



# Wetland Delineation, Stream Survey, and Natural Heritage Inventory Habitat Survey Report

Dairyland Power Cooperative Briggs Road Substation to La Crosse Tap (Q-1D South) 161 kV Rebuild Project La Crosse County, Wisconsin

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# 1.0 Introduction and Purpose

The Dairyland Power Cooperative (DPC) Briggs Road Substation to La Crosse Tap 161 kilovolt (kV) Rebuild (Q-1D South) Project corridor extends from the Briggs Road Substation along Briggs Road to the La Crosse Tap along Keil Coulee Road in La Crosse County, Wisconsin. The surveyed Project corridor consists of existing transmission line right-of-way (ROW). The Project location is shown in **Figure 1**.

This report summarizes the results of the wetland delineation, stream survey, and Natural Heritage Inventory (NHI) habitat survey completed by AECOM in May 2013 for the Project corridor. The information enclosed in this report presents Project information including location, topography, hydrology, background sources, and the results of AECOM's wetland delineation, stream survey, and NHI habitat survey along the Project corridor. Wetlands were delineated and mapped based on the presence of the three mandatory technical criteria (hydrophytic vegetation, hydric soils, and wetland hydrology) outlined in the 1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0 August 2010).

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# 2.0 Site Background Information

## 2.1 Topography, Soil and Hydrology

The Project corridor is located in the Lower Black River watershed within the Black, Buffalo, Trempealeau Basin and the Lower La Crosse River watershed within the Bad Axe La Crosse Basin. Both watersheds are located within Wisconsin's unglaciated, driftless region, characterized deep valleys and flat-topped narrow ridges. Soils consist of silt loam and sandy loam over sandstone and highly eroded dolomite. Soils are moderately to poorly drained with low to moderate permeability. In valleys and along waterways, soils may contain heavy clay from glacial meltwater. Sandy, well drained soils are found in northern portions of the Project corridor.

## 2.2 Background Sources

Background information from agency documents and private sources, where available, was collected and reviewed as a part of this investigation. This material provided a first screening as to the known or possible existence of wetlands along the Project corridor. The documents reviewed included:

- U. S. Geologic Survey (USGS) 7.5-Minute Topographic Quadrangle Maps (USGS 2010)
- Web Soil Survey of La Crosse County, Wisconsin, <a href="http://websoilsurvey.nrcs.usda.gov">http://websoilsurvey.nrcs.usda.gov</a>
  (U. S. Department of Agriculture/Natural Resource Conservation Service
  (USDA/NRCS) 2013)
- Hydric Soils List for La Crosse County, Wisconsin (USDA/NRCS, 1995)

The USGS topographic map (**Figure** 1) shows that the Project corridor lies within both developed and undeveloped areas. Developed areas of the Project corridor are comprised of both residential and commercial land uses. Undeveloped areas of the Project corridor include the La Crosse River valley and isolated forested areas. Terrain throughout the Project corridor ranges from steep slopes near the northern and southern extents to relatively flat topography within the Onalaska city limits

According to the Soil Survey of La Crosse County, there are 32 soil units mapped along the Project corridor. These soil units are summarized in **Table 1**. One of the mapped soil units is classified as a hydric component and two of the mapped soil units are classified as having hydric soil inclusions. The hydric component soil is Ettrick silt loam (629A) and the mapped soils with hydric inclusions include Orion silt loam (628A) and Scotah loamy fine sand (656A). The Soil Survey map units are shown in **Figure 2** and the Hydric Soils List for La Crosse County is included in **Appendix A**.

Current Wisconsin Wetland Inventory (WWI) data is not available for La Crosse County; therefore it was not reviewed for this Project.

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# 3.0 Field Survey

## 3.1 Wetland Criteria

Jurisdictional wetland criteria are based upon the vegetation, soils, and hydrology criteria outlined in the USACE Wetland Delineation Manual (herein referred to as "the 1987 Manual") and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0, August 2010).

## 3.1.1 Hydrophytic Vegetation

Hydrophytic vegetation is defined as "The sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present" (1987 Manual). Hydrophytic species, due to structural, physiological, and/or reproductive adaptations have the ability to grow, effectively compete, reproduce, and/or persist in anaerobic soil conditions (1987 Manual).

The hydrophytic vegetation criterion for a wetland is met when more than 50 percent of the dominant plant species present at a given site are obligate, facultative wetland, or facultative species according to the regional plant list published by the USACE (Lichvar and Kartesc 2009)<sup>1</sup>. A semi-quantitative (routine determination) or quantitative (comprehensive determination) estimate is made of the dominant plant species in each vegetative stratum (herb, woody vine, shrub/sapling, and tree). A wetland boundary is determined based on the percentage of hydrophytic (wetland) species versus upland species identified during the on-site investigation. The indicator status of the vegetation, as listed in USACE National Wetland Plant List (NWPL 2012), is used to determine if the dominant species are hydrophytic or upland species.

#### 3.1.2 Hydrophytic Soils

A hydric soil is defined as a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper portion of the soil (USDA 1987). Soil is considered to be hydric when criteria developed by the National Technical Committee for Hydric Soils are met. These criteria are based on soil type, soil drainage characteristics, water table levels, and frequency of flooding. Accepted field indicators (e.g., soil color, presence and color of mottles, etc.) are typically considered to determine if technical criteria are met.

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<sup>&</sup>lt;sup>1</sup> Robert W. Lichvar and John T. Kartesz. 2009. North American Digital Flora: National Wetland Plant List, version 2.4.0 (https://wetland\_plants.usace.army.mil). U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH, and BONAP, Chapel Hill, NC. (May 2012)

## 3.1.3 Wetland Hydrology

Wetland hydrology is defined as permanent or periodic inundation or prolonged soil saturation sufficient to create anaerobic conditions in the soil (the 1987 Manual). Because this criterion is the least exact and most difficult to assess in the field, weather data, season of the year, and field observation of hydrologic indicators (e.g., water-stained leaves, high-water marks, saturated or ponded soils, etc.) are used to determine whether or not the wetland hydrology criterion is satisfied.

## 3.2 Field Reconnaissance Methodology

## 3.2.1 Wetland Delineation

On May 13-16<sup>th</sup> and 20-21<sup>st</sup>, 2013, two AECOM scientists conducted field surveys along the Project corridor. Wetland areas were delineated by evaluating whether the three mandatory criteria of hydrophytic vegetation, hydric soils, and wetland hydrology were present. The study area consists of a 100-foot-wide corridor.

The vegetation was assessed to determine the dominant species in the tree, shrub, and herbaceous vegetation strata. The percentage of areal cover was visually estimated for each species at the suspect location. Hydrophytic vegetation boundaries were identified to aid in locating the approximate upland/wetland boundary, which was based on the percentage of hydrophytic plant species versus upland plant species. Vegetation information was recorded on USACE Data Forms that are included in **Appendix B**.

The presence or absence of hydric soils was assessed by observing soil cores taken at each wetland/upland plot. Soil descriptions were completed at each plot location using Munsell soil color charts, and addressing USDA soil texture, moisture content, and special features. Soil plot locations were selected by examining local topographical characteristics, as well as the extent of dominant hydrophytic vegetation. Soil conditions and hydric soil indicators were recorded on USACE Data Forms for each wetland area identified.

Wetland hydrology was determined through observation of saturated soil conditions and evaluation of surficial hydrologic indicators. Typical surface hydrologic indicators may include standing water, water-stained leaves, drift lines, and high-water marks. Hydrology information was recorded on USACE Data Forms.

Wetland functional values were assessed by completing the Wisconsin Department of Natural Resources (WDNR) form entitled "Rapid Assessment Methodologies for Determining Wetland Functional Values." The forms (summary pages only) are included in **Appendix C**. Photographs of the wetland areas were taken at various locations and are included in **Appendix D**.

The approximate wetland/upland boundaries were surveyed using a Trimble GeoXH® Global Positioning System (GPS) which is listed as having sub-meter accuracy. The information collected with the GPS unit was downloaded into an ArcMap GIS map document, which was used to create the maps in this report.

## 3.2.2 Stream Survey

Waterway locations along the Project corridor were surveyed by recording approximate stream width, bank height, water depth, substrate type, and surrounding land use. Photographs of the streams were taken at various locations and are included in **Appendix D**.

#### 3.2.3 Habitat Survey

During the site reconnaissance, a meandering survey method was used to investigate existing habitats throughout the Project corridor. Natural habitats were classified according to the WDNR Natural Heritage Inventory (NHI) Natural Community Classification (September 2002 Revision). Photographs of the habitat areas were taken at various locations and are included in **Appendix D**.

## 3.3 Results

## 3.3.1 Wetland Delineation

Six wetland areas were identified during the field reconnaissance. The six wetland areas were delineated according to the 1987 Manual. Wetland locations and soil core plot locations are shown in **Figure 2**. The following paragraphs describe the areas delineated as jurisdictional wetlands. **Table 2** presents a summary of additional data collected in the field.

Wetland W-1 is a wet meadow located north of the residential development along Eastbrook Drive and south of the Walsh Golf Center. Wetland W-1 is dominated by reed canary grass (*Phalaris arundinacea* - FACW) and American manna grass (*Glyceria grandis* – OBL). Wetland hydrology was evidenced by high water table, saturation, water-stained leaves, drainage patterns, and geomorphic position. Wetland criteria were met in this area due to the dominance of hydrophytic vegetation, positive wetland hydrology indicators, and the presence of hydric soils. Wetland W-1 was evaluated to have medium wetland functional values and is shown on **Figure 2**, **Sheet Map 11**.

Wetland W-2 is a large wet meadow and shallow marsh wetland complex associated with the La Crosse River. It is bounded on the south by a pedestrian path, parallel to and south of the Canadian Pacific Railway, and on the north by the Valley View Mall Shopping Center. W-2 is adjacent to the La Crosse River (S-4) and a tributary thereof (S-3). Along the Project corridor, the wetland is dominated by reed canary grass with small populations of sandbar willow (*Salix interior* – FACW), honeysuckle (*Lonicera tartarica* – FACU), river birch (*Betula nigra* – FACW), green ash (*Fraxinus pennsylvanica* – FACW), Eastern cottonwood (*Populus deltoides* – FAC), and box elder (*Acer negundo* – FAC). Wetland hydrology was evidenced by saturation, water-stained leaves, oxidized rhizospheres on living roots, drainage patterns, and geomorphic position. Wetland criteria were met in this area due to the dominance of hydrophytic vegetation, positive wetland hydrology indicators, and the presence of hydric soils. Wetland W-2 was evaluated to have medium wetland functional values and is shown on **Figure 2, Sheet Maps 10 and 11.** 

Wetlands W-3, W-4, and W-5 are stormwater basins associated with residential communities and commercial development adjacent to the Project corridor. These areas were called out as wetland for the purpose of the land use survey, but are not jurisdictional. According to NR 103.05(4) (a), "Sedimentation and stormwater detention basins and associated conveyance features operated and maintained only for sediment detention and flood storage purposes" are exempt from regulation.

