Surface (B /es X /es X	Water-Stained X Aquatic Fauna X True Aquatic P Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surf Gauge or Well Other (Explain Depth (inches Lo Depth (inches	(B13) lants (B14) de Odor (C1) spheres on Livi duced Iron (C4 duction in Tilled ace (C7) Data (D9) in Remarks) $\frac{< 72}{2}$ $\frac{0}{2}$ $\frac{0}{2}$	d Soils (Co	Surface Drain: Drain: Dry-S Crayfi (C3) Saturit Stunte Style FAC-I	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) horphic Position (D2) Neutral Test (D5)
Primary India Surface High Wa Saturatio Water M Sedimer Drift Der Algal Ma Iron Der Inundati Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca) Describe Re	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial by Vegetated Concavivations: er Present? Present?	Imagery (B7 e Surface (B /es X /es X	Water-Stained X Aquatic Fauna X True Aquatic P Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surf Gauge or Well Other (Explain Depth (inches Lo Depth (inches	(B13) lants (B14) de Odor (C1) spheres on Livi duced Iron (C4 duction in Tilled ace (C7) Data (D9) in Remarks) $\frac{< 72}{2}$ $\frac{0}{2}$ $\frac{0}{2}$	d Soils (Co	Surface Drain: Drain: Dry-S Crayfi (C3) Saturit Stunte Style FAC-I	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) horphic Position (D2) Neutral Test (D5)

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	(City/County: McHenry Sampling Date: M							
Applicant/Owner: Illinois Department of Transportation, District	1			State: Illinois	Sampling Point: 32	2B			
Investigator(s): Paul B. Marcum, Ian Draheim	:	Section, To	wnship, Rar	nge: 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:88.2	8644°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 ve								
		disturbed?		Normal Circumstances" p					
	aturally pro			eded, explain any answer					
SUMMARY OF FINDINGS – Attach site map s			•		,	tures, etc.			
Hydrophytic Vegetation Present? Yes No	X				•	-			
Hydric Soil Present?		Is the Sampled Area							
Wetland Hydrology Present? Yes No	X	with	in a Wetlan	id? Yes	No X				
Remarks:		'							
Mesic Upland Forest.									
VEGETATION – Use scientific names of plants.									
00 (1 - 1)	Absolute	Dominant		Dominance Test work	sheet:				
Tree Stratum (Plot size: 30-ft radius) 1. Populus deltoides	% Cover 30%	Species?	Status_ FAC+	Number of Dominant Sp		(4)			
2. Rhamnus cathartica	20%	yes yes	FACU	That Are OBL, FACW, o	or FAC:	(A)			
3. Acer negundo	10%	no	FACW-	Total Number of Domina		(D)			
4				Species Across All Stra	ta: <u>3</u>	(B)			
5				Percent of Dominant Sp		(A (D)			
	60%	= Total Cov	/er	That Are OBL, FACW, o	or FAC: 20%	(A/B)			
Sapling/Shrub Stratum (Plot size: 15-ft radius)				Prevalence Index work	ksheet:				
1. Lonicera maackii	25%	yes	<u>UPL</u>	Total % Cover of:	Multiply	by:			
2. Rhamnus cathartica	15%	yes	<u>FACU</u>	OBL species	x 1 =				
3. Acer negundo	2%	no	FACW-	FACW species					
4				FAC species					
5				FACU species					
Herb Stratum (Plot size: 5-ft radius)	42%	= Total Cov	/er		x 5 =				
1. Rhamnus cathartica	45%	yes	FACU	Column Totals:	(A)	(B)			
2. Lonicera maackii	10%	no	UPL	Prevalence Index	= B/A =				
3. Equisetum arvense	1%	no	FAC	Hydrophytic Vegetation	on Indicators:				
4. Viburnum opulus	1%	no	UPL	1 - Rapid Test for H	Hydrophytic Vegetat	ion			
5. Taraxacum officinale	<1%	no	FACU	2 - Dominance Tes	t is >50%				
6				3 - Prevalence Inde	ex is ≤3.0 ¹				
7				4 - Morphological A	daptations¹ (Provid	e supporting			
8				l 	s or on a separate s				
9				Problematic Hydror	onytic vegetation (t	Explain)			
10				Indicators of hydric soil	l and wetland hydro	loav must			
Woody Vine Stratum (Plot size:)	57%	= Total Cov	/er	be present, unless distu					
1				Hydrophytic					
2				Vegetation Present? Yes	s No X	$\overline{}$			
		= Total Cov	/er	riesentr fes	* NO	<u> </u>			
Remarks: (Include photo numbers here or on a separate si	neet.)								

SOIL Sampling Point: 32B

Profile Des	cription: (Describe	to the depth	needed to docu	ment the i	ndicator	or confirm	n the absence of i	ndicators.)
Depth	Matrix			ox Feature:				
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ²	Texture	Remarks
0-13	10YR 4/3	_ 100					SIL	
1- 0.0							21	
Hydric Soil	oncentration, D=Dep	etion, Rivi=Re	educed Matrix, IV	IS=Masked	Sand Gra	ains.		L=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Histoso			Sandy	Gleyed Ma	trix (S4)			rie Redox (A16)
	pipedon (A2)			Redox (S5			Dark Surfa	
	istic (A3)		_	ed Matrix (S			_	anese Masses (F12)
	en Sulfide (A4)			Mucky Mir				ow Dark Surface (TF12)
	d Layers (A5)			Gleyed Ma			Other (Exp	olain in Remarks)
_	uck (A10) d Below Dark Surfac	ο (Δ11)	= '	ed Matrix (I Dark Surfa	,			
	ark Surface (A12)	e (ATT)		ed Dark Suna	٠,	,	3Indicators of h	nydrophytic vegetation and
_	Mucky Mineral (S1)		= '	Depression	, ,			drology must be present,
5 cm M	ucky Peat or Peat (S	3)					unless dist	urbed or problematic.
Restrictive	Layer (if observed)	:						
Type:			_				Hydric Soil Pre	sent? Yes No X
Depth (in	ches):		_				Tryunc 3011 Fre	sent: Tes No No
Remarks:								
HYDROLO	NCV							
	drology Indicators:							
1	cators (minimum of c		· chock all that a	nnly)			Socondary	ndicators (minimum of two required)
	Water (A1)	ne is required		ained Leav	oo (PO)			
1=	ater Table (A2)			aineo Leav	(,			Soil Cracks (B6) e Patterns (B10)
Saturati	, ,		= '	atic Plants	,		=	ison Water Table (C2)
_	/arks (B1)		= '	Sulfide O	,		= '	Burrows (C8)
	nt Deposits (B2)		= ' '	Rhizosphe	, ,	ing Roots	= '	on Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduce	d Iron (C4	1)	Stunted	or Stressed Plants (D1)
Algal M	at or Crust (B4)		Recent Ir	on Reducti	on in Tille	d Soils (C6	Geomor	phic Position (D2)
Iron De	posits (B5)		Thin Muc	k Surface (C7)		FAC-Ne	utral Test (D5)
==	ion Visible on Aerial	. , ,	= '	Well Data	(D9)			
	y Vegetated Concav	e Surface (B8)	Other (Ex	plain in Re	marks)			
Field Obser								
		'esNo		nches):		-		
Water Table		'es No		nches):		_		
Saturation P	resent? Y pillary fringe)	'esNo	Depth (in	nches):		_ Wetl	and Hydrology Pr	esent? Yes No X
	corded Data (stream	gauge, monit	oring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
I								

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, To	wnship, Rar	nge: 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	1	Long: <u>-88.2</u>	.8654°W		Datum: NAD83					
Soil Map Unit Name: NRCS mapped as Fox silt loam, revised										
Are climatic / hydrologic conditions on the site typical for this			X No							
Are Vegetation , Soil , or Hydrology sig				Normal Circumstances" p		No				
Are Vegetation , Soil , or Hydrology na				eded, explain any answei		<u>-</u>				
SUMMARY OF FINDINGS – Attach site map s			•		,	res, etc.				
Hydrophytic Vegetation Present? Hydric Soil Present? Yes X No Yes X No		ls th	e Sampled	Area						
Wetland Hydrology Present?			in a Wetlan		No					
Remarks:										
Wet Meadow.										
VEGETATION – Use scientific names of plants.										
20.6	Absolute	Dominant		Dominance Test work	sheet:					
Tree Stratum (Plot size: 30-ft radius) 1		Species?	_Status_	Number of Dominant Sp That Are OBL, FACW, of		(A)				
2				Total Number of Domina	ant					
3				Species Across All Stra	ta:	(B)				
4				Percent of Dominant Sp						
5		- Total Ca		That Are OBL, FACW, o	or FAC:	(A/B)				
Sapling/Shrub Stratum (Plot size: 15-ft radius)		= Total Cov	/er	Prevalence Index work	ksheet:					
1				Total % Cover of:	Multiply by:					
2				OBL species	x 1 =					
3				FACW species						
4				FAC species						
5				FACU species						
Herb Stratum (Plot size: 5-ft radius)		= Total Cov	/er	UPL species Column Totals:						
1. Phragmites australis	55%	yes	FACW+	Coldilli Totals.	(A)	(b)				
2. Impatiens capensis	15%	yes	FACW	Prevalence Index	= B/A =					
3. Alliaria petiolata	1%	no	FAC	Hydrophytic Vegetatio						
4				1 - Rapid Test for H		1				
5				2 - Dominance Tes						
6				3 - Prevalence Inde						
7				data in Remarks	daptations¹ (Provide s s or on a separate she	supporting et)				
8				l 	ohytic Vegetation¹ (Ex					
9										
10	71%	= Total Cov		¹ Indicators of hydric soil		y must				
Woody Vine Stratum (Plot size:)		- 10tal C01	761	be present, unless distu	rbed or problematic.					
1				Hydrophytic						
2				Vegetation Present? Yes	s X No	1				
		= Total Cov	/er	Fresentr 16	,	1				
Remarks: (Include photo numbers here or on a separate si	heet.)									

SOIL Sampling Point: 33A

Profile Desc	cription: (Describe	to the dep	th needed to docum	nent the	indicator	or confirn	n the absence	of indicators.)
Depth				x Feature				•
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	_Loc ² _	Texture	Remarks
0-4	10YR 2/1	_ 100					Muck	
4-10	N 5/	90	10YR 4/4	10	<u>C</u>	<u>M</u>	SICL	
10+	Gravel							
					- —			
Type: C=C Hydric Soil		oletion, RM	Reduced Matrix, MS	S=Maske	d Sand Gr	ains.		PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol			Candy (Sloved M	otriv (CA)		_	Prairie Redox (A16)
	pipedon (A2)			Redox (St	atrix (S4)			urface (S7)
	istic (A3)		_	Matrix (_	anganese Masses (F12)
_	en Sulfide (A4)				neral (F1)			hallow Dark Surface (TF12)
_	d Layers (A5)		X Loamy	Gleyed M	atrix (F2)		Other (Explain in Remarks)
_	uck (A10)		= :	d Matrix (. ,			
ı —	d Below Dark Surfac ark Surface (A12)	ce (A11)		Dark Surfa	ace (F6) urface (F7)		3Indicators	of hydrophytic vegetation and
	Mucky Mineral (S1)			Depressio	, ,	,		I hydrology must be present,
	ucky Peat or Peat (S	3)	Redex	30p100010	///o (1 0)			disturbed or problematic.
_	Layer (if observed)	-						
Type:								
Depth (in	ches):						Hydric Soil	Present? Yes X No
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
Primary Indi	cators (minimum of	one is requi	red; check all that ap	ply)			Seconda	ry Indicators (minimum of two required)
X Surface	Water (A1)		Water-Stai	ined Leav	/es (B9)		Surfa	ace Soil Cracks (B6)
_	ater Table (A2)		Aquatic Fa	iuna (B13	3)		Drair	nage Patterns (B10)
X Saturati	on (A3)		True Aqua	tic Plants	(B14)		Dry-	Season Water Table (C2)
=	1arks (B1)		Hydrogen					fish Burrows (C8)
	nt Deposits (B2)		Oxidized F					ration Visible on Aerial Imagery (C9)
=	posits (B3)		Presence		•		鬲	ted or Stressed Plants (D1)
1 = 1	at or Crust (B4)		Recent Iro			d Soils (Ct	<i>'</i>	morphic Position (D2)
	oosits (B5) on Visible on Aerial	Imageny (P	Thin Muck 7) Gauge or V				X FAC	-Neutral Test (D5)
=	y Vegetated Concav		′ =		` '			
Field Obser	, ,	e canace (other (Exp		- Indiko			
Surface Wat		res X	No Depth (inc	ches): 1				
Water Table			No Depth (inc			_		
Saturation P			No Depth (inc			— Wetl	and Hydrology	Present? Yes X No
(includes ca	pillary fringe)							
Describe Re	corded Data (strean	n gauge, mo	onitoring well, aerial p	ohotos, p	revious ins	pections),	if available:	
Domorko								
Remarks:								

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 Are climatic / hydrologic conditions on the site typical for this time of year? Yes Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes 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 within a Wetland? Yes No X within a Wetland? Yes No X No	Landform (hillslope, terrace, etc.): upland Slope (%): 0%	Cownship, Range: Section 27, T. 44 N., R. 8 E. Local relief (concave, convex, none): none B.28643°W Datum: NAD83 NWI classification: U X No (If no, explain in Remarks.)									
Landform (hilislope, terrace, etc.):	Landform (hillslope, terrace, etc.): upland Slope (%): 0%										
Landform (hilislope, terrace, etc.):	Landform (hillslope, terrace, etc.): upland Slope (%): 0%										
Solid Map Unit Name	Slope (%): 0% Lat: 42.26461*N Long: -88. Soil Map Unit Name: Mapped as Fox silt loam Are climatic / hydrologic conditions on the site typical for this time of year? Yes Are Vegetation Soil On Hydrology significantly disturbed? Are Vegetation Ar	NWI classification: U X No (If no, explain in Remarks.)									
Note South	Are climatic / hydrologic conditions on the site typical for this time of year? Yes Are Vegetation , Soil , or Hydrology significantly disturbed? Are Vegetation , Soil , or Hydrology naturally problematic? SUMMARY OF FINDINGS – Attach site map showing sampling Hydrophytic Vegetation Present? Yes No X Is to Wetland Hydrology Present? Yes No X With Wetland Hydrology Present? Yes No X With Wetland Hydrology Present? Yes No X With Wetland Hydrology Present? Yes No X Yes No X Yes With Wetland Hydrology Present? Yes No X Yes No	NWI classification: U X No (If no, explain in Remarks.)									
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X no	Are climatic / hydrologic conditions on the site typical for this time of year? Yes Are Vegetation, Soil, or Hydrology significantly disturbed? Are Vegetation, Soil, or Hydrology naturally problematic? SUMMARY OF FINDINGS — Attach site map showing samplir Hydrophytic Vegetation Present? Yes No No Is to	X No (If no, explain in Remarks.)									
Are Vegetation	Are Vegetation , Soil , or Hydrology significantly disturbed? Are Vegetation , Soil , or Hydrology naturally problematic? SUMMARY OF FINDINGS – Attach site map showing samplir Hydrophytic Vegetation Present? Yes No X Is the Hydric Soil Present? Yes No X with Remarks: Non-native Grassland (lawn). VEGETATION – Use scientific names of plants. Tree Stratum (Plot size: 30-ft radius) Absolute Species? 1. Malus c.f. baccata 25% yes 25% 2										
Are Vegetation	Are Vegetation , Soil , or Hydrology naturally problematic? SUMMARY OF FINDINGS – Attach site map showing sampling Hydrophytic Vegetation Present? Yes No X Is the Wetland Hydrology Present? Yes No X with Wetland Hydrology Present? Yes No X Dominant Sepacition Present? Yes No X With With Wetland Hydrology Present? Yes No X Dominant Sepacition Present Sepacitio	? Are "Normal Circumstances" present? Yes // No									
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No X within a Wetland? Yes No X within a Wetland? No X within a Wetland? Yes No X within a W	SUMMARY OF FINDINGS – Attach site map showing sampling Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Non-native Grassland (lawn). VEGETATION – Use scientific names of plants. Tree Stratum (Plot size: 30-ft radius) Absolute 9% Cover Species? 1. Malus c.f. baccata 25% yes 2										
Hydrophytic Vegetation Present? Yes	Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Non-native Grassland (lawn). VEGETATION – Use scientific names of plants. Tree Stratum (Plot size: 30-ft radius) Absolute 9% Cover Species? 1. Malus c.f. baccata 25% yes 2										
Is the Sampled Area within a Wetland? Yes No X	Hydric Soil Present? Wetland Hydrology Present? No X with with Remarks: Non-native Grassland (lawn). VEGETATION – Use scientific names of plants. Tree Stratum (Plot size: 30-ft radius) Absolute % Cover Species? 1. Malus c.f. baccata 25% yes 2	ng point locations, transects, important features, etc.									
Wetland Hydrology Present? Yes	Wetland Hydrology Present? Remarks: Non-native Grassland (lawn). VEGETATION – Use scientific names of plants. Tree Stratum (Plot size: 30-ft radius) Absolute % Cover Species? 1. Malus c.f. baccata 25% yes 2	the Complet Area									
Non-native Grassland (lawn).	Remarks: Non-native Grassland (lawn). VEGETATION – Use scientific names of plants. Tree Stratum (Plot size: 30-ft radius) Absolute % Cover 9 Species? 1. Malus c.f. baccata 25% yes 2										
Non-native Grassland (lawn). VEGETATION – Use scientific names of plants. Absolute Dominant Indicator % Cover Species? Status 1, Malus c.f. baccata 25% yes UPL Total Xumber of Dominant Species That Are OBL, FACW, or FAC: 1	Non-native Grassland (lawn). VEGETATION – Use scientific names of plants. Tree Stratum (Plot size: 30-ft radius) Absolute % Cover Species? 1. Malus c.f. baccata 25% yes 2	thin a wetland?									
National Color	VEGETATION – Use scientific names of plants. Tree Stratum (Plot size: 30-ft radius)										
Dominant Indicator	Tree Stratum (Plot size: 30-ft radius) Absolute % Cover Species? Dominan % Cover Species? 1. Malus c.f. baccata 25% yes 2	Non-native Grassiand (lawn).									
Tree Stratum (Plot size: 30-ft radius	Tree Stratum (Plot size: 30-ft radius) % Cover Species? 1. Malus c.f. baccata 25% yes 2										
Malus c.f. baccata 25% yes UPL That 'are OBL, FACW, or FAC: 1 (A)	1. Malus c.f. baccata 25% yes 2	O Otation									
2	2	— Number of Dominant Species									
3.	3	_ STE That Ale OBL, FACW, OF FAC. 1 (A)									
4	I .										
Sapling/Shrub Stratum (Plot size: 15-ft radius 10% yes UPL 10% yes U		Species Across All Strata (B)									
Sapling/Shrub Stratum (Plot size: 15-ft radius 10% yes UPL 10% yes											
Sapling/Shrub Stratum Plot size: 15-ft radius 10% yes UPL 2.	I .	(10)									
2.											
3.	1. <u>Picea abies</u> 10% <u>yes</u>										
4	2	OBL species x 1 =									
Facu species x 4 =	3										
Herb Stratum (Plot size: 5-ft radius 10% = Total Cover UPL species x 5 =	4	FAC species x 3 =									
Herb Stratum (Plot size: 5-ft radius) 1. Poa pratensis 60% yes FAC- 2. Trifolium repens 30% yes FAC- 30% yes FAC- 30% yes FAC- 2. Trifolium repens 30% yes FAC- 30% yes FAC- 2. Trifolium repens 30% 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 3 Prevalence Index is \$\leq 3.0^1 1 Rapid Test for Hydrophytic Vegetation 1 2 Dominance Test is \$\leq 50% 3 Prevalence Index is \$\leq 3.0^1 2 Dominance Test is \$\leq 50% 3 Prevalence Index is \$\leq 3.0^1 3 Prevalence Index is \$\leq 3.0^1 4. Morphological Adaptations \frac{1}{2} (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation Problematic Hydrophytic Vegetation Present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes No X Prevalence Index = B/A =	5										
1. Poa pratensis 2. Trifolium repens 3. Glechoma hederacea 3. Glechoma hederacea 4. Daucus carota 5. Cerastium vulgatum 6. Plantago rugelii 7. Viola pratincola 8. 9. 10. Woody Vine Stratum (Plot size: 30-ft radius) 1											
2. Trifolium repens 3. Glechoma hederacea 3. Glechoma hederacea 4. Daucus carota 5. Cerastium vulgatum 6. Plantago rugelii 7. Viola pratincola 8. 9. 10. Woody Vine Stratum (Plot size: 30-ft radius 1) 1		FAC- Column Totals: (A) (B)									
3% no FACU 4. Daucus carota 2% no UPL 5. Cerastium vulgatum 6. Plantago rugelii 7. Viola pratincola 8. 9. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10	7.7.7										
2% no UPL 5. Cerastium vulgatum 1% no FACU 6. Plantago rugelii 7. Viola pratincola 1% no FACW 8	200										
5. Cerastium vulgatum 6. Plantago rugelii 7. Viola pratincola 8	20%	UPL 1 - Rapid Test for Hydrophytic Vegetation									
6. Plantago rugelii 7. Viola pratincola 8	100										
8	6. Plantago rugelii 1% no	FAC- 3 - Prevalence Index is ≤3.0¹									
9	7. Viola pratincola 1% no	FACW 4 - Morphological Adaptations (Provide supporting									
9	8.										
Woody Vine Stratum (Plot size: 30-ft radius) 1		Problematic Hydrophytic Vegetation (Explain)									
Woody Vine Stratum (Plot size: 30-ft radius) 1	10										
1 Hydrophytic 2 Wegetation Present? Yes No X	98% = Total Co										
2 Vegetation Present? Yes No X		Hadrack R.									
Present? Yes No X	2										
	= Total Cr										
Remarks: (Include photo numbers here or on a separate sheet.)		over Present? Yes No X									
		over Present? Yes No X									
		over Present? Yes No X									

SOIL Sampling Point: 33B/34B

Profile Desc	cription: (Describe	to the depth	needed to docur	nent the	indicator	or confirm	n the absence of	indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	_Type ¹ _	_Loc ²	Texture	Remarks
0-5	10YR 3/2	100					SIL _	
5-13	10YR 4/4	100					SIL	
		· — — —		- —				
	oncentration, D=Dep	letion, RM=Re	educed Matrix, M	S=Maske	d Sand Gra	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil								r Problematic Hydric Soils ³ :
Histosol	. ,				atrix (S4)			airie Redox (A16)
	pipedon (A2) istic (A3)			Redox (S d Matrix (Dark Surf	ganese Masses (F12)
_	en Sulfide (A4)				ineral (F1)			llow Dark Surface (TF12)
	d Layers (A5)				latrix (F2)			plain in Remarks)
2 cm Mu	uck (A10)		Deplete	d Matrix	(F3)			
	d Below Dark Surfac	e (A11)		Dark Surf	٠,,		2	
_	ark Surface (A12)		= '		urface (F7)			hydrophytic vegetation and
_	Mucky Mineral (S1) ucky Peat or Peat (S	31	Redox I	Depression	ons (F8)			ydrology must be present, sturbed or problematic.
_	Layer (if observed):	-					unless dis	starbed of problematic.
	ches):		_				Hydric Soil Pre	esent? Yes No X
Remarks:								
HYDROLO	GY							
	drology Indicators:							
	cators (minimum of o		: check all that ar	nlv)			Secondary	Indicators (minimum of two required)
	Water (A1)	nic is required	Water-Sta	• • • • • • • • • • • • • • • • • • • •	(BQ)			e Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa		, ,		=	ge Patterns (B10)
Saturati	, ,		True Aqua	•	,		= `	ason Water Table (C2)
_	farks (B1)		Hydrogen		` '		= '	h Burrows (C8)
	nt Deposits (B2)		= ' '		eres on Liv	ing Roots	= '	tion Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduc	ed Iron (C4	ł)	Stunted	d or Stressed Plants (D1)
Algal Ma	at or Crust (B4)		Recent Iro	n Reduct	ion in Tille	d Soils (Ce	Geomo	orphic Position (D2)
Iron De	posits (B5)		Thin Muck	Surface	(C7)		FAC-Ne	eutral Test (D5)
Inundati	on Visible on Aerial I	magery (B7)	Gauge or	Well Data	a (D9)			
Sparsel	y Vegetated Concave	e Surface (B8)	Other (Exp	olain in R	emarks)			
Field Obser	vations:							
Surface Wat	er Present? Y	esNo	Depth (in	ches):		_		
Water Table	Present? Y	esNo	Depth (in	ches):		_		
Saturation P		esNo	Depth (in	ches):		_ Wetl	and Hydrology P	resent? Yes No X
	pillary fringe) corded Data (stream	gauge, monit	oring well, aerial	photos, p	revious ins	pections).	if available:	
	•					,		
Remarks:								

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C		City/Coun	ty: 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, T	Township, Rar	nge: 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	3.28633°W		Datum: NAD83	
Soil Map Unit Name: NRCS mapped as Water, revised to und				NWI classific	ation: U	
Are climatic / hydrologic conditions on the site typical for this			X No	(If no, explain in R	(emarks.)	
	gnificantly			Normal Circumstances" p	_	。
	aturally pro			eded, explain any answe		· <u></u>
SUMMARY OF FINDINGS – Attach site map s					ŕ	s, etc.
Hydrophytic Vegetation Present? Yes X No	$\overline{}$	<u> </u>	J		,,	,
Hydric Soil Present? Yes X No		ls ·	the Sampled			
Wetland Hydrology Present? Yes X No		wit	thin a Wetlan	nd? Yes 🔀	No	
Remarks:						
Wetland Pond.						
VEGETATION – Use scientific names of plants.						
VEGETATION – Ose scientific flames of plants.	Absolute	Domina	nt Indicator	Dominance Test work	sheet.	
Tree Stratum (Plot size: 30-ft radius)			? Status	Number of Dominant Sp		
1. Acer negundo	2%	no	_ FACW	That Are OBL, FACW, o		(A)
2				Total Number of Domin	ant	
3				Species Across All Stra	ıta:	(B)
4				Percent of Dominant Sp	pecies	
5				That Are OBL, FACW, o	or FAC:	(A/B)
Sapling/Shrub Stratum (Plot size: 15-ft radius)	2%	= Total C	over	Prevalence Index worl	ksheet:	
1				Total % Cover of:	Multiply by:	_
2				OBL species	x 1 =	_
3				FACW species	x 2 =	_
4					x 3 =	_
5					x 4 =	
Herb Stratum (Plot size: 5-ft radius)		= Total C	over		x 5 =	
1. Myriophyllum exalbescens	30%	yes	OBL	Column Totals:	(A)	_ (B)
2. Potamogeton foliosus	10%	yes	OBL	Prevalence Index	= B/A =	_
3. Leersia oryzoides	4%	no	OBL	Hydrophytic Vegetation	on Indicators:	
4. Phalaris arundinacea	2%	no	FACW+	1 - Rapid Test for H		
5. Eleocharis erythropoda	1%	no	OBL	2 - Dominance Tes		
6				3 - Prevalence Inde		
7					Adaptations ¹ (Provide sup s or on a separate sheet)	
8				l —	phytic Vegetation ¹ (Explai	
9					,,	,
10	47%			¹ Indicators of hydric soi	il and wetland hydrology r	nust
Woody Vine Stratum (Plot size: 30-ft radius)	7770	= Total C	over	be present, unless distu	urbed or problematic.	
1				Hydrophytic		
2				Vegetation		
		= Total C	over	Present? Yes	s X No	
Remarks: (Include photo numbers here or on a separate si	heet.)					

SOIL Sampling Point: 34A

Profile Desc	cription: (Describe	to the dept	th needed to docu	ment the	indicator	or confirn	n the absence of in	dicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	_Loc ²	Texture	Remarks
0-3	N 2.5/	_ 100			- ——		Muck	
3-7	2.5Y 4/2	_ 90	10YR 4/6	_ <u>10</u>			SICL	
7+	Gravel							
1Type: C=C	oncentration, D=De	nletion PM=	Peduced Matrix M	S=Masker	. ——— d Sand Gr	———	2l ocation: Pl	=Pore Lining, M=Matrix.
Hydric Soil		pietion, Rivi-	Reduced Matrix, M	0-Masket	a Gariu Gra	aii i 5.		Problematic Hydric Soils ³ :
Histosol			Sandy	Gleyed Ma	atrix (S4)			ie Redox (A16)
	pipedon (A2)			Redox (S5			Dark Surfac	
Black Histic (A3) Stripped Matrix (S6)								inese Masses (F12)
	en Sulfide (A4)			Mucky Mi				w Dark Surface (TF12)
_	d Layers (A5) uck (A10)			Gleyed Matrix (Other (Expi	ain in Remarks)
-	d Below Dark Surfa	ce (A11)		Dark Surfa				
Thick Da	ark Surface (A12)		Deplete	ed Dark Su	urface (F7)		³ Indicators of h	ydrophytic vegetation and
-	Mucky Mineral (S1)		Redox	Depressio	ns (F8)		-	drology must be present,
_	ucky Peat or Peat (S Layer (if observed						unless distu	urbed or problematic.
l _		•						
Type: Depth (in	ches):						Hydric Soil Pres	sent? Yes X No
Remarks:								
HYDROLO								
1 -	drology Indicators							
_	cators (minimum of	one is requir			.=			dicators (minimum of two required)
	Water (A1)			ined Leav	, ,			Soil Cracks (B6)
X High Wa	ater Table (A2)		X True Aquatic	auna (B13	,		= -	e Patterns (B10) son Water Table (C2)
=	Marks (B1)		= :	Sulfide O	` '		= '	Burrows (C8)
=	nt Deposits (B2)		= ' '		res on Livi	ina Roots	= '	on Visible on Aerial Imagery (C9)
=	posits (B3)		=		ed Iron (C4	•	• • =	or Stressed Plants (D1)
	at or Crust (B4)		=		ion in Tille	,	===	phic Position (D2)
Iron Dep	posits (B5)		Thin Mucl	k Surface	(C7)		X FAC-Neu	utral Test (D5)
X Inundati	on Visible on Aerial	Imagery (B7) Gauge or	Well Data	(D9)			
Sparsel	y Vegetated Conca	/e Surface (E	38) Other (Ex	plain in Re	emarks)			
Field Obser	vations:				70			
Surface Wat				nches): <	12	_		
Water Table	Present?			iches): <u>0</u>		_		
Saturation P	resent? pillary fringe)	Yes X	NoDepth (ir	iches): <u>0</u>		_ Wetl	and Hydrology Pre	esent? Yes X No No
	corded Data (stream	n gauge, mo	nitoring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
ı								

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, To	wnship, Rar	nge: Section 27, T. 44 N.,	R. 8 E.	
Landform (hillslope, terrace, etc.): depression			Local relief	(concave, convex, none):	concave to convex (seepa	age area)
Soil Map Unit Name: NRCS mapped as Casco loam, revised				NWI classific		
Are climatic / hydrologic conditions on the site typical for this			X			
	gnificantly				present? Yes X No	
	aturally pro			eded, explain any answe		
SUMMARY OF FINDINGS – Attach site map s			•		•	s etc
			g point it	Jeanons, transects	, important leatures	3, 610.
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No		ls th	ne Sampled	Area		
Hydric Soil Present? Wetland Hydrology Present? Yes X No Yes X No			in a Wetlan		No	
Remarks:						
Seep.						
VEGETATION – Use scientific names of plants.						
Coo coloniano mantes el piante.	Absolute	Dominant	Indicator	Dominance Test work	sheet:	
Tree Stratum (Plot size: 30-ft radius)	% Cover			Number of Dominant Sp		
1				That Are OBL, FACW, o		(A)
2				Total Number of Domin	ant	
3				Species Across All Stra	ta:	(B)
4				Percent of Dominant Sp	pecies	
5				That Are OBL, FACW, o	or FAC:	(A/B)
Sapling/Shrub Stratum (Plot size: 15-ft radius)		= Total Co	ver	Prevalence Index wor	ksheet:	
1				Total % Cover of:	Multiply by:	_
2.				OBL species	x 1 =	_
3				FACW species	x 2 =	_
4				FAC species	x 3 =	_
5				FACU species	x 4 =	_
the topological State of the coding		= Total Co	ver	UPL species	x 5 =	_
Herb Stratum (Plot size: 5-ft radius) 1. Nasturtium officinale	30%	yes	OBL	Column Totals:	(A)	_ (B)
2. Symplocarpus foetidus	20%	yes	OBL	Prevalence Index	= B/A =	
3. Carex pellita	10%	no	OBL	Hydrophytic Vegetation		
4 Solanum dulcamara	7%	no	FAC	X 1 - Rapid Test for H		
5. Glyceria striata	5%	no	OBL	2 - Dominance Tes	t is >50%	
6. Phalaris arundinacea	5%	no	FACW+	3 - Prevalence Inde	ex is ≤3.0 ¹	
7. Eleocharis erythropoda	3%	no	OBL		Adaptations¹ (Provide sup	porting
8. Barbarea vulgaris	2%	no	FAC	l —	s or on a separate sheet)	
g. Dipsacus laciniatus	1%	no	UPL	Problematic Hydrop	phytic Vegetation ¹ (Explai	n)
10				1 Indicators of bydric soil	l and watland budgalague	
W 1 1 C 1 (D) 1 30-ft radius	83%	= Total Co	ver	be present, unless distu	l and wetland hydrology n urbed or problematic.	nust
Woody Vine Stratum (Plot size: 30-ft radius) 1. Vitis riparia	2%	no	FACW-			
				Hydrophytic Vegetation		
2	no	= Total Co	wer	Present? Yes	s X No	
Remarks: (Include photo numbers here or on a separate s		- Total CO	v-01			
, ,	ĺ					

SOIL Sampling Point: 35A

Profile Desc	ription: (Describe	to the dep	th needed to docur	nent the	indicator	or confirn	n the absence	of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ² _	Texture	Remarks
0-19	N 2.5/	100	10)/5 //6				Muck	
19-26	2.5Y 5/1	90	10YR 4/6	_ <u>10</u>	<u> </u>	<u>M</u>	SICL	
1Type: C=C	oncentration D=Der	letion RM:	=Reduced Matrix, MS	S=Masker	d Sand Gr	aine	² Location	: PL=Pore Lining, M=Matrix.
Hydric Soil		Dietion, Itivi	-rreduced Matrix, Mic	5-Masket	u Gariu Gi	airis.		for Problematic Hydric Soils ³ :
X Histosol	(A1)		Sandy 0	Gleyed Ma	atrix (S4)			Prairie Redox (A16)
Histic Ep	oipedon (A2)			Redox (S			Dark S	Surface (S7)
Black Hi				d Matrix (anganese Masses (F12)
	en Sulfide (A4) d Layers (A5)			Mucky Mi Gleyed M	neral (F1)		_	hallow Dark Surface (TF12) (Explain in Remarks)
_	ick (A10)			d Matrix (Other	(Explain in Kemarks)
	d Below Dark Surfac	e (A11)	= '	Dark Surfa	,			
Thick Da	ark Surface (A12)		Deplete	d Dark Su	urface (F7)	³ Indicators	of hydrophytic vegetation and
	lucky Mineral (S1)		Redox [Depressio	ns (F8)			d hydrology must be present,
	icky Peat or Peat (S						unless	disturbed or problematic.
	Layer (if observed)							
Type:	ches):						Hydric Soil	Present? Yes X No
Remarks:								
rtemarks.								
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
Primary India	cators (minimum of	one is requi	red; check all that ap	oply)			Seconda	ary Indicators (minimum of two required)
Surface	Water (A1)		X Water-Sta	ined Leav	res (B9)		Surf	ace Soil Cracks (B6)
1 = 1	ater Table (A2)		Aquatic Fa	auna (B13	3)		Drai	nage Patterns (B10)
X Saturation	. ,		True Aqua					Season Water Table (C2)
	larks (B1)		Hydrogen		, ,			yfish Burrows (C8)
=	nt Deposits (B2)		Oxidized F					uration Visible on Aerial Imagery (C9)
	oosits (B3) at or Crust (B4)		Presence Recent Iro			,	=	nted or Stressed Plants (D1) morphic Position (D2)
	oosits (B5)		Thin Muck			u sons (co	<i>'</i>	C-Neutral Test (D5)
1= :	on Visible on Aerial	Imagery (B	=		` '		77,1716	riodial root (20)
=	Vegetated Concav				. ,			
Field Obser	vations:							
Surface Wat	er Present?	es	No Depth (in	ches):		_		
Water Table	Present?	es X	NoDepth (in	ches): <u>1</u>		_		
Saturation P	resent?	′es X	NoDepth (in	ches): <u>1</u>		Wetl	and Hydrology	y Present? Yes X No
(includes cap		n dalide mo	onitoring well, aerial i	nhotos ni	revious ins	nections	if available:	
Describe No.	corded Data (Stream	r gauge, me	onitoring well, acrial p	priotos, pr	CVIOUS IIIC	респонз),	ii avallabic.	
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	4, 2011
Applicant/Owner: Illinois Department of Transportation, District	1			State: Illinois	Sampling Point: 35B	
Investigator(s): Paul B. Marcum, Ian Draheim		Section, To	wnship, Rar	nge: 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:88.2	28641°W		Datum: NAD83	
Soil Map Unit Name: NRCS mapped as Casco loam, revised				NWI classific	·	
Are climatic / hydrologic conditions on the site typical for this			X No [(If no, explain in R		
		disturbed?		Normal Circumstances" p		No.
	aturally pro			eded, explain any answe		
SUMMARY OF FINDINGS – Attach site map s			`		,	es etc
		Jampini	g point k	Jeanons, transects	, important leature	
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No		ls th	ne Sampled	Area		
Wetland Hydrology Present?			in a Wetlan		No X	
Remarks:						
Mesic Upland Forest.						
iviosio opiana i orost.						
VEGETATION – Use scientific names of plants.						
Tree Stratum (Plot size: 30-ft radius)	Absolute		Indicator	Dominance Test work	sheet:	
1. Populus deltoides	30%	Species? yes	Status FAC+	Number of Dominant Sp That Are OBL, FACW, of		(A)
2. Rhamnus cathartica	10%	yes	FACU	I THAT AIR OBE, FACW, C	JI FAC	_ (^)
3		,		Total Number of Domin Species Across All Stra	_	(B)
4.						_ (b)
5.				Percent of Dominant Sp That Are OBL, FACW, of		(A/B)
	40%	= Total Co	ver			_ (/05)
Sapling/Shrub Stratum (Plot size: 15-ft radius)	100/		LIDI	Prevalence Index work		
1. Lonicera maackii	10%	yes	UPL	Total % Cover of:		
2. Lonicera tatarica 3. Rosa multiflora	2% 2%	no	FACU FACU	l	x 1 =	_
\(\frac{1}{2}\)	1%	no no	UPL		x 2 =	
"		110			x 3 = x 4 =	_
5	15%	= Total Co			x 4	
Herb Stratum (Plot size: 5-ft radius)	1070	- 10tal C0	vei	Column Totals:		
1. c.f. Clinopodium vulgare	90%	yes	UPL	Column rotals:	(, ,	_ (5)
2. Eupatorium rugosum	1%	no	FACU	Prevalence Index	= B/A =	_
3. Parthenocissus quinquefolia	<1%	no	FAC-	Hydrophytic Vegetation		
4				l 	Hydrophytic Vegetation	
5				2 - Dominance Tes		
6				3 - Prevalence Inde		
7				4 - Morphological A	Adaptations¹ (Provide su s or on a separate sheet	pporting
8				_	phytic Vegetation ¹ (Expla	
9					, (<u></u>	,
10	91%			¹ Indicators of hydric soi	I and wetland hydrology	must
Woody Vine Stratum (Plot size: 30-ft radius)	9176	= Total Co	ver	be present, unless distu	irbed or problematic.	
1. Vitis riparia	5%	yes	FACW-	Hydrophytic		
2.				Vegetation		
	5%	= Total Co	ver	Present? Yes	s No X	
Remarks: (Include photo numbers here or on a separate si	heet.)					

SOIL Sampling Point: 35B

Profile Des	cription: (Describe	to the depth	needed to docu	ment the i	ndicator	or confirm	n the absence of i	ndicators.)
Depth	Matrix			ox Feature:				
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ²		Remarks
0-13	10YR 2/2	_ 100					SIL	
17			- d d 84-4-i 81				21	- Dans Linian Manhatria
Hydric Soil	oncentration, D=Dep	netion, Rivi=Re	educed Matrix, IV	IS=Masked	Sand Gra	ains.		L=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Histoso			Sandy	Gleyed Ma	trix (S4)			rie Redox (A16)
	pipedon (A2)			Redox (S5			Dark Surfa	
_	istic (A3)		_	ed Matrix (S			Iron-Mang	anese Masses (F12)
	en Sulfide (A4)			Mucky Mir				ow Dark Surface (TF12)
	d Layers (A5)			Gleyed Ma			Other (Exp	olain in Remarks)
_	uck (A10) d Below Dark Surfac	ο (Δ11)	= '	ed Matrix (I Dark Surfa	,			
	ark Surface (A12)	C (A11)		ed Dark Su	٠,)	³ Indicators of h	nydrophytic vegetation and
_	Mucky Mineral (S1)		= '	Depression	, ,			drology must be present,
_	ucky Peat or Peat (S						unless dist	turbed or problematic.
Restrictive	Layer (if observed)	:						
Type:			_				Hydric Soil Pre	sent? Yes No X
. ,	ches):		_				Tryunc com r re	sent. Tes No
Remarks:								
HYDROLO	oc.							
	drology Indicators:							
1	cators (minimum of		: check all that a	nnly)			Secondary	ndicators (minimum of two required)
	Water (A1)	nie is required		ained Leav	oc (B0)			Soil Cracks (B6)
1=	ater Table (A2)			ained Leav	(,			e Patterns (B10)
Saturati	, ,		=	atic Plants	,		= -	ason Water Table (C2)
_	flarks (B1)		= '	Sulfide O	,		= '	Burrows (C8)
	nt Deposits (B2)		= ' '	Rhizosphe	, ,	ing Roots	= '	on Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduce	ed Iron (C4	1)	Stunted	or Stressed Plants (D1)
Algal M	at or Crust (B4)		Recent In	on Reducti	on in Tille	d Soils (C6	Geomor	phic Position (D2)
Iron De	posits (B5)		Thin Muc	k Surface (C7)		FAC-Ne	eutral Test (D5)
==	ion Visible on Aerial	. , ,	= 1	Well Data	, ,			
	y Vegetated Concav	e Surface (B8)	Other (Ex	plain in Re	marks)			
Field Obser								
Surface Wat		esNo		nches):		-		
Water Table		es No		nches):		-		
Saturation F	resent? Y pillary fringe)	esNo	Depth (in	nches):		_ Weti	and Hydrology Pr	esent? Yes No X
	ecorded Data (stream	gauge, monit	oring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
I								

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, To	wnship, Ran	nge: 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: <u>-88.2</u>	8712°W		Datum: NAD83	
Soil Map Unit Name: Mapped as Lena muck				NWI classific	ation: POWHx	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes	X No	(If no, explain in Re	emarks.)	
Are Vegetation , Soil , or Hydrology sig	gnificantly	disturbed?	Are "I	Normal Circumstances" p	resent? Yes X No	5
	aturally pro			eded, explain any answei		
SUMMARY OF FINDINGS - Attach site map s	howing	samplin	g point lo	ocations, transects	, important feature:	s, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes X No Yes X No No			e Sampled in a Wetlan		No No	
Wetland Pond.						
VEGETATION – Use scientific names of plants.						
00 (1 1)	Absolute	Dominant		Dominance Test works	sheet:	
Tree Stratum (Plot size: 30-ft radius) 1		Species?		Number of Dominant Sp That Are OBL, FACW, of		(A)
2				Total Number of Domina	ant	`
3				Species Across All Stra		(B)
4				Percent of Dominant Sp		
5				That Are OBL, FACW, o	or FAC:	(A/B)
Sapling/Shrub Stratum (Plot size: 15-ft radius)		= Total Cov	/er	Prevalence Index work	ksheet:	
1				Total % Cover of:	Multiply by:	_
2				OBL species	x 1 =	-
3					x 2 =	_
4					x 3 =	_ I
5					x 4 =	
Herb Stratum (Plot size: 5-ft radius)		= Total Cov	/er		x 5 =	
1. Typha angustifolia	70%	yes	OBL	Column Totals.	(A)	_ (B)
2.				Prevalence Index	= B/A =	_
3				Hydrophytic Vegetation		
4				1 - Rapid Test for H		
5				2 - Dominance Tes		
6				3 - Prevalence Inde		
7					Adaptations¹ (Provide sup s or on a separate sheet)	porting
8					ohytic Vegetation¹ (Explai	in)
9						
10	=00/	= Total Cov	/er	¹ Indicators of hydric soil be present, unless distu	l and wetland hydrology nurbed or problematic.	nust
1			ĺ	Hydrophytic		
2.				Vegetation	— —	
		= Total Cov	/er	Present? Yes	s X No	
Remarks: (Include photo numbers here or on a separate sh	neet.)					

SOIL Sampling Point: 36A

Profile Desc	cription: (Describe	to the depth n	eeded to docur	nent the i	indicator	or confirn	n the absence	of indicators.)	
Depth	Matrix			x Feature					
(inches)	Color (moist)		Color (moist)	%	_Type ¹	_Loc ²	Texture	Remarks	
0-39	N 2.5/	100					Muck		
		· — —							
l ———									
17			to a set Balantina Bala	- 		·	211:	. Di -D Lining Manadain	
Hydric Soil	oncentration, D=Dep	letion, RIVI=Rec	uced Matrix, M	S=Masked	a Sand Gra	ains.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :	
ا ــــــــــــــــــــــــــــــــــــ			Condu.	Clayed Me	atrice (CA)		_		
	pipedon (A2)			Gleyed Ma Redox (S5				Prairie Redox (A16) Surface (S7)	
	istic (A3)			d Matrix (S			_	anganese Masses (F12)	
_	en Sulfide (A4)			Mucky Mir				hallow Dark Surface (TF12)	
	d Layers (A5)			Gleyed Ma	, ,			(Explain in Remarks)	
_	uck (A10)			d Matrix (,	
Deplete	d Below Dark Surfac	e (A11)	Redox I	Dark Surfa	ace (F6)				
Thick D	ark Surface (A12)		Deplete	d Dark Su	ırface (F7)		³ Indicators	of hydrophytic vegetation and	
Sandy N	Mucky Mineral (S1)		Redox	Depressio	ns (F8)			d hydrology must be present,	
_	ucky Peat or Peat (S						unless	disturbed or problematic.	
Restrictive	Layer (if observed):								
Type:							Undria Cail	Present? Yes X No	
Depth (in	ches):		_				Hydric Soil	Present? Yes X No	
Remarks:									
HYDROLO	GY								
	drology Indicators:								
1	cators (minimum of c		shook all that are	anlu)			Casanda	ary Indicators (minimum of two requi	irod)
		ne is required;			(50)			ary Indicators (minimum of two requi	rea)
	Water (A1)		Water-Sta		, ,		=	face Soil Cracks (B6)	
	ater Table (A2)		Aquatic Fa	-	-		=	nage Patterns (B10)	
X Saturati	, ,		X True Aqua		. ,		= '	Season Water Table (C2)	
=	larks (B1)		Hydrogen		` '		= '	yfish Burrows (C8)	
=	nt Deposits (B2)		Oxidized F			•	• • =	uration Visible on Aerial Imagery (C9	9)
	posits (B3)		Presence		•	,	=	nted or Stressed Plants (D1)	
ı —	at or Crust (B4)		=		ion in Tille	d Soils (C6	_	morphic Position (D2)	
ı =	oosits (B5)		Thin Muck	Surface ((C7)		X FAC	C-Neutral Test (D5)	
X Inundati	on Visible on Aerial I	magery (B7)	Gauge or	Well Data	(D9)				
Sparsel	y Vegetated Concave	e Surface (B8)	Other (Exp	olain in Re	emarks)				
Field Obser	vations:								
Surface Wat	er Present? Y	es No	Depth (in	ches): _<_	72	_			
Water Table	Present? Y	es X No	Depth (in	ches): <u>0</u>		_			
Saturation P	resent? Y	es X No	Depth (in	ches): 0		_ Wetl	and Hydrolog	y Present? Yes X No	
	pillary fringe)								
Describe Re	corded Data (stream	gauge, monito	ring well, aerial	photos, pr	evious ins	pections),	if available:		
Remarks:									

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31/FAU 336, original, Addendum A, B, and C	(City/County	y: McHenry		Sampling Date: Ma	ay 24, 2011
Applicant/Owner: Illinois Department of Transportation, District	1			State: Illinois	Sampling Point: 36	3B
Investigator(s): Paul B. Marcum, Ian Draheim	;	Section, To	ownship, Rar	nge: 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: <u>-88.</u>	28710°W		Datum: NAD83	
Soil Map Unit Name: Mapped as Casco loam				NWI classific	ation: U	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes	X No	(If no, explain in Re	emarks.)	
Are Vegetation, Soil, or Hydrology sig	gnificantly	disturbed?	Are "I	Normal Circumstances" p	resent? Yes X	No_
Are Vegetation, Soil, or Hydrology na	aturally pro	blematic?		eded, explain any answer		
SUMMARY OF FINDINGS - Attach site map s	howing	samplir	ng point lo	ocations, transects	, important fea	tures, etc.
Hydrophytic Vegetation Present? Yes No	X					
Hydric Soil Present? Yes No			he Sampled		- —	
Wetland Hydrology Present? Yes No	×	with	hin a Wetlan	d? Yes X	No	
Remarks:						
Non-native Grassland (lawn).						
VEGETATION – Use scientific names of plants.						
00 (1 - 1)	Absolute		t Indicator	Dominance Test works	sheet:	
4 Ouerous alba	% Cover 20%		Status_ UPL	Number of Dominant Sp		(4)
1. Quercus alba 2. Carya ovata	10%	yes yes	UPL	That Are OBL, FACW, o	or FAC: 1	(A)
3				Total Number of Domina Species Across All Strat		(B)
4				Percent of Dominant Sp	necies	
5				That Are OBL, FACW, of		(A/B)
Sapling/Shrub Stratum (Plot size: 15-ft radius)	30%	= Total Co	ver	Prevalence Index work	ksheet:	
1				Total % Cover of:		bv:
2.				OBL species		
3				FACW species		
4				·	x 3 =	
5.				FACU species	x 4 =	
		= Total Co	ver	UPL species	x 5 =	
Herb Stratum (Plot size: 5-ft radius) 1. Poa pratensis	70%	VOC	FAC-	Column Totals:	(A)	(B)
	25%	yes yes	FACU	Prevalence Index	= B/A =	
2. Glechoma hederacea 7. Plantago rugelii	5%	no	FAC	Hydrophytic Vegetatio		
∆ Taraxacum officinale	5%	no	FACU	1 - Rapid Test for H		ion
5				2 - Dominance Test		
6				3 - Prevalence Inde	ex is ≤3.0 ¹	
7				4 - Morphological A	daptations ¹ (Provide	e supporting
8.					s or on a separate sl	-
9.				Problematic Hydrop	ohytic Vegetation¹ (E	Explain)
10				1		
Woody Vine Stratum (Plot size: 30-ft radius)	105%	= Total Co	ver	¹ Indicators of hydric soil be present, unless distu		
1				Hydrophytic		
2.				Vegetation		_
		= Total Co	ver	Present? Yes	sNo_X	
Remarks: (Include photo numbers here or on a separate sl	neet.)					

SOIL Sampling Point: 36B

					illuicator (or commi	n the absence of in	andatoron,
Depth	Matrix			x Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-13	10YR 3/2	_ 100					SIL	
13-26	10YR 4/4	_ <u>100</u>					SCL	
	concentration, D=Dep	pletion, RM=	Reduced Matrix, M	S=Masked	d Sand Gra	ains.		=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Hydric Soil			Candy	Clayed M	atric (CA)			•
Histoso	pipedon (A2)			Gleyed Ma Redox (S5			Dark Surface	ie Redox (A16)
_	listic (A3)		_	d Matrix (S			=	nese Masses (F12)
_	en Sulfide (A4)			Mucky Mi				w Dark Surface (TF12)
	d Layers (A5)		Loamy	Gleyed M	atrix (F2)		Other (Expl	ain in Remarks)
_	uck (A10)		= '	ed Matrix (,			
	d Below Dark Surfac	ce (A11)		Dark Surfa	ace (F6) urface (F7)		3Indiantors of b	udranhutia vagatatian and
_	ark Surface (A12) Mucky Mineral (S1)		=	Depressio	,			ydrophytic vegetation and Irology must be present,
_	ucky Peat or Peat (S	33)	rtodox	D 0 p 1 0 0 0 1 0	(. 0)		•	urbed or problematic.
_	Layer (if observed)	-						·
Type:								
Depth (in	iches):						Hydric Soil Pres	sent? Yes No X
Remarks:								
HYDROLC	OGY							
	OGY rdrology Indicators	:						
Wetland Hy			ed; check all that a	pply)			Secondary In	dicators (minimum of two required)
Wetland Hy	drology Indicators		Water-Sta	ined Leav	(,			dicators (minimum of two required) Soil Cracks (B6)
Wetland Hy Primary Indi Surface High Wa	rdrology Indicators cators (minimum of o Water (A1) ater Table (A2)		Water-Sta	ained Leav auna (B13)		Surface S	Soil Cracks (B6) Patterns (B10)
Wetland Hy Primary Indi Surface High Wi	rdrology Indicators cators (minimum of e Water (A1) ater Table (A2) ion (A3)		Water-Sta Aquatic F True Aqu	ained Leav auna (B13 atic Plants	(B14)		Surface S Drainage Dry-Seas	Soil Cracks (B6) Patterns (B10) son Water Table (C2)
Wetland Hy Primary Indi Surface High Water M	edrology Indicators cators (minimum of e Water (A1) ater Table (A2) ion (A3) Marks (B1)		Water-Standard Water-Standard Aquatic Factor True Aquatic Hydroger	ained Leav auna (B13 atic Plants Sulfide O	(B14) dor (C1)		Surface S Drainage Dry-Seas Crayfish	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8)
Wetland Hy Primary Indi Surface High W: Saturati Water M Sedime	edrology Indicators cators (minimum of of the Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2)		Water-Standard Water-Standard Aquatic Formula True Aquad Hydroger Oxidized	nined Leav auna (B13 atic Plants Sulfide O Rhizosphe	(B14) dor (C1) eres on Liv	•	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9)
Wetland Hy Primary Indi Surface High W: Saturati Water M Sedime Drift De	cators (minimum of of water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3)		Water-Sta	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce	(B14) (B14) dor (C1) eres on Lived Iron (C4	1)	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1)
Wetland Hy Primary Indi Surface High Water Mater Mater Mater Drift De Algal M	cators (minimum of of water (A1) ater Table (A2) fon (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Water-Sta Aquatic F True Aqu Hydroger Oxidized Presence Recent In	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti	(B14) (B14) dor (C1) eres on Lived ed Iron (C4) ion in Tilled	1)	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted 6	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Chic Position (D2)
Wetland Hy Primary Indi Surface High Water M Sedime Drift De Algal M Iron De	rdrology Indicators cators (minimum of of the Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	one is requir	Water-Sta Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti	(B14) dor (C1) eres on Livied Iron (C4) ion in Tilled	1)	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted 6	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1)
Wetland Hy Primary Indi Surface High Water Mater	edrology Indicators cators (minimum of ele Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial	one is requir	Water-Sta Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc	nined Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reducti on Reducti k Surface (Well Data	(B14) dor (C1) eres on Livied Iron (C4) ion in Tilled (C7) (D9)	1)	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted 6	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Chic Position (D2)
Wetland Hy Primary Indi Surface High Water Mater	rdrology Indicators cators (minimum of of the Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concav	one is requir	Water-Sta Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti	(B14) dor (C1) eres on Livied Iron (C4) ion in Tilled (C7) (D9)	1)	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted 6	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Chic Position (D2)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel	rdrology Indicators cators (minimum of of twater (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations:	one is requir Imagery (B7 ve Surface (E	Water-Sta Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or Other (Ex	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti x Surface (Well Data plain in Re	(B14) dor (C1) eres on Livied Iron (C4) ion in Tilled (C7) (D9)	1)	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted 6	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Chic Position (D2)
Wetland Hy Primary Indi Surface High Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser	cators (minimum of of water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations:	Imagery (B7	Water-Sta Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or Gas) Other (Ex	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti & Surface (Well Data plain in Re	(B14) (B14) dor (C1) eres on Liv ed Iron (C4 ion in Tilled (C7) (D9) emarks)	1)	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted 6	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Chic Position (D2)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Water Table	rdrology Indicators cators (minimum of of the Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavery rvations: ter Present?	Imagery (B7	Water-Sta Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or Sas) Other (Ex	nined Leaver auna (B13 atic Plants Sulfide O Rhizosphe of Reduction Reductio	(B14) (B14) (dor (C1) eres on Liv ed Iron (C4 ion in Tilled (C7) (D9) emarks)	I) d Soils (Ce	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted of Geomorp FAC-Neu	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Ohic Position (D2) utral Test (D5)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wa' Water Table Saturation F (includes ca	rdrology Indicators cators (minimum of of the Water (A1) ater Table (A2) fon (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations: ter Present? Present?	Imagery (B7 ve Surface (E Yes	Water-Sta Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or Sas) Other (Ex	ained Leavauna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reduction R	(B14) (B14) dor (C1) eres on Liv ed Iron (C4 ion in Tilled (C7) (D9) emarks)	d Soils (Ce	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted of FAC-Neu	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Ohic Position (D2) utral Test (D5)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wa' Water Table Saturation F (includes ca	rdrology Indicators cators (minimum of of the Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations: ter Present?	Imagery (B7 ve Surface (E Yes	Water-Sta Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or Sas) Other (Ex	ained Leavauna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reduction R	(B14) (B14) dor (C1) eres on Liv ed Iron (C4 ion in Tilled (C7) (D9) emarks)	d Soils (Ce	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted of FAC-Neu	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Ohic Position (D2) utral Test (D5)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wat Water Table Saturation F (includes ca Describe Re	rdrology Indicators cators (minimum of of the Water (A1) ater Table (A2) fon (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations: ter Present? Present?	Imagery (B7 ve Surface (E Yes	Water-Sta Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or Sas) Other (Ex	ained Leavauna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reduction R	(B14) (B14) dor (C1) eres on Liv ed Iron (C4 ion in Tilled (C7) (D9) emarks)	d Soils (Ce	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted of FAC-Neu	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Ohic Position (D2) utral Test (D5)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wa' Water Table Saturation F (includes ca	rdrology Indicators cators (minimum of of the Water (A1) ater Table (A2) fon (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations: ter Present? Present?	Imagery (B7 ve Surface (E Yes	Water-Sta Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or Sas) Other (Ex	ained Leavauna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reduction R	(B14) (B14) dor (C1) eres on Liv ed Iron (C4 ion in Tilled (C7) (D9) emarks)	d Soils (Ce	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted of FAC-Neu	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Ohic Position (D2) utral Test (D5)
Wetland Hy Primary Indi Surface High Wi Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wat Water Table Saturation F (includes ca Describe Re	rdrology Indicators cators (minimum of of the Water (A1) ater Table (A2) fon (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations: ter Present? Present?	Imagery (B7 ve Surface (E Yes	Water-Sta Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or Sas) Other (Ex	ained Leavauna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reduction R	(B14) (B14) dor (C1) eres on Liv ed Iron (C4 ion in Tilled (C7) (D9) emarks)	d Soils (Ce	Surface S Drainage Dry-Seas Crayfish (C3) Saturatio Stunted of FAC-Neu	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Ohic Position (D2) utral Test (D5)

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, To	wnship, Rar	nge: Section 34, T. 44 N.,	R. 8 E.	
Landform (hillslope, terrace, etc.): depression		I	Local relief (concave, convex, none):	concave	
Slope (%): 0-1% Lat: 42.25271°N	ו	Long: <u>-88.2</u>	8621°W		Datum: NAD83	
Soil Map Unit Name: NRCS mapped as Lorenzo loam, revised	d to undete	rmined		NWI classific	ation: U	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes	X No	(If no, explain in R	emarks.)	
Are Vegetation, Soil, or Hydrology signature.	gnificantly o	disturbed?	Are "I	Normal Circumstances" p	oresent? Yes X No	,
Are Vegetation, Soil, or Hydrology na	aturally prol	blematic?		eded, explain any answe		
SUMMARY OF FINDINGS - Attach site map s	howing	samplin	g point lo	ocations, transects	, important features	s, etc.
Hydrophytic Vegetation Present? Yes X No						
Hydric Soil Present? Yes X No			e Sampled		- —	
Wetland Hydrology Present? Yes X No		with	in a Wetlan	d? Yes X	No	
Remarks:						
Wet Meadow.						
VEGETATION – Use scientific names of plants.						
The state of the s	Absolute	Dominant		Dominance Test work	sheet:	
Tree Stratum (Plot size: whole site) 1		Species?		Number of Dominant Sp That Are OBL, FACW, of		(A)
2.				Total Number of Domin		,
3				Species Across All Stra		(B)
4				Percent of Dominant Sp	pecies	
5				That Are OBL, FACW, o		(A/B)
Sapling/Shrub Stratum (Plot size: 15-ft radius)		= Total Cov	/er	Prevalence Index work	ksheet:	
1				Total % Cover of:	Multiply by:	_
2					x 1 =	_
3					x 2 =	
4					x 3 =	_
5		= Total Cov			x 4 = x 5 =	
Herb Stratum (Plot size: 5-ft radius)		- Total Cov	/ei		(A)	
1. Typha angustifolia	10%	yes	OBL			_ ()
2. Polygonum pensylvanicum	9% 2%	yes	FACW+		= B/A =	
3. Typha latifolia		no	OBL	Hydrophytic Vegetation 1 - Rapid Test for H		
4				2 - Dominance Tes		
5 6.				3 - Prevalence Inde		
7					Adaptations ¹ (Provide supp	porting
8				data in Remarks	s or on a separate sheet)	
9.				Problematic Hydron	phytic Vegetation ¹ (Explain	n)
10				North atom of building all	l and wallend burdenland	4
Woody Vine Stratum (Plot size:)	21%	= Total Cov	/er	be present, unless distu	l and wetland hydrology n irbed or problematic.	nust
1				Hydrophytic		
2.				Vegetation	——————————————————————————————————————	
		= Total Cov	/er	Present? Yes	s X No	
Remarks: (Include photo numbers here or on a separate si	heet.)					

SOIL Sampling Point: 37A

Profile Desc	cription: (Describe	to the dep	th needed to docu	ment the	indicator	or confire	n the absence of	indicators.)
Depth (inches)	Matrix	%		x Feature	Type ¹	_Loc²	Toytura	Damadra
(inches) 0-14	Color (moist) 10YR 2/1	100	Color (moist)	%		LOC	Texture SICL	Remarks
			10)/5 1/4					
14-26	10YR 4/2	90	10YR 4/4	_ <u>10</u>	<u> </u>	<u>M</u>	SICL _	
1							2	
Hydric Soil	oncentration, D=Dep	oletion, RM=	Reduced Matrix, M	S=Maske	d Sand Gr	ains.		PL=Pore Lining, M=Matrix. r Problematic Hydric Soils ³ :
Histosol			Candy /	Clayed M	otriv (CA)			airie Redox (A16)
	pipedon (A2)			Gleyed Ma Redox (St			Dark Sur	
	istic (A3)			d Matrix (_	ganese Masses (F12)
_	en Sulfide (A4)				neral (F1)			llow Dark Surface (TF12)
	d Layers (A5)			Gleyed M			Other (Ex	rplain in Remarks)
_	uck (A10)		= '	ed Matrix (,			
	d Below Dark Surfac	e (A11)		Dark Surf	ace (F6) urface (F7)		3Indicators of	f hydrophytic vegetation and
_	ark Surface (A12) Mucky Mineral (S1)			Depressio)		f hydrophytic vegetation and lydrology must be present,
_	ucky Peat or Peat (S	3)	Tredox I	Depressio	///3 (1 O)			sturbed or problematic.
	Layer (if observed)	*						
Type:								
Depth (in	ches):						Hydric Soil Pr	resent? Yes X No
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators:	:						
Primary Indi	cators (minimum of o	one is requi	red; check all that ap	oply)			Secondary	Indicators (minimum of two required)
X Surface	Water (A1)		Water-Sta	ined Leav	/es (B9)		Surfac	e Soil Cracks (B6)
X High Wa	ater Table (A2)		Aquatic Fa	auna (B13	3)		Draina	ge Patterns (B10)
X Saturati	on (A3)		True Aqua	atic Plants	(B14)		Dry-Se	eason Water Table (C2)
Water M	larks (B1)		Hydrogen	Sulfide O	dor (C1)		Crayfis	sh Burrows (C8)
=	nt Deposits (B2)		=	•	eres on Liv	•	· · =	tion Visible on Aerial Imagery (C9)
	posits (B3)		Presence		`	,	=	d or Stressed Plants (D1)
=	at or Crust (B4)		=		ion in Tille	d Soils (C	_	orphic Position (D2)
ı =	posits (B5)	l(D	Thin Muck				X FAC-N	leutral Test (D5)
	ion Visible on Aerial y Vegetated Concav				, ,			
Field Obser	, ,	e Suriace (i	B8)	piain in Re	emarks)			
Surface Wat		es X	No Depth (in	ches): 4				
Water Table			1	iches):		-		
						— Note	land Uudralaau F	Present? Yes X No
Saturation P	resent? 1 pillary fringe)	es X	NoDepth (in	iches): <u>0</u>		_ wet	land Hydrology F	Present? Yes X No No
	corded Data (stream	n gauge, mo	onitoring well, aerial	photos, p	revious ins	pections),	, 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, 2	2011
Applicant/Owner: Illinois Department of Transportation, District	1			State: Illinois	Sampling Point: 37B	
Investigator(s): Paul B. Marcum, Ian Draheim	;	Section, To	wnship, Rar	nge: Section 34, T. 44 N.,	R. 8 E.	
Landform (hillslope, terrace, etc.): upland			Local relief (concave, convex, none):	convex to none	
Slope (%): <u>0-2%</u> Lat: <u>42.25253°N</u>		Long: <u>-88.2</u>	28631°W		Datum: NAD83	
Soil Map Unit Name: Mapped as Lorenzo loam				NWI classific	ation: U	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes	X No [(If no, explain in R	emarks.)	
Are Vegetation, Soil, or Hydrology si	gnificantly	disturbed?	Are "I	Normal Circumstances" p	present? Yes X No	
Are Vegetation, Soil, or Hydrology na	aturally pro	blematic?		eded, explain any answe		
SUMMARY OF FINDINGS - Attach site map s	showing	samplin	g point lo	ocations, transects	, important features,	, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:			ne Sampled nin a Wetlan		No X	
Non-native Grassland (lawn).						
VEGETATION – Use scientific names of plants.						
	Absolute	Dominant	Indicator	Dominance Test work	sheet:	\neg
Tree Stratum (Plot size: 30-ft radius) 1	% Cover			Number of Dominant Sp That Are OBL, FACW, of		(A)
2				Total Number of Domin	ant	
3				Species Across All Stra	ta: <u>1</u> ((B)
4 5				Percent of Dominant Sp That Are OBL, FACW, o		(A/B)
		= Total Co	ver	That Are OBL, FACW, t	51 FAC. 10070 ((A/B)
Sapling/Shrub Stratum (Plot size: 15-ft radius)				Prevalence Index work		
1				Total % Cover of:		·
2					x 1 = x 2 =	· I
3					x 3 =	· I
4 5					x 4 =	·
· -		= Total Co	ver		x 5 =	· I
Herb Stratum (Plot size: 5-ft radius)					(A)	- 1
1. Poa pratensis	70%	yes	FAC-	5	5/4	
2. Festuca arundinacea 7. Trifolium repens	10%	no no	FACU+ FACU+	Hydrophytic Vegetation	= B/A =	
3. Irrioium repens 4 Plantago rugelii	5%	no	FAC		Hydrophytic Vegetation	
5 Taraxacum officinale	5%	no	FACU	2 - Dominance Tes		
6				3 - Prevalence Inde		
7					Adaptations ¹ (Provide suppo	orting
8.				data in Remarks	s or on a separate sheet)	
9.				Problematic Hydro	phytic Vegetation ¹ (Explain))
10				1		
Woody Vine Stratum (Plot size:)	100%	= Total Co	ver	be present, unless distu	l and wetland hydrology muurbed or problematic.	ust
1				Hydrophytic		
2				Vegetation	s × No	
		= Total Co	ver	riesellt Yes	sLX NoL	
Remarks: (Include photo numbers here or on a separate s	heet.)					