#### 3.3.1.1 Isolated/Non-Isolated Jurisdictional Wetland Determination

AECOM evaluated the jurisdictional wetlands associated with this Project pursuant to the Supreme Court's January 9, 2001, decision in Solid Waste Agency of Northern Cook County vs. USACE (herein referred to as the "SWANCC decision") and the Supreme Court's June 19, 2006 decision in Rapanos vs. United States and Carabell vs. United States (herein referred to as "Rapanos"). The SWANCC decision states that Section 404 of the Clean Water Act (CWA §404) does not apply to isolated, non-

navigable, wholly intrastate waters, where the only connection between the water body (or wetland) and interstate commerce is the use of the water as habitat for migratory birds. The Rapanos decision states that the agencies will decide jurisdiction over non-navigable tributaries and their adjacent wetlands based on a fact-specific analysis to determine if there is a significant nexus with traditional navigable waters. A significant nexus analysis will assess all hydrological and ecological functions of the tributary and its adjacent wetlands to determine their effects on downstream traditional navigable waters.

The characteristics of the wetlands associated with this Project were evaluated based on the following factors: 1) a "navigable water" as defined by Federal law; 2) an interstate water; 3) a tributary system to 1 or 2; 4) a wetland adjacent to navigable water; and 5) an impoundment to any of the above.

AECOM has evaluated the characteristics of the jurisdictional wetlands associated with this Project and has concluded that both W-1 and W-2 (**Figure 2, Sheet Maps 10 and 11**) are likely to be non-isolated, and as a result jurisdictional, because of their proximity to the La Crosse River. These wetlands would be crossed by the Project within the exiting transmission ROW.

Based on this evaluation, AECOM recommends that a Section 404 Department of Army Permit is required to discharge dredged and/or fill material into the non-isolated wetlands. Water quality certification under Section 401 of the Clean Water Act is also required for these impacts in accordance with USACE regulations. In Wisconsin, discharge of fill into an isolated wetland required Water Quality Certification from the WDNR and Wisconsin Administrative Code (WAC) NR103.

The conclusions presented herein are the opinion of AECOM. The final authority over wetland jurisdiction is the responsibility of the appropriate State and Federal agencies.

## 3.3.2 Stream Survey

Twelve streams were identified during the field reconnaissance. Stream locations are shown on **Figure 2**. **Table 3** presents the data collected at the 9 stream locations within the Project corridor.

Stream S-1 is an unnamed tributary (UNT) to the La Crosse River. The land use adjacent to Waterway S-1 is primarily agricultural. The channel is approximately 10 feet wide with 5 foot, moderately eroded banks. This channel has a silt substrate and no water was flowing water at the time of the field survey. Waterway S-1 is classified as an intermittent stream on the WDNR Designated Waters map. S-1 is shown on **Figure 2, Sheet Map 12**.

Stream S-2 is also an UNT to the La Crosse River. The area adjacent to S-2 includes residential development to the south and adjacent wetland (W-1). The channel is approximately 6 feet wide with 3 foot banks. The channel has a silt substrate and no flowing water was observed at the time of the field survey. Stream S-2 is not classified on the WDNR Designated Waters map. S-2 is shown on **Figure 2, Sheet Map 11**.

Stream S-3 is also an UNT to the La Crosse River. The land use adjacent to Stream S-3 includes a golf course, pedestrian path, and railroad corridor on the south end and a large wetland complex to the north (W-2). The channel is approximately 6 feet wide with 3 foot banks. Stream S-3 has a silt substrate and 1 foot of flowing water was observed at the time of the field survey. Stream S-3 is classified as a perennial stream on the WDNR Designated Waters map. S-3 is shown on **Figure 2**, **Sheet Map 11**.

Stream S-4 is identified as the La Crosse River. Land use adjacent to the La Crosse River within the Project corridor consists of a large wetland complex (W-2). Wetlands within the complex include wet meadow and shallow marsh habitats. Stream S-4 is approximately 50 feet wide with 3 foot banks and a silt substrate. Approximately 8 feet of water was flowing at the time of the field survey. Stream S-4 is classified as an Area of Special Natural Resource Interest (ASNRI) for Endangered, Threatened, or Special Concern species on the WDNR Designated Waters map. S-4 is shown on **Figure 2**, **Sheet Map 10**.

Stream S-5 is another UNT to the La Crosse River and appears to have been excavated and/or dredged. The land use adjacent to Stream S-5 includes grassland, forested floodplain, and old field habitat. The channel is approximately 9 feet wide with a 4 foot bank height and a silt substrate. Two feet of flowing water was observed at the time of the field survey. Stream S-5 is not classified on the WDNR Designated Waters map. S-5 is shown on **Figure 2, Sheet Map 10.** 

Stream S-6 is an unnamed waterway that is channelized along the north edge of the Interstate 90 ditch. The land use adjacent to Waterway S-6 includes old field, and commercial and residential development. The channel is approximately 15 feet wide with 2-3 foot, moderately eroded banks. This channel has a silt substrate and approximately 0.2 feet of water was flowing water at the time of the field survey. Stream S-6 is not classified on the WDNR Designated Waters map. S-6 is shown on **Figure 2, Sheet Map 9**.

Stream S-7 is identified as Halfway Creek. The land use adjacent to Stream S-7 includes old field habitat, roadway, and agricultural practice. The channel is approximately 12 feet wide with 4 foot banks. Stream S-7 has a silt substrate and 2 feet of flowing water was observed at the time of the field survey. Stream S-7 is classified as a perennial stream on the WDNR Designated Waters map. S-7 is shown on **Figure 2**, **Sheet Map 2**.

Stream S-8 is an open water feature associated with the Interstate 53 off ramp. Land use adjacent to S-8 includes old field in highway right-of-way and roadway. S-8 is not classified on the WDNR Designated Waters map. S-8 is shown on **Figure 2**, **Sheet Map 7**.

Stream S-9 is an unnamed stream located east of County Highway XX. The land use adjacent to Stream S-9 includes Southern Mesic Forest upland habitat. The channel is approximately 8 feet wide with a 4 foot bank height and a sand substrate. One foot of flowing water was observed at the time of the field survey. Stream S-9 is classified as an intermittent and ASNRI stream for Endangered, Threatened, or Special Concern species on the WDNR Designated Waters map. S-9 is shown on **Figure 2, Sheet Map 3**.

## 3.3.3 Habitat Survey

During the field reconnaissance, AECOM field biologists identified and classified upland and wetland habitats within the Project corridor. The majority of the Project corridor consists of residential, commercial, and industrial development near and within the Onalaska city limits. Large wetland complexes associated with the La Crosse River as well as smaller wetlands along the Project corridor were identified as potential NHI habitat. Fragments of forested and un-forested (grassland) upland habitat were also recorded as potential NHI habitat. A total of five wetland habitats, and 38 upland habitats were identified within the Project corridor. NHI habitats include the La Crosse River and associated wet prairie and emergent aquatic habitats, mesic prairie, sand prairie, dry prairie, southern dry-mesic forest, southern dry forest, and southern mesic forest. A habitat summary is provided in **Table 4**. Upland and wetland habitats are shown on the sheet maps in **Figure 2**.

AECOM recommends that the habitat data in this report be cross-referenced with an official WDNR NHI Endangered Resources review to assess the potential for protected species to exist within the Project corridor.

# 4.0 Summary

In summary, the Project corridor spans from the Briggs Road Substation to the La Crosse Tap in La Crosse County, Wisconsin. The Project corridor consists of existing transmission line right-of-way ROW and developed residential, commercial, and industrial areas as well as undeveloped natural habitat along the Project corridor.

Field surveys were completed along the Project corridor on May 13-16<sup>th</sup> and 20-21<sup>st</sup>, 2013. Five wetlands were delineated and 9 waterways were identified within the Project corridor. The wetland boundaries were delineated and mapped based on the three mandatory technical criteria outlined in the 1987 Manual and Midwest Regional Supplement. The wetlands are classified as having low to medium wetland functional values based on size, biological diversity, and landscape position. Two wetlands (W-1 and W-2) are likely to be non-isolated jurisdictional wetlands in accordance with the SWANCC decision. These wetlands are located within the Project corridor along the exiting transmission line ROW. Wetlands W-3, W-4, and W-5 are stormwater basins and not considered jurisdictional according to NR 103.05 (4) (a).

AECOM recommends that a Section 404 Department of Army Permit application be submitted for a permit to discharge dredged and/or fill material into wetlands W-1 and W-2 and for temporary impacts relating to the use of construction mats within the wetland areas. Water quality certification under Section 401 of the Clean Water Act is also required for these impacts in accordance with USACE and WDNR regulations.

Nine waterways were examined to evaluate stream width, bank height, water depth, substrate type, and surrounding land use. All nine of these waterways are located within the Project corridor along the existing transmission ROW (**Table 3**).

AECOM recommends coordination with WDNR Bureau of Energy, Transportation, and Environmental Analysis (BETEA) that is responsible for coordinating the review and permitting of energy and utility projects in the state. The installation of new utility facilities, or maintenance of existing utility facilities, in or adjacent to navigable waters or wetlands often require permits from the WDNR. The Utility General Permit (WDNR-GP3-2013) covers the placement of structures on the bed or bridges across navigable waters, and the placement of fill in wetlands for utility projects that meet all of the eligibility criteria and permit conditions.

Additionally, 38 upland habitats and 8 NHI community types were classified within the Project corridor. They include the La Crosse River and associated wet prairie and emergent aquatic habitats, mesic prairie, sand prairie, dry prairie, southern dry-mesic forest, southern dry forest, and southern mesic forest. AECOM recommends that the habitat data in this report be cross-referenced with an official WDNR NHI Endangered Resources review to assess the potential for protected species to exist within the Project corridor.

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# **Tables**

Table 1 Soil Summary

Table 2 Wetland Summary

Table 3 Stream Summary

Table 4 Habitat Summary

Table 1 - Soil Summary

Mapping Unit Symbol	Soil Mapping Unit	Hydric Soil Rating
2013	Pits, gravel	Non-hydric
2020	Urban land, valley trains	Non-hydric
2030	Udorthents and Udipsamments, cut or fill	Non-hydric
2050	Landfill	Non-hydric
116E2	Churchtown silt loam, 20 to 30 percent slopes, moderately eroded	Non-hydric
254E2	Norden silt loam, 20 to 30 percent slopes, moderately eroded	Non-hydric
743E2	Council fine sandy loam, 20 to 30 percent slopes, moderately eroded	Non-hydric
110D3	Timula silt loam, 12 to 30 percent slopes, severly eroded	Non-hydric
1145F	Gaphill- Rockbluff complex, 30 to 60 percent slopes	Non-hydric
115C2	Seaton silt loam, 6 to 12 percent slopes, moderately eroded	Non-hydric
115D2	Seaton silt loam, 12 to 20 percent slopes, moderately eroded	Non-hydric
126B	Barremills silt loam, 1 to 6 percent slopes	Non-hydric
1743F	Council-Elevasil-Norden complex, 30 to 60 percent slopes	Non-hydric
253D2	Greenridge silt laom, 12 to 20 percent slopes, moderately eroded	Non-hydric
312B2	Festina silt loam, 2 to 6 percent slopes, moderately eroded	Non-hydric
336A	Toddville silt loam, 0 to 3 percent slopes	Non-hydric
403A	Dakota silt loam, 0 to 3 percent slopes	Non-hydric
424F	Merit silt laom, 20 to 45 percent slopes	Non-hydric
434B	Bilson sandy loam, 1 to 6 percent slopes	Non-hydric
446A	Merimod silt loam, 0 to 3 percent slopes	Non-hydric
501A	Finchford loamy sand, 0 to 3 percent slopes	Non-hydric
502B2	Chelsea fine sand, 2 to 6 percent slopes, moderately eroded	Non-hydric
502C2	Chelsea fine sand, 6 to 15 percent slopes, moderately eroded	Non-hydric
511F	Plainfield sand, 15 to 60 percent slopes	Non-hydric
561F	Tarr sand, 15 to 60 percent slopes	Non-hydric
606A	Huntsville silt loam, 0 to 3 percent slopes, occasionally flooded	Non-hydric
628A	Orion silt loam, 0 to 3 percent slopes, occasionally flooded	Hydric Inclusion
629A	Ettrick silt loam, 0 to 2 percent slopes, frequently flooded	Hydric Component
656A	Scotah loamy fine sand, 0 to 3 percent slopes, occasionally flooded	Hydric Inclusion
676A	Kickapoo fine sandy loam, 0 to 3 percent slopes, occasionally flooded	Non-hydric
743C2	Council fine sandy loam, 6 to 12 percent slopes, moderately eroded	Non-hydric
W	Water	NA

**Table 2: Wetland Summary** 

Wetland Area	Location	Soil Map Symbol	Soil Survey Description	Hydric Soil (Y/N)	Wetland Functional Values	Isolated/ Non- Isolated**	Nearest Waterbody(s)
W-1	S14 T16N R7W	628A 629A	Orion silt loam, 0-3 % slopes Ettrick silt loam, 0-2 % slopes	Y	Medium	Non-Isolated	Unknown Tributary to the La Crosse River
W-2	S (10, 11, 14, 15) T16N R7W	629A	Ettrick silt loam, 0-2 % slopes	Y	Medium	Non-Isolated	La Crosse River & Unnamed Tributaries to the La Crosse River
W-3	S32 T17N R7W	501A	Finchford loamy sand, 0-3 % slopes	N	Low	NA	Unknown
W-4	S32 T17N R7W	501A	Finchford loamy sand, 0-3 % slopes	N	Low	NA	Unknown
W-5	S32 T17N R7W	502B2	Chelsea fine sand, 2-6 % slopes, moderately eroded	N	Low	NA	Unknown

<sup>\*\* -</sup> The conclusions presented herein are the opinion of AECOM. The final authority over wetland jurisdiction will need to be verified by the COE Regulatory Project Manager.

Table 3: Stream Summary

Waterway	Location	Stream Name	Approx. Width (ft)	Approx. Water Depth (ft)	Substrate Composition	Bank Height (ft)	Associated Wetland
S-1	S23 T16N R7W	UNT to the La Crosse River	10	0.0	Silt	5	None
S-2	S14 T16N R7W	UNT to the La Crosse River	6	0.0	Silt	3	W-1
S-3	S14 T16N R7W	UNT to the La Crosse River	6	1.0	Silt	3	W-2
S-4	S14 T16N R7W	La Crosse River	50	8.0	Silt	3	W-2
S-5	S10 T16N R7W	UNT to the La Crosse River	9	2.0	Silt	4	None
S-6	5(10,11) T16N R7V	Unnamed, Channelized along I-90	15	0.2	Silt	2-3	None
S-7	S18 T17N R7W	Halfway Creek	12	2.0	Silt	4	None
S-8	S4 T16N R7W	Unnamed, Retention pond at I-53 ramp	0	0.0	Unknown	0	None
S-9	S12 T17N R7W	Unnamed	8	1.0	Sand	4	None

**Table 4: Habitat Summary** 

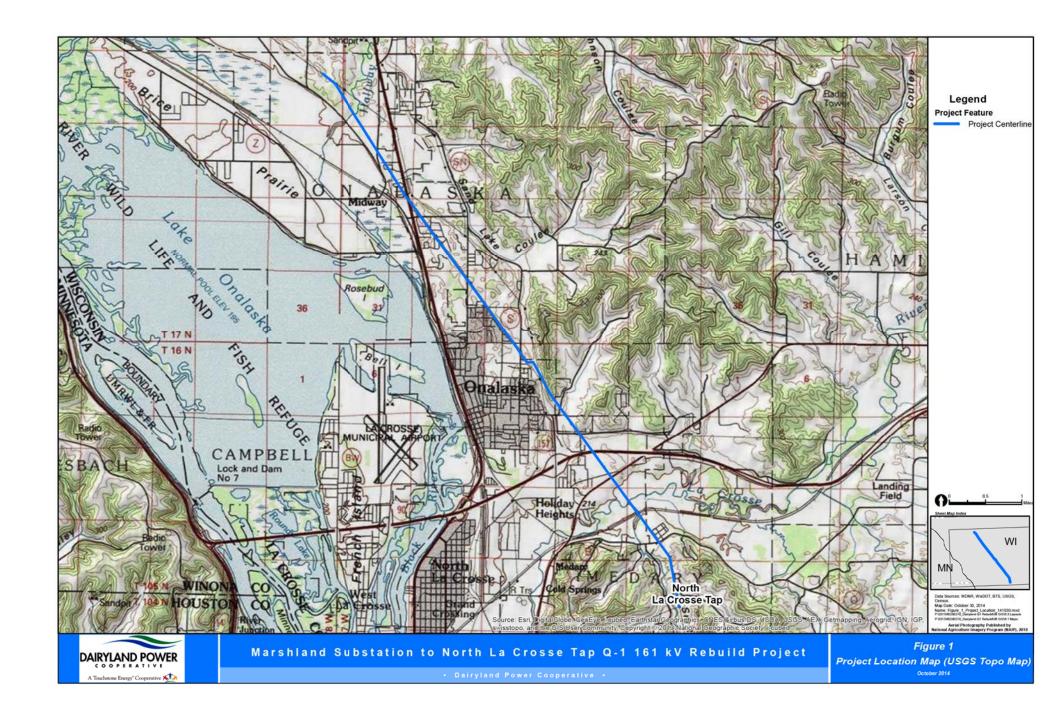
Habitat	WDNR NHI Classification (where applicable)	Alternative Habitat Description	
W-1	Wet Prairie	Wet Meadow	
W/O	Wet Prairie (RCG Dominated*)	Wet Meadow	
W-2	Emergent Aquatic	Shallow Marsh	
W-3		Stormwater Basin	
W-4		Stormwater Basin	
W-5		Stormwater Basin	
G-1	Mesic Prairie		
G-2	Sand Prairie		
G-3	Dry Prairie		
G-4	Dry Prairie		
F-1	S. Dry-Mesic Forest		
F-2	S. Dry-Mesic Forest		
F-3	S. Dry-Mesic Forest		
F-4	S. Dry Forest		
F-5	S. Mesic Forest		
0-1		Old Field	
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O-28		Old Field	
O-29		Old Field	

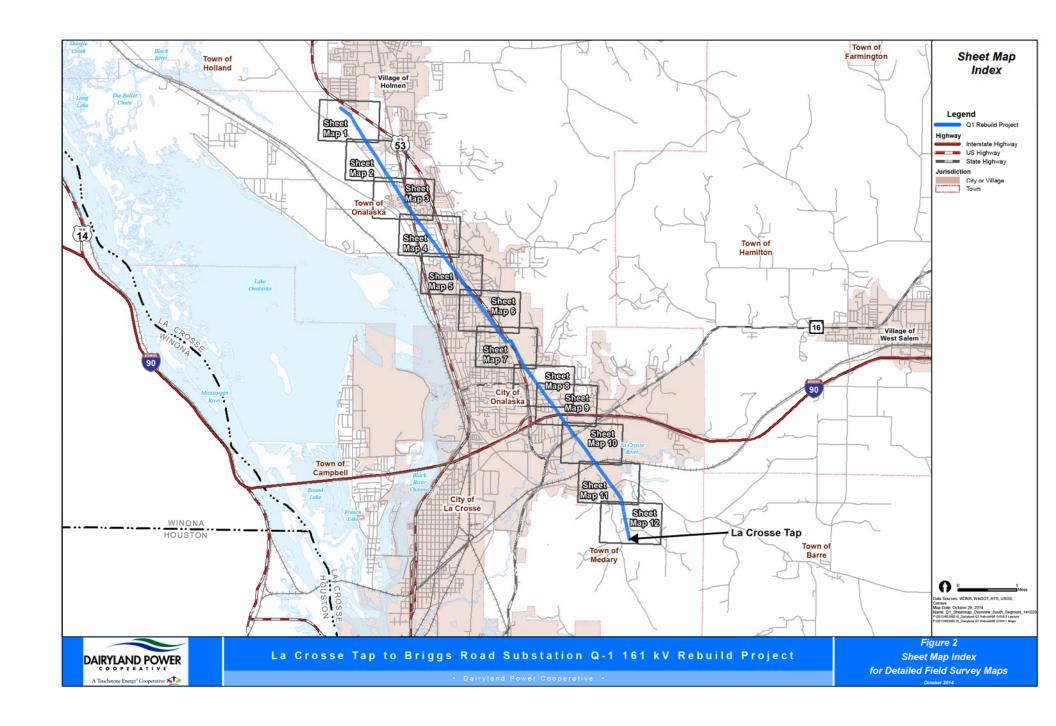
<sup>\*</sup> RCG Dominated - Indicates habitat dominated by reed canary grass (Phalaris arundinacea)