SOIL Sampling Point: 37B

l _	cription: (Describe	to the depth in	eeded to docun	nent the maicato	r or confirm	the absence of ir	idicators.)
Depth	Matrix			x Features			
(inches)	Color (moist)		Color (moist)	%Type ¹	Loc²	Texture	Remarks
0-13	10YR 3/2					<u>L</u>	
¹ Type: C=C	oncentration, D=Dep	eletion, RM=Red	luced Matrix, MS	S=Masked Sand G	Grains.		=Pore Lining, M=Matrix.
Hydric Soil	Indicators:					Indicators for I	Problematic Hydric Soils ³ :
Histoso	(A1)			Gleyed Matrix (S4))	Coast Prair	ie Redox (A16)
	pipedon (A2)			Redox (S5)		Dark Surface	, ,
_	istic (A3)			Matrix (S6)			inese Masses (F12)
	en Sulfide (A4)			Mucky Mineral (F1			ow Dark Surface (TF12)
_	d Layers (A5)			Gleyed Matrix (F2))	Other (Exp	lain in Remarks)
	uck (A10)	- (0.14)	= '	d Matrix (F3)			
	d Below Dark Surfac ark Surface (A12)	e (ATT)		Dark Surface (F6) d Dark Surface (F	7)	3Indicators of b	ydrophytic vegetation and
_	Mucky Mineral (S1)			Depressions (F8)	′)		drology must be present,
_	ucky Peat or Peat (S	3)	Redox E	pepressions (1 0)		-	urbed or problematic.
	Layer (if observed):						and or problemate.
	,						
1	ches):					Hydric Soil Pres	sent? Yes No X
Remarks:			-				
HYDROLO	ic.v						
1	drology Indicators:					0	F
	cators (minimum of o	ne is required;		. , ,			dicators (minimum of two required)
	Water (A1)			ned Leaves (B9)			Soil Cracks (B6)
ı =	ater Table (A2)		Aquatic Fa	, ,			e Patterns (B10)
Saturati	on (A3)		True Aqua	tic Plants (B14)			
147	1arks (B1)		Lludusass			Dry-Seas	son Water Table (C2)
Water N			Hydrogen	Sulfide Odor (C1)		= '	son Water Table (C2) Burrows (C8)
	nt Deposits (B2)		= ' '	Sulfide Odor (C1) Rhizospheres on L		Crayfish	, ,
Sedime	nt Deposits (B2) posits (B3)		Oxidized F	, ,	iving Roots (Crayfish Saturation	Burrows (C8)
Sedime Drift De	,		Oxidized F	Rhizospheres on L	iving Roots (C4)	Crayfish CC3) Saturation Stunted	Burrows (C8) on Visible on Aerial Imagery (C9)
Sedime Drift De Algal M	posits (B3)		Oxidized F	Rhizospheres on Lof Reduced Iron (0	iving Roots (C4)	Crayfish CS) Saturation Stunted Geomory	Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Sedime Drift De Algal M: Iron De	posits (B3) at or Crust (B4)	lmagery (B7)	Oxidized R Presence of Recent Iro Thin Muck	Rhizospheres on Lof Reduced Iron (0 n Reduction in Till	iving Roots (C4)	Crayfish CS) Saturation Stunted Geomory	Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Sedime Drift De Algal Malgal M	posits (B3) at or Crust (B4) posits (B5)		Oxidized R Presence C Recent Iro Thin Muck Gauge or V	Rhizospheres on Lof Reduced Iron (Con Reduction in Till Surface (C7)	iving Roots (C4)	Crayfish CS) Saturation Stunted Geomory	Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Sedime Drift De Algal Malgal M	posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave		Oxidized R Presence C Recent Iro Thin Muck Gauge or V	Rhizospheres on Lof Reduced Iron (on Reduction in Till Surface (C7) Well Data (D9)	iving Roots (C4)	Crayfish CS) Saturation Stunted Geomory	Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Sedime Drift De Algal Malgal M	posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations:		Oxidized F Presence of Recent Iro Thin Muck Gauge or V Other (Exp	Rhizospheres on L of Reduced Iron (0 n Reduction in Till Surface (C7) Well Data (D9) blain in Remarks)	iving Roots (C4) ed Soils (C6	Crayfish CS) Saturation Stunted Geomory	Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Sedime Drift De Algal M: Iron De Inundati Sparsel Field Obser	posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Y	e Surface (B8)	Oxidized F Presence of Recent Iro Thin Muck Gauge or V Other (Exp	Rhizospheres on Lof Reduced Iron (Con Reduction in Till Surface (C7) Well Data (D9) Polain in Remarks)	iving Roots (C4) led Soils (C6	Crayfish CS) Saturation Stunted Geomory	Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Sedime Drift De Algal Mi Iron De Inundati Sparsel Field Obser Surface Wat	posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Y	e Surface (B8) Yes No	Oxidized F Presence of Recent Iro Thin Muck Gauge or N Other (Exp	Rhizospheres on Lof Reduced Iron (Con Reduction in Till Surface (C7) Well Data (D9) Islain in Remarks) Ches):	iving Roots (C4) led Soils (C6	Crayfish (C3) Saturation Stunted Geomory FAC-Net	Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5)
Sedime Drift De Algal Mi Iron De Inundati Sparsel Field Obser Surface Wat Water Table Saturation P	posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Y	e Surface (B8)	Oxidized F Presence of Recent Iro Thin Muck Gauge or V Other (Exp	Rhizospheres on Lof Reduced Iron (Con Reduction in Till Surface (C7) Well Data (D9) Islain in Remarks) Ches):	iving Roots (C4) led Soils (C6	Crayfish CS) Saturation Stunted Geomory	Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5)
Sedime Drift De Algal M: Iron De Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca	posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Present? Y resent? Y	e Surface (B8) Yes No	Oxidized F Presence of Recent Iro Recent Iro Thin Muck Gauge or V Other (Exp	Rhizospheres on Lof Reduced Iron (Con Reduction in Till Surface (C7) Well Data (D9) Islain in Remarks) Ches):	iving Roots (C4) led Soils (C6	Crayfish Crayfish Saturation Stunted Geomory FAC-New	Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5)
Sedime Drift De Algal M: Iron De Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Present? Y pillary fringe)	e Surface (B8) Yes No	Oxidized F Presence of Recent Iro Recent Iro Thin Muck Gauge or V Other (Exp	Rhizospheres on Lof Reduced Iron (Con Reduction in Till Surface (C7) Well Data (D9) Islain in Remarks) Ches):	iving Roots (C4) led Soils (C6	Crayfish Crayfish Saturation Stunted Geomory FAC-New	Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5)
Sedime Drift De Algal M: Iron De Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca	posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Present? Y pillary fringe)	e Surface (B8) Yes No	Oxidized F Presence of Recent Iro Recent Iro Thin Muck Gauge or V Other (Exp	Rhizospheres on Lof Reduced Iron (Con Reduction in Till Surface (C7) Well Data (D9) Islain in Remarks) Ches):	iving Roots (C4) led Soils (C6	Crayfish Crayfish Saturation Stunted Geomory FAC-New	Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5)
Sedime Drift De Algal M: Iron De Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Present? Y pillary fringe)	e Surface (B8) Yes No	Oxidized F Presence of Recent Iro Recent Iro Thin Muck Gauge or V Other (Exp	Rhizospheres on Lof Reduced Iron (Con Reduction in Till Surface (C7) Well Data (D9) Islain in Remarks) Ches):	iving Roots (C4) led Soils (C6	Crayfish Crayfish Saturation Stunted Geomory FAC-New	Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5)
Sedime Drift De Algal M: Iron De Inundati Sparsel Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Present? Y pillary fringe)	e Surface (B8) Yes No	Oxidized F Presence of Recent Iro Recent Iro Thin Muck Gauge or V Other (Exp	Rhizospheres on Lof Reduced Iron (Con Reduction in Till Surface (C7) Well Data (D9) Islain in Remarks) Ches):	iving Roots (C4) led Soils (C6	Crayfish Crayfish Saturation Stunted Geomory FAC-New	Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) utral Test (D5)

APPENDIX B

Wetland Plant Species Lists

Site 1 Wet Meadow

Scientific name	Common name	Stratum	Wetland indicator	Coefficient of
			status	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 V	Vetland indicator	Coefficient of
			status	conservatism
Acer negundo	box elder	tree, sapling/shru	b 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

Scientific name	Common name	Stratum	Wetland indicator	Coefficient of
			status	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	Coefficient of
			status	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

Scientific name	Common name	Stratum	Wetland indicator	Coefficient of
			status	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	Coefficient of
			status	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

Scientific name	Common name	Stratum	Wetland indicator	Coefficient of
			status	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	Coefficient of
			status	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

Scientific name	Common name	Stratum	Wetland indicator	Coefficient of
			status	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	Coefficient of
			status	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

Scientific name	Common name	Stratum	Wetland indicator	Coefficient of
			status	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	Coefficient of
			status	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/shru	ıb 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	Coefficient of
			status	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

Scientific name	Common name	Stratum	Wetland indicator	Coefficient of
			status	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	Coefficient of
			status	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	Coefficient of
			status	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

Scientific name	Common name	Stratum	Wetland indicator	Coefficient of
			status	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 W	etland indicator	Coefficient of
			status	conservatism
Acer saccharinum	silver maple	tree, sapling/shrul	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

Scientific name	Common name	Stratum \	Wetland indicator	Coefficient of
			status	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/shru	ıb 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	Coefficient of
			status	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

Scientific name	Common name	Stratum	Wetland indicator	Coefficient of
			status	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

Scientific name	Common name	Stratum	Wetland indicator	Coefficient of
			status	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 V	Vetland indicator	Coefficient of
			status	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/shru	ıb 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	Coefficient of
			status	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

Scientific name	Common name	Stratum	Wetland indicator	Coefficient of
			status	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

Scientific name	Common name	Stratum	Wetland indicator	Coefficient of
			status	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	Coefficient of
			status	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, he	rb FACU	*

^{*} Non-native species

mCv = 3.0

Site 32 Wetland Pond

Scientific name	Common name	Stratum W	etland indicator	Coefficient of
			status	conservatism
Acer negundo	box elder	sapling/shrub, her	b 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, her	b 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

Scientific name	Common name	Stratum	Wetland indicator	Coefficient of
			status	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 cranb	erry shrub	UPL	*

^{*} Non-native species

mCv = 2.8

FQI = 10.0

Site 34 Wetland Pond

Scientific name	Common name	Stratum		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

Scientific name	Common name	Stratum	Wetland indicator	Coefficient of
			status	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 cranber	•	UPL	*
Vitis riparia	riverbank grape	w-vine, herb	FACW-	2

^{*} Non-native species

mCv = 3.7

Site 36 Wetland Pond

SPECIES LIST (Dominant species and strata indicated by bold.)

Scientific name	Common name	Stratum	Wetland indicator	Coefficient of	
			status	conservatism	
Agrostis alba	red top	herb	FACW	0	
Barbarea vulgaris	area vulgaris winter cress		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	eum canadense white avens		FAC	2	
Glechoma hederacea	echoma hederacea ground ivy		FACU	*	
Glyceria striata	Glyceria striata fowl manna grass		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	olidago canadensis Canada goldenrod		FACU	1	
Solidago gigantea late goldenrod		herb	FACW	3	
Typha angustifolia narrow-leaved ca		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	Coefficient of	
			status	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

Figure 1 – Project Location Map

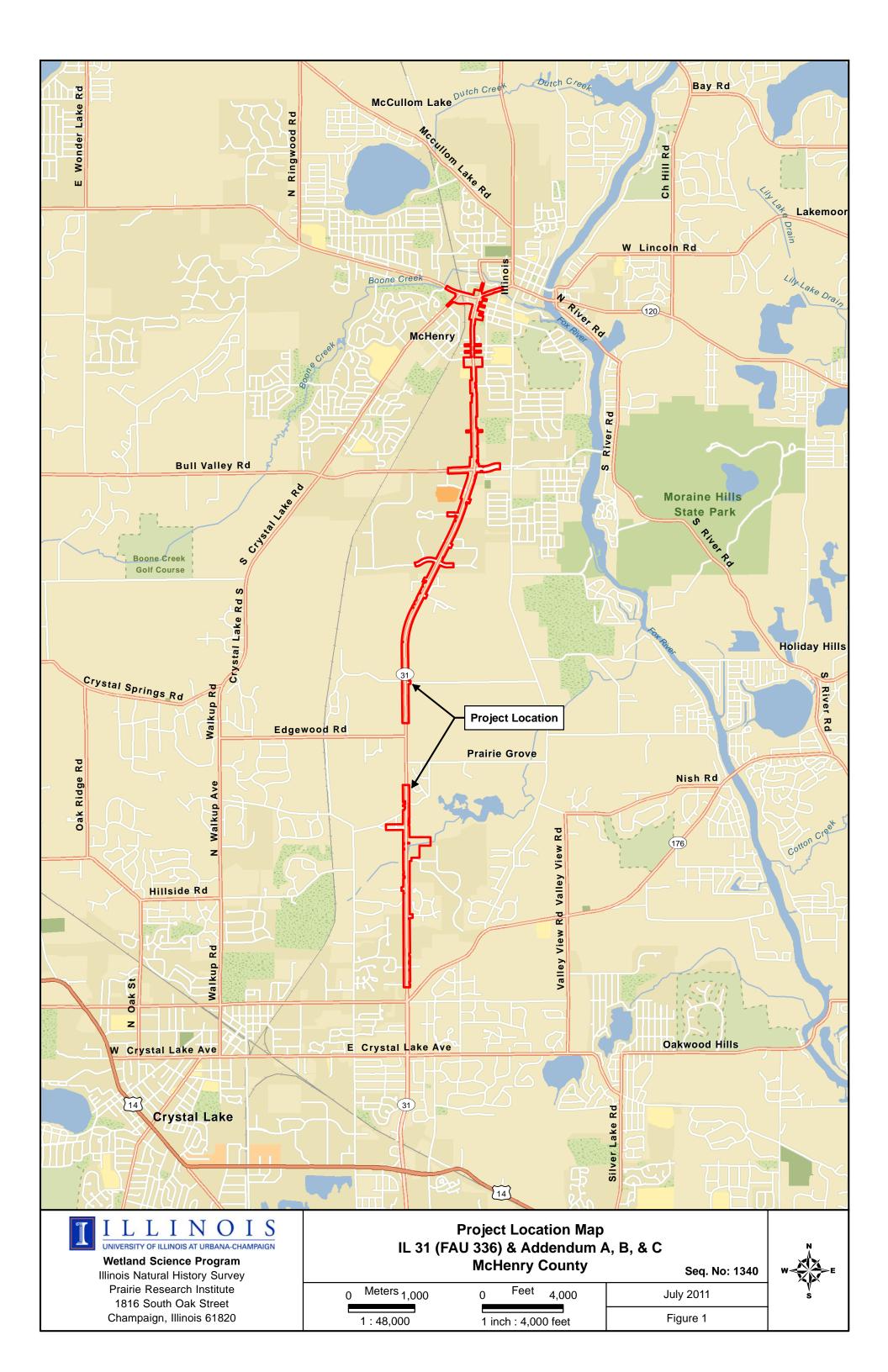
Figure 2 – National Wetland Inventory Maps

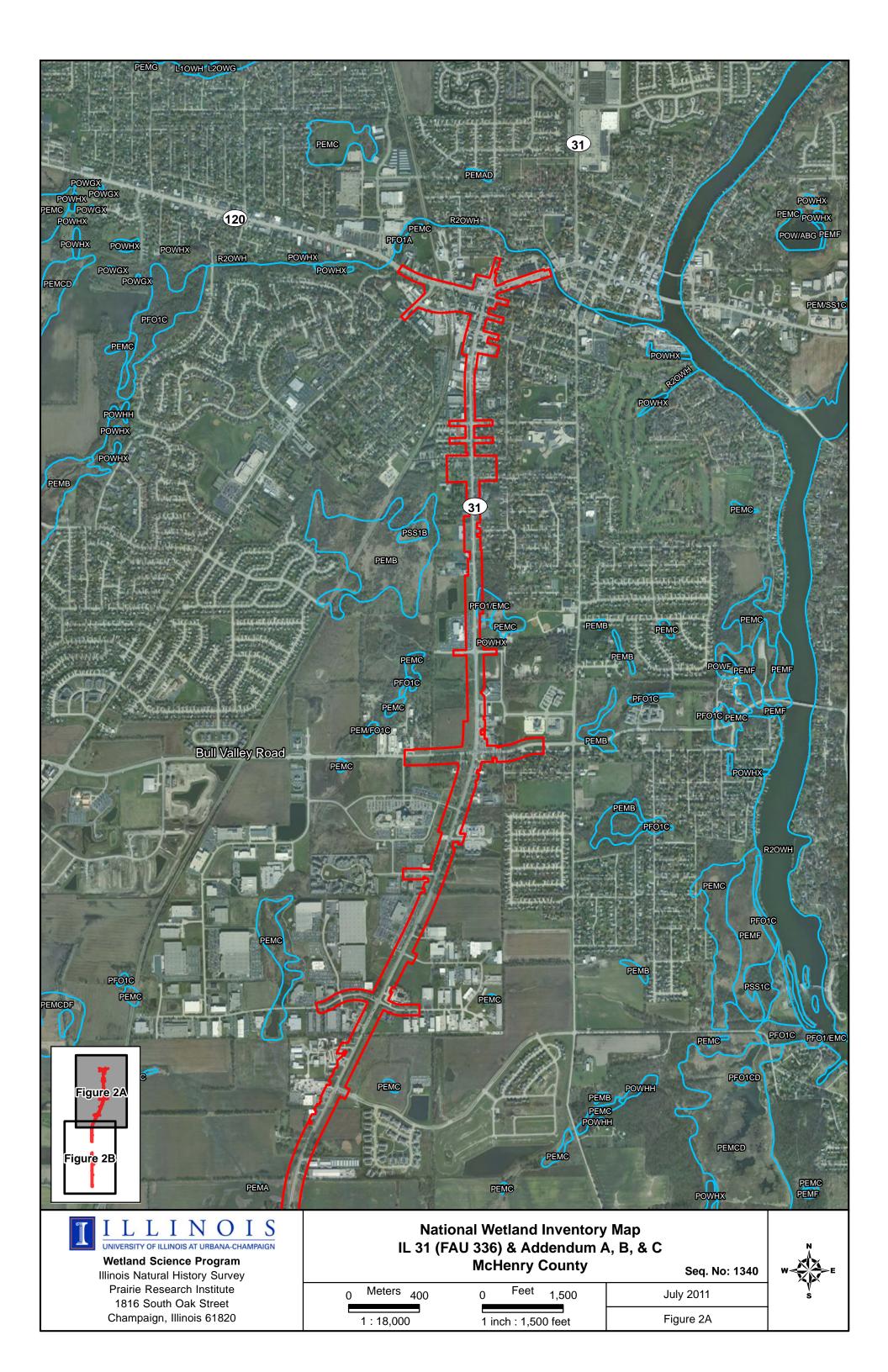
Figure 3 – ADID Wetland Maps

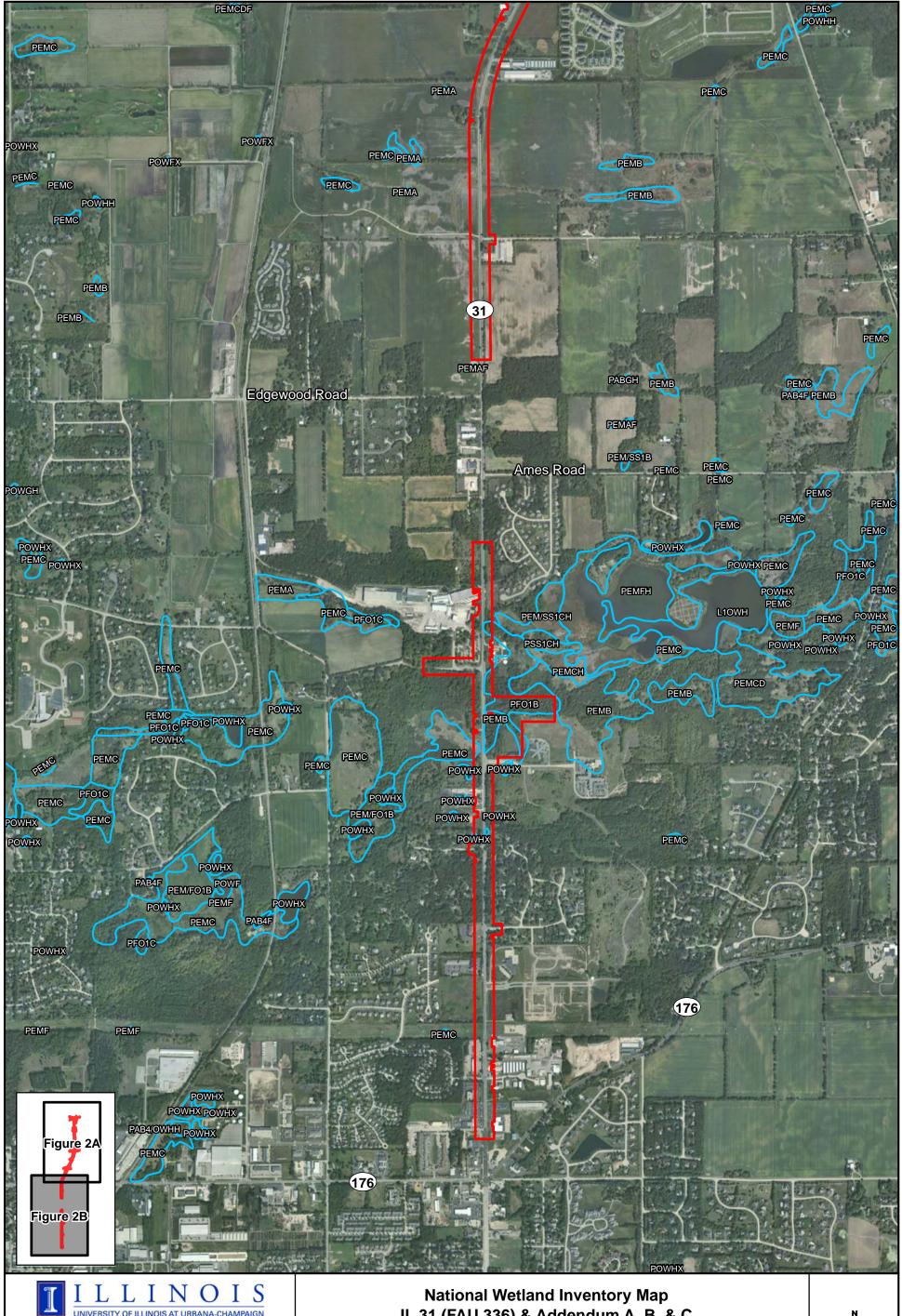
Figure 4 – Soil Survey Maps

Figure 5 – Wetland Delineation Overview Map

Figure 6 – Wetland Delineation Maps









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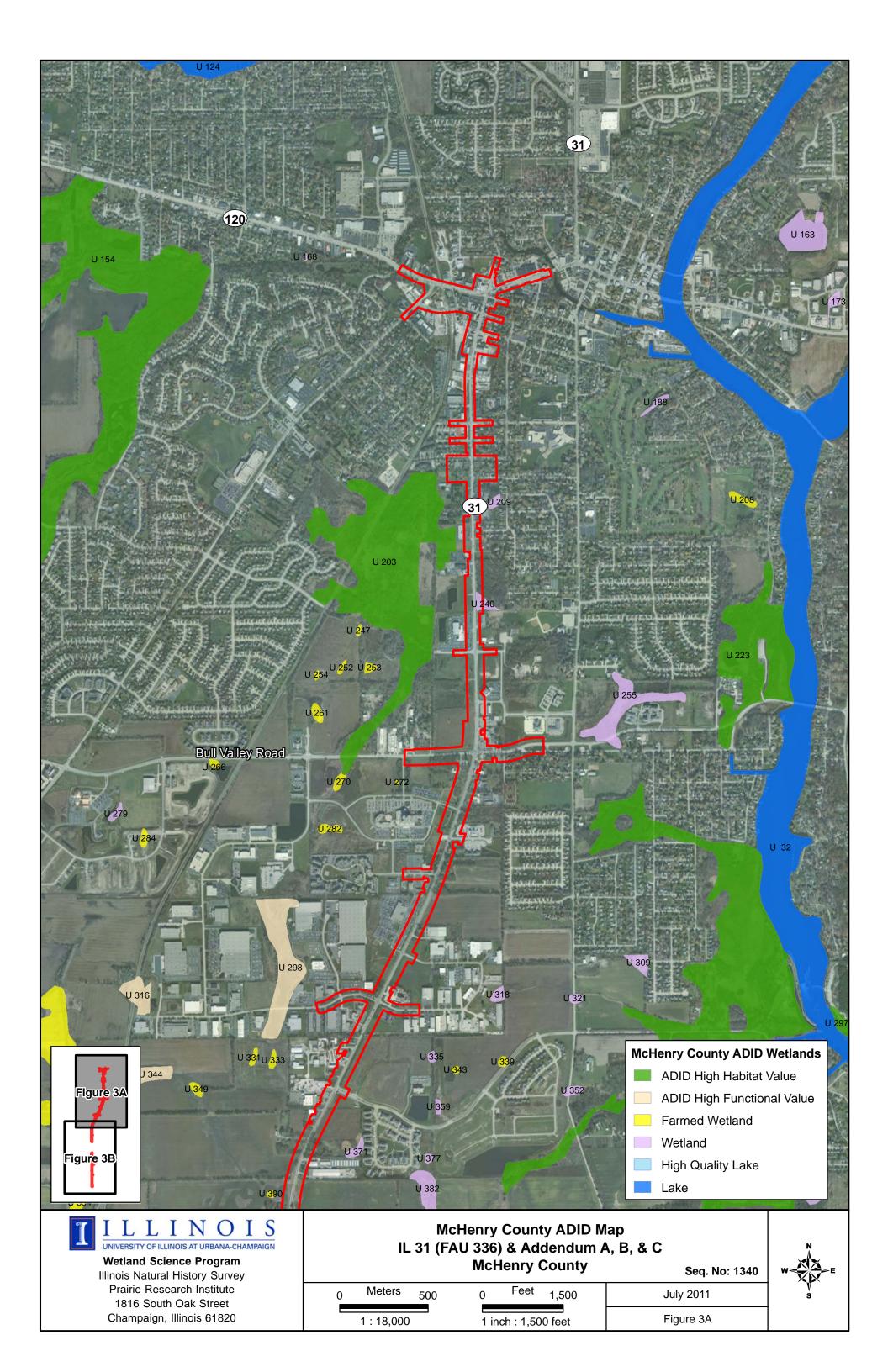
IL 31 (FAU 336) & Addendum A, B, & C **McHenry County**

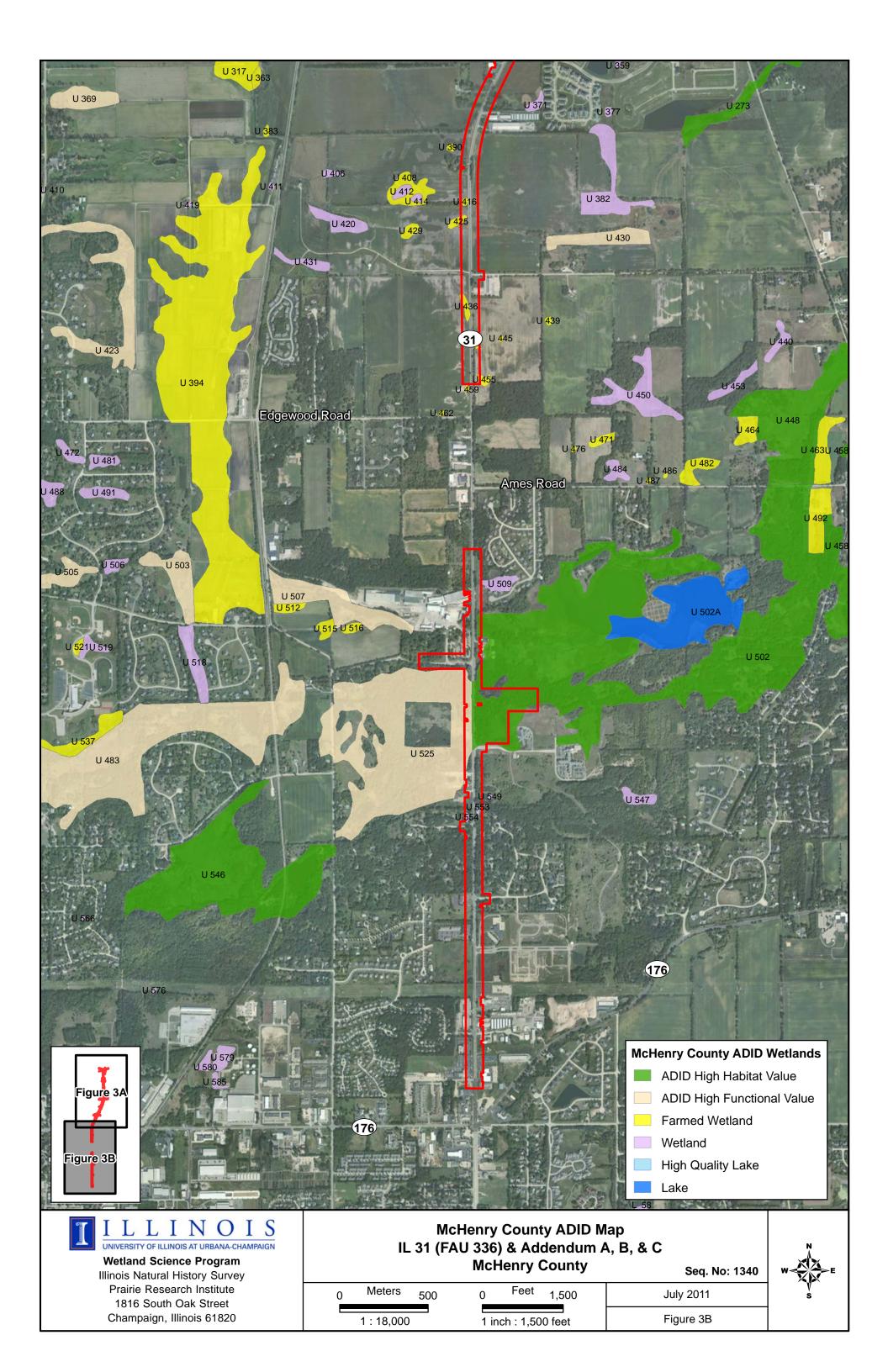
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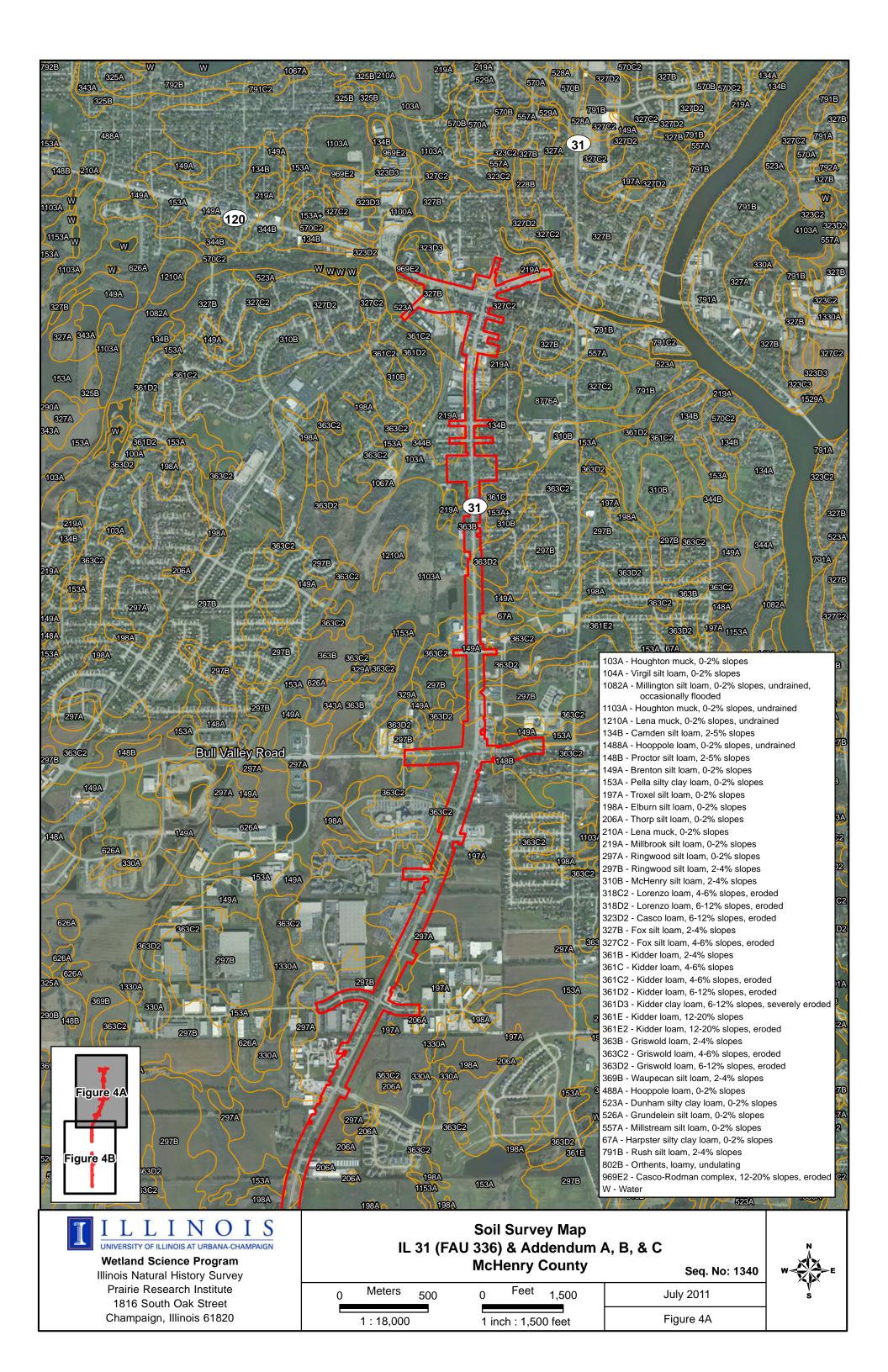
July 2011 Figure 2B

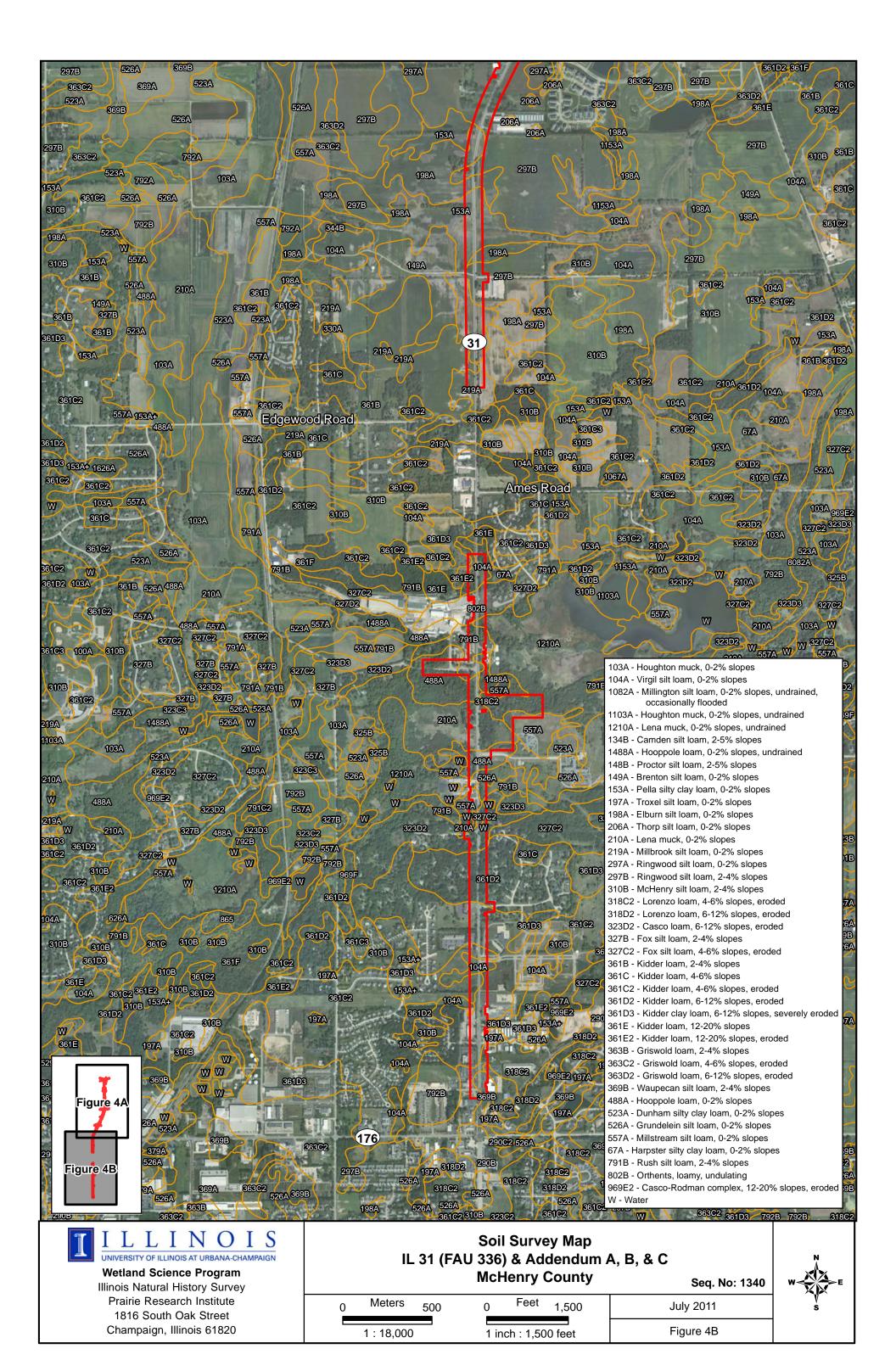


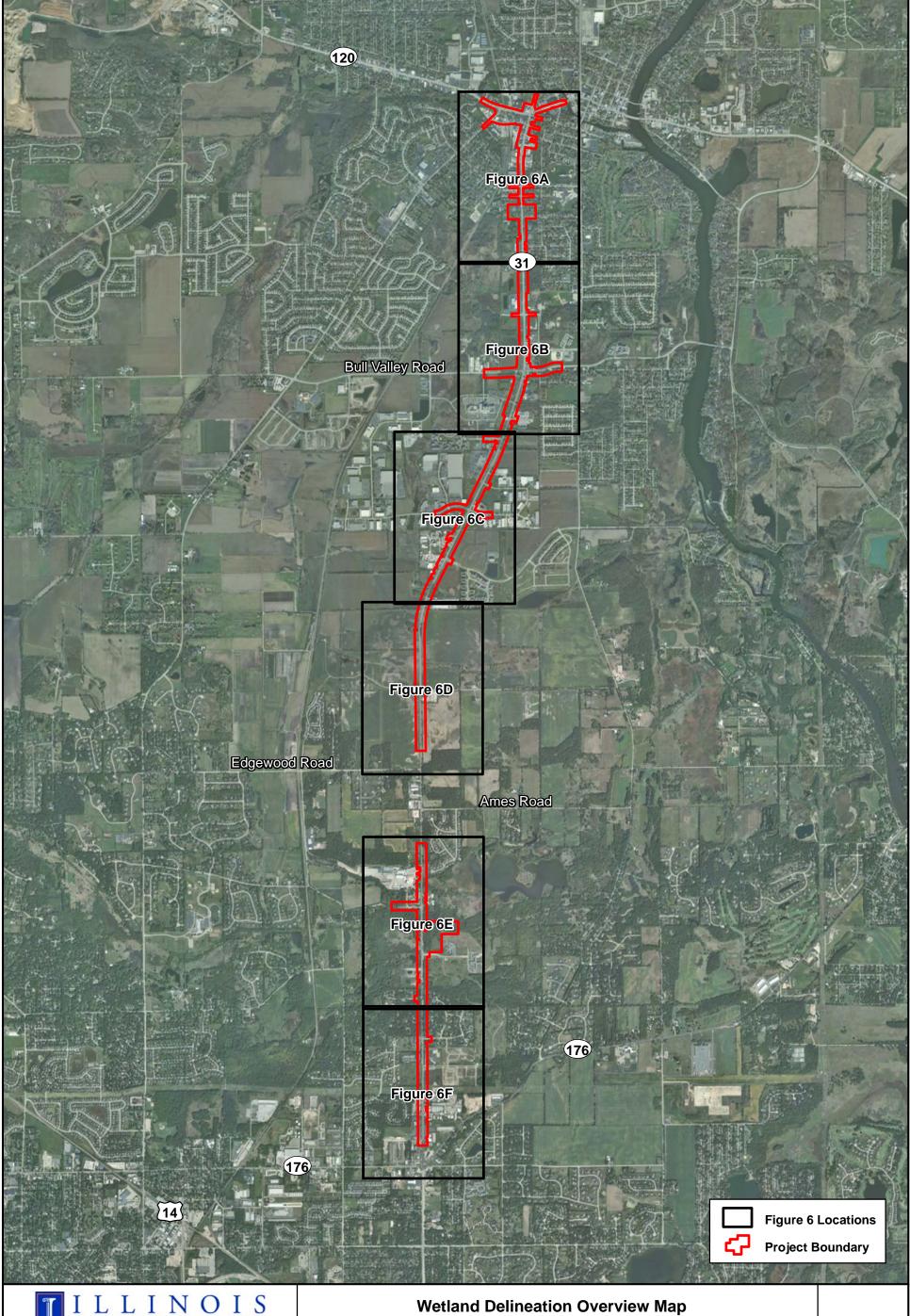
Meters 400 Feet 0 1,500 1:18,000 1 inch: 1,500 feet













Wetland Science Program

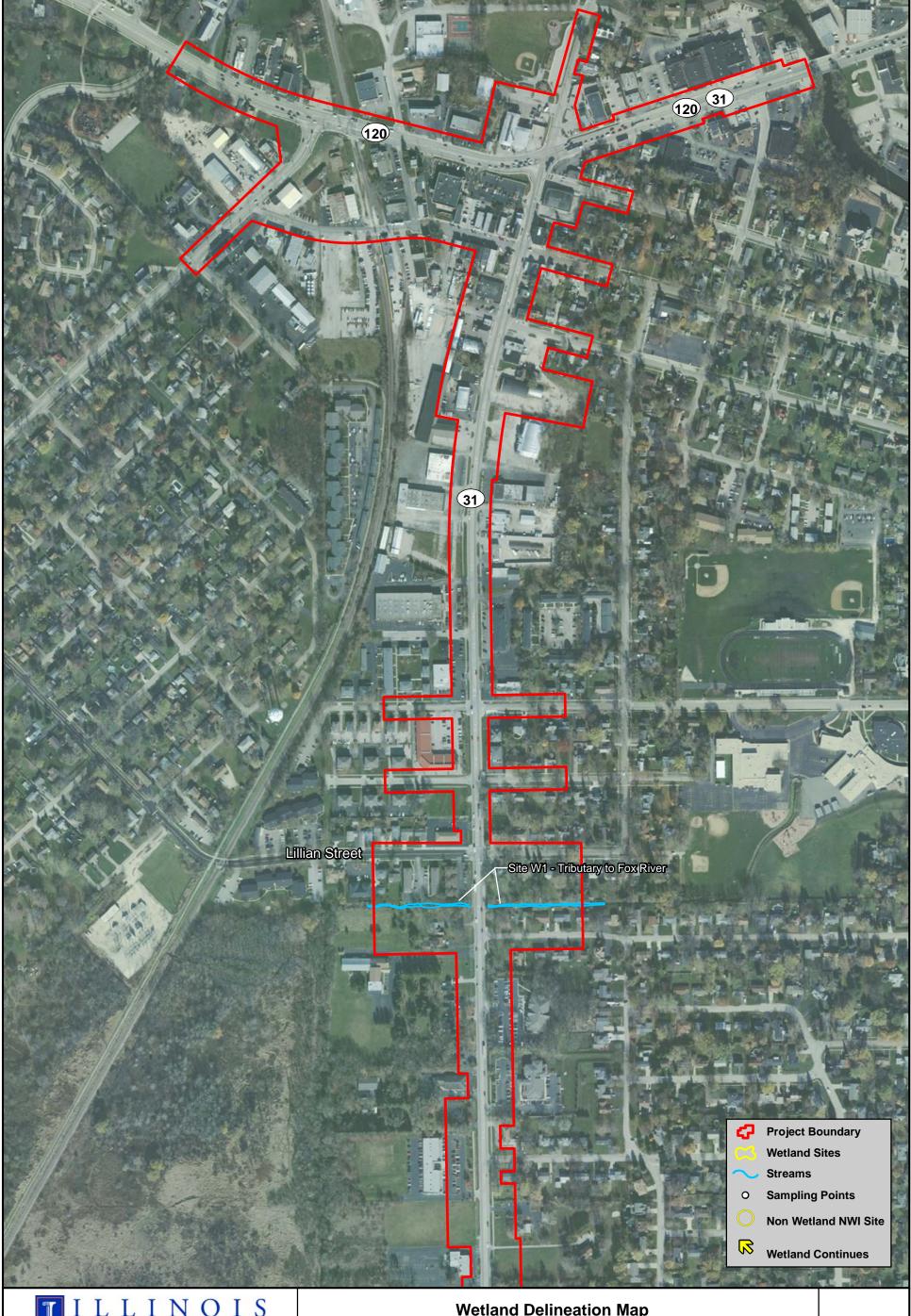
Illinois Natural History Survey Prairie Research Institute 1816 South Oak Street Champaign, Illinois 61820

Wetland Delineation Overview Map IL 31 (FAU 336) & Addendum A, B, & C **McHenry County**

Seq. No: 1340

Meters 800 Feet 0 3,000 July 2011 Figure 5 1 inch : 3,000 feet 1:36,000







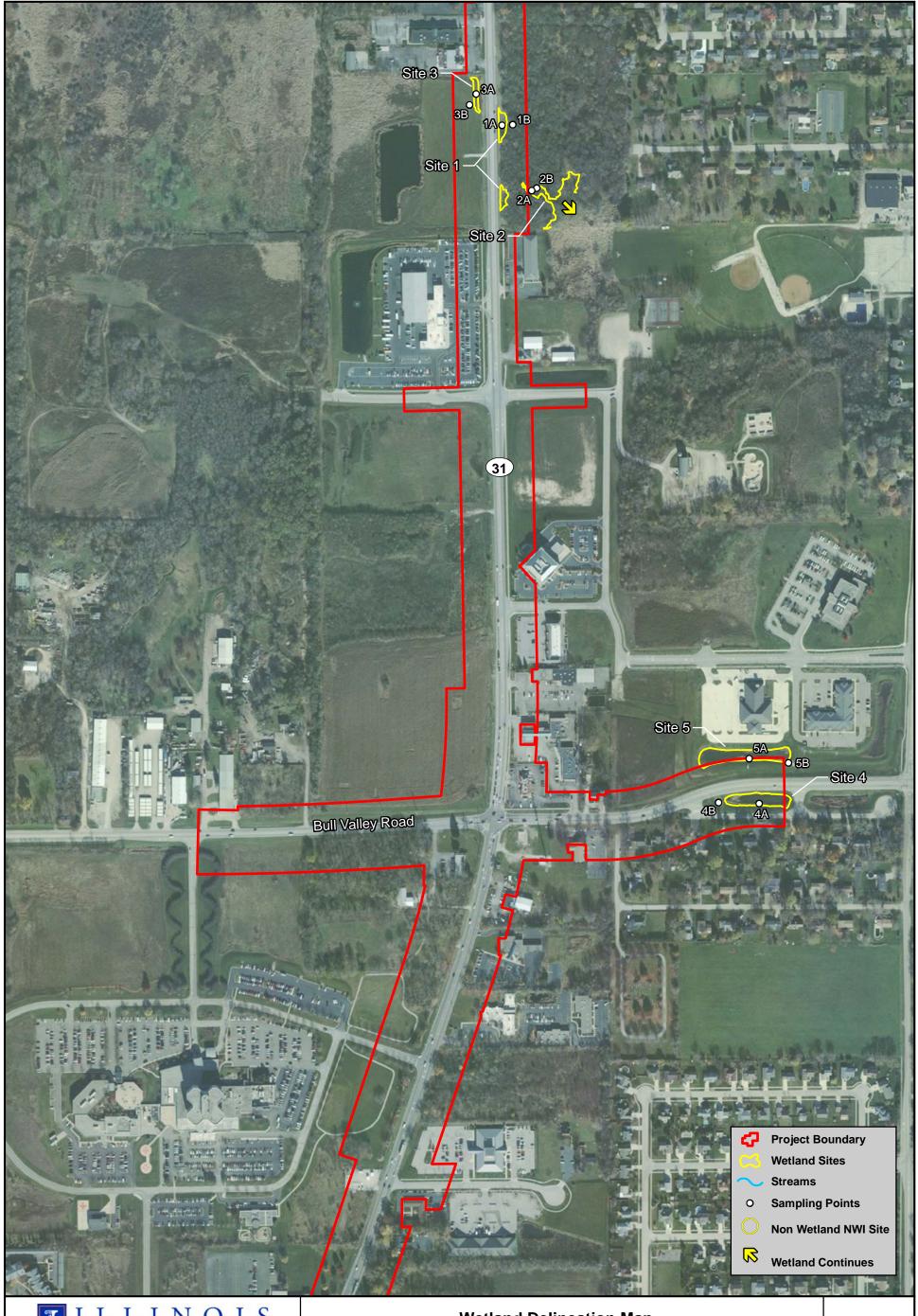
Wetland Delineation Map IL 31 (FAU 336) & Addendum A, B, & C **McHenry County**

Seq. No: 1340 Meters 100 Feet 400

1:4,800 1 inch : 400 feet

July 2011 Figure 6A







Champaign, Illinois 61820

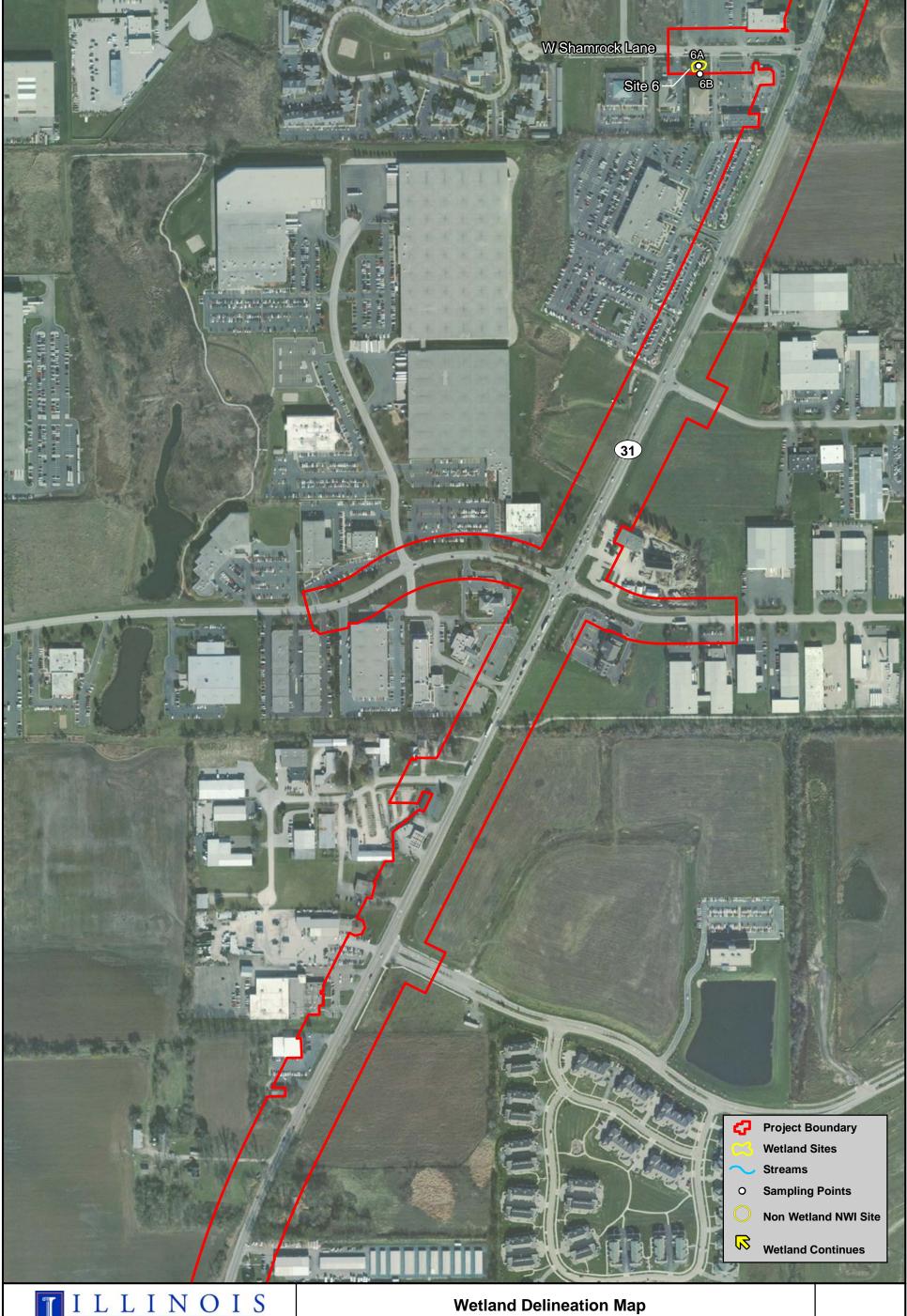
Wetland Delineation Map IL 31 (FAU 336) & Addendum A, B, & C McHenry County

S 100 0 Feet 400 July 2011

Meters 100 0 Feet 400 1:4,800 1 inch: 400 feet

July 2011 Figure 6B







Wetland Science Program Illinois Natural History Survey

Prairie Research Institute 1816 South Oak Street Champaign, Illinois 61820

IL 31 (FAU 336) & Addendum A, B, & C **McHenry County**

Feet

1 inch : 400 feet

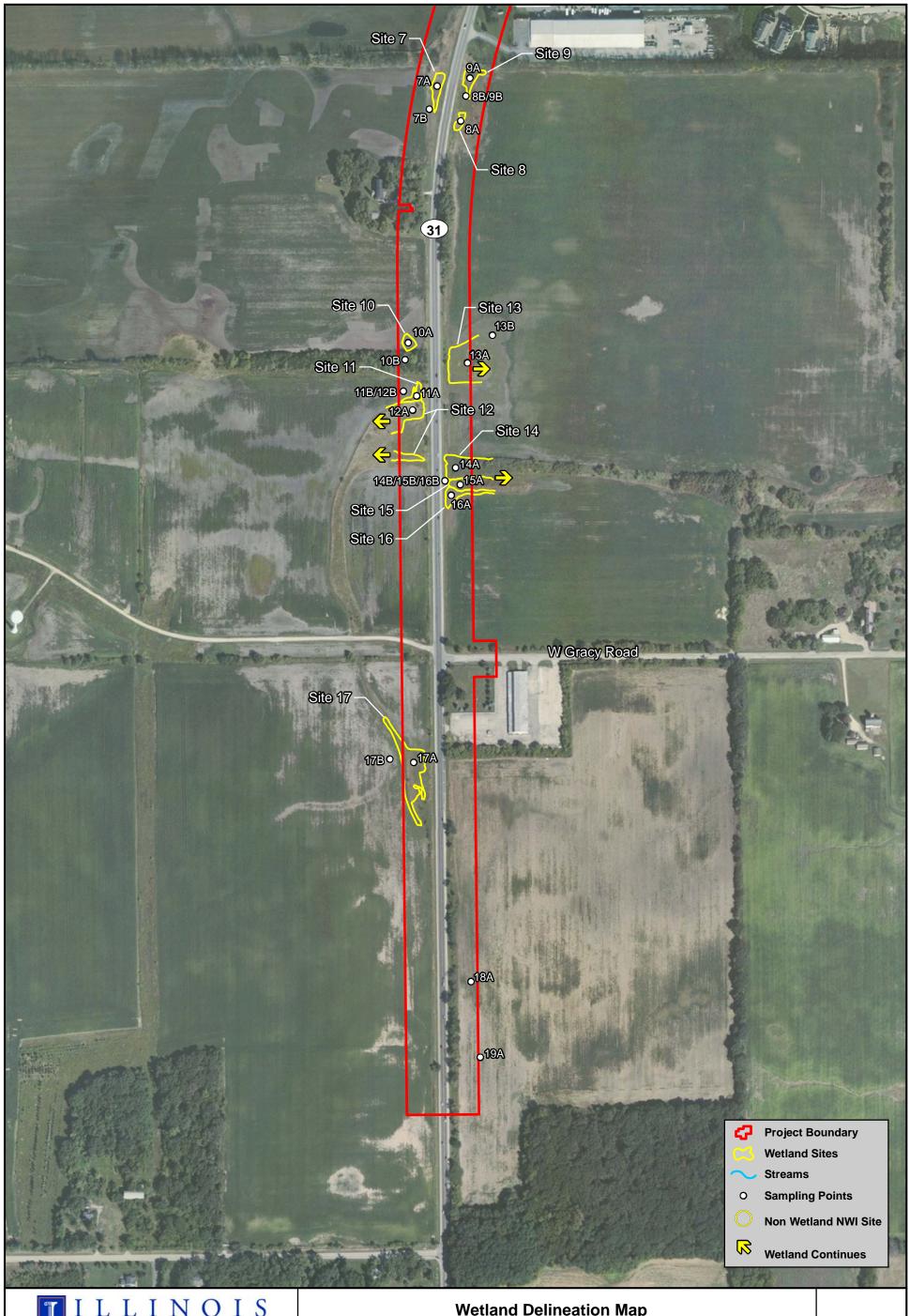
400

Meters 100

1:4,800

Seq. No: 1340

July 2011 Figure 6C





Wetland Delineation Map IL 31 (FAU 336) & Addendum A, B, & C **McHenry County**

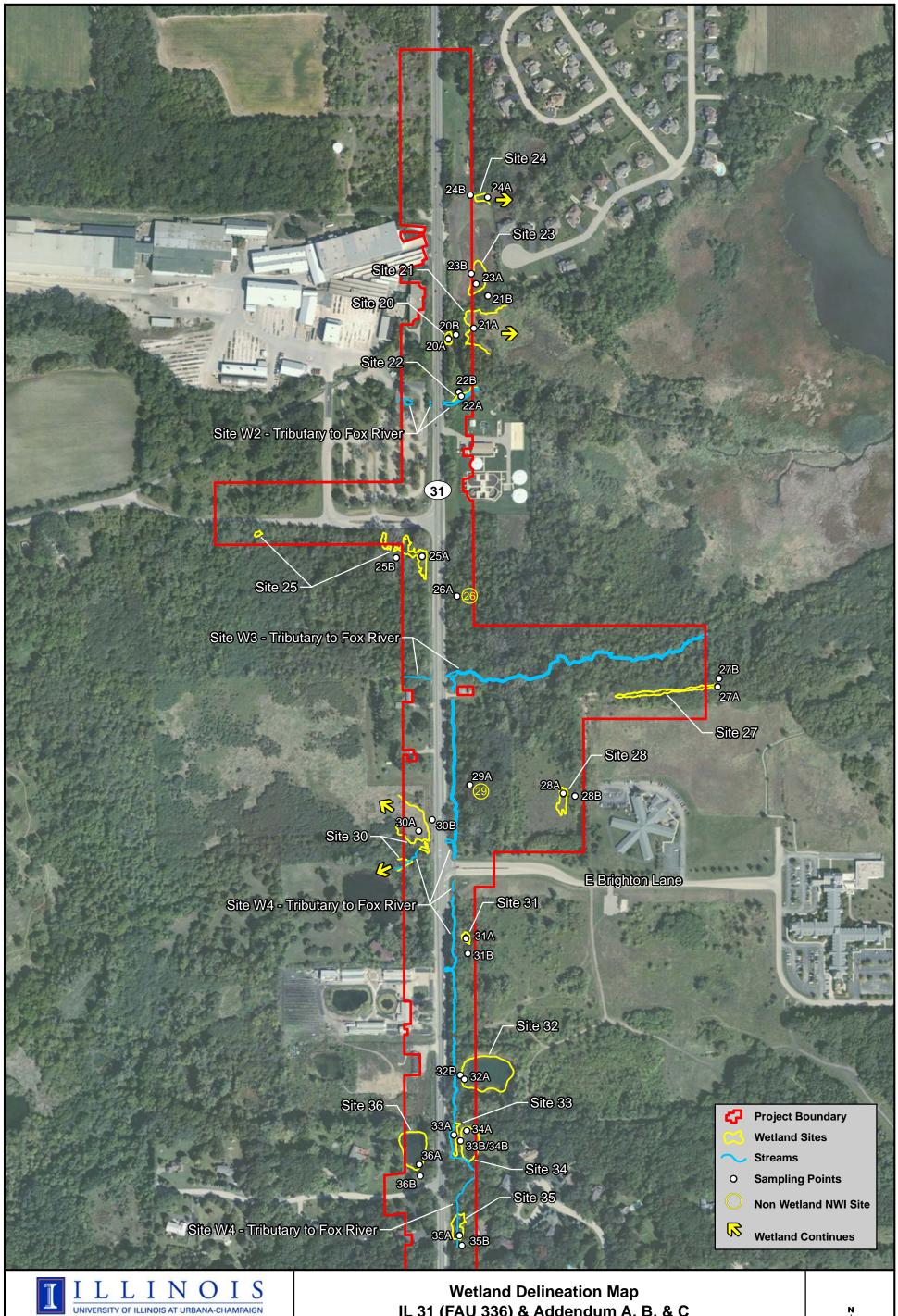
Seq. No: 1340

Meters ₁₀₀ 1:4,800

Feet 400

1 inch: 400 feet

July 2011 Figure 6D





IL 31 (FAU 336) & Addendum A, B, & C **McHenry County**

Feet

1 inch: 400 feet

400

0

Meters ₁₀₀

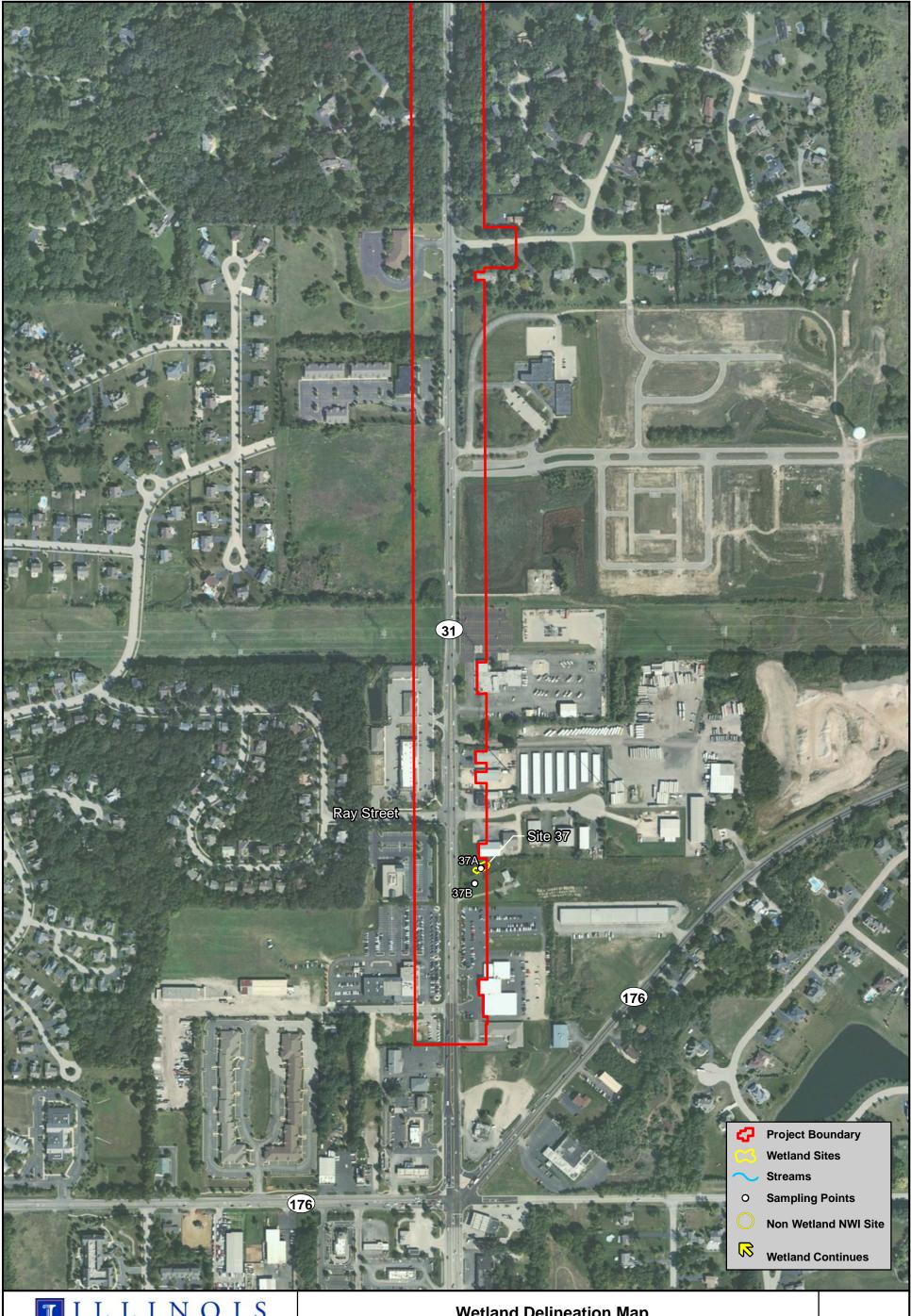
1:4,800

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Seq. No: 1340

July 2011 Figure 6E







Wetland Delineation Map IL 31 (FAU 336) & Addendum A, B, & C McHenry County

Feet

1 inch : 400 feet

400

Meters ₁₀₀

1:4,800

Seq. No: 1340

July 2011 Figure 6F



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)

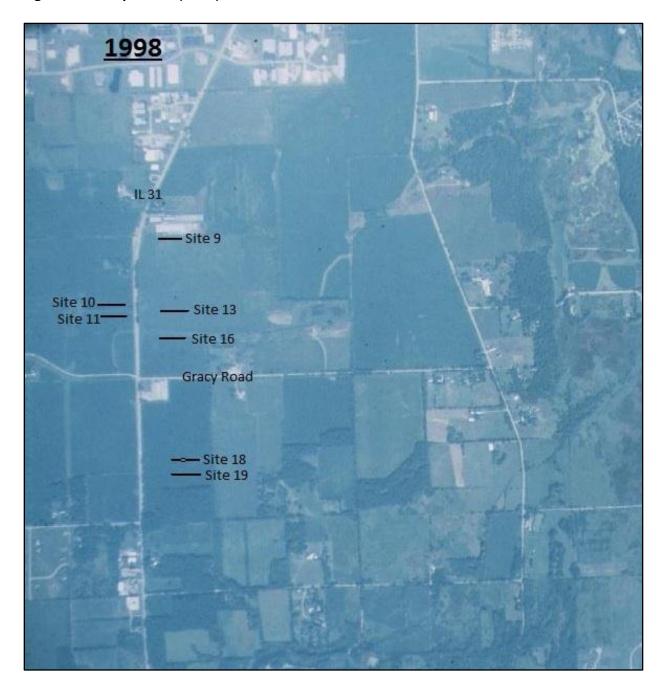


Figure 2D – Crop Photo (2001)

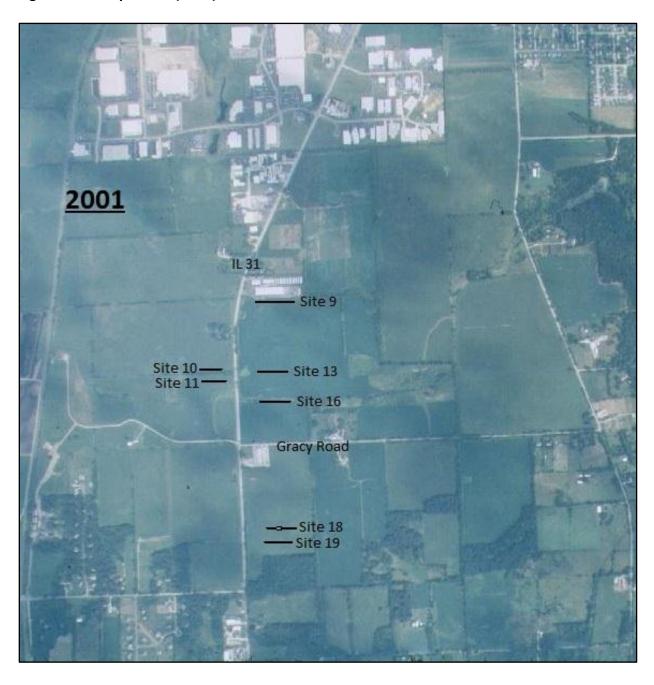


Figure 2E – Crop Photo (2004)



Table 1 – Wetland Signatures Table

Site #/Year	1994	1996	1998	2001	2004	NWI	NRCS
Site 9		Х		Χ	Χ		
Site 10		Х		Χ	Χ		FW
Site 11		Х	Χ		Х		
Site 13	Χ	Х	Χ	Χ	Х		
Site 16	Χ	Х		Χ	Χ		
Site 18					Х		
Site 19			Х				



WETLANDDETERMINATION 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
Illinois Natural History Survey
Wetland Science Program
1816 South Oak Street
Champaign, Illinois 61820
swiesbro@illinois.edu

(217) 333-8459 (Marcum)

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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 onsite 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 (VN), 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	HQAR⁴	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 mi² (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 mi² (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 mi² (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 mi² (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, <i>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

Project/Site: IL 31 (FAU 336)		_ City/Count	:y:_McHenry	/	Sampling Dat	e 9/9/2014	
Applicant/Owner: IDOT District 1				State: IL	Sampling Poi	nt_36C	
Investigator(s): Marcum, Kenney		Sec	tion, Towns	ship, Range: Sec.	27, T44N, R8E	=	
Landform (hillslope, terrace, etc.): Pond		L	ocal relief (concave, convex, r	none): Conca	ve	
Slope (%): 0 Lat: 42.26468		Long:88.2	28740		Datum: _I	NAD 83	
Soil Map Unit Name: NRCS mapped as Lena muck, 0-2% slo	pes; re	vised to Aqu	ent	NWI class	ification: POW	/Hx	
Are climatic/hydrologic conditions on the site typical for this tin	ne of ye	ear? Ye	es (If	no explain in Rema	arks.)		
Are Vegetation No , Soil No , or Hydrology No sign	nificantl	y disturbed?		Are "Normal Circ	umstances" pr	esent?	Yes
Are Vegetation No , Soil No , or Hydrology No natu	urally p	roblematic?		(If needed, expla	in any answers	s in Remark	s.)
SUMMARY OF FINDINGS - Attach site map sho	wing	sampling	point lo	cations, trans	ects, impo	rtant feat	ures, etc
Hydrophytic Vegetation Present? Yes			, i	,	, ,		
Hydric Soil Present? Yes		le the	Sampled .	Δτοα			
Wetland Hydrology Present? Yes			n a Wetlan		es		
Remarks: Community type is wetland pond.							
VEGETATION - Use scientific names of plants.							
	solute Cover		Indicator Status	Dominance Tes			
1.		•		 Number of Dom That are OBL, F 	•	:	(A)
2				Total Number of	Dominant		(//
3.				Species Across			(B)
4. 5.				Percent of DomiThat are OBL, F		<u>-</u>	
	0	= Total Co	ver			-	(A/B)
Sapling/Shrub Stratum (Plot size: 15 ft radius)				Prevalence Inde	ex worksneet: er of:		
1				OBL species		1 =	_
ა				FACW species	x	2 =	
4 5.				FAC species	x	3 =	
<u> </u>	0	= Total Co	ver	FACU species		4 =	
Herb Stratum (Plot size: 5 ft radius)		_		UPL species	x	5 =	
1. Typha angustifolia	85	Yes	OBL OBL	Column Totals	(A		(B)
Leersia oryzoides Agrostis alba	10 1	No No	FACW	Prevale	nce Index =B/	A =	_
4. Festuca elatior	1	No	FACU	Hydrophytic Ve	_		
5. Glechoma hederacea	1	No	FACU	✓ 1-Rapid Test	, , ,	J	n
6.				2-Dominance	e rest is >50% e Index is < or :		
7. 8.					cal Adaptation		supporting
9. 10.				data in Rema	arks or on a se Hydrophytic Ve	parate shee	t)
Woody Vine Stratum (Plot size: 30 ft radius)	98	_ = Total Co	ver	¹Indicators of hy must be present	dric soil and w	etland hydro	ology
1				Hydrophytic Vegetation			