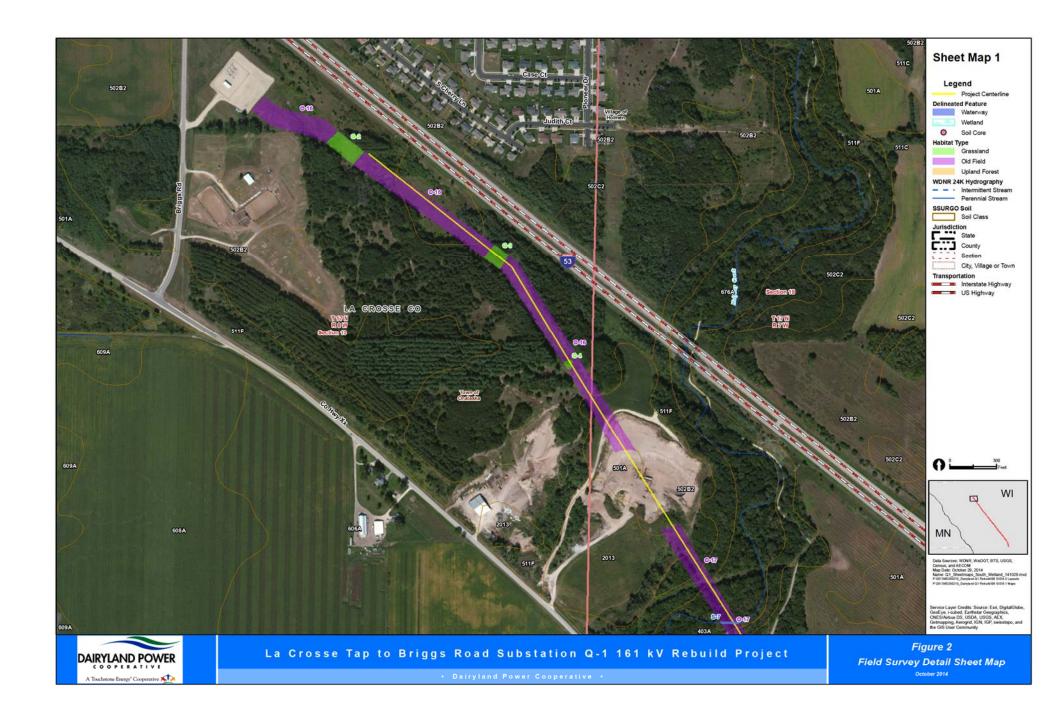
# **Figures**

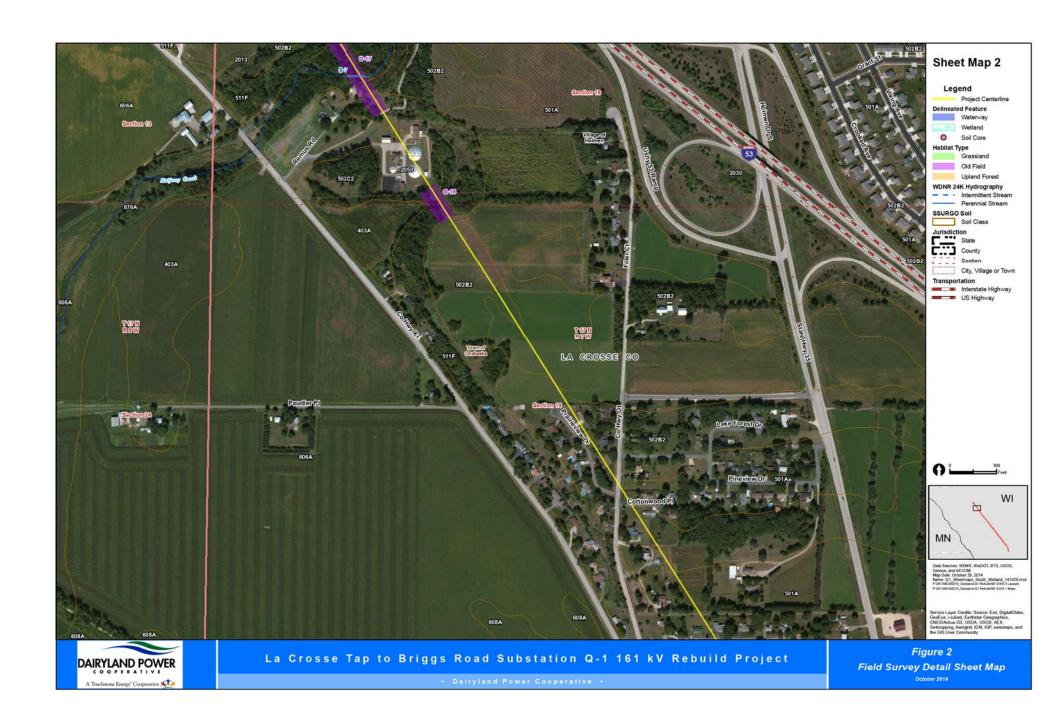
Figure 1 Site Location Map (USGS Topographic Map)