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth	36C
Color (moist)	
0-3 10YR 2/1 95 10YR 4/6 5 C M SIL 7-13 10YR 6/1 100 SIL 7-13 10YR 6/1 100 SIL 7-14 10YR 6/1 100 SIL 7-15 10YR 6/1 100 SIL 8-15 SICL 1-17	
3-7 10YR 3/1 1000 SIL 7-13 10YR 6/1 1000 SICL 8-15 SICL 8-15 SICL 8-15 SICL 1-15 SICR 1-15 SICL 1	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. **Indicators for Problematic Hydric S Indicators for Problematic Hydric S Indicators for Problematic Hydric S Indicators for Problematic Hydric S Indicators for Problematic Hydric S Indicators for Problematic Hydric S Indicators for Problematic Hydric S Indicators for Problematic Hydric S Indicators for Problematic Hydric S Indicators for Problematic Hydric S Indicators for Problematic Hydric S Indicators for Problematic Hydric S Indicators for Problematic Hydric S Indicators for Problematic Hydric S Indicators for Problematic Hydric S Indicators for Problematic Hydric S Indicators for Problematic Hydric S Indicators for Problematic Hydric S Indicators for Problematic Hydric S Indicators for Problematic Hydric S Indicator S for S for S for S	
Hydric Soil Indicators: Histosol (A1)	
Hydric Soil Indicators: Histosol (A1)	
Histosol (A1)	
Histic Epipedon (A2)	oils [°] :
Black Histic (A3)	
Hydrogen Sulfide (A4)	
Stratified Layers (A5)	
□ 2 cm Muck (A10) □ Depleted Matrix (F3) □ Depleted Below Dark Surface (A12) □ Depleted Dark Surface (F6) □ Thick Dark Surface (A12) □ Depleted Dark Surface (F7) □ Indicators of hydrophytic vegetat wetland hydrology must be presen disturbed or problematic. □ S cm Mucky Peat or Peat (S3) □ S cm Mucky Peat (S4) □ S cm Mucky Peat (S4	⁻ 12)
✓ Depleted Below Dark Surface (A11) Redox Dark Surface (F6) □ Thick Dark Surface (A12) □ Depleted Dark Surface (F7) □ Sandy Mucky Mineral (S1) □ Redox Depressions (F8) □ 5 cm Mucky Peat or Peat (S3) wetland hydrology must be present disturbed or problematic. Restrictive Layer (if observed): Type: □ Depth (inches): Hydric Soil Present? Yes Hydric Soil Present? Yes Hydric Soil Present? Yes Hydric Soil Present? Yes Hydric Soil Present? Yes Hydric Soil Present? Yes Present (Indicators (minimum of two is required): (minimum of two is required: (m	
Thick Dark Surface (A12) □ Depleted Dark Surface (F7) 3 Indicators of hydrophytic vegetat wetland hydrology must be present disturbed or problematic. Sandy Mucky Mineral (S1) □ Redox Depressions (F8) Redox Depression	
Sandy Mucky Mineral (S1)	
Starty	
Restrictive Layer (if observed): Type:	i, uilless
Type:	
Depth (inches):	
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required: check all that apply) ✓ Surface Water (A1) ✓ High Water Table (A2) ✓ Aquatic Fauna (B13) ✓ Saturation (A3) ✓ True Aquatic Plants (B14) — Water Marks (B1) — Water Marks (B1) — Hydrogen Sulfide Odor (C1) — Sediment Deposits (B2) — Oxidized Rhizospheres on Living Roots (C3) — Drift Deposits (B3) — Presence of Reduced Iron (C4) — Algal Mat or Crust (B4) — Secondary Indicators (minimum of two is required) — Surface Soil Cracks (B6) — Drainage Patterns (B10) — Dry-Season Water Table ✓ Crayfish Burrows (C8) — Saturation Visible on Aer Imagery (C9) — Stunted or Stressed Plar	
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required: check all that apply) ✓ Surface Water (A1) ✓ High Water Table (A2) ✓ Aquatic Fauna (B13) ✓ Saturation (A3) ✓ True Aquatic Plants (B14) ✓ Water Marks (B1) ✓ Hydrogen Sulfide Odor (C1) ✓ Crayfish Burrows (C8) ✓ Sediment Deposits (B2) ✓ Drift Deposits (B3) ✓ Presence of Reduced Iron (C4) ✓ Algal Mat or Crust (B4)	
Wetland Hydrology Indicators: Secondary Indicators Primary Indicators (minimum of one is required: check all that apply) (minimum of two is required) ✓ Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) ✓ High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) ✓ Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aer Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plar Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)	
Primary Indicators (minimum of one is required: check all that apply) ✓ Surface Water (A1) ✓ High Water Table (A2) ✓ Aquatic Fauna (B13) ✓ Saturation (A3) ✓ True Aquatic Plants (B14) ✓ Water Marks (B1) ✓ Sediment Deposits (B2) ✓ Drift Deposits (B3) ✓ Presence of Reduced Iron (C4) ✓ Algal Mat or Crust (B4) ✓ Comparable Resition (C6)	
✓ Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) ✓ High Water Table (A2) ✓ Aquatic Fauna (B13) Drainage Patterns (B10) ✓ Saturation (A3) ✓ True Aquatic Plants (B14) Dry-Season Water Table Water Marks (B1) Hydrogen Sulfide Odor (C1) ✓ Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aer Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plar Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)	
✓ High Water Table (A2) ✓ Aquatic Fauna (B13) □ Drainage Patterns (B10) ✓ Saturation (A3) ✓ True Aquatic Plants (B14) □ Dry-Season Water Table □ Water Marks (B1) □ Hydrogen Sulfide Odor (C1) ✓ Crayfish Burrows (C8) □ Sediment Deposits (B2) □ Oxidized Rhizospheres on Living Roots (C3) □ Saturation Visible on Aer □ Drift Deposits (B3) □ Presence of Reduced Iron (C4) □ Imagery (C9) □ Algal Mat or Crust (B4) □ Recent Iron Reduction in Tilled Soils (C6) □ Stunted or Stressed Plar	
✓ Saturation (A3) ✓ True Aquatic Plants (B14) □ Dry-Season Water Table □ Water Marks (B1) □ Hydrogen Sulfide Odor (C1) ✓ Crayfish Burrows (C8) □ Sediment Deposits (B2) □ Oxidized Rhizospheres on Living Roots (C3) □ Saturation Visible on Aer □ Drift Deposits (B3) □ Presence of Reduced Iron (C4) □ Imagery (C9) □ Algal Mat or Crust (B4) □ Recent Iron Reduction in Tilled Soils (C6)	
Water Marks (B1) Hydrogen Sulfide Odor (C1) ✓ Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aer Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Imagery (C9) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)	.==.
Sediment Deposits (B2) □ Oxidized Rhizospheres on Living Roots (C3) □ Saturation Visible on Aer □ Drift Deposits (B3) □ Presence of Reduced Iron (C4) □ Imagery (C9) □ Algal Mat or Crust (B4) □ Recent Iron Reduction in Tilled Soils (C6) □ Stunted or Stressed Plar	(C2)
□ Drift Deposits (B3) □ Presence of Reduced Iron (C4) □ Imagery (C9) □ Algal Mat or Crust (B4) □ Recent Iron Reduction in Tilled Soils (C6) □ Stunted or Stressed Plan	
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plar	iai
Geometric Position (D)	its (D1)
Thirt Population (D5)	• /
Gauge of Well Data (Da)	
Field Observations: Surface Water Present? Yes Depth (inches): <72	
Water Table Present? Yes Depth (inches): 0	
Saturation Present? Yes Depth (inches): 0 Wetland Hydrology Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	

Remarks:

Project/Site: IL 31 (FAU 336)		_City/Count	y: McHenry	Sampling D	ate 9/9/2014	
Applicant/Owner: IDOT District 1				_ State: IL Sampling P	oint 36D/45B	
Investigator(s): Marcum, Kenney		Sec	tion, Towns	hip, Range: Sec. 27, T44N, R	8E	
			ocal relief (d	concave, convex, none): Conv	/ex	
Slope (%): <5 Lat: 42.26464		Long: -88.2	8761	Datum:	NAD 83	
Soil Map Unit Name: NRCS mapped as Lena muck, 0-2		· · · · · · · · · · · · · · · · · · ·				
Are climatic/hydrologic conditions on the site typical for the				no explain in Remarks.)		
Are Vegetation No , Soil No , or Hydrology No				Are "Normal Circumstances"	present? '	Yes
Are Vegetation No , Soil No , or Hydrology No				(If needed, explain any answe		
SUMMARY OF FINDINGS - Attach site map	_		point lo			
Hydrophytic Vegetation Present? Yes			<u> </u>	<u> </u>		
Hydric Soil Present? No		lo the	Sampled A	A		
Wetland Hydrology Present? No			า a Wetland			
Remarks: Community type is non-native grassland. VEGETATION - Use scientific names of plant	 S.					
	Absolute	Dominant	Indicator	Dominance Test workshee		
Tree Stratum (Plot size: 30 ft radius	% Cover	Species?	Status	Number of Dominant Specie		
1. Acer saccharinum	15	Yes	FACW	That are OBL, FACW, or FA		(A)
2. 3.				Total Number of Dominant Species Across All Strata:	2	
3. 4.				Percent of Dominant Specie		(B)
5.				That are OBL, FACW, or FA		(A/B)
Sapling/Shrub Stratum (Plot size: 15 ft radius)	15	= Total Co	ver	Prevalence Index workshee		(,,,,)
1.				Total % Cover of:		_
2				OBL species	x 1 =	
3. 4.				FACW species	x 2 =	
5.				FAC species	x 3 =	_
	0	= Total Co	ver		x 4 =	_
Herb Stratum (Plot size: 5 ft radius)	0.5	V	E40	UPL species	x 5 =	
Poa pratensis Glechoma hederacea	85 15	Yes No	FAC FACU			_ (B)
3. Festuca elatior	10	No	FACU	Prevalence Index =		
4. Plantago rugelii	3	No	FAC	Hydrophytic Vegetation Ind		
5. Taraxacum officinale 6.	2	No	FACU	1-Rapid Test for Hydroph✓ 2-Dominance Test is >50	-	1
7.				3-Prevalence Index is < 0		
0				4-Morphological Adaptation		
9				data in Remarks or on a s		•
10		T		7	`	. ,
Woody Vine Stratum (Plot size: 30 ft radius)	115	= Total Co	ver	¹ Indicators of hydric soil and must be present, unless dist		
1				Hydrophytic	<u>'</u>	
2				Vegetation Vos	ŧ.	
	0	= Total Co	ver	Present?		
Remarks: (Include photo numbers here or on a separa	te sheet.)					

SOIL Sampling Point: 36D/45B

-		tne aeptn r	needed to document the in		confirm tl	ne absence o	i ilidicators.j
Depth (inches) Color	Matrix (moist)		Redox Feature Color (moist) %	1	Loc²	Texture	Remarks
0-6 10YR 2/		100	Color (molety /	1,700	200	SIL	Tromaine
6-13 10YR 5/	2	100				SIL	
Type: C=Concentration	, D=Depletior	n, RM=Redu	uced Matrix, MS=Masked S	and Grains.		² Loca	tion: PL=Pore Lining, M=Matrix
lydric Soil Indicators					ı	ndicators for	Problematic Hydric Soils ³ :
Histosol (A1) Histic Epipedon (A Black Histic (A3) Hydrogen Sulfide (Stratified Layers (A 2 cm Muck (A10) Depleted Below Da Thick Dark Surface Sandy Mucky Mine	A4) 5) ark Surface (A e (A12)	.11)	Sandy Gleyed Matrix Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral Loamy Gleyed Matrix Depleted Matrix (F3) Redox Dark Surface (Depleted Dark Surface Redox Depressions (F	F6) (F7)		Dark St	Prairie Redox (A16) urface (S7) unganese Masses (F12) nallow Dark Surface (TF12) Explain in Remarks) of hydrophytic vegetation and
Sandy Mucky Mille 5 cm Mucky Peat of Restrictive Layer (if of Type:	or Peat (S3)		Redox Depressions (r	-6)	<u>u</u> ,	di	sturbed or problematic.
Depth (inches):			_		ну	dric Soil Pre	sent? No
	dicators:					Seco	ndary Indicators
Wetland Hydrology Inc		s required: o	check all that apply)				ndary Indicators num of two is required)
Wetland Hydrology Inc Primary Indicators (min Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Inundation Visible or Sparsely Vegetated	mum of one is 2) B2) 34) n Aerial Image	ery (B7)	check all that apply) Water-Stained Leav Aquatic Fauna (B13) True Aquatic Plants Hydrogen Sulfide Or Oxidized Rhizosphe Presence of Reduce Recent Iron Reducti Thin Muck Surface (Gauge or Well Data Other (Explain in Re	(B14) (dor (C1) res on Living ed Iron (C4) on in Tilled S (C7) (D9)		(minir S D D C S S S Ir S G	•
Wetland Hydrology Inc Primary Indicators (min Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5)	mum of one is 2) B2) A Aerial Image Concave Surf No No No	ery (B7)	Water-Stained Leav Aquatic Fauna (B13 True Aquatic Plants Hydrogen Sulfide Or Oxidized Rhizosphe Presence of Reduce Recent Iron Reducti Thin Muck Surface (Gauge or Well Data Other (Explain in Rethes):	(B14) (dor (C1) res on Living ed Iron (C4) on in Tilled S (C7) (D9)	Soils (C6)	(minir S D D C S S S Ir S G	num of two is required) urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial nagery (C9) tunted or Stressed Plants (D1) eomorphic Position (D2) AC-Neutral Test (D5)
Wetland Hydrology Inc Primary Indicators (min Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Inundation Visible or Sparsely Vegetated Field Observations: Surface Water Present? Water Table Present? Saturation Present? includes capillary fringer	B2) B4) A Aerial Image Concave Surf No No No No	ery (B7) face (B8) Depth (incl Depth (incl Depth (incl	Water-Stained Leav Aquatic Fauna (B13 True Aquatic Plants Hydrogen Sulfide Or Oxidized Rhizosphe Presence of Reduce Recent Iron Reducti Thin Muck Surface (Gauge or Well Data Other (Explain in Rethes):	(B14) (B14) dor (C1) res on Living ed Iron (C4) on in Tilled S (C7) (D9) emarks)	Soils (C6)	(minir S S D C S S S S S S S S S	num of two is required) urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial nagery (C9) tunted or Stressed Plants (D1) eomorphic Position (D2) AC-Neutral Test (D5)

Project/Site: IL 31 (FAU 336)	U	ty/County: IVICHenr	y Sampi	ing Date 9/8/2014
Applicant/Owner: IDOT District 1			State: IL Sampl	ing Point 38A
Investigator(s): Marcum, Kenney		Section, Town	ship, Range: Sec. 2, T44N	N, R8E
Landform (hillslope, terrace, etc.): Pond		Local relief	(concave, convex, none): _	Concave
Slope (%): 0 Lat: 42.32834	Lor	ng:88.27595	Da	atum: NAD 83
Soil Map Unit Name: NRCS mapped as Houghton mud	ck, 0-2% slopes, u	ndrained; revised to	Aquol NWI classification	n:_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 dis	sturbed?	Are "Normal Circumstan	ces" present? Yes
Are Vegetation No , Soil No , or Hydrology No	naturally proble	ematic?	(If needed, explain any a	inswers in Remarks.)
SUMMARY OF FINDINGS - Attach site ma	p showing sa	mpling point lo	ocations, transects, i	important features, e
Hydrophytic Vegetation Present? Yes				
Hydric Soil Present? Yes		Is the Sampled	Area	
Wetland Hydrology Present? Yes		within a Wetlan		
Remarks: Community type is wetland pond.				
Remarks. Community type is wettand pond.				
VEGETATION - Use scientific names of plan	its.			
		ominant Indicator	Dominance Test work	sheet:
Tree Stratum (Plot size: 30 ft radius)	% Cover S	pecies? Status	Number of Dominant Sp	
1.			That are OBL, FACW, of Total Number of Domin	(/
2			Species Across All Stra	
4.			Percent of Dominant Sp	pecies
5		Total Cover	That are OBL, FACW, o	or FAC: (A/E
Sapling/Shrub Stratum (Plot size: 15 ft radius)			Prevalence Index work	
1			Total % Cover of: OBL species	
2. 3.			FACW species	x 1 = x 2 =
4			FAC species	x 3 =
5		T / 10		x 4 =
Herb Stratum (Plot size: 5 ft radius)	0 =	Total Cover	UPL species	x 5 =
Leersia oryzoides	70	Yes OBL	Column Totals	(A) (B)
2. Phalaris arundinacea	30 1	Yes FACW	Prevalence Ind	ex =B/A =
Dipsacus laciniatus 4.	1	No UPL	Hydrophytic Vegetation	n Indicators
5.			✓ 1-Rapid Test for Hyd	Irophytic Vegetation
6			2-Dominance Test is	
7. 8			3-Prevalence Index i	s < or =3.01 ptations1 (Provide supporti
8. 9.			data in Remarks or c	
10			Problematic Hydroph	nytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 30 ft radius)	101 =	Total Cover	¹ Indicators of hydric soil must be present, unless	and wetland hydrology s disturbed or problematic.
1.			Hydrophytic	·
2	0 =	Total Cover	Vegetation Present?	Yes
Remarks: (Include photo numbers here or on a separ	ate sheet.)			
, , , , , , , , , , , , , , , , , , , ,	· - · ,			

Sampling Point: 38A SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Depth (inches) Color (moist) % Color (moist) Type¹ Loc2 Texture Remarks % 0-26 10YR 2/1 100 26-34 2.5Y 5/1 93 7.5YR 4/6 7 С М SICL Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils³: Sandy Gleyed Matrix (S4) Histosol (A1) Coast Prairie Redox (A16) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) ☐ Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) ☐ Very Shallow Dark Surface (TF12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) 2 cm Muck (A10) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) ³ Indicators of hydrophytic vegetation and ✓ Thick Dark Surface (A12) Depleted Dark Surface (F7) wetland hydrology must be present, unless Sandy Mucky Mineral (S1) Redox Depressions (F8) disturbed or problematic. 5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: Hydric Soil Present? Yes Depth (inches): Remarks: **HYDROLOGY Wetland Hydrology Indicators:** Secondary Indicators (minimum of two is required) Primary Indicators (minimum of one is required: check all that apply) ✓ Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) ✓ High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) ✓ Saturation (A3) ✓ True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) ✓ Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) ▼ FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes Depth (inches): <72 Water Table Present? Depth (inches): Yes 0 Saturation Present? Yes Depth (inches): 0 **Wetland Hydrology Present?** Yes (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Project/Site: IL 31 (FAU 336)	//County: McHenry Sampling Date 9/8/2014
Applicant/Owner: IDOT District 1	State: IL Sampling Point 38B/39B
	Section, Township, Range: Sec. 2, T44N, R8E
Landform (hillslope, terrace, etc.): Upland	
Slope (%): 0 Lat: 42.32831 Lo	
Soil Map Unit Name: NRCS mapped as Houghton muck, 0-2% slopes,	
Are climatic/hydrologic conditions on the site typical for this time of year	
Are Vegetation No , Soil No , or Hydrology No significantly d	
Are Vegetation No , Soil No , or Hydrology No naturally prob	
SUMMARY OF FINDINGS - Attach site map showing sa	
Hydrophytic Vegetation Present? No	iping point rodutions, transcots, important roatures,
Hydric Soil Present? Yes	In the Commind Area
· ——	Is the Sampled Area within a Wetland? No
Wetland Hydrology Present? No	
VEGETATION - Use scientific names of plants.	
	minant Indicator Deminance Test worksheet
	Dominance Test worksheet: Status Number of Dominant Species
1.	
2	Total Number of Dominant
3. 4.	Species Across All Strata: 1 (B)
5.	Percent of Dominant Species That are OBL, FACW, or FAC: 0% (A)
Sapling/Shrub Stratum (Plot size:15 ft radius)	otal Cover Prevalence Index worksheet:
1	Total % Cover of: Multiply by:
2	
3	FACW species x 2 =
4	FAC species x 3 =
	otal Cover FACU species x 4 =
Herb Stratum (Plot size: 5 ft radius)	UPL species x 5 =
1. Dipsacus laciniatus 85	Yes UPL Column Totals (A) (B)
2. Ambrosia trifida 3 3. Cirsium arvense 3	No FAC Prevalence Index =B/A =
4. Phalaris arundinacea 3	No FACW Hydrophytic Vegetation Indicators
5. Solidago canadensis 3	No FACU 1-Rapid Test for Hydrophytic Vegetation
6. <u>Acer negundo</u> 1 7. Sonchus arvensis 1	No FAC 2-Dominance Test is >50% No FACU 3-Prevalence Index is < or =3.01
8.	4-Morphological Adaptations¹ (Provide suppor
9. 10.	data in Remarks or on a separate sheet)
Woody Vine Stratum (Plot size: 30 ft radius) = 99	otal Cover ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
1	Hydrophytic Vegetation

SOIL Sampling Point: 38B/39B

Profile De	escription: (Desc	ribe to the depth	needed to document the in	ndicator or	confirm th	ne absence o	of indicators.)
Depth		trix	Redox Featur		. 2	_	
(inches) 0-13	Color (moi 10YR 2/1	st) % 100	Color (moist) %	Type ¹	Loc²	Texture SIL	Remarks
13-26	2.5Y 6/2	100				SICL	
¹Tuno: C. C	oncontration D	Doubtion DM Do	dueed Metrix MC Meeked C	and Crains		2 1 000	ation: PL=Pore Lining, M=Matrix
	oncentration, D=i I Indicators:	Depletion, RIVI=Re	duced Matrix, MS=Masked S	and Grains.			r Problematic Hydric Soils ³ :
Histos			Sandy Gleyed Matrix	(S4)	••		•
_	Epipedon (A2)		Sandy Redox (S5)	(0.)			Prairie Redox (A16)
	Histic (A3)		Stripped Matrix (S6)				urface (S7)
_	gen Sulfide (A4)		Loamy Mucky Mineral	(F1)			anganese Masses (F12)
	ed Layers (A5)		Loamy Gleyed Matrix				hallow Dark Surface (TF12)
	Лuck (A10)		Depleted Matrix (F3)	(- –)		U Other (Explain in Remarks)
_	ed Below Dark S	urface (A11)	Redox Dark Surface (F6)			
	Dark Surface (A1:	, ,	Depleted Dark Surface	,		3 Indicators	s of hydrophytic vegetation and
	Mucky Mineral (S	,	Redox Depressions (F				drology must be present, unless
_ ,	Mucky Peat or Pe	,	(.	-,		di	isturbed or problematic.
	Layer (if observ						
Type:					ш	duia Cail Dua	vent2 Ven
Depth (incl					пу	dric Soil Pre	esent? Yes
IYDROL	OGY						
	ydrology Indicat						ndary Indicators mum of two is required)
	`	of one is required	: check all that apply)	(5.0)		<u>`</u>	. ,
	Water (A1)		Water-Stained Leav	` '			Surface Soil Cracks (B6)
_	ater Table (A2)		Aquatic Fauna (B13)			_	Orainage Patterns (B10)
Saturation			True Aquatic Plants				Ory-Season Water Table (C2)
	larks (B1)		Hydrogen Sulfide Od	` ,	Dt- (O		Crayfish Burrows (C8)
	nt Deposits (B2) posits (B3)		Oxidized Rhizosphe		g Roots (C.		Saturation Visible on Aerial magery (C9)
	at or Crust (B4)		☐ Presence of Reduce	` '	Soils (C6)		Stunted or Stressed Plants (D1)
	posits (B5)		Thin Muck Surface (30115 (00)		Geomorphic Position (D2)
-	on Visible on Aeri	al Imagery (B7)	Gauge or Well Data				AC-Neutral Test (D5)
	/ Vegetated Cond	0 , (,	Other (Explain in Re	` '			, ,
Field Obse	rvations:	. ,					
	ater Present?	No Depth (in	iches):				
Water Table	e Present?	No Depth (in	iches):				
•	apillary fringe)	No Depth (in	, <u> </u>			Hydrology F	Present? No
Describe R	ecorded Data (str	eam gauge, monit	oring well, aerial photos, prev	vious inspec	ctions), if av	/ailable:	
Damarilia							
Remarks:							

Project/Site: IL 31 (FAU 336)		_City/Count	y: McHenry	<u>/</u> S	ampling Date 9/8/20	014
Applicant/Owner: IDOT District 1				State: IL S	ampling Point 39A	
Investigator(s): Marcum, Kenney		Sec	tion, Towns	ship, Range: Sec. 2,	T44N, R8E	
Landform (hillslope, terrace, etc.): Depression		L	ocal relief (concave, convex, nor	ne): Concave	
Slope (%): 0-1 Lat: 42.32809		Long: -88.2	27697		Datum: NAD 83	
Soil Map Unit Name: NRCS mapped as Houghton muck	c, 0-2% slope	s, undrained	d; revised to	Aquol NWI classific	cation: U	
Are climatic/hydrologic conditions on the site typical for t	his time of ye	ar? Ye	es (If	no explain in Remark	s.)	
Are Vegetation No , Soil No , or Hydrology No	significantly	/ disturbed?		Are "Normal Circum	nstances" present?	Yes
Are Vegetation No , Soil No , or Hydrology No	naturally pr	oblematic?		(If needed, explain	any answers in Rem	arks.)
SUMMARY OF FINDINGS - Attach site map	showing	sampling	point lo	cations, transec	cts, important fo	eatures, et
Hydrophytic Vegetation Present? Yes				·	•	<u> </u>
Hydric Soil Present? Yes		Is the	Sampled A	Area		
Wetland Hydrology Present? Yes			n a Wetland			
Remarks: Community type is wet meadow.						
VEGETATION - Use scientific names of plant	S.					
	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test	worksheet:	
Tree Stratum (Plot size: 30 ft radius)		•	Otatao	 Number of Domina That are OBL, FAC 		(A)
1				Total Number of D	· —	(A)
3				Species Across All	Strata:	(B)
4. 5.				Percent of DominaThat are OBL, FAC		
	0	= Total Co	ver			(A/B)
Sapling/Shrub Stratum (Plot size: 15 ft radius)	4	NI-	EA C) A /	Prevalence Index		h
 Salix amygdaloides Salix nigra 	1 1	No No	FACW OBL	OBL species	of: Multiply x 1 =	
3.					x 2 =	
4				FAC species	x 3 =	
5		Tatal Ca		FACU species	x 4 =	
Herb Stratum (Plot size: 5 ft radius)	2	= Total Co	vei	UPL species	x 5 =	
1. Phalaris arundinacea	95	Yes	FACW	Column Totals	(A)	(B)
Dipsacus laciniatus Polygonum pensylvanicum	3 2	No No	UPL FACW	Prevalenc	e Index =B/A =	
4.		INO	PACW	Hydrophytic Veget	tation Indicators	
5				'	r Hydrophytic Veget	ation
6				2-Dominance T		
7. 8.					dex is < or =3.01 I Adaptations1 (Prov	ide supporting
9				data in Remark	s or on a separate s drophytic Vegetation	heet)
Woody Vine Stratum (Plot size: 30 ft radius)		= Total Co	ver		c soil and wetland h inless disturbed or p	
1				Hydrophytic Vegetation	Yes	

Sampling Point: 39A SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Depth (inches) Color (moist) % Color (moist) Type¹ Loc2 Texture Remarks % 0-5 10YR 2/1 100 SICL 5-12 10YR 3/1 93 7.5YR 4/6 7 С М Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils³: Sandy Gleyed Matrix (S4) Histosol (A1) Coast Prairie Redox (A16) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) ☐ Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) ☐ Very Shallow Dark Surface (TF12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) 2 cm Muck (A10) Depleted Matrix (F3) Depleted Below Dark Surface (A11) ✓ Redox Dark Surface (F6) ³ Indicators of hydrophytic vegetation and Thick Dark Surface (A12) Depleted Dark Surface (F7) wetland hydrology must be present, unless Sandy Mucky Mineral (S1) Redox Depressions (F8) disturbed or problematic. 5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Hydric Soil Present? Yes Depth (inches): Remarks: **HYDROLOGY Wetland Hydrology Indicators:** Secondary Indicators (minimum of two is required) Primary Indicators (minimum of one is required: check all that apply) ✓ Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) ✓ Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) ▼ FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes Depth (inches): <2 Water Table Present? Depth (inches): No Saturation Present? No Depth (inches): Wetland Hydrology Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

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, Towns	ship, 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 muc	k, 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 ma	p showing sampling point lo	ocations, transects, important features, etc
Hydrophytic Vegetation Present? Yes		
Hydric Soil Present? Yes	Is the Sampled	Area
Wetland Hydrology Present? Yes	within a Wetlan	
Remarks: Community type is wet meadow.		
VEGETATION - Use scientific names of plan	ts.	
	Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft radius) 1.	· ·	Number of Dominant Species That are OBL, FACW, or FAC: (A)
2		Total Number of Dominant
3. 4.		Species Across All Strata: ——————————————————————————————————
5.		That are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:15 ft radius)	0 = Total Cover	Prevalence Index worksheet:
1.		Total % Cover of: Multiply by:
2		OBL species x 1 =
3. 4.		FACW species x 2 =
5.		FAC species x 3 =
Herb Stratum (Plot size: 5 ft radius)	0 = Total Cover	FACU species x 4 = UPL species x 5 =
1. Phalaris arundinacea	100 Yes FACW	Column Totals (A) (B)
2.		Prevalence Index =B/A =
3.		Hydrophytic Vegetation Indicators
4 5		✓ 1-Rapid Test for Hydrophytic Vegetation
6		2-Dominance Test is >50%
7. 8.		3-Prevalence Index is < or =3.01
9.		4-Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
10.		Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 30 ft radius)	100 = Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.		Hydrophytic
2	e Total Cover	Vegetation Present? Yes
Remarks: (Include photo numbers here or on a separa	ate sheet)	
Temano. (moidde priote nambers nere or on a separe	200 0110001.)	

SOIL								Sampling Point	:: 40A
	escription: (Describe to	o the depth	needed to document	the indi	cator or	confirm	the absence	of indicators.)	
Depth	Matrix		Redox I	Features					
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type ¹	Loc²	Texture	Remarks	
0-26	10YR 2/1	100	\ /		71 -		SIL		
26-39	10YR 3/1	100					SICL		
39-45	2.5Y 5/1	80	10YR 5/6	20	С	М	FSL		
• •	oncentration, D=Depleti	on, RM=Re	duced Matrix, MS=Mas	ked Sand	Grains.			cation: PL=Pore Lining,	
_	Indicators:						Indicators for	or Problematic Hydric	Soils:
☐ Histoso	` '		Sandy Gleyed N	,)		Coas	Prairie Redox (A16)	
=	Epipedon (A2)		Sandy Redox (S				Dark	Surface (S7)	
=	Histic (A3)		Stripped Matrix				☐ Iron-N	Manganese Masses (F1	2)
= -	gen Sulfide (A4)		Loamy Mucky M				☐ Very	Shallow Dark Surface (*	ΓF12)
	ed Layers (A5)		Loamy Gleyed N		2)		Other	(Explain in Remarks)	
	fluck (A10)		Depleted Matrix						
	ed Below Dark Surface	(A11)	Redox Dark Sur	face (F6)			_		
▼ Thick □	Dark Surface (A12)		Depleted Dark S	Surface (F	7)			rs of hydrophytic veget	
Sandy	Mucky Mineral (S1)		Redox Depressi	ons (F8)			wetland hydrology must be present, unles disturbed or problematic.		
5 cm M	flucky Peat or Peat (S3)							uisturbed or problemati	J.
Restrictive	Layer (if observed):								
Type:						н	lydric Soil Pr	esent? Yes	
Depth (inch	nes):						,		
Remarks:						l e			
rtomanto.									
HYDROL									
	drology Indicators:							ondary Indicators	۸/
	icators (minimum of one	e is required					<u>-</u>	nimum of two is required	,
	Water (A1)		Water-Stained		(B9)			Surface Soil Cracks (B	•
	iter Table (A2)		Aquatic Fauna					Drainage Patterns (B10))
Saturation	on (A3)		True Aquatic F	Plants (B1	14)			Dry-Season Water Tab	le (C2)
Water M	larks (B1)		Hydrogen Sulf	ide Odor	(C1)			Crayfish Burrows (C8)	
	nt Deposits (B2)		Oxidized Rhize	ospheres	on Living	g Roots (0		Saturation Visible on A	erial
☐ Drift Dep	oosits (B3)		Presence of R	educed I	ron (C4)			Imagery (C9)	
Algal Ma	at or Crust (B4)		Recent Iron R	eduction	in Tilled S	Soils (C6)	_	Stunted or Stressed Pl	` ,
☐ Iron Dep	osits (B5)		☐ Thin Muck Sur	rface (C7)			Geomorphic Position (I) 2)
Inundation	on Visible on Aerial Ima	gery (B7)	Gauge or Well	Data (D	9)		✓	FAC-Neutral Test (D5)	
Sparsely	Vegetated Concave Su	urface (B8)	Other (Explain						
Field Obse	rvations:								
Surface Wa	iter Present? No	Depth (ir	nches):						
Water Table	e Present? No	Depth (in	nches):						
Saturation F		Depth (ir	nches):			Wetlan	d Hydrology	Present? Yes	_
•	apillary fringe)								
Describe Re	ecorded Data (stream ga	auge, monit	oring well, aerial photos	s, previou	is inspec	tions), if a	available:		
Remarks:									

Project/Site: IL 31 (FAU 336)		_ City/Coun	ty: McHenry	<u>/</u> S	Sampling Date	9/8/2014
Applicant/Owner: IDOT District 1				State: ILS	Sampling Point	40B
Investigator(s): Marcum, Kenney		Sec	ction, Towns	ship, Range: Sec. 3	5, T45N, R8E	
Landform (hillslope, terrace, etc.): Upland						
Slope (%): _0		Long: -88.2	27572		Datum: NA	AD 83
Soil Map Unit Name: NRCS mapped as Houghton muck, 0-2						
Are climatic/hydrologic conditions on the site typical for this ti					·	
Are Vegetation No , Soil No , or Hydrology No sig		-				sent? Yes
Are Vegetation No , Soil No , or Hydrology No na				(If needed, explain		
SUMMARY OF FINDINGS - Attach site map sh					-	
Hydrophytic Vegetation Present? No	ownig		g ponitio	outions, transc	oto, import	unit routuros, et
Hydric Soil Present? Yes		lo the	e Compled	Avaa		
Wetland Hydrology Present? No			e Sampled . in a Wetland			
wettand riyurology Fresent:						
VEGETATION - Use scientific names of plants.						
	bsolute	Dominant	Indicator			
	6 Cover	Species?		Dominance TestNumber of Domin		
1.				That are OBL, FA		0 (A)
2				Total Number of D		
3. 4.				Species Across A		(B)
5.				Percent of DominaThat are OBL, FA		0%(A/B)
Sapling/Shrub Stratum (Plot size:15 ft radius)	0	_ = Total Co	over	Prevalence Index	workshoot:	(A/B)
1				Total % Cover		ultiply by:
2				OBL species		=
3.				FACW species		=
4 5.				FAC species	x 3	=
<u> </u>	0	= Total Co	over	FACU species		=
Herb Stratum (Plot size: 5 ft radius)				UPL species	x 5	=
1. Solidago canadensis	60	Yes	FACU	Column Totals	(A)	(B)
Dipsacus laciniatus Phalaris arundinacea	35 10	Yes No	UPL FACW	Prevalend	ce Index =B/A	=
Solidago gigantea	4	No	FACW	Hydrophytic Vege	tation Indicat	ors
5. Agrimonia parviflora	2	No	FACW	1-Rapid Test fo	, , ,	Vegetation
6.				2-Dominance		0.1
7. 8.				3-Prevalence I		.u± (Provide supporting
9.				data in Remark		
10				Problematic Hy	drophytic Veg	etation¹ (Explain)
Woody Vine Stratum (Plot size: 30 ft radius) 1		_ = Total Co	over	¹ Indicators of hydromust be present,		
				Hydrophytic		