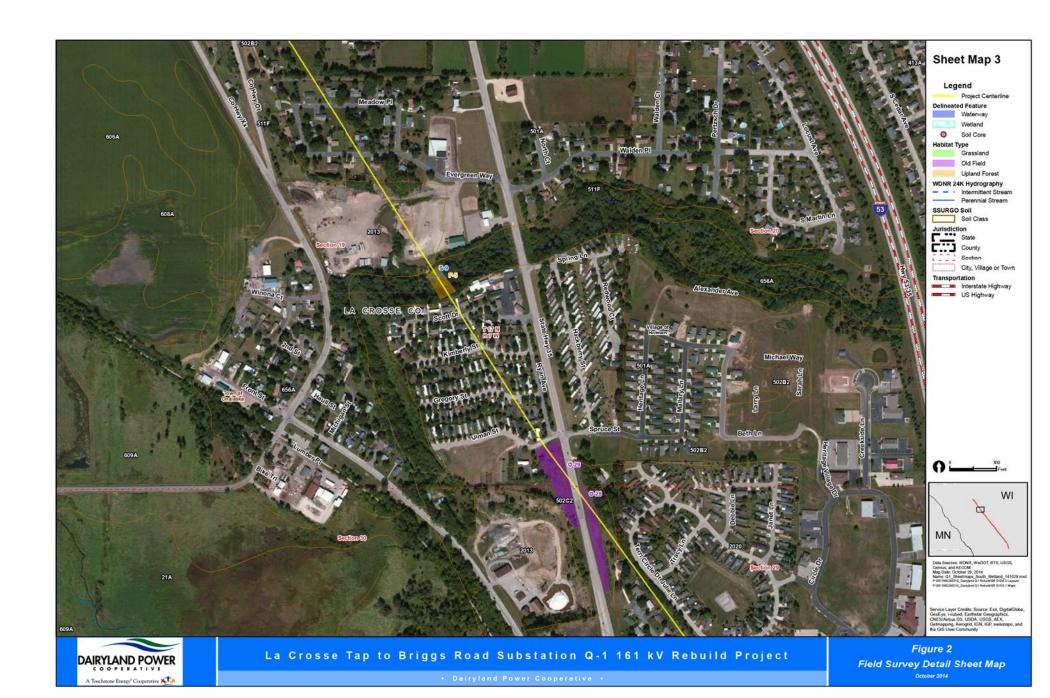
Figure 2 Field Survey Detail Sheet Maps

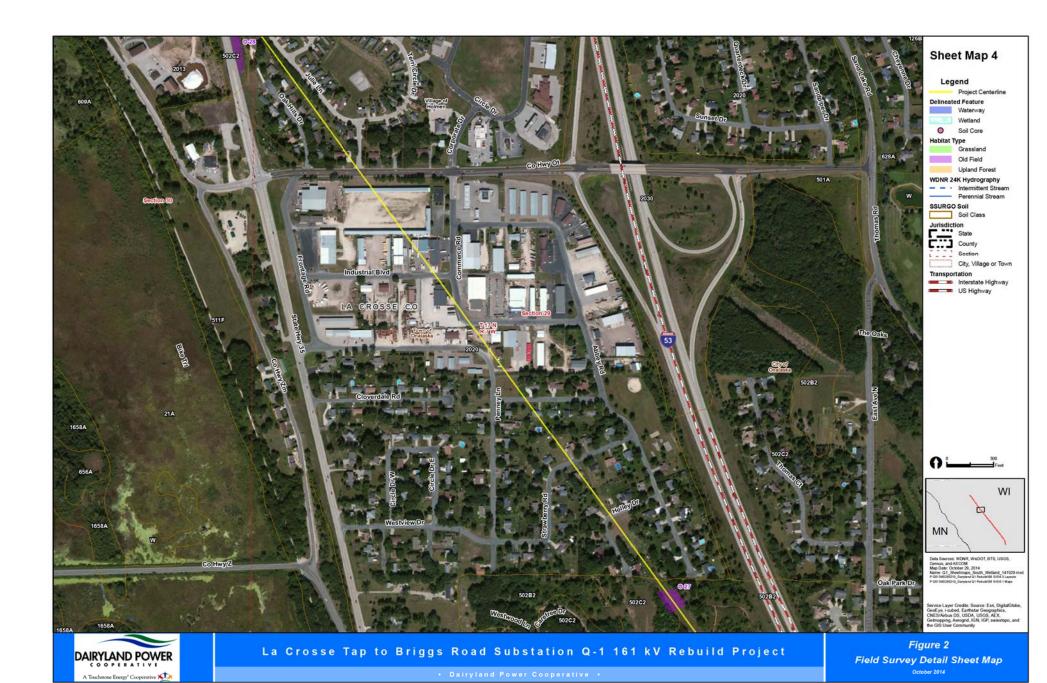








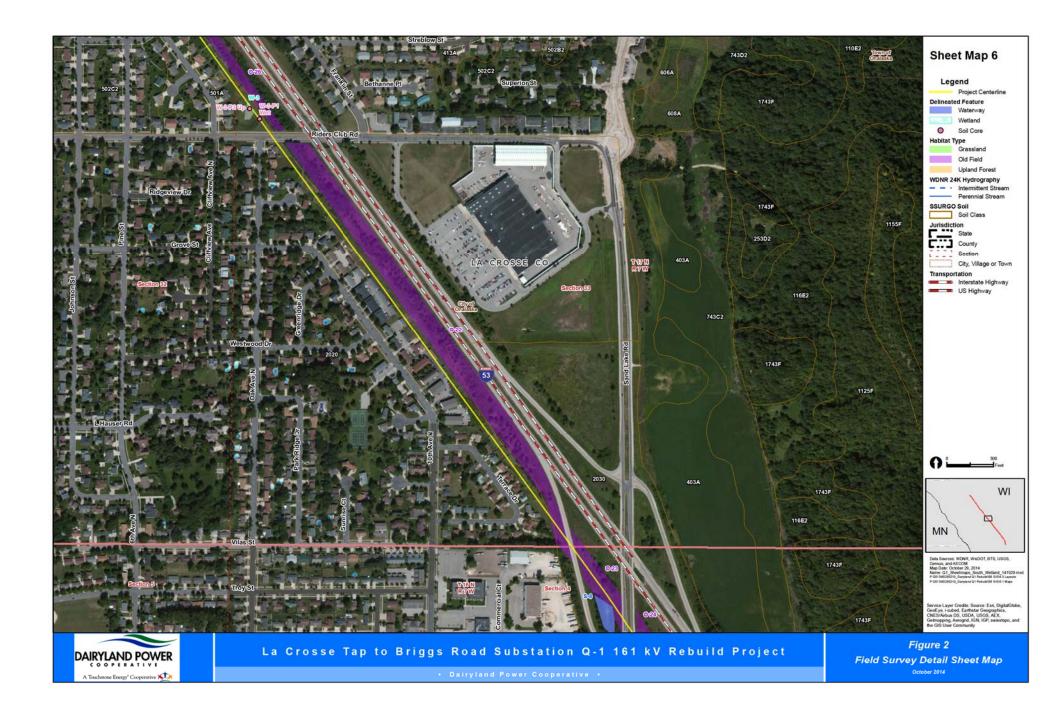


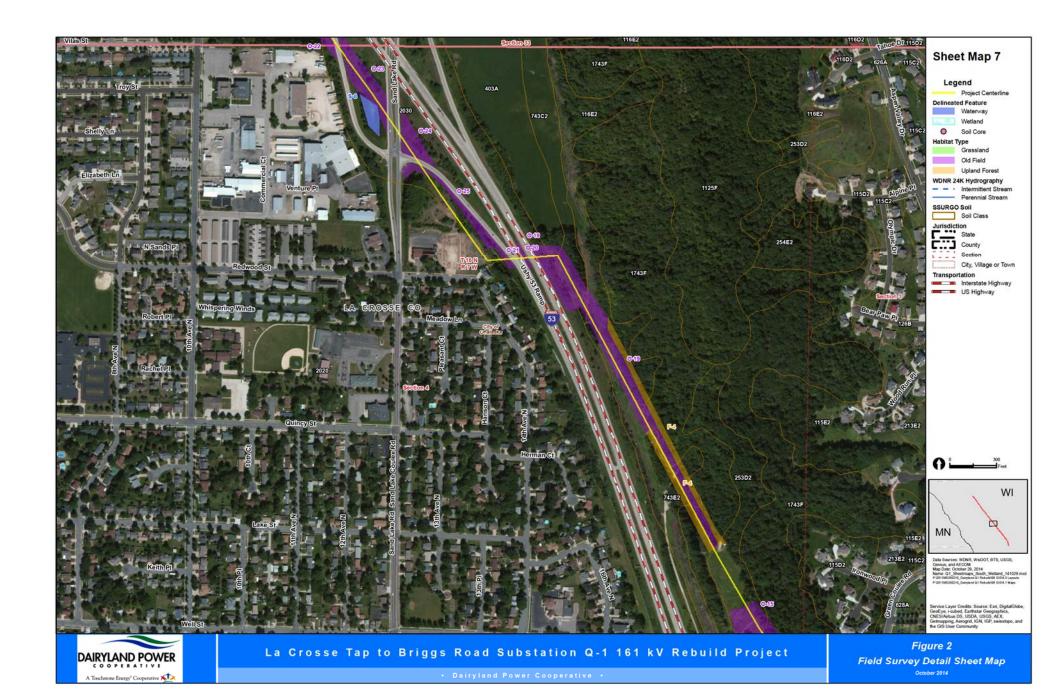


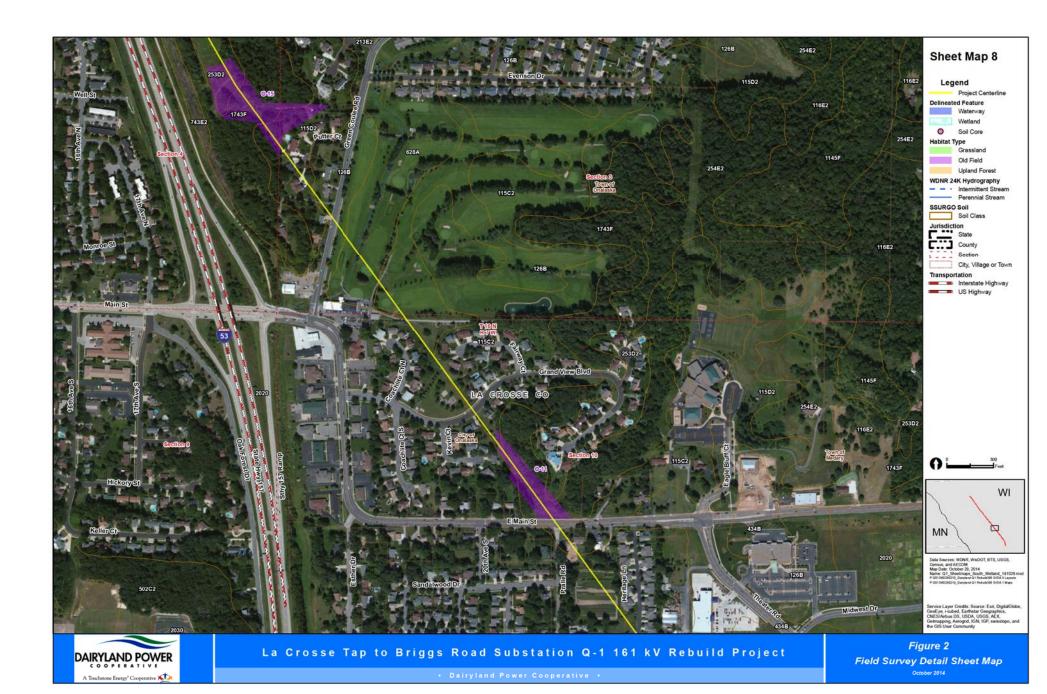


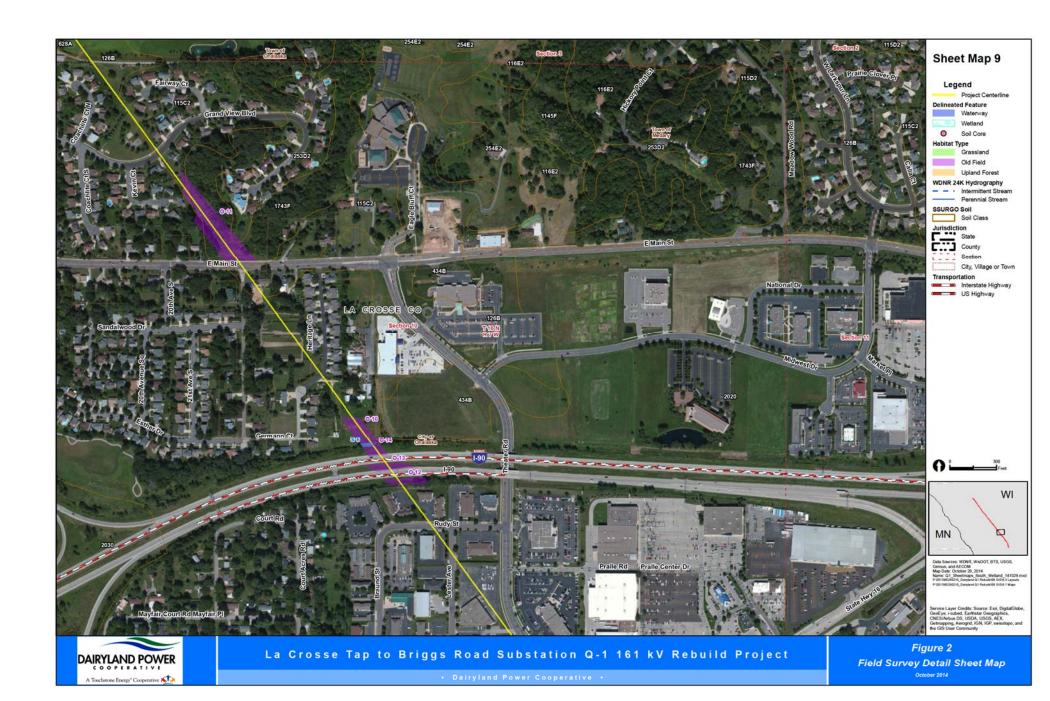
DAIRYLAND POWER A Touchstone Energy\* Cooperative

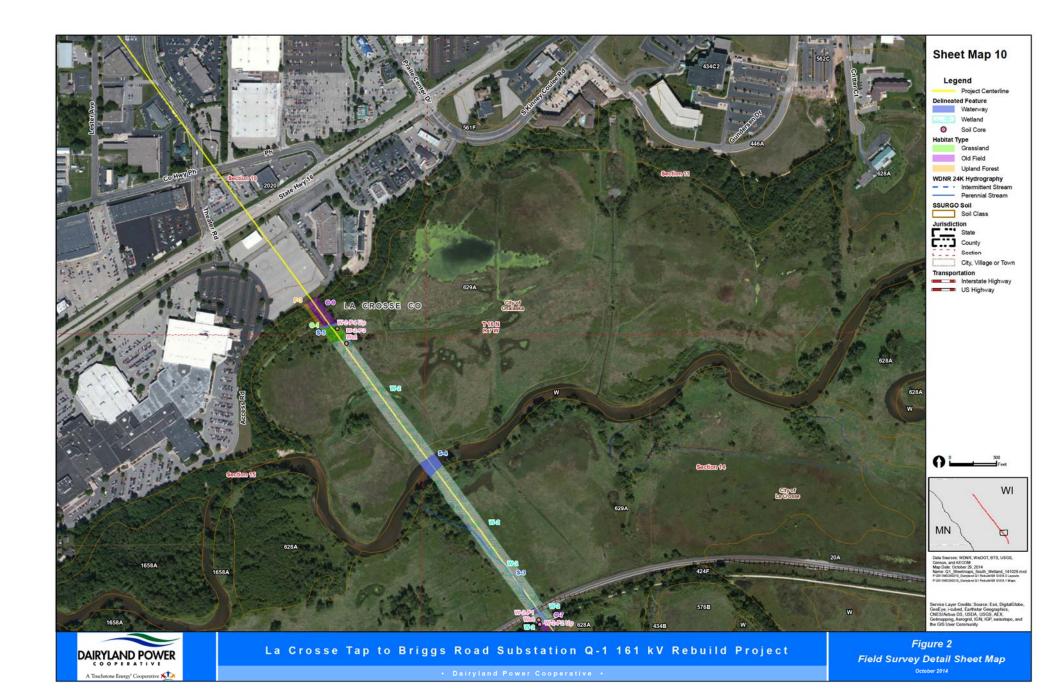
Field Survey Detail Sheet Map October 2014

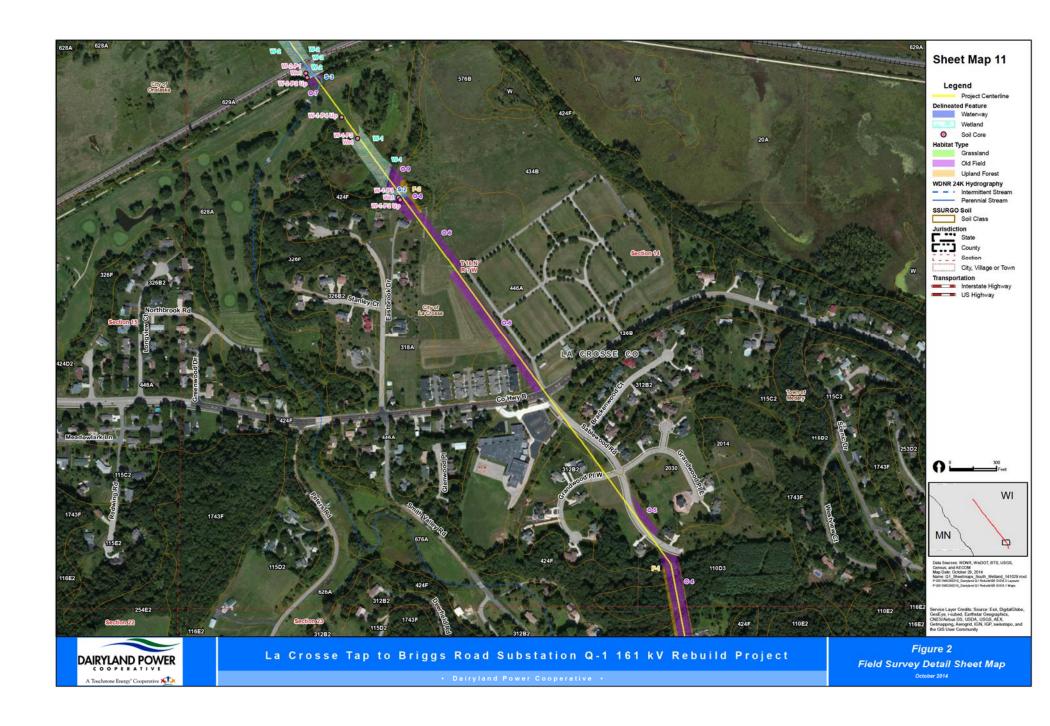














Appendix A

La Crosse County Hydric Soil List

# **Hydric Soils**

This table lists the map unit components that are rated as hydric soils in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The criteria for hydric soils are represented by codes in the table (for example, 2). Definitions for the codes are as follows:

- 1. All Histels except for Folistels, and Histosols except for Folists.
- Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
  - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
  - B. Show evidence that the soil meets the definition of a hydric soil;
- 3. Soils that are frequently ponded for long or very long duration during the growing season.
  - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
  - B. Show evidence that the soil meets the definition of a hydric soil;
- 4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
  - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
  - B. Show evidence that the soil meets the definition of a hydric soil;

Hydric Condition: Food Security Act information regarding the ability to grow a commodity crop without removing woody vegetation or manipulating hydrology.