SOIL								Sampling Point	: 40B
	escription: (Describe t	o the depth	needed to document	t the indi	cator or	confirm	the absence	of indicators.)	
Depth	Matrix		Redox	Features					
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type ¹	Loc²	Texture	Remarks	
0-34	10YR 2/1	100					SIL		
34-42	2.5Y 5/2	93	10YR 4/6	7	С	М	SICL		
,,	oncentration, D=Depleti	on, RM=Re	duced Matrix, MS=Mas	ked Sand	d Grains.			cation: PL=Pore Lining,	
_	Indicators:						Indicators fo	or Problematic Hydric	Soils':
☐ Histoso	` ,		Sandy Gleyed N	,	.)		Coast	Prairie Redox (A16)	
=	Epipedon (A2)		Sandy Redox (S				Dark	Surface (S7)	
=	Histic (A3)		Stripped Matrix				☐ Iron-N	Manganese Masses (F1	2)
= ' '	gen Sulfide (A4)		Loamy Mucky N				☐ Very :	Shallow Dark Surface (1	ΓF12)
_	ed Layers (A5)		Loamy Gleyed I		2)		Other	(Explain in Remarks)	
	fluck (A10)		Depleted Matrix						
	ed Below Dark Surface	(A11)	Redox Dark Sui	` '			9		
	Dark Surface (A12)		Depleted Dark S		- 7)			rs of hydrophytic vegeta	
	Mucky Mineral (S1)		Redox Depress	ions (F8)				ydrology must be prese disturbed or problemation	
5 cm M	Mucky Peat or Peat (S3)								
Restrictive	Layer (if observed):								
Type:						н	lydric Soil Pr	esent? Yes	
Depth (incl	nes):						•		
Remarks:									
LIVERGIA	201								
HYDROL									
	ydrology Indicators:							ondary Indicators nimum of two is required	4/
	icators (minimum of one	e is required			·= - ·		<u> </u>	•	,
	Water (A1)		☐ Water-Stained		(B9)			Surface Soil Cracks (B6	•
	ater Table (A2)		Aquatic Fauna					Drainage Patterns (B10	
Saturation	` ,		True Aquatic I	,	,			Dry-Season Water Tab	le (C2)
=	larks (B1)		Hydrogen Sulf		` '	_		Crayfish Burrows (C8)	
	nt Deposits (B2)		Oxidized Rhiz	•		Roots (Saturation Visible on Ad Imagery (C9)	erial
	posits (B3)		Presence of R					Stunted or Stressed Pla	ants (D1)
_	at or Crust (B4)		Recent Iron R			Soils (C6)		Geomorphic Position (
	oosits (B5)		Thin Muck Su	•	•			FAC-Neutral Test (D5)	<i>)</i> 2)
	on Visible on Aerial Ima		Gauge or Wel					rac-neulial rest (D5)	
	Vegetated Concave Su	urface (B8)	Other (Explain	n in Rema	ırks)				
Field Obse		5 4 6							
	iter Present? No	Depth (ir							
Water Table		Depth (ir							
Saturation F		Depth (ir	nches):			Wetlan	d Hydrology	Present? No	
•	apillary fringe) ecorded Data (stream g	auga monit	foring well perial photo	e nrevio	is inspec	tions) if	availahla.		
DOSCING IVE	sooraca bala (silealii g	aago, mom	oning won, actial prioto	o, previot	io ii ispec	, II c	avanabi6.		
Remarks:									

	_ City/Count	y: McHenry	<i>ı</i> Sam	pling Date 9/8/2014	
			State: IL Sam	pling Point 41A	
Investigator(s): Marcum, Kenney Sec					
				·	
					26
snowing	sampling	point io	cations, transects	s, important featur	es, et
	withii	n a wetiano	a? <u>res</u>		
	, ,				
.					
Absolute	Dominant	Indicator	Dominance Test wo	rkshoot:	
% Cover	Species?	Status			
10	Yes	FACW			(A)
	No	FAC			
			1		_ (B)
				,,	(A (D)
13	= Total Co	ver		<u> </u>	(A/B)
45	V	E40)4/			
F					
		1710		× 2 -	
				X Z =	
50	= Total Co	ver			
80	Yes	FACW			(B)
15	No	FAC		`'	(D)
8	No	FAC			
	No				
			_ '	, , , ,	
	140	1700	_		
			⊣ —		porting
				• • • • • • • • • • • • • • • • • • • •	
			Problematic Hydro	ophytic Vegetation¹ (Exp	lain)
	-	ver			
			Hydrophytic Vegetation		
0	= Total Co	ver	Present?	Yes	
e sheet.)					
	significantly property showing S. Absolute % Cover 10 3 45 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Long: -88.2 Long: -88.2 Long: -88.2 Is time of year? Ye significantly disturbed? naturally problematic? showing sampling Is the within within Sampling Is the within Species? 10	Section, Towns Local relief (compared to the state of year) Long:88.28571 Inis time of year?Yes (Ifforesignificantly disturbed?naturally problematic? Showing sampling point low within a Wetland within a Wetlan	State: IL Sam Section, Township, Range: Sec. 3, T4 Local relief (concave, convex, none) Long: -88.28571 NWI classification is time of year? Yes (If no explain in Remarks.) significantly disturbed? Are "Normal Circumst (If needed, explain any showing sampling point locations, transects Is the Sampled Area within a Wetland? Yes Is the Sampled Area within a Wetland? Yes Showing sampling point locations, transects Is the Sampled Area within a Wetland? Yes In the Sampled Area within a Wetland? Yes Showing sampling point locations, transects Is the Sampled Area within a Wetland? Yes In the Sampled Area within a Wetland? Yes Showing sampling point locations, transects Is the Sampled Area within a Wetland? Yes In the Sampled Area within a Wetland? Yes Percent of Dominant That are OBL, FACW Total Number of Dom Species Across All S Percent of Dominant That are OBL, FACW Species UPL species Column Totals Prevalence I Species Column Total	State: IL Sampling Point 41A Section, Township, Range: Sec. 3, T44N, R8E Local relief (concave, convex, none): Concave Long: -88.28571

SOIL								Sampling Poin	t: 41A
Profile De	scription: (Describe t	o the depth	n needed to document	the indi	cator or	confirm	the absence	of indicators.)	
Depth	Matrix		Redox	Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks	
0-10	10YR 2/1	100	10YR 5/6	0		N 4	SICL		
10-16	5Y 5/1	92	101K 5/6	8	С	M	SICL		
									-
¹ Type: C=Co	oncentration, D=Depleti	ion. RM=Re	duced Matrix, MS=Mas	ked Sand	d Grains		² l o	cation: PL=Pore Lining,	M=Matrix
Hydric Soil		,						or Problematic Hydric	
Histoso			Sandy Gleyed N	/latrix (S4	!)			t Prairie Redox (A16)	
=	Epipedon (A2)		Sandy Redox (S	,	,		_	Surface (S7)	
_	Histic (A3)		Stripped Matrix				_	Manganese Masses (F1	12)
=	en Sulfide (A4)		Loamy Mucky M	` '	1)		_	Shallow Dark Surface (•
	ed Layers (A5)		Loamy Gleyed N					r (Explain in Remarks)	,11-12)
	luck (A10)		Depleted Matrix	•	,		Other	(Explain in Nemarks)	
	ed Below Dark Surface	(A11)	Redox Dark Sur	` ')				
	Dark Surface (A12)	,	Depleted Dark S	` '			3 Indicato	ors of hydrophytic veget	tation and
	Mucky Mineral (S1)		Redox Depressi	ions (F8)	,		wetland h	ydrology must be pres	ent, unless
	lucky Peat or Peat (S3))		(-,				disturbed or problemati	ic.
Restrictive	Layer (if observed):								
Type:							Uvdria Cail D	rocont? Voc	
Depth (inch	nes):					'	Hydric Soil P	resent? Yes	
	· ·								
Remarks:									
HYDROLO	DGY								
-	drology Indicators:							condary Indicators	
Primary Indi	cators (minimum of one	<u>e is required</u>	d: check all that apply)				(mir	nimum of two is require	d)
Surface \	Water (A1)			Leaves	(B9)			Surface Soil Cracks (B	36)
High Wa	ter Table (A2)		Aquatic Fauna	a (B13)				Drainage Patterns (B1	0)
Saturation	n (A3)		True Aquatic F	Plants (B	14)			Dry-Season Water Tak	ole (C2)
	arks (B1)		Hydrogen Sulf	ide Odor	(C1)			Crayfish Burrows (C8)	
Sedimen	t Deposits (B2)		Oxidized Rhize	ospheres	on Living	g Roots ((C3)	Saturation Visible on A	\erial
☐ Drift Dep	osits (B3)		Presence of R	educed I	ron (C4)			Imagery (C9)	
Algal Ma	t or Crust (B4)		Recent Iron R	eduction	in Tilled S	Soils (C6	i) \square	Stunted or Stressed Pl	` '
☐ Iron Dep	osits (B5)		☐ Thin Muck Sui	rface (C7)			Geomorphic Position (. ,
Inundation	on Visible on Aerial Ima	gery (B7)	Gauge or Wel	l Data (D	9)		✓	FAC-Neutral Test (D5))
Sparsely	Vegetated Concave Su	urface (B8)	Other (Explain	in Rema	arks)				
Field Obser									
	ter Present? No	Depth (ir							
Water Table		Depth (ir							
Saturation F	Present? No pillary fringe)	Depth (ir	nches):			Wetlar	nd Hydrology	Present? Yes	<u> </u>
`		auge, moni	toring well, aerial photo	s, previou	us inspec	tions). if	available:		
	- (- · · · · · · · · · · · · · · · · · ·	J ,	5 , as as p 1010.	.,	-1	,,	-		
Remarks:									
. comanc.									

Project/Site: IL 31 (FAU 336)		_ City/Count	ty:_McHenry	<u>/</u> Sa	ampling Date	9/8/2014
Applicant/Owner: IDOT District 1				State: IL Sa	ampling Point	41B
		ship, Range: Sec. 3, T44N, R8E				
Landform (hillslope, terrace, etc.): Upland	(concave, convex, none): None					
Slope (%): 0 Lat: 42.31682		Long: -88.2	28584		Datum: NA	D 83
		<u> </u>			<u> </u>	
Are climatic/hydrologic conditions on the site typical for this					s.)	
Are Vegetation No , Soil No , or Hydrology No s				Are "Normal Circum		sent? Yes
Are Vegetation No , Soil No , or Hydrology No r	-			(If needed, explain a		<u> </u>
SUMMARY OF FINDINGS - Attach site map s					•	•
Hydrophytic Vegetation Present? No	<u></u>		g point io	outiono, trancoo	10, mporte	ant routuroo, ot
Hydric Soil Present? Yes		le the	e Sampled <i>i</i>	Aroa		
Wetland Hydrology Present? No			n a Wetland			
welland Hydrology Freschi:						
VEGETATION - Use scientific names of plants.						
	Absolute	Dominant		Dominance Test v	vorksheet:	
<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u>)	% Cover	<u> </u>	Status	Number of Domina		
1. 2.				That are OBL, FAC	-	1 (A)
2. 3.				Species Across All		(B)
4				Percent of Domina	nt Species	(D)
5	0	= Total Co	WAr	That are OBL, FAC	W, or FAC:	50% (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft radius)		_ = 10101 00	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Prevalence Index v	vorksheet:	
1.				Total % Cover of		
2. 3.				OBL species		=
3. 4.				FACW species		=
5.				FAC species		=
Harb Charters (District 5 ft and inc.)	0	_ = Total Co	over	FACU species		=
Herb Stratum (Plot size: 5 ft radius) 1. Poa pratensis	70	Yes	FAC	UPL species Column Totals	x 5	=(B)
Tod prateriols Taraxacum officinale	25	Yes	FACU	_	(A) e Index =B/A =	``
3. Plantago lanceolata	7	No	FACU			
4. Trifolium repens	5 4	No	FACU	Hydrophytic Veget 1-Rapid Test for		
5. Plantago rugelii 6.	-	No	FAC	2-Dominance Te		vegetation
6				3-Prevalence In		.0¹
0.						(Provide supporting
9				data in Remarks	•	,
10						etation¹ (Explain)
Woody Vine Stratum (Plot size: 30 ft radius) 1.		_ = Total Co	over	¹ Indicators of hydric must be present, u		
				Hydrophytic		

Sampling Point: 41B SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Depth (inches) Color (moist) % Color (moist) Loc2 Texture Remarks Type¹ 0-10 10YR 3/1 90 10YR 4/6 SICL Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils³: Sandy Gleyed Matrix (S4) Histosol (A1) Coast Prairie Redox (A16) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) ☐ Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) ☐ Very Shallow Dark Surface (TF12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) 2 cm Muck (A10) Depleted Matrix (F3) Depleted Below Dark Surface (A11) ✓ Redox Dark Surface (F6) ³ Indicators of hydrophytic vegetation and Thick Dark Surface (A12) Depleted Dark Surface (F7) wetland hydrology must be present, unless Sandy Mucky Mineral (S1) Redox Depressions (F8) disturbed or problematic. 5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: Hydric Soil Present? Yes Depth (inches): Remarks: **HYDROLOGY Wetland Hydrology Indicators:** Secondary Indicators (minimum of two is required) Primary Indicators (minimum of one is required: check all that apply) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) Aquatic Fauna (B13) Drainage Patterns (B10) High Water Table (A2) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? No Depth (inches): Water Table Present? Depth (inches): No Saturation Present? No Depth (inches): **Wetland Hydrology Present?** No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Project/Site: IL 31 (FAU 336)		_City/Count	y: McHenry	Sampling I	Date 9/8/2	2014	
Applicant/Owner: IDOT District 1				State: IL Sampling Point 42A			
Investigator(s): Marcum, Kenney	ship, Range: Sec. 10, T44N, R8E						
Landform (hillslope, terrace, etc.): Depression	concave, convex, none): Con	cave					
Slope (%): 0-1 Lat: 42.31378		: NAD 83					
Soil Map Unit Name: NRCS mapped as Peotone silty cl		·					
Are climatic/hydrologic conditions on the site typical for t	•	-	-	no explain in Remarks.)			
	-			,	' procent?	Voo	
Are Vegetation No, Soil No, or Hydrology No				Are "Normal Circumstances"			
Are Vegetation No, Soil No, or Hydrology No	naturally pr	oblematic?		(If needed, explain any answ	ers in Ren	narks.)	
SUMMARY OF FINDINGS - Attach site map	showing	sampling	g point lo	cations, transects, imp	ortant f	eatures, etc	
Hydrophytic Vegetation Present? Yes							
Hydric Soil Present? Yes		Is the	Sampled .	Area			
Wetland Hydrology Present? Yes		withi	n a Wetlan	d? Yes			
Barrada, Carranitationa is untabunbland							
Remarks: Community type is wet shrubland.							
VEGETATION - Use scientific names of plant							
Tree Chretisms (Diet sines 00 ft as dies	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test workshe			
Tree Stratum (Plot size: 30 ft radius) 1.	70 00101	Ореско	Otatas	Number of Dominant Species That are OBL, FACW, or FA		5 (A)	
2.				Total Number of Dominant		、 /	
3.				Species Across All Strata:		5 (B)	
4 5.				Percent of Dominant Specie		000/	
J	0	= Total Co	ver	That are OBL, FACW, or FA	\C:	00% (A/B)	
Sapling/Shrub Stratum (Plot size: 15 ft radius)		-		Prevalence Index workshe	et:		
1. Salix interior	55	Yes	FACW	Total % Cover of:			
2. 3.				OBL species	x 1 =		
4.				FACW species	x 2 =		
5.				FAC species	x 3 =		
	55	= Total Co	ver	FACU species	x 4 =		
Herb Stratum (Plot size: 5 ft radius)		.,		UPL species	x 5 =		
Poa pratensis Aster puniceus	25 10	Yes Yes	FAC OBL		(A)	(B)	
3. Phalaris arundinacea	10	Yes	FACW	Prevalence Index =	:B/A =		
4. Solidago gigantea	10	Yes	FACW	Hydrophytic Vegetation Inc	licators		
5. Aster novae-angliae	7	No	FACW	1-Rapid Test for Hydropl		tation	
6. Carex vulpinoidea	5	No	FACW	✓ 2-Dominance Test is >50			
7. Apocynum cannabinum 8. Juncus dudleyi	3 2	No No	FAC FACW	3-Prevalence Index is <			
9. Verbena hastata	2	No	FACW	4-Morphological Adaptat data in Remarks or on a			
10.				Problematic Hydrophytic		,	
	74	= Total Co	ver	¹ Indicators of hydric soil and	d wetland h	nydrology	
Woody Vine Stratum (Plot size: 30 ft radius)		-		must be present, unless dis	turbed or p	problematic.	
1.				Hydrophytic			
2	0	= Total Co	ver	Vegetation Ye	s		
		_ = 15101 50		1 10301111			
Remarks: (Include photo numbers here or on a separa	te sheet.)						

SOIL								Sampling Poin	t: 42A
	escription: (Describe t	o the depth	needed to document	the indi	cator or	confirm	the absence	of indicators.)	
Depth	Matrix		Redox	Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks	
0-4	10YR 3/1	100	,				SIL		
4-13	10YR 5/2	85	10YR 4/6	15	С	M	L		
	oncentration, D=Depleti	ion, RM=Re	duced Matrix, MS=Mas	ked Sand	Grains.			cation: PL=Pore Lining,	
Hydric Soil	Indicators:						Indicators for	or Problematic Hydric	Soils ³ :
Histoso	ol (A1)		Sandy Gleyed N	,)		Coast	Prairie Redox (A16)	
Histic E	Epipedon (A2)		Sandy Redox (S				Dark	Surface (S7)	
Black H	Histic (A3)		Stripped Matrix	(S6)			Iron-N	Manganese Masses (F1	12)
☐ Hydrog	gen Sulfide (A4)		Loamy Mucky N	lineral (F	1)		☐ Verv	Shallow Dark Surface (TF12)
Stratifie Stratif	ed Layers (A5)		Loamy Gleyed I	Matrix (F2	2)			(Explain in Remarks)	,
2 cm M	luck (A10)		✓ Depleted Matrix	(F3)				(======================================	
✓ Deplete	ed Below Dark Surface	(A11)	Redox Dark Sur	face (F6)					
Thick [Dark Surface (A12)		Depleted Dark S	Surface (F	7)		3 Indicato	rs of hydrophytic veget	ation and
Sandy	Mucky Mineral (S1)		Redox Depressi	ions (F8)	,			ydrology must be pres	
	lucky Peat or Peat (S3))		` ,				disturbed or problemati	.C.
	Layer (if observed):								
Type:	Layer (ii observea).							.o. v	
Depth (inch	ues).					Н	lydric Soil Pr	esent? Yes	
Dopui (iiioi									
Remarks:									
HYDROLO	nev								
							0		
_	/drology Indicators:		lakaskallukkat saak					ondary Indicators nimum of two is require	d)
•	icators (minimum of one	<u>e is required</u>			(5.0)		<u>-</u>	•	,
Surface					(B9)			Surface Soil Cracks (B	•
_	ter Table (A2)		Aquatic Fauna					Drainage Patterns (B1	
✓ Saturation	on (A3)		True Aquatic F	Plants (B1	4)			Dry-Season Water Tab	ole (C2)
Water M	arks (B1)		Hydrogen Sulf	ide Odor	(C1)			Crayfish Burrows (C8)	
	t Deposits (B2)		Oxidized Rhiz	ospheres	on Living	Roots (,	Saturation Visible on A	erial
☐ Drift Dep	osits (B3)		Presence of R	educed li	ron (C4)			Imagery (C9)	
Algal Ma	t or Crust (B4)		Recent Iron R	eduction i	in Tilled S	Soils (C6)		Stunted or Stressed Pl	
☐ Iron Dep	osits (B5)		☐ Thin Muck Su	rface (C7))			Geomorphic Position (•
Inundation	on Visible on Aerial Ima	gery (B7)	Gauge or Wel	Data (D	9)		✓	FAC-Neutral Test (D5)	
Sparsely	Vegetated Concave S	urface (B8)	Other (Explain						
Field Obse	rvations:								
	ter Present? Yes	Depth (in	iches): 5						
Water Table	Present? Yes	Depth (in	iches): 0						
Saturation F		· · · Depth (in	· -			Wetlan	d Hydrology	Present? Yes	
	pillary fringe)		,				, .		-
Describe Re	ecorded Data (stream g	auge, monit	oring well, aerial photo	s, previou	s inspec	tions), if a	available:		
Remarks:									

Project/Site: IL 31 (FAU 336) City/County: McHe	enry Sampling Date 9/8/2014
Applicant/Owner: IDOT District 1	State: IL Sampling Point 42B
	vnship, Range: Sec. 10, T44N, R8E
Landform (hillslope, terrace, etc.): Upland Local relie	
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	
	(If no explain in Remarks.)
Are Vegetation No , Soil No , or Hydrology No significantly disturbed?	
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 Hydrophytic Vegetation Present? Yes	iocations, transects, important reatures, et
The discount of the second of	
Hydric Soil Present? Yes Is the Sample Wetland Underland Present? No. Wetland Underland Present?	
Wetland Hydrology Present? No No	and: <u>NO</u>
Remarks: Community type is non-native grassland.	
VEGETATION - Use scientific names of plants.	
Absolute Dominant Indicat Tree Stratum (Plot size: 30 ft radius) % Cover Species? Statu	Dominance rest worksneet.
Tree Stratum (Plot size: 30 ft radius) % Cover Species? Statu 1.	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2.	Total Number of Dominant
3	Species Across All Strata: 1 (B)
4 5.	Percent of Dominant Species
0 = Total Cover	That are OBL, FACW, or FAC: 100% (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft radius)	Prevalence Index worksheet:
1. 2.	Total % Cover of: OBL species x 1 =
3.	
4	FACW species
5	FACU species
Herb Stratum (Plot size: 5 ft radius)	UPL species x 5 =
1. Poa pratensis 80 Yes FAC	Column Totals (A) (B)
2. Festuca elatior 15 No FACU	` ,
3. Plantago rugelii 10 No FAC 4. Daucus carota 8 No UPL	Hydrophytic Vegetation Indicators
4. Daucus carota 8 No UPL 5. Geum canadense 3 No FAC	1-Rapid Test for Hydrophytic Vegetation
6.	✓ 2-Dominance Test is >50%
<i>7.</i>	3-Prevalence Index is < or =3.01
8	4-Morphological Adaptations¹ (Provide supporting
9. 10.	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
10	¹Indicators of hydric soil and wetland hydrology
Woody Vine Stratum (Plot size: 30 ft radius)	must be present, unless disturbed or problematic.
1.	Hydrophytic

Sampling Point: 42B SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Depth (inches) Color (moist) % Color (moist) Loc2 Texture Remarks Type 0-11 10YR 3/1 94 10YR 4/6 SICL Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils³: Sandy Gleyed Matrix (S4) Histosol (A1) Coast Prairie Redox (A16) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) ☐ Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) ☐ Very Shallow Dark Surface (TF12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) 2 cm Muck (A10) Depleted Matrix (F3) Depleted Below Dark Surface (A11) ✓ Redox Dark Surface (F6) ³ Indicators of hydrophytic vegetation and Thick Dark Surface (A12) Depleted Dark Surface (F7) wetland hydrology must be present, unless Sandy Mucky Mineral (S1) Redox Depressions (F8) disturbed or problematic. 5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: Hydric Soil Present? Yes Depth (inches): Remarks: **HYDROLOGY Wetland Hydrology Indicators:** Secondary Indicators (minimum of two is required) Primary Indicators (minimum of one is required: check all that apply) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) Aquatic Fauna (B13) Drainage Patterns (B10) High Water Table (A2) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? No Depth (inches): Water Table Present? Depth (inches): No Saturation Present? No Depth (inches): **Wetland Hydrology Present?** No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

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, Towns	ship, Range: Sec. 10, T44N, R8E
Landform (hillslope, terrace, etc.): Depression		
Slope (%): 0-1 Lat: 42.31372	Long: <u>-88.28454</u>	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 fo	r this time of year? Yes (If	no explain in Remarks.)
Are Vegetation No , Soil No , or Hydrology N	o_significantly disturbed?	Are "Normal Circumstances" present?Yes
Are Vegetation No , Soil No , or Hydrology N	o_naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site ma	ap showing sampling point lo	ocations, transects, important features, etc
Hydrophytic Vegetation Present? Yes		
Hydric Soil Present? Yes	Is the Sampled	Area
Wetland Hydrology Present? Yes	within a Wetlan	
Remarks: Community type is marsh.		
VEGETATION -Use scientific names of plan	nts.	
-	Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft radius) 1.	<u> </u>	Number of Dominant Species That are OBL, FACW, or FAC:(A)
2		Total Number of Dominant Species Across All Strata:
3. 4.		Percent of Dominant Species (B)
5.		That are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:15 ft radius)	0 = Total Cover	Prevalence Index worksheet:
1.		Total % Cover of: Multiply by:
2		OBL species x 1 =
3. 4.		FACW species x 2 =
5.		FAC species x 3 =
Hart Ourteen (Plateine 5 (tention))	0 = Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 5 ft radius) 1. Typha angustifolia	90 Yes OBL	UPL species x 5 = Column Totals (A) (B)
Solidago graminifolia	1 No FACW	Column Totals (A) (B) Prevalence Index =B/A =
3.		Hydrophytic Vegetation Indicators
4.		✓ 1-Rapid Test for Hydrophytic Vegetation
6.		2-Dominance Test is >50%
7		3-Prevalence Index is < or =3.01
8		4-Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
9. 10.		Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 30 ft radius)	91 = Total Cover	¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1		Hydrophytic
2	0 = Total Cover	Vegetation Present? Yes
Describe the state of the state		i iooditi:
Remarks: (Include photo numbers here or on a sepa	iale sileel.)	

SOIL								Sampling Point:	43A
	escription: (Describe t	o the depth	n needed to documen	t the indi	cator or	confirm	the absence	of indicators.)	
Depth	Matrix		Redox	Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks	
0-2	10YR 3/1	100					SIL		
2-13	10YR 4/2	94	10YR 4/6	6	С	M	L		
-									
1							1.		
	oncentration, D=Depleti	on, RM=Re	duced Matrix, MS=Mas	sked Sand	d Grains.			cation: PL=Pore Lining,	
_	Indicators:						Indicators for	or Problematic Hydric	Soils":
☐ Histoso	` ,		Sandy Gleyed M	•	+)		Coas	t Prairie Redox (A16)	
=	Epipedon (A2)		Sandy Redox (S				Dark	Surface (S7)	
=	Histic (A3)		Stripped Matrix				Iron-N	Manganese Masses (F12	2)
= ' '	gen Sulfide (A4)		Loamy Mucky N				Very	Shallow Dark Surface (T	F12)
	ed Layers (A5)		Loamy Gleyed		2)		Other	(Explain in Remarks)	
	luck (A10)		Depleted Matrix	` '					
	ed Below Dark Surface	(A11)	Redox Dark Su	` '					
Thick [Dark Surface (A12)		Depleted Dark S	Surface (I	- 7)			ors of hydrophytic vegeta	
Sandy	Mucky Mineral (S1)		Redox Depress	ions (F8)				lydrology must be prese disturbed or problemation	
5 cm N	flucky Peat or Peat (S3)							disturbed of problematic	
Restrictive	Layer (if observed):								
Type:						-	lydric Soil P	resent? Yes	
Depth (inch	nes):						,		
Remarks:									
rtomanto.									
HYDROL	OGY								
Wetland Hy	drology Indicators:							condary Indicators	
Primary Ind	icators (minimum of one	e is required	d: check all that apply)				(mii	nimum of two is required	i)
Surface	Water (A1)		☐ Water-Stained	d Leaves	(B9)			Surface Soil Cracks (B6	3)
High Wa	iter Table (A2)		Aquatic Fauna	a (B13)				Drainage Patterns (B10	·)
Saturation	on (A3)		True Aquatic I	Plants (B	14)			Dry-Season Water Tab	ie (C2)
■ Water M	larks (B1)		Hydrogen Sul	fide Odor	(C1)			Crayfish Burrows (C8)	
Sedimer	nt Deposits (B2)		Oxidized Rhiz	ospheres	on Living	Roots (C3)	Saturation Visible on A	erial
Drift Dep	oosits (B3)		Presence of R	Reduced I	ron (C4)		_	Imagery (C9)	
Algal Ma	at or Crust (B4)		Recent Iron R	eduction	in Tilled S	Soils (C6)) ∐	Stunted or Stressed Pla	` ,
☐ Iron Dep	osits (B5)		Thin Muck Su	rface (C7)		✓	Geomorphic Position (D)2)
Inundation	on Visible on Aerial Ima	gery (B7)	Gauge or Wel	,	,		✓	FAC-Neutral Test (D5)	
Sparsely	Vegetated Concave Su	urface (B8)	Other (Explain						
Field Obse	rvations:								
	iter Present? No	Depth (ir	nches):						
Water Table	e Present? No	Depth (ir	nches):						
Saturation F	Present? No	Depth (ir	nches):	_		Wetlan	d Hydrology	Present? Yes	
	apillary fringe)		, .						
Describe Re	ecorded Data (stream g	auge, monit	toring well, aerial photo	s, previou	ıs inspec	tions), if a	available:		
Remarks:									

Applicant/Owner: IDOT District 1	State: IL Sampling Point 43B
Investigator(s): Marcum, Kenney Section, Towns	hip, Range: Sec. 10, T44N, R8E
Landform (hillslope, terrace, etc.): Upland Local relief (d	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 lo	cations, transects, important features, etc
Hydrophytic Vegetation Present? Yes_	
Hydric Soil Present? No Is the Sampled A	Area
Wetland Hydrology Present? No within a Wetland	
Remarks: Community type is non-native grassland.	
VEGETATION - Use scientific names of plants.	
Absolute Dominant Indicator <u>Tree Stratum</u> (Plot size: 30 ft radius)	Dominance Test worksheet:
1.	Number of Dominant SpeciesThat are OBL, FACW, or FAC: 1 (A)
2.	Total Number of Dominant
3	Species Across All Strata: 1 (B)
4	Percent of Dominant Species That are OBL, FACW, or FAC: 100%
Sapling/Shrub Stratum (Plot size:15 ft radius) 0 = Total Cover	Prevalence Index worksheet:
1	Total % Cover of: Multiply by:
2.	OBL species x 1 =
3	FACW species x 2 =
4. 5.	FAC species x 3 =
0 = Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 5 ft radius)	UPL species x 5 =
1. Poa pratensis 99 Yes FAC 2. Taraxacum officinale 2 No FACU	Column Totals (A) (B)
2. Taraxacum officinale 2 No FACU 3.	Prevalence Index =B/A =
4.	Hydrophytic Vegetation Indicators
5	1-Rapid Test for Hydrophytic Vegetation
6. 7.	✓ 2-Dominance Test is >50% 3-Prevalence Index is < or =3.0¹
8.	4-Morphological Adaptations¹ (Provide supporting
9.	data in Remarks or on a separate sheet)
10.	Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 30 ft radius) 101 = Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	Hydrophytic
2	Vegetation Present? Yes

Sampling Point: 43B SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Matrix Depth (inches) Color (moist) % Color (moist) % Type¹ Loc2 Texture Remarks 10YR 3/2 0-13 100 Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils³: Sandy Gleyed Matrix (S4) Histosol (A1) Coast Prairie Redox (A16) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) ☐ Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) ☐ Very Shallow Dark Surface (TF12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) 2 cm Muck (A10) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) ³ Indicators of hydrophytic vegetation and Thick Dark Surface (A12) Depleted Dark Surface (F7) wetland hydrology must be present, unless Sandy Mucky Mineral (S1) Redox Depressions (F8) disturbed or problematic. 5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: Hydric Soil Present? No Depth (inches): Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two is required) Primary Indicators (minimum of one is required: check all that apply) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) Aquatic Fauna (B13) Drainage Patterns (B10) High Water Table (A2) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? No Depth (inches): Water Table Present? Depth (inches): No Saturation Present? No Depth (inches): **Wetland Hydrology Present?** No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Project/Site: IL 31 (FAU 336) City/County: McHen	sampling Date 9/9/2014
Applicant/Owner: IDOT District 1	State: IL Sampling Point 44A
Investigator(s): Marcum, Kenney Section, Town	nship, 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 (I	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 I	ocations, transects, important features, et
Hydrophytic Vegetation Present? Yes	, , ,
Hydric Soil Present? Yes Is the Samplec	I Агеа
Wetland Hydrology Present? Yes within a Wetlan	
Remarks: Community type is wet shrubland.	
VEGETATION - Use scientific names of plants.	_
Absolute Dominant Indicato Tree Stratum (Plot size: 30 ft radius) % Cover Species? Status	Dominance rest worksneet.
1.	Number of Dominant SpeciesThat are OBL, FACW, or FAC: (A)
2	Total Number of Dominant
3. 4.	Species Across All Strata: (B)
5.	Percent of Dominant Species That are OBL, FACW, or FAC:
Sapling/Shrub Stratum (Plot size: 15 ft radius) = Total Cover	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft radius) 1. Salix interior 5 Yes FACW	Total % Cover of: Multiply by:
2.	OBL species x 1 =
J	FACW species x 2 =
4	FAC species x 3 =
5 = Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 5 ft radius)	UPL species x 5 =
1. Phalaris arundinacea 95 Yes FACW 2.	Column Totals (A) (B)
2. 3.	Prevalence Index =B/A =
4.	Hydrophytic Vegetation Indicators I alpha 1-Rapid Test for Hydrophytic Vegetation
5. 6.	2-Dominance Test is >50%
7.	3-Prevalence Index is < or =3.01
8	4-Morphological Adaptations¹ (Provide supporting
9. 10.	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 30 ft radius) 95 = Total Cover	¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	Hydrophytic Vegetation

SOIL								Sampling Poi	nt: <u>44A</u>
	escription: (Describe t	o the depth	needed to document	t the indi	cator or	confirm	the absence	of indicators.)	
Depth	Matrix		Redox	Features					
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type ¹	Loc²	Texture	Remarks	
0-6	10YR 3/1	100	,				SIL		
6-13	10YR 4/2	92	10YR 4/6	8	С	M	SICL		
	oncentration, D=Deplet	ion, RM=Re	duced Matrix, MS=Mas	ked Sand	d Grains.			cation: PL=Pore Lining	
Hydric Soil	Indicators:						Indicators for	or Problematic Hydri	c Soils³:
Histoso	ol (A1)		Sandy Gleyed N	,	.)		Coast	Prairie Redox (A16)	
Histic I	Epipedon (A2)		Sandy Redox (S				☐ Dark	Surface (S7)	
Black I	Histic (A3)		Stripped Matrix	(S6)			☐ Iron-N	Manganese Masses (F	12)
☐ Hydrog	gen Sulfide (A4)		Loamy Mucky N	/lineral (F	1)		Very	Shallow Dark Surface	(TF12)
Stratification	ed Layers (A5)		Loamy Gleyed I	Matrix (F2	2)		Other	(Explain in Remarks)	,
2 cm N	luck (A10)		Depleted Matrix	(F3)				(1 - 1 - 1 - 1 - 1 - 1	
✓ Deplet	ed Below Dark Surface	(A11)	Redox Dark Sur	rface (F6))				
☐ Thick [Dark Surface (A12)		Depleted Dark S	Surface (F	- 7)		3 Indicato	rs of hydrophytic vege	etation and
☐ Sandy	Mucky Mineral (S1)		Redox Depress	ions (F8)				ydrology must be pres	
□ 5 cm N	Mucky Peat or Peat (S3))					(disturbed or problema	tic.
Restrictive	Layer (if observed):								
Type:	.,. (ludria Cail Dr	vecant? Vec	
Depth (incl	nes):					"	lydric Soil Pr	esent? Yes	
- ' '	,								
Remarks:									
HYDROL	OGY								
	/drology Indicators:						Sec	ondary Indicators	
-	icators (minimum of one	a is raquirac	l: check all that annly)					nimum of two is requir	ed)
✓ Surface	,	c is required	Water-Stained	d L gaves	(RQ)		<u> </u>	Surface Soil Cracks (B6)
	iter Table (A2)		Aquatic Fauna		(D3)			Drainage Patterns (B	•
✓ Saturation					1.4\			=	
			True Aquatic F					Dry-Season Water Ta	
=	arks (B1)		Hydrogen Sulf		` '	D		Crayfish Burrows (C8	
	nt Deposits (B2)		Oxidized Rhiz	•	•	g Roots (,	Saturation Visible on Imagery (C9)	Aeriai
	posits (B3)		☐ Presence of R					Stunted or Stressed F	Plants (D1)
_	at or Crust (B4)		Recent Iron R			Soils (C6)		Geomorphic Position	
	osits (B5)		Thin Muck Su	•	•		_	•	, ,
	on Visible on Aerial Ima		Gauge or Wel	I Data (D	9)		✓	FAC-Neutral Test (D5	<i>י</i>)
Sparsely	Vegetated Concave S	urface (B8)	Other (Explain	in Rema	ırks)				
Field Obse									
Surface Wa	ter Present? Yes	Depth (in	nches):3						
Water Table	e Present? Yes	Depth (in	nches):0						
Saturation F		Depth (ir	nches):0			Wetlan	d Hydrology	Present? Yes	_
	apillary fringe)		and an account of the first of the first			·:> · · ·	o de la la la la c		
Describe Re	ecorded Data (stream g	auge, monit	oring well, aerial photo	s, previou	ıs inspec	tions), if a	avallable:		
Remarks:									