#### References

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Federal Register. September 18, 2002. Hydric soils of the United States. Federal Register. July 13, 1994. Changes in hydric soils of the United States. Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries. Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

## Report—Hydric Soils

	łydric Soils–La Crosse Coւ	inty, Wisconsi	n 	
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
20A—Palms and Houghton mucks, 0 to 1 percent slopes				
	Palms, ponded	45	Depressions on stream terraces	1, 3
	Houghton, ponded	44	Depressions on stream terraces	1, 3
	Ettrick	6	Flood plains	2
21A—Palms muck, 0 to 1 percent slopes, frequently flooded				
	Palms, frequently flooded	90	Backswamps on flood plains	1, 3, 4
	Ettrick	5	Flood plains	2
	Kalmarville	3	Overflow stream channels on flood plains, depressions on flood plains	2, 3, 4
318A—Bearpen silt loam, 0 to 3 percent slopes, rarely flooded				
	Ettrick	4	Flood plains	2
608A—Lawson silt loam, 0 to 3 percent slopes, occasionally flooded				
	Otter	3	Depressions on flood plains	2, 3
609A—Otter silt loam, 0 to 2 percent slopes, frequently flooded				
	Otter	93	Depressions on flood plains	2, 3
625A—Arenzville silt loam, channeled, 0 to 2 percent slopes, occasionally flooded				
	Ettrick	4	Drainageways on stream terraces	2
626A—Arenzville silt loam, 0 to 3 percent slopes, occasionally flooded				
	Ettrick	2	Flood plains	2
628A—Orion silt loam, 0 to 3 percent slopes, occasionally flooded				
	Ettrick	3	Flood plains	2
629A—Ettrick silt loam, 0 to 2 percent slopes, frequently flooded				
	Ettrick	92	Flood plains	2
	Palms, frequently flooded	4	Backswamps on flood plains	1, 3, 4

Hydric Soils–La Crosse County, Wisconsin					
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria	
656A—Scotah loamy fine sand, 0 to 3 percent slopes, occasionally flooded					
	Algansee	4	Flats on flood plains	4	
	Kalmarville	3	Overflow stream channels on flood plains, depressions on flood plains	2, 3, 4	
	Riverwash	1	Flood plains	4	
1658A—Algansee-Kalmarville complex, 0 to 3 percent slopes, frequently flooded					
	Algansee	55	Flats on flood plains	4	
	Kalmarville	30	Overflow stream channels on flood plains, depressions on flood plains	2, 3, 4	
	Palms, frequently flooded	4	Backswamps on flood plains	1, 3, 4	
	Northbend	2	Flats on flood plains	4	
	Markey, frequently flooded	2	Backswamps on flood plains	1, 3, 4	
	Riverwash	2	Flood plains	4	

### **Data Source Information**

Soil Survey Area: La Crosse County, Wisconsin Survey Area Data: Version 12, Dec 24, 2013

Appendix B

USACE Wetland Determination Data Forms

Project/Site DPC Q-1 Rebuild	City/County:	La Crosse	Sampling Data:	5/14/2013
Applicant/Owner: DPC	State:	WI	Sampling Date: Sampling Point:	W-1-S1-Wet
Investigator(s): Sarah Majerus & Julie Christianser(AECO				T16N R7W
				Concave to flat
				NA
	Long:	NA NA/I	Datum:	
Soil Map Unit Name 628A (Orion silt loam, 0-3% slopes, occ			WWI Classification:	NA
Are climatic/hydrologic conditions of the site typical for this ti	•		no, explain in remarks)	
Are vegetation , soil , or hydrology			Are "normal circu	
Are vegetation, soil $X$ , or hydrology SUMMARY OF FINDINGS	naturally pro	obiematic?	(If needed combines on com-	present? Yes
			(If needed, explain any an	iswers in remarks.)
Hydrophytic vegetation present?  Y	1-4			V
Hydric soil present? Y		•	within a wetland?	<u>Y</u>
Indicators of wetland hydrology present? Y	f yes, op	tional wetlan	d site ID: W-1	
Remarks: (Explain alternative procedures here or in a separa	ate report.)			
Sail care was absented at the hand	of a atom area	o opposite	d with a drainage feet	uro.
Soil core was observed at the base	or a steep grad	e associate	ed with a drainage leatt	ire.
VEGETATION Use scientific names of plants.				
Abso	lute Dominan	Indicator	Dominance Test Worksh	neet
Tree Stratum (Plot size: 30 ft. circle ) % Co	over t Species	Staus	Number of Dominant Speci	es
1			that are OBL, FACW, or FA	C: 2 (A)
			Total Number of Domina	
3			Species Across all Stra	`
		——	Percent of Dominant Speci	
	= Total Cover		that are OBL, FACW, or FA	C: 66.67% (A/B)
Sapling/Shrub stratum (Plot size: 15 ft. circle )	- Total Cover	ŀ	Prevalence Index Works	heet
1 Acer negundo	0 Y	FAC	Total % Cover of:	
2 Lonicera tatarica 5	5 Y	FACU	OBL species 0 x	1 = 0
3			FACW species 100 x	2 = 200
4			· —	3 = 30
5				4 = 20
15	5 = Total Cover			5 = 0
Herb stratum (Plot size: 5 ft. circle )		54004		A) <u>250</u> (B)
1 Phalaris arundinacea 10	00 Y	FACW	Prevalence Index = B/A =	2.17
		—— <u> </u>	Hydrophytic Vegetation	Indicators:
		——	Rapid test for hydroph	
5		—— I	X Dominance test is >50	
6			X Prevalence index is ≤	3.0*
7			Morphogical adaptation	ons* (provide
8			supporting data in Re	marks or on a
9			separate sheet)	
10			Problematic hydrophy	tic vegetation*
Weed wine stratum (Diet sine) 15 ft sizels	00 = Total Cover		(explain)	
Woody vine stratum (Plot size: 15 ft. circle )			*Indicators of hydric soil and w present, unless disturb	
		—— I	Hydrophytic	bed of problematic
	= Total Cover		vegetation	
Ĭ	70(4) 00(0)		present? Y	_
Remarks: (Include photo numbers here or on a separate she	eet)	•		
Dominated by reed canary grass and ash leaf m				
Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant Lis	t. Version 3.0 FRDC/	CRREL TR-12-1	1. Hanover, NH: U.S. Army Corn	s of Engineers, Cold
Regions Research and Engineering Laboratory (https://wetland.plan				o or Engineers, ook

SOIL Sampling Point: W-1-S1-Wet Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Depth % Loc\*\* (Inches) Color (moist) Color (moist) **Texture** % Type\* Remarks 0-7 10YR 3/2 100 Sandy loam 7-18 7.5YR 4/4 90 5YR 5/8 10 С М Sand Moist 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 Soils: Histisol (A1) Coast Prairie Redox (A16) (LRR K, L, R) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (TF12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) X Other (explain in remarks) 2 cm Muck (A10) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) \*Indicators of hydrophytic vegetation and weltand Sandy Mucky Mineral (S1) Redox Depressions (F8) hydrology must be present, unless disturbed or 5 cm Mucky Peat or Peat (S3) problematic Restrictive Layer (if observed): Hydric soil present? Type: Depth (inches): Remarks: Soils do not meet any of the NTCHS hydric soil indicators, however the soil core was observed within an active floodplain which is likely to be inundated for long periods of time. Due to the geomorphic position and presence of redox concentrations in the highchroma subsoils, it is believed that this soil core should be classified as hydric but problematic (Soils with High-Chroma Subsoils). **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Aquatic Fauna (B13) Surface Soil Cracks (B6) High Water Table (A2) True Aquatic Plants (B14) X Drainage Patterns (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots Water Marks (B1) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (B2) (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils Geomorphic Position (D2) Iron Deposits (B5) FAC-Neutral Test (D5) (C6) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Sparsely Vegetated Concave Surface (B8) Gauge or Well Data (D9) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: No Surface water present? Yes X Depth (inches): X Indicators of wetland Water table present? No Depth (inches): Yes hydrology present? Saturation present? Yes No Depth (inches): (includes capillary fringe) Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Project/Site DPC Q-1 Rebuild	City/County:	La Cross	se Sampling Date:	5/14/2013	
Applicant/Owner: DPC	State:	WI	Sampling Point:	W-1-S2-Up	
Investigator(s): Sarah Majerus & Julie Christianseı (AEC	OM) Sect				
Landform (hillslope, terrace, etc.): Hillslope	Local	elief (conca	ve, convex, none):	None	
Slope (%): 5-7% Lat: NA	Long:	NA	Datum:	NA	
Soil Map Unit Name 628A (Orion silt loam, 0-3% slopes, or	casionally flooded)	NW NW	I / WWI Classification:	NA	
Are climatic/hydrologic conditions of the site typical for this	time of the year?	Υ (	If no, explain in remarks)		
Are vegetation, soil, or hydrology _	significantl	y disturbed?	Are "normal circum	nstances"	
Are vegetation, soil, or hydrology _	naturally p	roblematic?		present? Yes	
SUMMARY OF FINDINGS			(If needed, explain any ans	wers in remarks.)	
Hydrophytic vegetation present?  N					
Hydric soil present? N	I	-	a within a wetland?	<u>N</u>	
Indicators of wetland hydrology present? N	f yes, or	otional wetlar	nd site ID:		
Remarks: (Explain alternative procedures here or in a sepa	arate report.)				
Soil core observed along s	stoon grade abut	ting \M 1 o	nd adjacent to S 2		
Soli core observed along s	steep grade abui	ung w-ra	nd adjacent to 5-2.		
<b>VEGETATION</b> Use scientific names of plants.					
	solute Dominan	Indicator	Dominance Test Worksho	eet	
Tree Stratum (Plot size: 30 ft. circle ) % (	Cover t Species	Staus	Number of Dominant Species		
			that are OBL, FACW, or FAC		
3			Total Number of Dominan Species Across all Strata		
4			Percent of Dominant Species		
5			that are OBL, FACW, or FAC		
	0 = Total Cove	r			
Sapling/Shrub stratum (Plot size: 15 ft. circle )	00 1/	FAOU	Prevalence Index Worksh	neet	
1 Lonicera tatarica 2	20 Y	FACU	Total % Cover of:  OBL species 0 x 2	1 = 0	
3			FACW species 100 x 2		
4			FAC species 0 x 3	3 = 0	
5				4 = 80	
<u> </u>	20 = Total Cove	r	UPL species 0 x 5		
Herb stratum (Plot size: 5 ft. circle)			Column totals 120 (A		
	100 Y	FACW	Prevalence Index = B/A =	2.33	
			Hydrophytic Vegetation In	ndicators:	
4			Rapid test for hydrophy		
5			Dominance test is >50°		
6			X Prevalence index is ≤3	.0*	
7			Morphogical adaptation		
			supporting data in Rem	narks or on a	
10			separate sheet) Problematic hydrophyti	ic vegetation*	
	100 = Total Cove	r	(explain)	ic vegetation	
Woody vine stratum (Plot size: 15 ft. circle )			*Indicators of hydric soil and we	etland hydrology must be	
1			present, unless disturbe		
2			Hydrophytic		
	0 = Total Cove	r	vegetation yresent?		
Remarks: (Include photo numbers here or on a separate si	heet)			_	
Dominated by reed canary grass and twinsister					
	•	(ODDE) :-	44 H NIII	of Early and Cold	
Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant L Regions Research and Engineering Laboratory. (https://wetland_pla				or Engineers, Cold	

SOIL Sampling Point: W-1-S2-Up Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Depth % Loc\*\* (Inches) Color (moist) Color (moist) **Texture** Type\* Remarks 0-4 10YR 2/2 100 Sandy loam 10YR 4/4 90 4-20 Sandy clay loam Moist 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 Soils: Histisol (A1) Coast Prairie Redox (A16) (LRR K, L, R) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Black Histic (A3) Stripped Matrix (S6) 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) Thick Dark Surface (A12) Depleted Dark Surface (F7) \*Indicators of hydrophytic vegetation and weltand Sandy Mucky Mineral (S1) Redox Depressions (F8) hydrology must be present, unless disturbed or 5 cm Mucky Peat or Peat (S3) problematic Restrictive Layer (if observed): Hydric soil present? Type: Depth (inches): Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Aquatic Fauna (B13) Surface Soil Cracks (B6) High Water Table (A2) True Aquatic Plants (B14) Drainage Patterns (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots Water Marks (B1) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (B2) (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils Geomorphic Position (D2) Iron Deposits (B5) (C6)FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Sparsely Vegetated Concave Surface (B8) Gauge or Well Data (D9) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: No Surface water present? Yes X Depth (inches): X Indicators of wetland Water table present? No Depth (inches): Yes hydrology present? Saturation present? Yes No Depth (inches): Ν (includes capillary fringe) Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Project/Sta DPC Q-! Rebuild  City/County_La Crosse  Sampling Date: 5/14/2013  Applicant/Cover   DPC   State: WI Sampling Date: 5/14/2013  Applicant/Cover   DPC   State: WI Sampling Pote: W-1-33-Wet Investigator(s): Sarah Majerus & Julie Christianses (AECOM)   Section, Township, Range: Sec 14 T18N R7W    Landform (hillslope, lerrace, etc.): Depression   Local relief (concave, convex, none): Concave    Sopility (concave): Section, Township, Range: Sec 14 T18N R7W    Landform (hillslope, lerrace, etc.): Depression   Local relief (concave, convex, none): Concave    Sopility (concave): NA   Datum: NA    Red climatic/hydrologic conditions of the site typical for this time of the year?   Vince, explain in remarks    Are vegetation   soil   or hydrology   significantly disturbed?   Are "normal circumstances"    Are vegetation   soil   or hydrology   significantly disturbed?   Are "normal circumstances"    Are vegetation   soil   or hydrology   significantly disturbed?   Are "normal circumstances"    Are vegetation   soil   or hydrology   significantly disturbed?   Are "normal circumstances"    Are vegetation   soil   or hydrology   significantly disturbed?   Are "normal circumstances"    Are vegetation   soil   or hydrology   researt?   Y   is the sampled area within a wetland?   Y    Indicators of welland hydrology present?   Y   is the sampled area within a wetland?   Y    Yes, optional wetland site ID:   W-1    Remarks: (Explain alternative procedures here or in a separate report.)    Soil core observed in a depression adjacent to a golf course.  VEGETATION Use scientific names of plants.  Tee Statum (Plot size: 30 ft. circle)   Absolute   Dominan Indicator    Yes, optional wetland site ID:   W-1    Tee Statum (Plot size: 30 ft. circle)   Total Cover   Species   Savas    Tee Statum (Plot size: 15 ft. circle)   Total Cover    Herb stratum (Plot size: 51t. circle)   O = Total Cover   UPL species   N × 5 =	Project/Site DPC Q-1 Rebuild	City/County:	La Crass	Sampling Data:	5/14/2013	
Investigator(s): Sarah Majerus & Julie Christianser (AECOM) Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  NA Long: NA Datum: NA Soil May Unit Name629A (Ettrick sitt loam 0.2% slopes, frequently flooded) NWI / WWI Classification: NA Are limasic/hydrologic conditions of the site typical for this time of the year? Y Are vegetation						
Landform (hillslope, terrace, etc.): Depression						
Slope (%): 0-1 Lat: NA Long: NA Datum: NA   Datum: NA   Soil Map Unit Name £294 (Ettrick silt loam 0-2% slopes, frequently flooded)   NWI / WVI Classification: NA   NA   NA   NA   NA   NA   NA   NA						
Soil Map Unit Name 629A (Ettrick silt loam 0-2% slopes, frequently flooded) NWI / WWI Classification: NA Are climatichydrologic conditions of the site typical for this time of the year? Y (Ifno, explain in remarks) Are vegetation				· -		
Are climatichydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks) Are vegetation						
Are vegetation soil or hydrology at significantly disturbed? Are regetation soil or hydrology naturally problematic? (If needed, explain any answers in remarks.)  Hydrophytic vegetation present? Yes the sampled area within a wetland? Yes (If needed, explain any answers in remarks.)  Hydrophytic vegetation present? Yes (If needed, explain any answers in remarks.)  Hydrophytic vegetation present? Yes (If needed, explain any answers in remarks.)  Hydrophytic vegetation present? Yes (If needed, explain any answers in remarks.)  Remarks: (Explain alternative procedures here or in a separate report.)  Soil core observed in a depression adjacent to a golf course.  VEGETATION – Use scientific names of plants.    Dominance Test Worksheet   Number of Dominant Species   Staus   Number of Dominant Species   Number of Dominant Spe					NA .	
Are vegetation soil or hydrology naturally problematic? (If needed, explain any answers in remarks.)  Hydrophytic vegetation present? Yes hydrois soil present? Yes provide soil present? Yes provide soil present? Yes is the sampled area within a wetland? Yes, optional wetland site ID: W-1  Remarks: (Explain alternative procedures here or in a separate report.)  Soil core observed in a depression adjacent to a golf course.  VEGETATION — Use scientific names of plants.  VI — VI		•				
Hydrophytic vegetation present?   Y			-	Are "normal circu		
Hydrophytic vegetation present? Hydric soil present? Hydric soil present? Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y		naturally pi	roblematic?	(If needed explain any or		
Hydric soil present?   Y		<u> </u>		(ii needed, explain any ar	iswers in remarks.)	
Indicators of wetland hydrology present? Y fyes, optional wetland site ID: W-1  Remarks: (Explain alternative procedures here or in a separate report.)  Soil core observed in a depression adjacent to a golf course.  VEGETATION Use scientific names of plants.  Iree Stratum (Plot size: 30 ft. circle ) % Cover t Species Staus 1 Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Species Across all Strata 1 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species that are OBL, FACW, or FAC: 1 (Dominant Species Species Across all Strata 1 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 1 (Dominant Species Species Across all Strata 1 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 1 (Dominant Species Species Across all Strata 1 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 1 (Dominant Species Species Across all Strata 2 (B) Percent of Dominant Species (Dominant Species Species Across all Strata 2 (B) Percent of Dominant Species (Dominant Species Strata 2 (B) Percent of Dominant Species (Dominant Species Strata 2 (B) Percent of Dominant Species (Dominant Species Strata 2 (B) Percent of Dominant Species (Dominant Species Strata 2 (B) Percent of Dominant Species (Dominant Species Strata 2 (B) Percent of Dominant Species (Dominant Species Strata 2 (B) Percent of Dominant Species (Dominant Species Strata 2 (B) Percent Opiniant Species (Dominant Species Strata 2 (B) Percent Opiniant Species (Dominant Species Strata 2 (B) Percent Opiniant Species (Dominant Species Strata 2 (B) Percent Species Strata 2 (B) Percent Species Strata 2 (B) Percent Species Species (Dominant Species Strata 2 (B) Percent Species Species Strata 2 (B) Percent Species Species Species Species Species		la tha s		a within a watland?	V	
Remarks: (Explain alternative procedures here or in a separate report.)  Soil core observed in a depression adjacent to a golf course.  VEGETATION Use scientific names of plants.  Tree Stratum (Plot size: 30 ft. circle )		l l	•	<del>-</del>	<u> </u>	
Soil core observed in a depression adjacent to a golf course.    VEGETATION - Use scientific names of plants.   Dominan Indicator   Species   Staus   Dominant Species   Staus   Sta	Indicators of wetland hydrology present?	r yes, or	otional wetiai	nd site ID: W-1		
VEGETATION — Use scientific names of plants.           Incestratum         (Plot size: 30 ft. circle )         Absolute % Cover t Species         Dominan Indicator Staus         Dominant Species that are OBL, FACW, or FAC: 1 (A)           3 3         — Total Number of Dominant Species that are OBL, FACW, or FAC: 1 (B)         — Total Number of Dominant Species that are OBL, FACW, or FAC: 10,00% (A/B)           Sapling/Shrub stratum         (Plot size: 15 ft. circle )         — Total Cover         Prevalence Index Worksheet           1 2         — Total Species (A)         — Total	Remarks: (Explain alternative procedures here or in a sepa	rate report.)				
VEGETATION — Use scientific names of plants.           Incestratum         (Plot size: 30 ft. circle )         Absolute % Cover t Species         Dominan Indicator Staus         Dominant Species that are OBL, FACW, or FAC: 1 (A)           3 3         — Total Number of Dominant Species that are OBL, FACW, or FAC: 1 (B)         — Total Number of Dominant Species that are OBL, FACW, or FAC: 10,00% (A/B)           Sapling/Shrub stratum         (Plot size: 15 ft. circle )         — Total Cover         Prevalence Index Worksheet           1 2         — Total Species (A)         — Total	Soil care observed in	a denression a	diacent to	a golf course		
Absolute   Dominan   Indicator   Species   Staus   Number of Dominant Species   Staus   Number of Dominant Species   Staus   Number of Dominant Species   Staus   Species	Soli core observed ii	ra depression a	ujacent to	a goir course.		
Tree Stratum	<b>VEGETATION</b> Use scientific names of plants.					
that are OBL, FACW, or FAC: 1 (A)  Total Number of Dominant Species Across all Strata: 1 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)  Sapling'Shrub stratum' (Plot size: 15 ft. circle )  Frevalence Index Worksheet Total % Cover of: OBL species 100 x 1 = 100 FACW species 0 x 2 = 0 FACW species 0 x 2 = 0 FACW species 0 x 3 = 0 FACW species 0 x 4 = 0 UPL species 0 x 5 = 0 Column totals 100 (A) 100 (B) Prevalence Index = B/A = 1.00  Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation X Dominante sets is >50% X Prevalence index is ≤3.0*  Woody vine stratum (Plot size: 15 ft. circle )  Woody vine stratum (Plot size: 15 ft. circle )  Woody vine stratum (Plot size: 15 ft. circle )  Total Cover (Prevalence Index Strata	Abs	solute Dominan	Indicator	Dominance Test Works	heet	
Total Number of Dominant Species Across all Strata: 1 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet Total % Cover of: OBL species 100 x1 = 100 FACW species 0 x2 = 0 FACW species 0 x2 = 0 FACS species 0 x4 = 0 UPL species 0 x4 = 0 UPL species 0 x5 = 0 Column totals 100 (A) 100 (B)  Prevalence Index B/A = 1.00 FACW species 0 x4 = 0 UPL species 0 x5 = 0 Column totals 100 (A) 100 (B) Prevalence Index B/A = 1.00  Total Number of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet Total % Cover of: OBL species 100 x1 = 100 FACW species 0 x2 = 0 FACU species 0 x4 = 0 UPL species 0 x5 = 0 Column totals 100 (A) 100 (B) Prevalence Index B/A = 1.00 Total Cover Species 100 x3 = 0 FACU species 0 x5 = 0 FACU species 0 x6 = 0 FA	Tree Stratum (Plot size: 30 ft. circle ) % C	Cover t Species	Staus			
Sapling/Shrub stratum (Plot size: 15 ft. circle)  Sapling/Shrub stratum (Plot size: 15 ft. circle)  1				1		
Percent of Dominant Species that are OBL, FACW, or FAC:100.00%(A/B)    Sapling/Shrub straturr (Plot size:15 ft. circle )	-					
Sapling/Shrub straturr   (Plot size: 15 ft. circle   )	3					
Sapling'Shrub stratur	5					
Total % Cover of:   OBL species   100   x 1 =   100     FACW species   0   x 2 =   0     FACW species   0   x 3 =   0     FACW species   0   x 3 =   0     FACW species   0   x 4 =   0     FACW species   0   x 5 =   0     FACW species   0   x 4 =   0     FACW species   0   x 4 =   0     FACW species   0   x 5 =   0     FACW species   0   x 4 =   0     FACW species   0   x 5 =   0     FACW sp		0 = Total Cove	r		(****)	
OBL species 100 x 1 = 100 FACW species 0 x 2 = 0 FAC species 0 x 3 = 0 FAC species 0 x 4 = 0 UPL species 0 x 4 = 0 UPL species 0 x 5 = 0 Column totals 100 (A) 100 (B) FACU species 0 x 5 = 0 C	Sapling/Shrub stratum (Plot size: 15 ft. circle )			Prevalence Index Works	sheet	
FACW species   O x 2 =   O	1			Total % Cover of:		
FAC species   O x 3 =   O   FACU species   O x 4 =   O   UPL species   O x 4 =   O   UPL species   O x 4 =   O   UPL species   O x 5 =   O   Column totals   100   (A)   100   (B)   Prevalence Index = B/A =   1.00   1.00     1.00     1.00     1.00     1.00   1.00     1.00     1.00     1.00   1.00     1.00   1.00   1.00   1.00   1.00   1.00	2					
FACU species   0 x 4 = 0   UPL species   0 x 5 = 0   Column totals   100   (A)   100   (B)	3					
Herb stratum	4					
Herb stratum		0 = Total Cove				
1 Glyceria grandis  100 Y OBL Prevalence Index = B/A = 1.00  Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is ≤3.0* Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)  Woody vine stratum Woody vine stratum Plot size: 15 ft. circle  Total Cover  Temarks: (Include photo numbers here or on a separate sheet) Dominated by American manna grass.  Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold	<u> </u>		'1	· —		
A		00 Y	OBI			
A Rapid test for hydrophytic vegetation  Dominance test is >50%  X Prevalence index is ≤3.0*  Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)  Problematic hydrophytic vegetation*  (explain)  *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  Hydrophytic vegetation  Problematic hydrophytic vegetation*  (explain)  *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  Hydrophytic vegetation  present? Y  Remarks: (Include photo numbers here or on a separate sheet)  Dominated by American manna grass.  Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold				l revalence maex 2//		
S	3			Hydrophytic Vegetation	Indicators:	
X Prevalence index is ≤3.0*	4			Rapid test for hydropl	hytic vegetation	
Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)   10	5			l —		
supporting data in Remarks or on a separate sheet)  Problematic hydrophytic vegetation*  (explain)  *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  Hydrophytic vegetation  Total Cover  Thydrophytic vegetation present?  Y  Remarks: (Include photo numbers here or on a separate sheet)  Dominated by American manna grass.  Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold	6			X Prevalence index is ≤	3.0*	
separate sheet)  Problematic hydrophytic vegetation*  (explain)  *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  Hydrophytic vegetation  Total Cover   Total Cover   Total Cover   Total Cover   Total Cover  Total Cover  Total Cover  Thydrophytic vegetation present?  Thydrophytic vegetation present?  Y   Remarks: (Include photo numbers here or on a separate sheet)  Dominated by American manna grass.  Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold	7					
Problematic hydrophytic vegetation*  (explain)  *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  Hydrophytic vegetation  Total Cover  Total Cover  Total Cover  Total Cover  Thydrophytic vegetation  Thydrophytic vegetation*  Thydrophytic vegetat					emarks or on a	
Moody vine stratum   (Plot size: 15 ft. circle   )   *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic   Hydrophytic vegetation present?   Y      Remarks: (Include photo numbers here or on a separate sheet)   Dominated by American manna grass.    Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold					utic vegetation*	
Woody vine stratum  (Plot size: 15 ft. circle )  1		00 = Total Cove	r		ytic vegetation	
1 present, unless disturbed or problematic  Hydrophytic vegetation present? Y  Remarks: (Include photo numbers here or on a separate sheet) Dominated by American manna grass.  Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold	<del></del>			<u>  — ` ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '</u>	watland hydrology must be	
0 = Total Cover vegetation present? Y  Remarks: (Include photo numbers here or on a separate sheet)  Dominated by American manna grass.  Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold	1			•		
Remarks: (Include photo numbers here or on a separate sheet) Dominated by American manna grass.  Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold	2					
Remarks: (Include photo numbers here or on a separate sheet)  Dominated by American manna grass.  Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold		0 = Total Cove	r	_		
Dominated by American manna grass.  Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold				present? 1	_	
Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold	l · · · · · · · · · · · · · · · · · · ·	neet)				
	Dominated by American manna grass.					
					os of Engineers, Cold	