Applicant/Owner: IDOT District 1 Investigator(s): Marcum, Kenney Section	
Investigator(s): Marcum, Kenney Section	
	n, Township, Range: Sec. 10, T44N, R8E
Landform (hillslope, terrace, etc.): Upland Loca	
Slope (%): 0 Lat: 42.31041 Long: -88.281	18 Datum: NAD 83
Soil Map Unit Name: NRCS mapped as Elburn silt loam, 0-2% slopes; revised to Ort	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes	
Are Vegetation No , Soil No , or Hydrology No significantly disturbed?	<u> </u>
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 p	
Hydrophytic Vegetation Present? No	
Hadria Oa'l Danasa (O	smaled Area
	ampled Area Wetland? No
Wettand Hydrology Fresent: No	
VEGETATION - Use scientific names of plants.	
·	ndicator Dominance Test worksheet
	Status Dominance Test worksheet: Number of Dominant Species
1	That are OBL, FACW, or FAC:1 (A)
2	Total Number of Dominant
3	Species Across All Strata: 2 (B)
5	Percent of Dominant Species That are OBL, FACW, or FAC: 50% (A/B)
Sapling/Shrub Stratum (Plot size:15 ft radius) = Total Cover	Prevalence Index worksheet:
1	Total % Cover of: Multiply by:
2	OBL species x 1 =
3 4.	FACW species x 2 =
5.	FAC species x 3 =
0 = Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 5 ft radius)	UPL species x 5 =
	ACU Column Totals (A) (B)
•	ACU Prevalence Index =B/A =
4. Plantago lanceolata 8 No F	ACU Hydrophytic Vegetation Indicators
· ·	1-Rapid Test for Hydrophytic Vegetation
7 Potentille nemocice 1 No E	ACU 2-Dominance Test is >50% AC 3-Prevalence Index is < or =3.01
8.	4-Morphological Adaptations¹ (Provide supporting
9.	data in Remarks or on a separate sheet)
10	Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 30 ft radius) = Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. 2.	Hydrophytic Vegetation Present? No

Sampling Point: 44B SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Matrix Depth (inches) Color (moist) % Color (moist) % Type¹ Loc2 Texture Remarks 10YR 4/2 0-11 100 8% CF (GR) Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils³: Sandy Gleyed Matrix (S4) Histosol (A1) Coast Prairie Redox (A16) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) ☐ Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) ☐ Very Shallow Dark Surface (TF12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) 2 cm Muck (A10) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) ³ Indicators of hydrophytic vegetation and Thick Dark Surface (A12) Depleted Dark Surface (F7) wetland hydrology must be present, unless Sandy Mucky Mineral (S1) Redox Depressions (F8) disturbed or problematic. 5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: Hydric Soil Present? No Depth (inches): Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two is required) Primary Indicators (minimum of one is required: check all that apply) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) Aquatic Fauna (B13) Drainage Patterns (B10) High Water Table (A2) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? No Depth (inches): Water Table Present? Depth (inches): No Saturation Present? No Depth (inches): **Wetland Hydrology Present?** No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Project/Site: IL 31 (FAU 336) City/County: McHei	nry Sampling Date 9/9/2014
Applicant/Owner: IDOT District 1	State: IL Sampling Point 45A
Investigator(s): Marcum, Kenney Section, Tow	nship, Range: Sec. 27, T44N, R8E
Landform (hillslope, terrace, etc.): Pond Local relief	f (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, et
Hydrophytic Vegetation Present? Yes	
Hydric Soil Present? Yes Is the Sample	d Area
Wetland Hydrology Present? Yes within a Wetla	
Remarks: Community type is wetland pond.	
VEGETATION - Use scientific names of plants.	
Absolute Dominant Indicate Tree Stratum (Plot size: 30 ft radius) % Cover Species? Status	Dominance rest worksneet.
Tree otratum (Flot Size. 30 ft radius)	Number of Dominant Species
1	Total Number of Dominant (A)
3	Species Across All Strata: (B)
4. 5.	Percent of Dominant Species
0 = Total Cover	That are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft radius)	Prevalence Index worksheet:
1. 2.	
3.	FACW species x 2 =
4	FAC species x 3 =
0 = Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 5 ft radius)	UPL species x 5 =
1. Nymphaea sp. 50 Yes OBL	Column Totals (A) (B)
 Typha angustifolia Agrostis alba No FACW 	Prevalence Index =B/A =
4.	Hydrophytic Vegetation Indicators
5	✓ 1-Rapid Test for Hydrophytic Vegetation
6	2-Dominance Test is >50% 3-Prevalence Index is < or =3.01
7. 8.	4-Morphological Adaptations¹ (Provide supporting
9. 10.	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 30 ft radius) = Total Cover 1 = Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.	Hydrophytic Vegetation

Sampling Point: 45A SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Depth (inches) Color (moist) % Color (moist) % Type¹ Loc2 Texture Remarks 0-13 10YR 2/1 100 13-26 2.5Y 5/1 100 L Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils³: Sandy Gleyed Matrix (S4) Histosol (A1) Coast Prairie Redox (A16) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) ☐ Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) ☐ Very Shallow Dark Surface (TF12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) 2 cm Muck (A10) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) ³ Indicators of hydrophytic vegetation and ✓ Thick Dark Surface (A12) Depleted Dark Surface (F7) wetland hydrology must be present, unless Sandy Mucky Mineral (S1) Redox Depressions (F8) disturbed or problematic. 5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: Hydric Soil Present? Yes Depth (inches): Remarks: **HYDROLOGY Wetland Hydrology Indicators:** Secondary Indicators (minimum of two is required) Primary Indicators (minimum of one is required: check all that apply) ✓ Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) ✓ High Water Table (A2) ✓ Aquatic Fauna (B13) Drainage Patterns (B10) ✓ Saturation (A3) ✓ True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) ✓ Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) ▼ FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes Depth (inches): <72 Water Table Present? Depth (inches): Yes 0 Saturation Present? Yes Depth (inches): 0 **Wetland Hydrology Present?** Yes (includes capillary fringe) 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: McHe	nry Sampling Date 9/9/2014
Applicant/Owner: IDOT District 1		State: IL Sampling Point 46A
Investigator(s): Marcum, Kenney	Section, Tow	rnship, Range: Sec. 34, T44N, R8E
Landform (hillslope, terrace, etc.): Excavated depressi	ion Local relie	f (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 Ac	quoll 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 ma	p showing sampling point	locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes		
Hydric Soil Present? Yes	Is the Sample	d Area
Wetland Hydrology Present? Yes	within a Wetla	
Remarks: Community type is wetland pond.		
VEGETATION - Use scientific names of plan	its.	
	Absolute Dominant Indicate % Cover Species? Status	Dominance rest worksheet.
Tree Stratum (Plot size: 30 ft radius) 1.	'	Number of Dominant Species That are OBL, FACW, or FAC:(A)
2		Total Number of Dominant
3. 4.		Species Across All Strata: ——————————————————————————————————
5.		That are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft radius)	= Total Cover	Prevalence Index worksheet:
1.		Total % Cover of: Multiply by:
2		OBL species x 1 =
3. 4.		FACW species x 2 =
5.		FAC species x 3 =
Hart Overture (Diet eine 5 (und ihre)	0 = Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 5 ft radius) 1. Echinochloa crusgalli	70 Yes FACW	UPL species x 5 = Column Totals (A) (B)
2. Polygonum persicaria	1 No FACW	Column Totals (A) (B) Prevalence Index =B/A =
3.		Hydrophytic Vegetation Indicators
4.		✓ 1-Rapid Test for Hydrophytic Vegetation
6.		2-Dominance Test is >50%
7		3-Prevalence Index is < or =3.01
8.		4-Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
9. 10.		Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:30 ft radius)	= Total Cover	¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.		Hydrophytic
2		Vegetation Voc
	0 = Total Cover	Present? Tes
Remarks: (Include photo numbers here or on a separ	ate sheet.)	

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SOIL								Sampling	Point:4	6A
	escription: (Describe t	o the depth	needed to document	the indi	cator or	confirm	the absence	of indicators.)		
Depth	Matrix		Redox	Features						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks		
0-5	10YR 2/1	100	,				SIL			
5-13	10YR 3/2	94	10YR 5/8	6	С	M	SIL			
¹ Type: C=Co	oncentration, D=Depleti	ion, RM=Red	duced Matrix, MS=Mas	ked Sand	Grains.		² Loc	ation: PL=Pore Li	ning, M=Ma	trix
Hydric Soil	Indicators:						Indicators fo	or Problematic Hy	dric Soils	:
Histoso	ol (A1)		Sandy Gleyed N	/latrix (S4)		☐ Coast	Prairie Redox (A1	16)	
Histic E	Epipedon (A2)		Sandy Redox (S	S5)			=	Surface (S7)	0)	
Black H	Histic (A3)		Stripped Matrix	(S6)				langanese Masse	s (F12)	
Hydrog	gen Sulfide (A4)		Loamy Mucky N		1)			Shallow Dark Surfa	, ,	
Stratifie	ed Layers (A5)		Loamy Gleyed I				_ ,	(Explain in Rema	,	
	luck (A10)		Depleted Matrix		,			(Explain in Remai	No)	
	ed Below Dark Surface	(A11)	Redox Dark Sur							
	Dark Surface (A12)	,	Depleted Dark S	` '			3 Indicato	rs of hydrophytic v	egetation a	nd
	Mucky Mineral (S1)		Redox Depressi	`	,		wetland h	ydrology must be	present, unl	
= '	lucky Peat or Peat (S3))		(- /			(disturbed or proble	matic.	
_	Layer (if observed):									
Type: Depth (inch	200):					Н	lydric Soil Pr	esent? Yes	_	
Deptil (ilici	ies).									
Remarks:										
HADBUI (nev									
HYDROLO										
-	/drology Indicators:							ondary Indicators iimum of two is red	quired)	
•	icators (minimum of one	e is required					<u>`</u>		. /	
✓ Surface					(B9)			Surface Soil Cracl	. ,	
_	iter Table (A2)		Aquatic Fauna					Drainage Patterns		
✓ Saturation	on (A3)		True Aquatic F	Plants (B	14)			Dry-Season Wate	, ,)
Water M	arks (B1)		Hydrogen Sulf	ide Odor	(C1)			Crayfish Burrows	(C8)	
	nt Deposits (B2)		Oxidized Rhiz	ospheres	on Living	g Roots (0	, —	Saturation Visible	on Aerial	
☐ Drift Dep	oosits (B3)		Presence of R	educed I	ron (C4)			Imagery (C9)	1.01 / /0	
-	t or Crust (B4)		Recent Iron R	eduction	in Tilled S	Soils (C6)	_	Stunted or Stresse	`)1)
☐ Iron Dep	osits (B5)		Thin Muck Su	rface (C7)		_	Geomorphic Posit	, ,	
Inundation	on Visible on Aerial Ima	gery (B7)	Gauge or Wel	l Data (D	9)		✓	FAC-Neutral Test	(D5)	
Sparsely	Vegetated Concave St	urface (B8)	Other (Explain	in Rema	ırks)					
Field Obser	rvations:									
Surface Wa	ter Present? Yes	Depth (in	ches): <24							
Water Table	e Present? Yes	Depth (in	ches): 0							
Saturation F		· · Depth (in				Wetlan	d Hydrology	Present? Y	es	
	pillary fringe)	/	/ <u> </u>				,			
Describe Re	ecorded Data (stream g	auge, monit	oring well, aerial photo	s, previou	ıs inspec	tions), if a	available:			
Remarks:										
aino.										

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WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IL 31 (FAU 336)		City/Count	y: McHenry		Sampling Date	9/9/2014	
Applicant/Owner: IDOT District 1				State: IL	Sampling Point	46B	
Investigator(s): Marcum, Kenney		Sec	tion, Townsl	nip, Range: Sec.	34, T44N, R8E		
Landform (hillslope, terrace, etc.): Upland			ocal relief (c	concave, convex,	none): Convex		
Slope (%): <10 Lat: 42.24871		<u> </u>			Datum: NA	D 83	
Soil Map Unit Name: NRCS mapped as Warsaw loam, 4-6% sl		·				.5 00	
Are climatic/hydrologic conditions on the site typical for this time				no explain in Rem	,		
Are Vegetation No , Soil No , or Hydrology No signif	icantly	disturbed?		Are "Normal Circ	cumstances" pres	ent? Y	es
Are Vegetation No, Soil No, or Hydrology No natur	ally pro	blematic?		(If needed, expla	ain any answers in	n Remarks.)
SUMMARY OF FINDINGS - Attach site map show	wing s	sampling	point lo	cations, trans	sects, importa	ant featu	res, etc
Hydrophytic Vegetation Present? No							
Hydric Soil Present? No		Is the	Sampled A	\rea			
Wetland Hydrology Present? No			n a Wetland		lo		
Remarks: Community type is forbland.							
VEGETATION - Use scientific names of plants.							
0/ 6	olute Cover	Dominant Species?	Indicator Status	Dominance Te	st worksheet:		
Tiee Stratum (1 lot size. 30 it radius)		•	Status	Number of Dom			
1.				That are OBL, I	•	0	_ (A)
3.				Total Number of Species Across		4	(D)
4.				Percent of Dom		<u>-</u>	_ (B)
5.				That are OBL, I		0%	_ (A/B)
Sapling/Shrub Stratum (Plot size:15 ft radius)	0	= Total Co	ver	Prevalence Inde	ov workshoot:		_ (ハロ)
, , , , , , , , , , , , , , , , , , , ,					er of: Mu	ultiply by:	
1				OBL species		=	-
3.				FACW species	x2-	_	=
4				FAC species	x 3 =	=	=
5				FACU species	x 4 =		=
Llorb Ctrotum (Diot circu 5 ft radius)	0	= Total Co	ver		-		=
Herb Stratum (Plot size: 5 ft radius) 1. Bouteloua curtipendula	35	Yes	LIDI	UPL species	x 5 =		- (D)
Chenopodium album	10	Yes	FACU	Column Totals	(A)		_(B)
3. Melilotus alba	10	Yes	FACU	Prevale	ence Index =B/A =	·	=
4. Aster pilosus	8	Yes	FACU	Hydrophytic Ve	getation Indicate	ors	
5. Elymus canadensis	6	No	FACU	1-Rapid Tes	t for Hydrophytic \	√egetation	
6. Setaria glauca	6	No	FAC	2-Dominance	e Test is >50%		
7. Cirsium arvense	5	No	FACU	3-Prevalence	e Index is < or =3.	.01	
8. Pastinaca sativa	5	No	UPL		ical Adaptations1		pporting
9. Rumex crispus 10. Cichorium intybus	5 4	No No	FAC FACU		arks or on a separ Hydrophytic Vege	,	nlain)
					, , , ,	`	,
Woody Vine Stratum (Plot size: 30 ft radius)	124	= Total Co	ver		dric soil and wetlant, unless disturbe		
1.					ii, ariioss disturbe	a or bronie	nullo.
2.				Hydrophytic Vegetation			
	0	= Total Co	ver	Present?	No		
Remarks: (Include photo numbers here or on a separate shee	et)			ı			
Additional taxa from herb strata include: Lolium perenne (4%)	,	ım dichoto	miflorum (40	%) Coronilla varia	(3%) Echinochic	na crus-dal	i (3%)
Panicum capillare (3%), Setaria faberi (3%), Solidago canade							
└(1%), and Sonchus asper (1%).	,		·	. •	, ,,		_

Sampling Point: 46B SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Depth (inches) Color (moist) % Color (moist) % Type¹ Loc2 Texture Remarks 0-2 10YR 2/1 100 SICL 2-13 10YR 4/2 100 Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils³: Sandy Gleyed Matrix (S4) Histosol (A1) Coast Prairie Redox (A16) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) ☐ Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) ☐ Very Shallow Dark Surface (TF12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) 2 cm Muck (A10) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) ³ Indicators of hydrophytic vegetation and Thick Dark Surface (A12) Depleted Dark Surface (F7) wetland hydrology must be present, unless Sandy Mucky Mineral (S1) Redox Depressions (F8) disturbed or problematic. 5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: Hydric Soil Present? No Depth (inches): Remarks: **HYDROLOGY Wetland Hydrology Indicators:** Secondary Indicators (minimum of two is required) Primary Indicators (minimum of one is required: check all that apply) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) Aquatic Fauna (B13) Drainage Patterns (B10) High Water Table (A2) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? No Depth (inches): Water Table Present? Depth (inches): No Saturation Present? No Depth (inches): **Wetland Hydrology Present?** No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

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APPENDIX B

Wetland Plant Species Lists

-			-
Site	36 -	Wetland	pond

			Wetland	Coefficient of
Scientific Name	Common Name	Strata	Indicator Status	Conservatism
Typha angustifolia	narrow-leaved cattail	Н	OBL	1
Agrostis alba*	red top	Н	FACW	-
Aster simplex	panicled aster	Н	FAC	3
Bidens frondosa	common beggar's ticks	Н	FACW	1
Carex sp.	sedge	Н	-	-
Cyperus rivularis	brook flat sedge	Н	OBL	4
Eleocharis erythropoda	red-rooted spike rush	Н	OBL	2
Eupatorium perfoliatum	common boneset	Н	OBL	4
Eupatorium rugosum	white snakeroot	Н	FACU	4
Festuca elatior*	tall fescue	Н	FACU	-
Fraxinus pennsylvanica var.	green ash	Н	FACW	1
subintegerrima				
Glechoma hederacea*	ground ivy	Н	FACU	-
Leersia oryzoides	rice cut grass	Н	OBL	4
Lemna minor	small duckweed	Н	OBL	5
Poa pratensis*	Kentucky blue grass	Н	FAC	-
Potamogeton pectinatus	comb pondweed	Н	OBL	5
Prunella vulgaris var. lanceolata	self-heal	Н	FAC	0
Rumex crispus*	curly dock	Н	FAC	-
Sambucus canadensis	common elder	S	FACW	1
Senecio glabellus*	butterweed	Н	FACW	-
Solidago gigantea	late goldenrod	Н	FACW	4
Sonchus arvensis*	field sow thistle	Н	FACU	-
Spirodela polyrhiza	great duckweed	Н	OBL	7
*Non-native species Bolded sp	pecies is dominant in the denoted s	stratum	Mean C	= 3.1
H = Herb T = Tree S = Sanling/Shrul			FOL	

H = Herb, T = Tree, S = Sapling/Shrub, W = Woody Vine FQI = 11.9

Site 38 - Wetland pond

			Wetland	Coefficient of
Scientific Name	Common Name	Strata	Indicator Status	Conservatism
Leersia oryzoides	rice cut grass	Н	OBL	4
Phalaris arundinacea*	reed canary grass	Н	FACW	-
Wolffia columbiana	water meal	Н	OBL	7
Asclepias incarnata	swamp milkweed	Н	OBL	4
Ceratophyllum demersum	coontail	Н	OBL	5
Cirsium arvense*	field thistle	Н	FACU	-
Dipsacus laciniatus*	cut-leaved teasel	Н	UPL	-
Eleocharis obtusa	blunt spike rush	Н	OBL	3
Lemna trisulca	forked duckweed	Н	OBL	7
Solidago canadensis	Canada goldenrod	Н	FACU	1
Verbena urticifolia	white vervain	Н	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

			Wetland	Coefficient of
Scientific Name	Common Name	Strata	Indicator Status	Conservatism
Phalaris arundinacea*	reed canary grass	Н	FACW	-
Acer negundo	box elder	ST	FAC	0
Ambrosia trifida	giant ragweed	Н	FAC	0
Asclepias incarnata	swamp milkweed	Н	OBL	4
Aster simplex	panicled aster	Н	FAC	3
Cirsium arvense*	field thistle	Н	FACU	-
Dipsacus laciniatus*	cut-leaved teasel	Н	UPL	-
Echinochloa crusgalli	barnyard grass	Н	FACW	0
Echinocystis lobata	wild cucumber	Н	FACW	5
Eleocharis erythropoda	red-rooted spike rush	Н	OBL	2
Phragmites australis	common reed	Н	FACW	1
Poa pratensis*	Kentucky blue grass	Н	FAC	-
Polygonum pensylvanicum	pinkweed	Н	FACW	0
Polygonum scandens	climbing false buckwheat	Н	FAC	1
Rumex crispus*	curly dock	Н	FAC	-
Salix amygdaloides	peach-leaved willow	HS	FACW	5
Salix nigra	black willow	HS	OBL	4
Scirpus fluviatilis	river bulrush	Н	OBL	4
Setaria glauca*	pigeon grass	Н	FAC	-
Solanum americanum	black nightshade	Н	FACU	0
Typha angustifolia	narrow-leaved cattail	Н	OBL	1
Ulmus americana	American elm	Н	FACW	3
Urtica procera	stinging nettle	Н	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

			Wetland	Coefficient of
Scientific Name	Common Name	Strata	Indicator Status	Conservatism
Phalaris arundinacea*	reed canary grass	Н	FACW	-
Acer negundo	box elder	ST	FAC	0
Agrimonia parviflora	swamp agrimony	Н	FACW	7
Ambrosia trifida	giant ragweed	Н	FAC	0
Angelica atropurpurea	angelica	Н	OBL	7
Aster puniceus	bristly aster	Н	OBL	8
Aster simplex	panicled aster	Н	FAC	3
Carex stricta	common tussock sedge	Н	OBL	5
Cicuta maculata	water hemlock	Н	OBL	6
Cirsium arvense*	field thistle	Н	FACU	-
Echinocystis lobata	wild cucumber	Н	FACW	5
Epilobium coloratum	cinnamon willow herb	Н	OBL	3
Glechoma hederacea*	ground ivy	Н	FACU	-
Impatiens capensis	spotted touch-me-not	Н	FACW	3
Lobelia siphilitica	great blue lobelia	Н	OBL	6
Lycopus americanus	common water horehound	Н	OBL	5
Phragmites australis	common reed	Н	FACW	1
Polygonum pensylvanicum	pinkweed	Н	FACW	0
Polygonum scandens	climbing false buckwheat	Н	FAC	1
Rhamnus cathartica*	common buckthorn	S	FAC	-
Ribes americanum	wild black currant	HS	FACW	7
Salix amygdaloides	peach-leaved willow	Т	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	Н	OBL	6
Scirpus fluviatilis	river bulrush	Н	OBL	4
Solidago canadensis	Canada goldenrod	Н	FACU	1
Solidago gigantea	late goldenrod	Н	FACW	4
Solidago graminifolia	grass-leaved goldenrod	Н	FACW	4
Typha angustifolia	narrow-leaved cattail	Н	OBL	1
Urtica procera	stinging nettle	Н	FACW	2
Verbena hastata	blue vervain	Н	FACW	4
Verbena urticifolia	white vervain	Н	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

			Wetland	Coefficient of
Scientific Name	Common Name	Strata	Indicator Status	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	Н	FAC	0
Apocynum cannabinum	dogbane	Н	FAC	4
Asclepias syriaca	common milkweed	Н	FACU	0
Aster simplex	panicled aster	Н	FAC	3
Cirsium arvense*	field thistle	Н	FACU	-
Convolvulus sepium	American bindweed	Н	FAC	1
Geum canadense	white avens	Н	FAC	1
Impatiens capensis	spotted touch-me-not	Н	FACW	3
Phragmites australis	common reed	Н	FACW	1
Poa pratensis*	Kentucky blue grass	Н	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	Н	FACU	0
Solanum dulcamara*	bittersweet nightshade	Н	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

			Wetland	Coefficient of
Scientific Name	Common Name	Strata	Indicator Status	Conservatism
Aster puniceus	bristly aster	Н	OBL	8
Eupatorium maculatum	spotted Joe Pye weed	Н	OBL	4
Salix interior	sandbar willow	S T	FACW	1
Typha angustifolia	narrow-leaved cattail	Н	OBL	1
Agrostis alba*	red top	Н	FACW	-
Ambrosia trifida	giant ragweed	Н	FAC	0
Apocynum cannabinum	dogbane	Н	FAC	4
Asclepias syriaca	common milkweed	Н	FACU	0
Aster novae-angliae	New England aster	Н	FACW	4
Aster simplex	panicled aster	Н	FAC	3
Carex pellita	wooly sedge	Н	OBL	4
Carex vulpinoidea	brown fox sedge	Н	FACW	2
Cirsium arvense*	field thistle	Н	FACU	-
Convolvulus sepium	American bindweed	Н	FAC	1
Cornus obliqua	pale dogwood	HS	FACW	6
Cornus stolonifera	red osier dogwood	S	FACW	6
Daucus carota*	Queen Anne's lace	Н	UPL	-
Geum canadense	white avens	Н	FAC	1
Geum laciniatum	rough avens	Н	FACW	5
Impatiens capensis	spotted touch-me-not	Н	FACW	3
Juncus dudleyi	Dudley's rush	Н	FACW	4
Juncus torreyi	Torrey's rush	Н	FACW	4
Phalaris arundinacea*	reed canary grass	Н	FACW	-
Phragmites australis	common reed	Н	FACW	1
Pilea pumila	Canada clearweed	Н	FACW	5
Poa pratensis*	Kentucky blue grass	Н	FAC	-
Polygonum pensylvanicum	pinkweed	Н	FACW	0
Prunella vulgaris var. lanceolata	self-heal	Н	FAC	0
Ribes americanum	wild black currant	S	FACW	7
Salix fragilis*	crack willow	Т	FAC	-
Solanum dulcamara*	bittersweet nightshade	Н	FAC	-
Solidago gigantea	late goldenrod	Н	FACW	4
Solidago graminifolia	grass-leaved goldenrod	Н	FACW	4
Spartina pectinata	prairie cord grass	Н	FACW	4
Typha latifolia	broad-leaved cattail	Н	OBL	1
Verbena hastata	blue vervain	Н	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

			Wetland	Coefficient of
Scientific Name	Common Name	Strata	Indicator Status	Conservatism
Typha angustifolia	narrow-leaved cattail	Н	OBL	1
Agrostis alba*	red top	Н	FACW	-
Apocynum cannabinum	dogbane	Н	FAC	4
Aster simplex	panicled aster	Н	FAC	3
Bidens frondosa	common beggar's ticks	Н	FACW	1
Cirsium arvense*	field thistle	Н	FACU	-
Convolvulus sepium	American bindweed	Н	FAC	1
Echinochloa crusgalli	barnyard grass	Н	FACW	0
Festuca elatior*	tall fescue	Н	FACU	-
Panicum dichotomiflorum	fall panicum	Н	FACW	0
Pastinaca sativa*	wild parsnip	Н	UPL	-
Poa pratensis*	Kentucky blue grass	Н	FAC	-
Salix fragilis*	crack willow	Т	FAC	-
Solidago canadensis	Canada goldenrod	Н	FACU	1
Solidago gigantea	late goldenrod	Н	FACW	4
Solidago graminifolia	grass-leaved goldenrod	Н	FACW	4
*Non-native species Bolded	species is dominant in the denoted s	tratum	Mean C =	1.9
H = Herb, T = Tree, S = Sapling/Sh	rub, W = Woody Vine		FQI =	= 6.0

Site 44 - Wet shrubland

			Wetland	Coefficient of
Scientific Name	Common Name	Strata	Indicator Status	Conservatism
Phalaris arundinacea*	reed canary grass	Н	FACW	-
Salix interior	sandbar willow	S	FACW	1
Asclepias syriaca	common milkweed	Н	FACU	0
Aster simplex	panicled aster	Н	FAC	3
Carex vulpinoidea	brown fox sedge	Н	FACW	2
Cirsium arvense*	field thistle	Н	FACU	-
Lolium perenne*	perennial rye grass	Н	FACU	-
Poa pratensis*	Kentucky blue grass	Н	FAC	-
Populus deltoides	eastern cottonwood	ST	FAC	2
Salix amygdaloides	peach-leaved willow	S	FACW	5
Solidago canadensis	Canada goldenrod	Н	FACU	1
Verbena urticifolia	white vervain	Н	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

			Wetland	Coefficient of
Scientific Name	Common Name	Strata	Indicator Status	Conservatism
Nymphaea sp. (p)	water lily	Н	OBL	-
Acalypha rhomboidea	three-seeded mercury	Н	FACU	0
Agrostis alba*	red top	Н	FACW	-
Cyperus rivularis	brook flat sedge	Н	OBL	4
Juncus effusus (p)	common rush	Н	OBL	-
Poa pratensis*	Kentucky blue grass	Н	FAC	-
Sambucus canadensis	common elder	S	FACW	1
Typha angustifolia	narrow-leaved cattail	Н	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

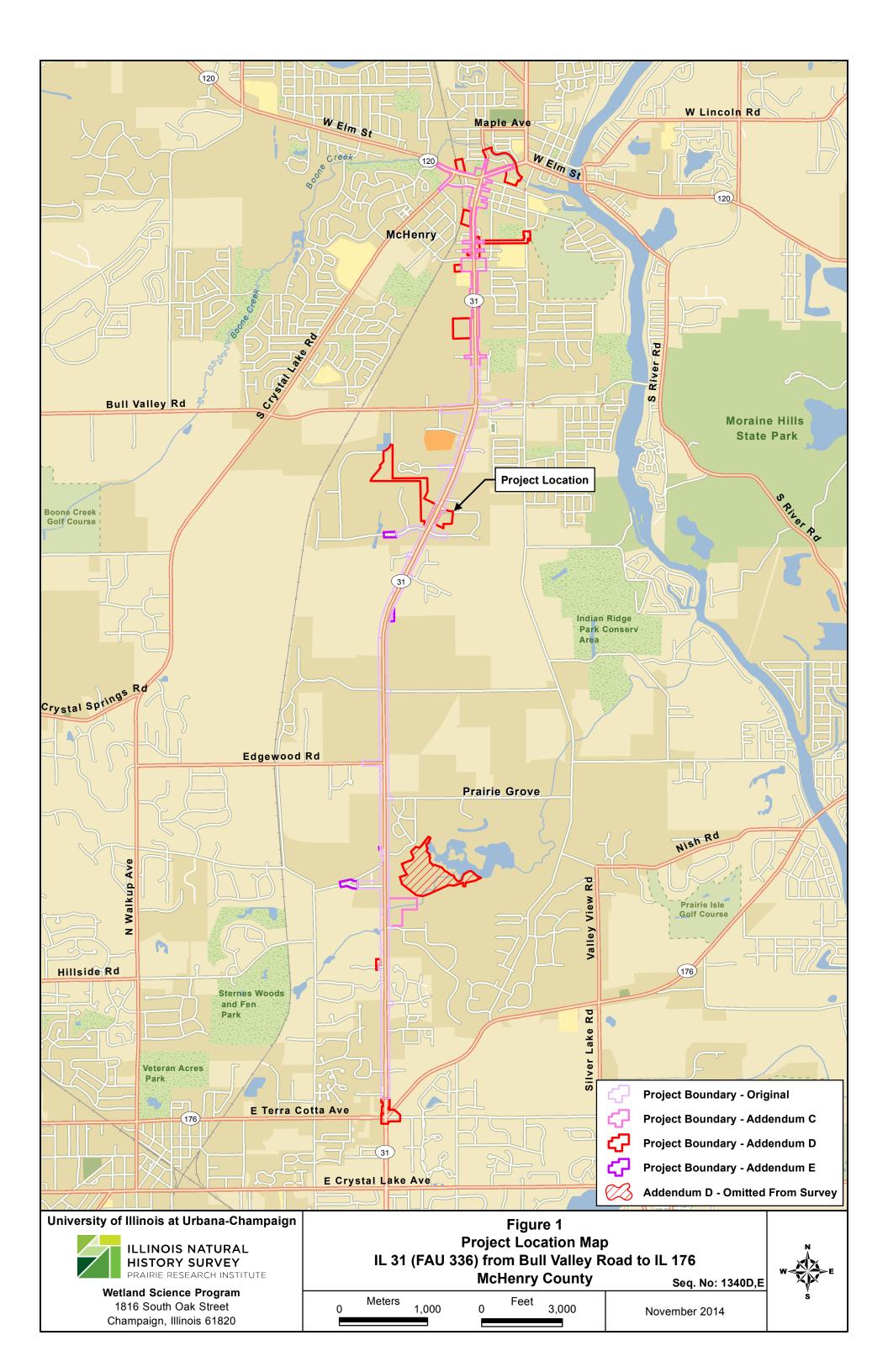
			Wetland	Coefficient of
Scientific Name	Common Name	Strata	Indicator Status	Conservatism
Echinochloa crusgalli	barnyard grass	Н	FACW	0
Typha angustifolia	narrow-leaved cattail	Н	OBL	1
Acnida altissima	tall waterhemp	Н	OBL	0
Alisma subcordatum	common water plantain	Н	OBL	4
Ambrosia artemisiifolia var. elatior	common ragweed	Н	FACU	0
Aster pilosus	hairy aster	Н	FACU	0
Aster simplex	panicled aster	Н	FAC	3
Chenopodium album*	lamb's quarters	Н	FACU	-
Diplachne acuminata*	salt meadow grass	Н	OBL	-
Elymus canadensis	Canada wild rye	Н	FACU	4
Eragrostis pectinacea	small love grass	Н	FAC	0
Lolium perenne*	perennial rye grass	Н	FACU	-
Oxalis stricta	common wood sorrel	Н	FACU	0
Panicum capillare	old witch grass	Н	FAC	1
Panicum dichotomiflorum	fall panicum	Н	FACW	0
Pastinaca sativa*	wild parsnip	Н	UPL	-
Phragmites australis	common reed	Н	FACW	1
Polygonum aviculare*	common knotweed	Н	FAC	-
Polygonum pensylvanicum	pinkweed	Н	FACW	0
Polygonum persicaria*	lady's thumb	Н	FACW	-
Populus deltoides	eastern cottonwood	Н	FAC	2
Rumex crispus*	curly dock	Н	FAC	-
Salix amygdaloides	peach-leaved willow	Н	FACW	5
Solidago canadensis	Canada goldenrod	Н	FACU	1

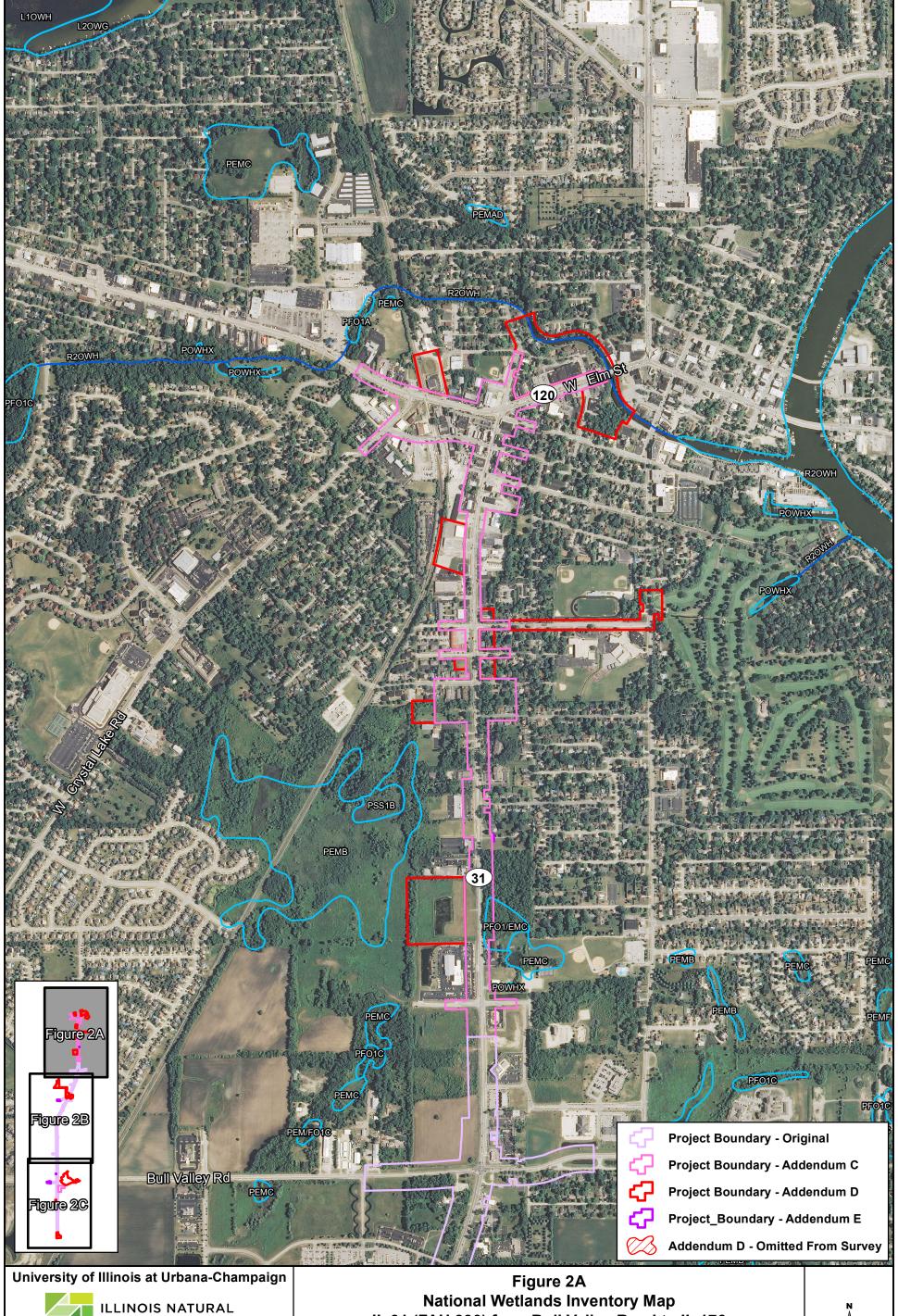
*Non-native species Bolded species is dominant in the denoted stratum Mean C = 1.3 H = Herb, T = Tree, S = Sapling/Shrub, W = Woody Vine FQI = 5.3

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HISTORY SURVEY PRAIRIE RESEARCH INSTITUTE IL 31 (FAU 336) from Bull Valley Road to IL 176 **McHenry County**

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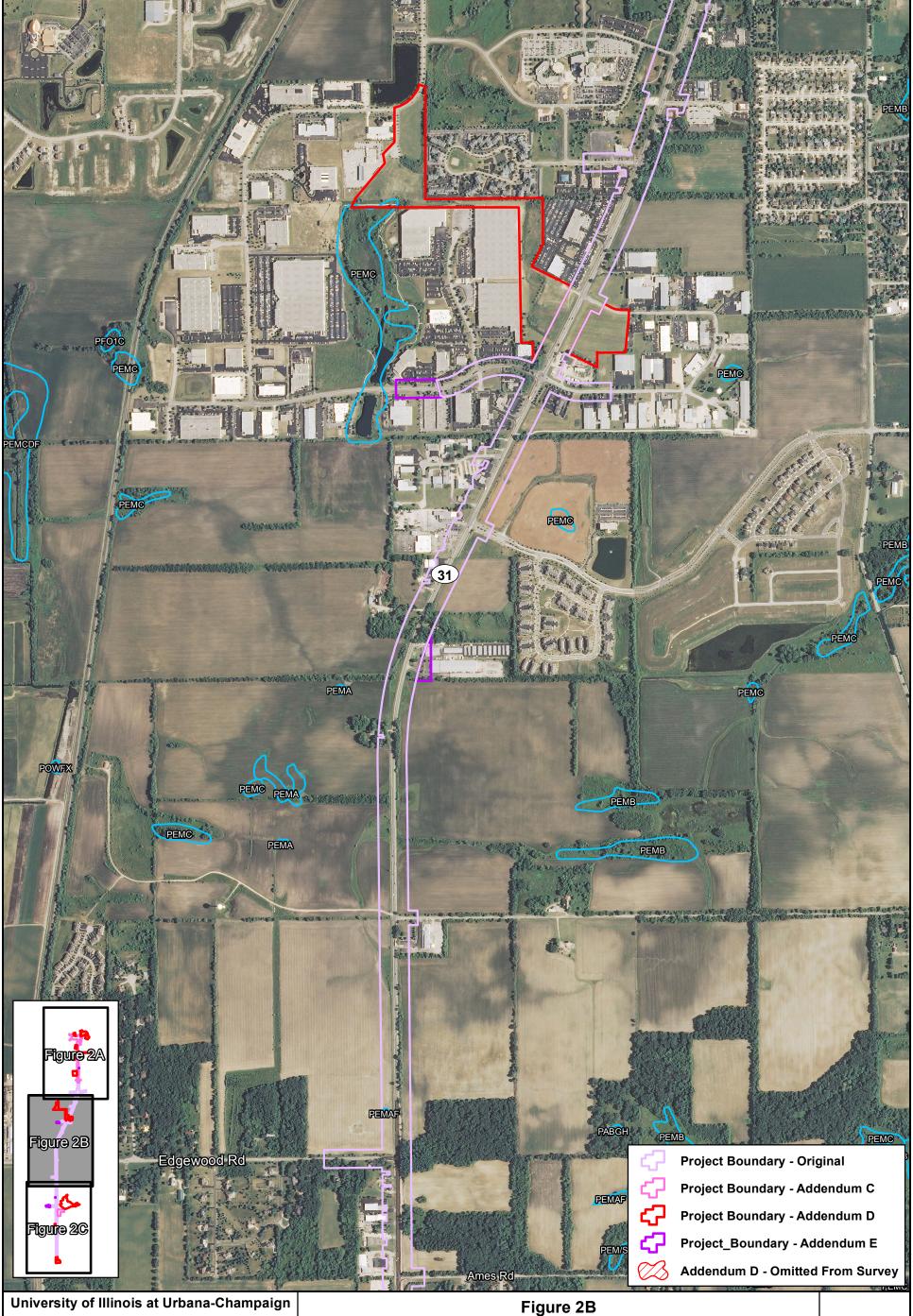
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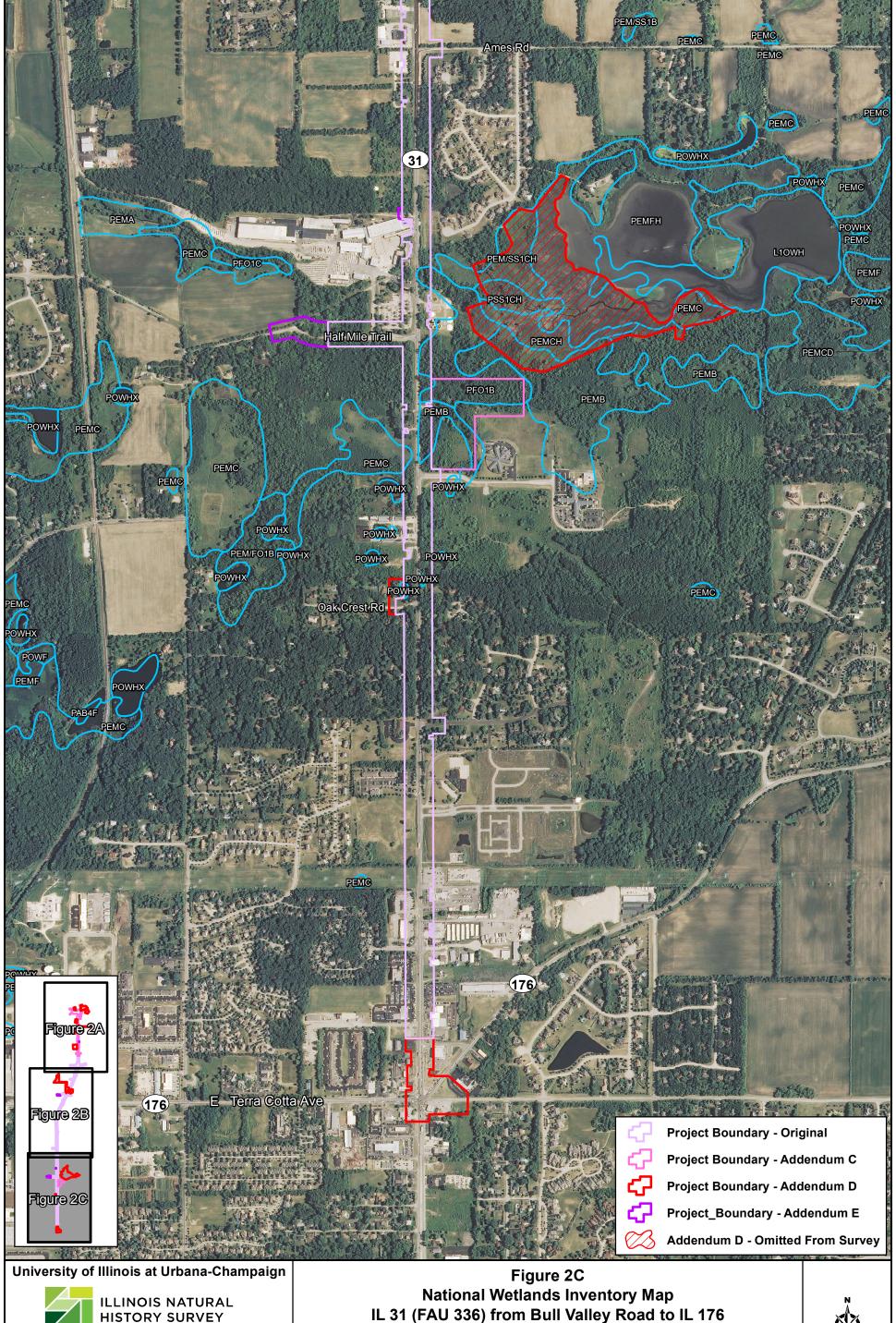
National Wetlands Inventory Map IL 31 (FAU 336) from Bull Valley Road to IL 176

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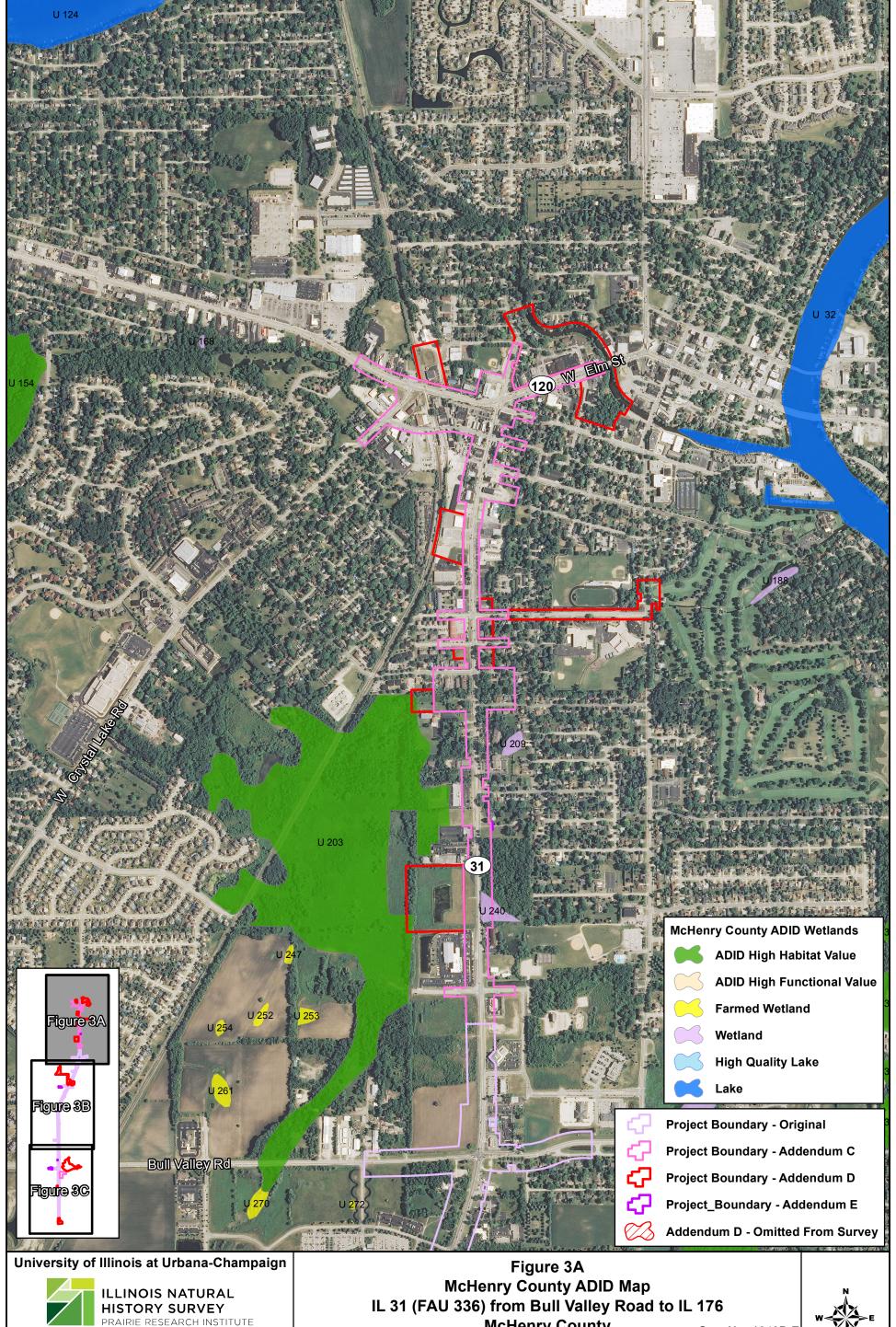
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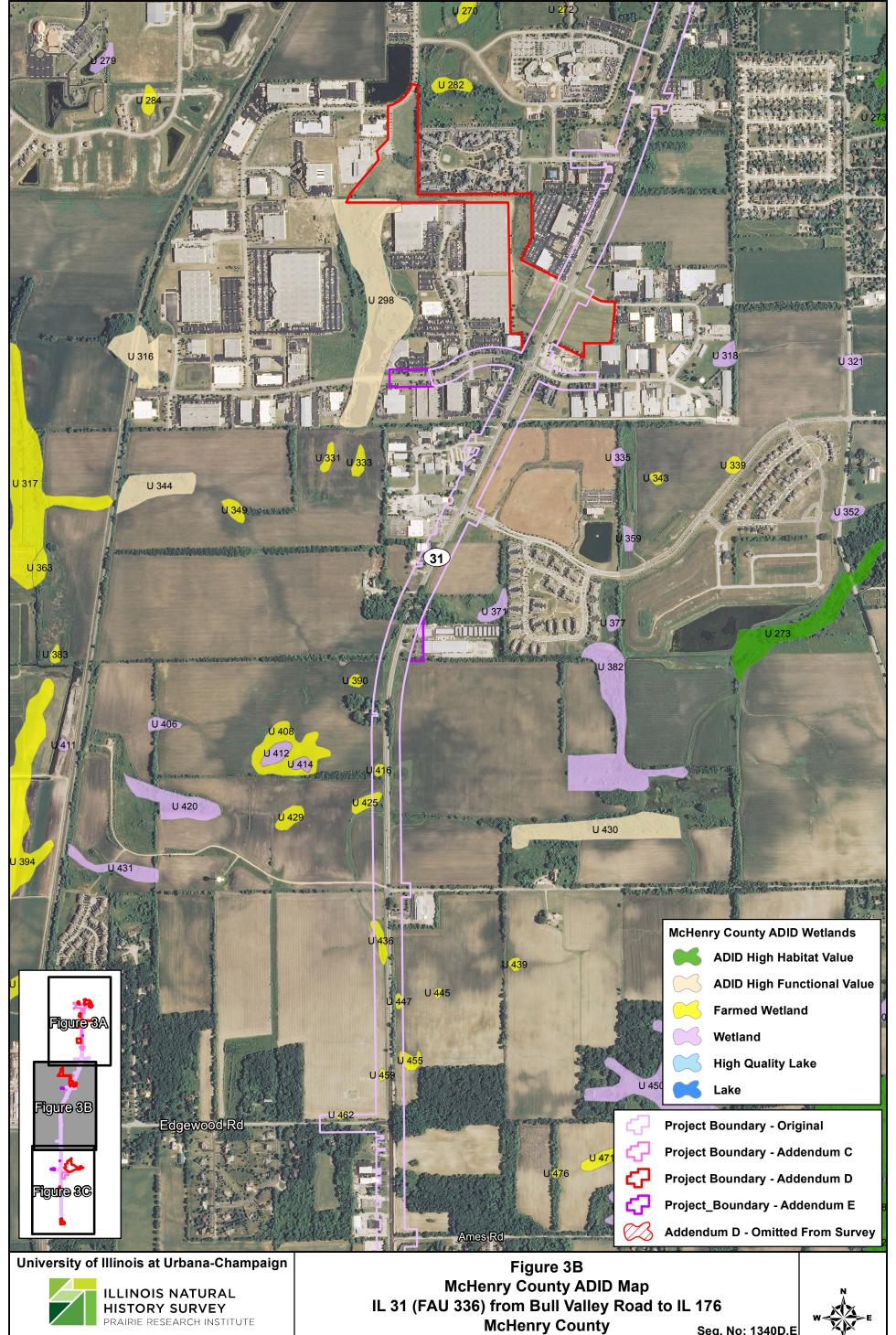
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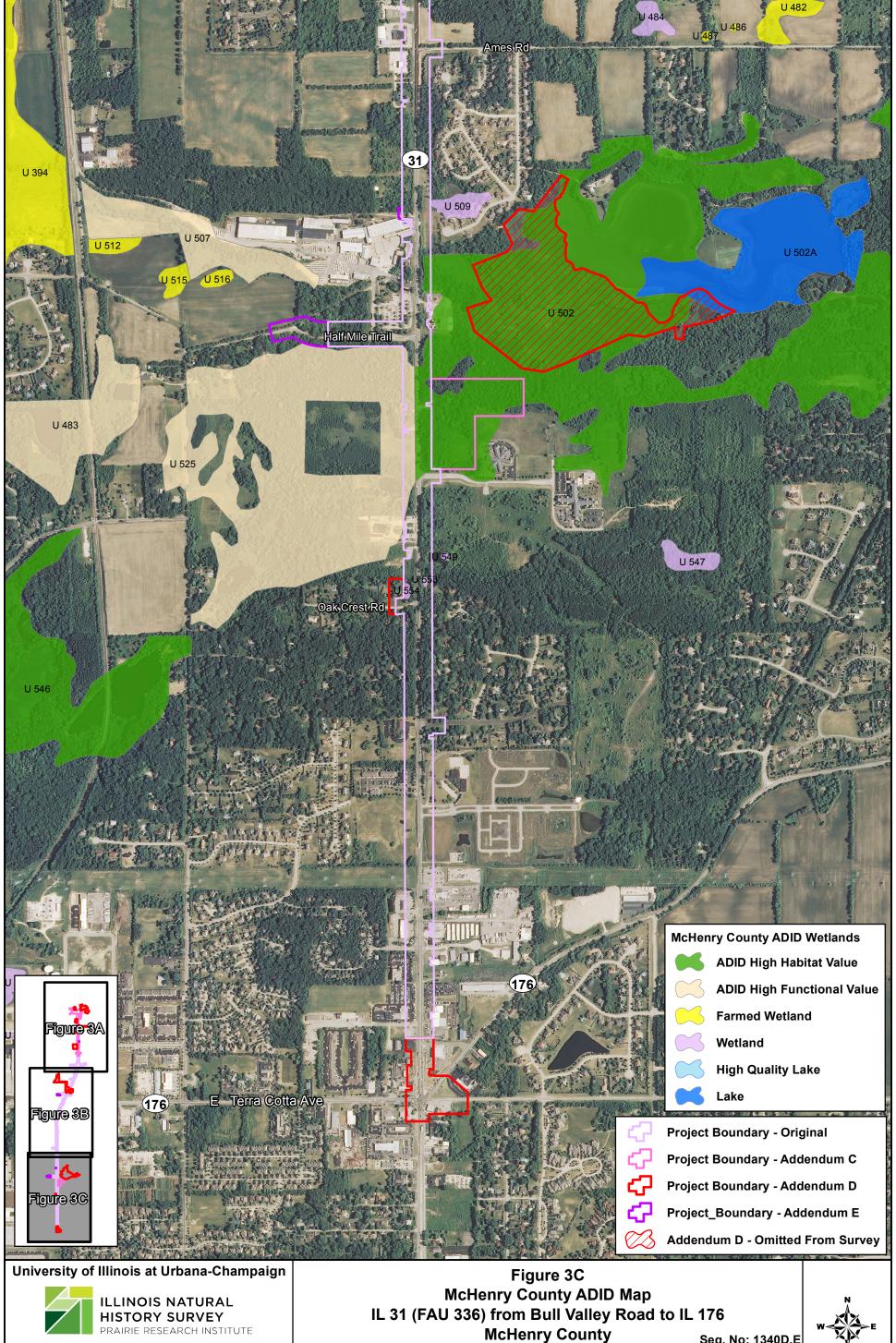


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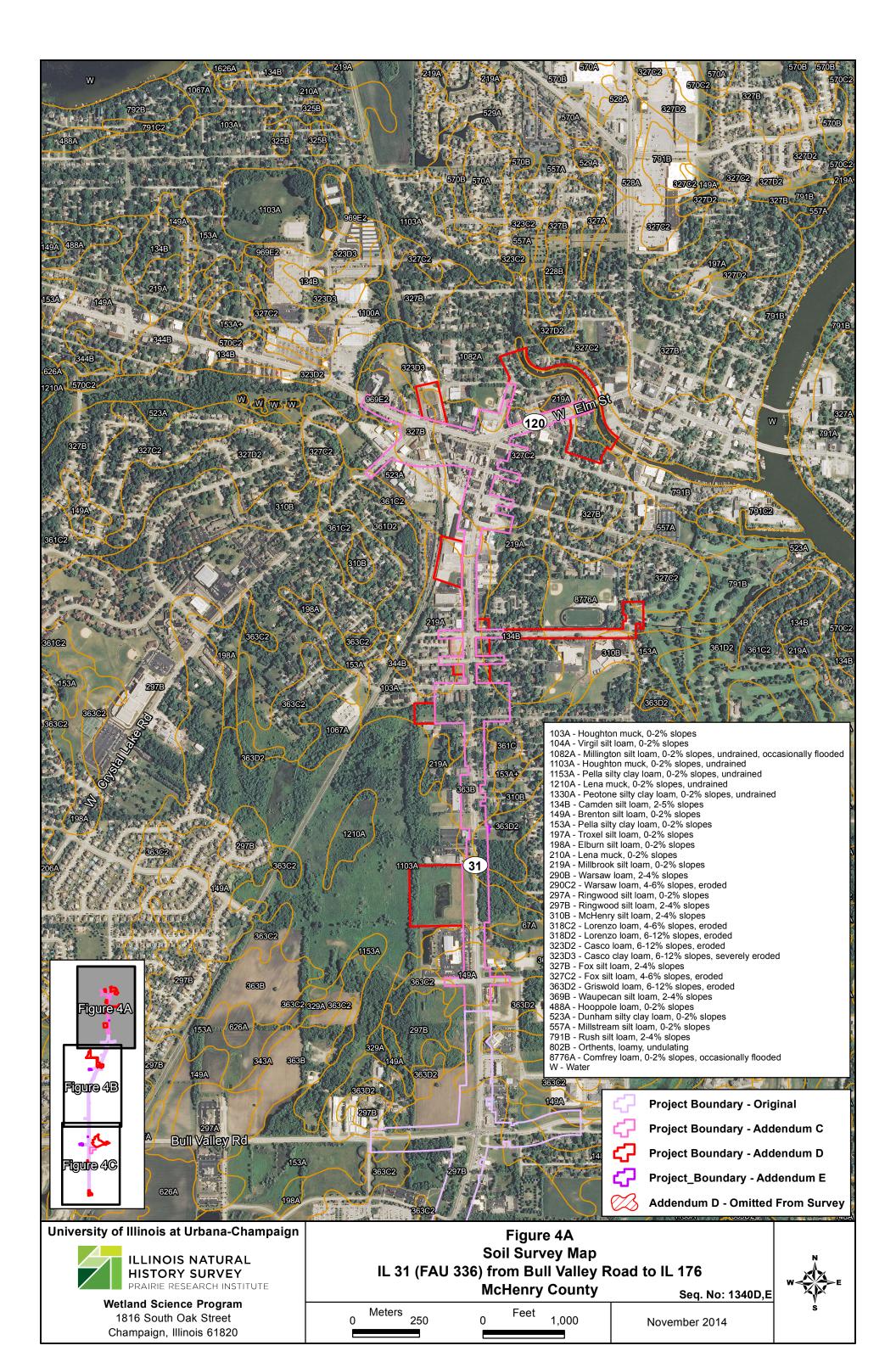
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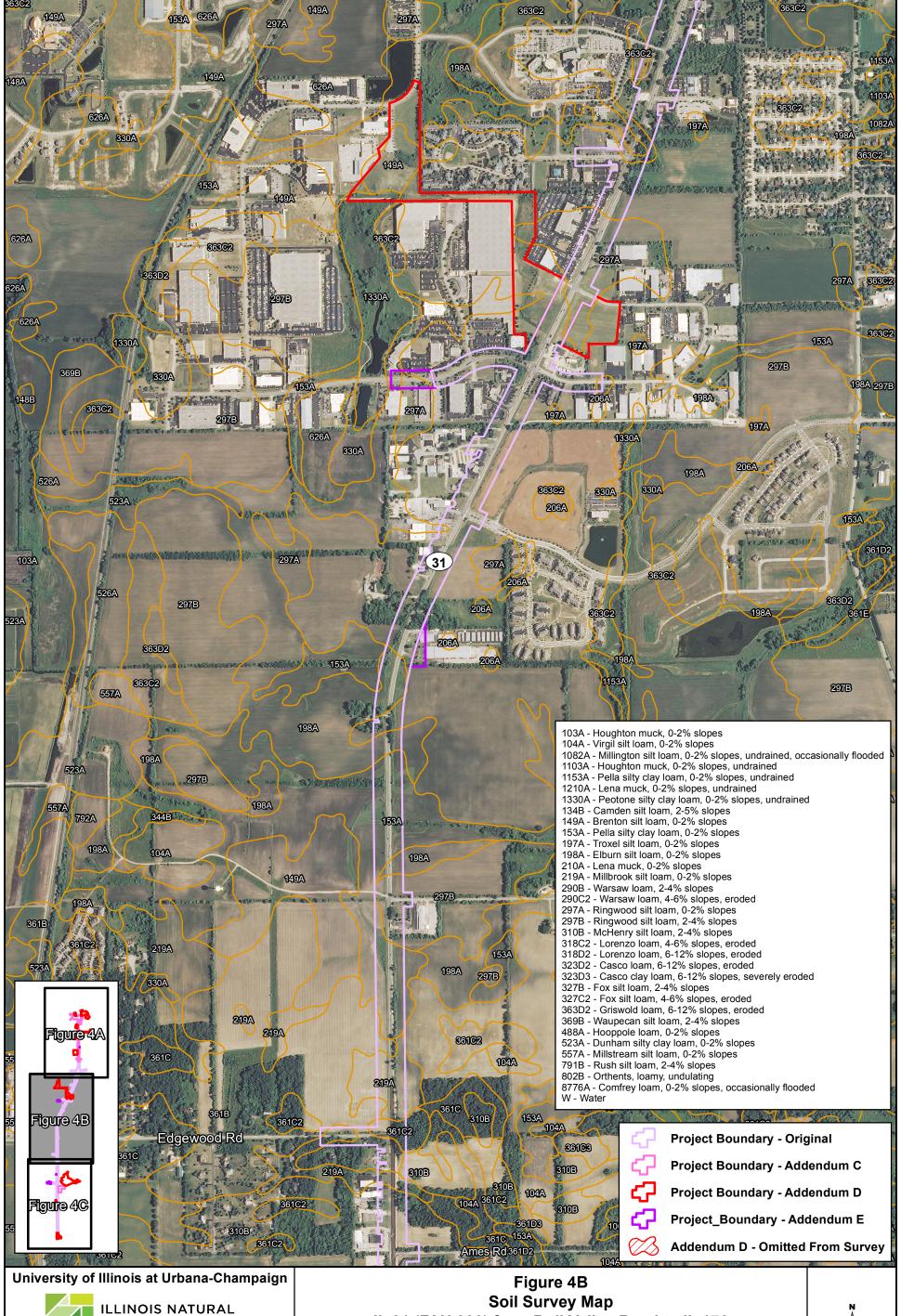
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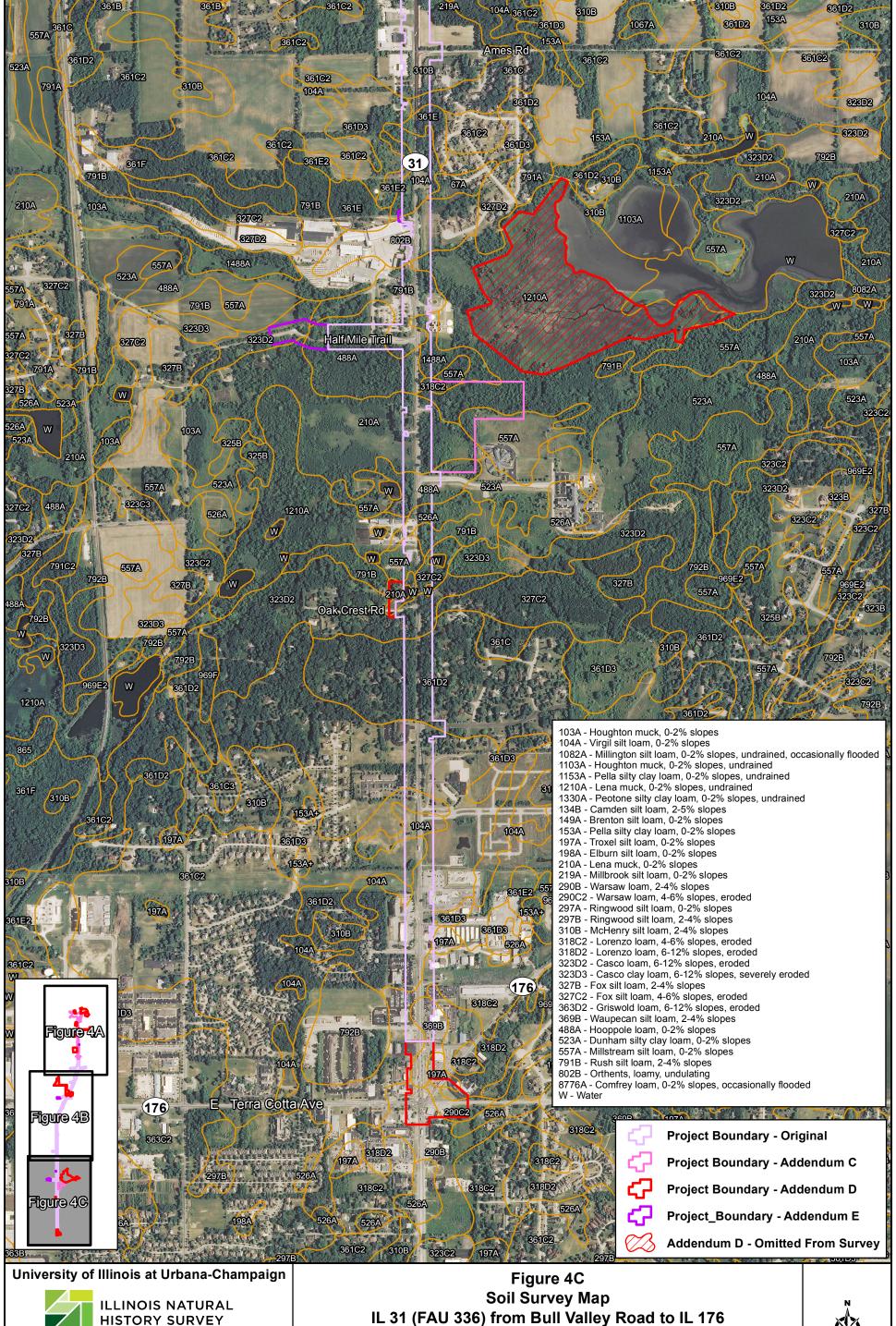
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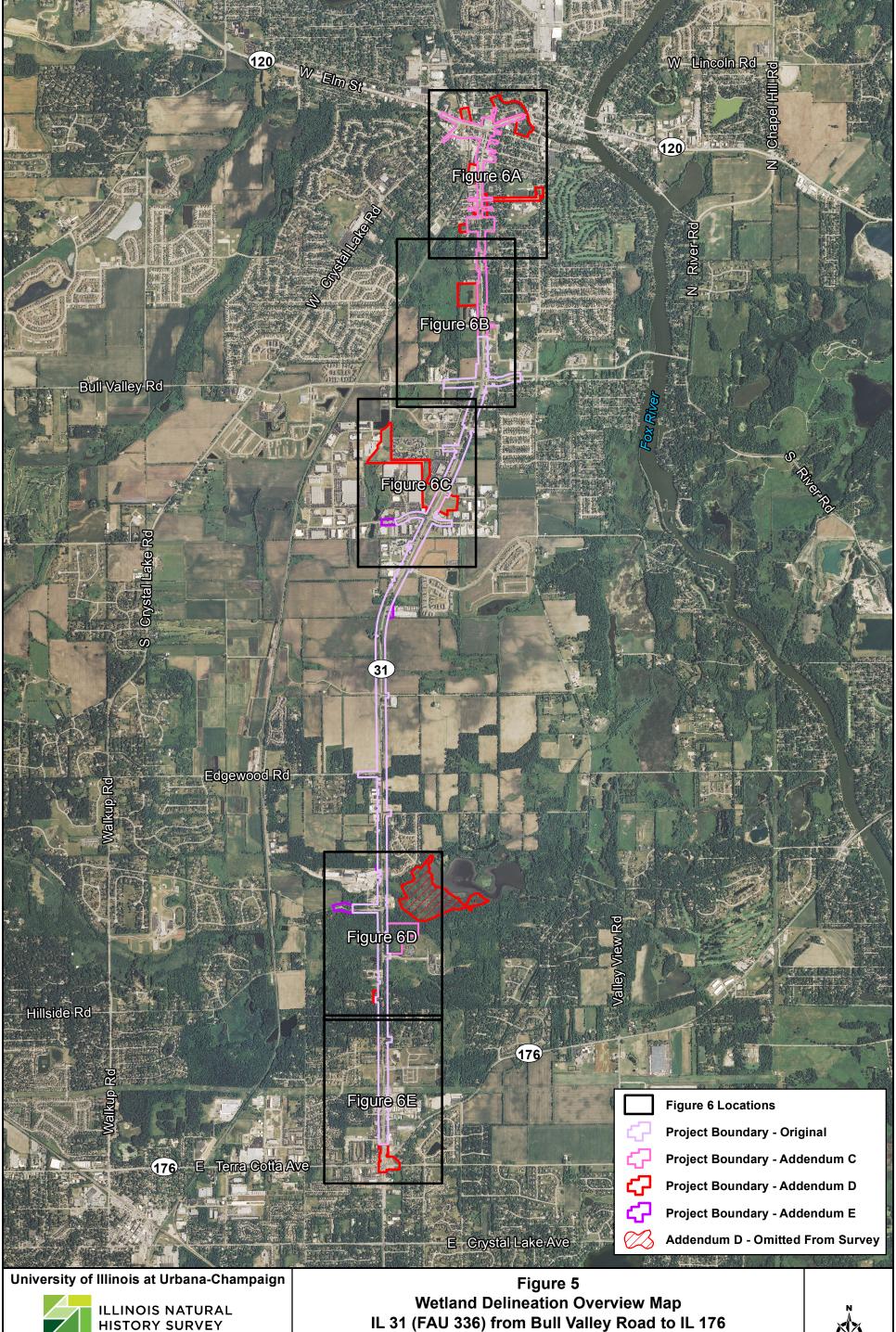
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