SOIL Sampling Point: W-1-S3-Wet

Profile Des	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth Matrix Redox Features						· ·		
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-2	10YR 3/2	100					Silt Ioam	Wet
2-20	10YR 3/2	95	5YR 4/6	5	С	м	Silty clay loam	
2-20	10111 3/2	90	311(4/0	3		IVI	Silty Clay Idam	
*T 0	)	D1-1		-1.54-4-1	140 1	1110	**1	
	Concentration, D	= Deplet	on, RM = Reduce	ed Matrix	K, MS = N	/lasked S		ocation: PL = Pore Lining, M = Matrix
	il Indicators:					(O.1)		Problematic Hydric Soils:
	isol (A1)				ed Matrix	(S4)		rie Redox (A16) (LRR K, L, R)
	ic Epipedon (A2)			dy Redo				ce (S7) (LRR K, L)
	ck Histic (A3)	4.		pped Ma		. (=4)		anese Masses (F12) (LRR K, L, R)
	lrogen Sulfide (A	,		•	ky Minera	. ,		ow Dark Surface (TF12)
	tified Layers (A5)	)			ed Matrix		Other (exp	lain in remarks)
	m Muck (A10)	Cumfoos			atrix (F3)			
	leted Below Dark				Surface ark Surfa		*1	Charles to the constation and continue
	ck Dark Surface ( dy Mucky Minera	,			essions (			of hydrophytic vegetation and weltand
	n Mucky Peat or			ox Depr	essions	(ГО)	nyarology r	nust be present, unless disturbed or problematic
		•	)					problematic
	Layer (if observ	ed):						
Type:							Hydric soil p	resent? Y
Depth (inche	es):							
Remarks:								
HYDROLO	OGY							
	drology Indicate	ors:						
1 -	cators (minimum		required: check	all that a	nnly)		Seconda	ary Indicators (minimum of two required
	Water (A1)	OT OTIC IC	required, ericon		Fauna (B	13)		urface Soil Cracks (B6)
	ter Table (A2)				uatic Plar			rainage Patterns (B10)
X Saturation					n Sulfide			ry-Season Water Table (C2)
	arks (B1)							rayfish Burrows (C8)
_	nt Deposits (B2)			(C3)				aturation Visible on Aerial Imagery (C9)
Drift Dep	oosits (B3)			Presenc	e of Redu	uced Iron	(C4) — St	unted or Stressed Plants (D1)
Algal Ma	t or Crust (B4)			Recent I	ron Redu	ction in T	illed Soils X Ge	eomorphic Position (D2)
	osits (B5)			(C6)			FA	AC-Neutral Test (D5)
Inundation	on Visible on Aeria	ıl Imager	y (B7)	Thin Mu	ck Surfac	e (C7)	_	
Sparsely Vegetated Concave Surface (B8) Gauge or Well Data (D9)								
X Water-Stained Leaves (B9) Other (Explain in Remarks)								
Field Obser	vations:							
Surface water	•	Yes	No	X	Depth (i	,		
Water table	•	Yes	X No		Depth (i	,	0	Indicators of wetland
Saturation p		Yes	X No		Depth (i	nches):	0	hydrology present? Y
	pillary fringe)							
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Domonto								
Remarks:								
I								

Project/Site DPC Q-1 Rebuild	City/C	County:	La Cross	e Sampling Date:	5/14/2013
Applicant/Owner: DPC	•	State: WI		Sampling Point:	W-1-S4-Up
Investigator(s): Sarah Majerus & Julie Christianser(AEC	COM)				
Landform (hillslope, terrace, etc.): Flat		Local re	None		
Slope (%): 0-2 Lat: NA		Long:	NA	Datum:	NA
Soil Map Unit Name 629A (Ettrick silt loam 0-2% slopes, fi	requently		NWI	/ WWI Classification:	NA
Are climatic/hydrologic conditions of the site typical for this				f no, explain in remarks)	
Are vegetation , soil , or hydrology		significantly	disturbed?	Are "normal circums	stances"
Are vegetation , soil , or hydrology		naturally pro			present? Yes
SUMMARY OF FINDINGS				(If needed, explain any answ	wers in remarks.)
Hydrophytic vegetation present? N					·
Hydric soil present?		Is the sa	ampled area	a within a wetland?	N
Indicators of wetland hydrology present?			tional wetlan		
Remarks: (Explain alternative procedures here or in a sep	arate rep	οοπ.)			
Soil core observed o	n golf c	ourse, aloi	ng the edg	e of a fairway.	
				-	
<b>VEGETATION</b> Use scientific names of plants.				D	
	solute Cover	Dominan t Species	Indicator Staus	Dominance Test Workshe	
Tree Stratum (Plot size: 30 ft. circle ) %	Cover	copedies	Staus	Number of Dominant Species that are OBL, FACW, or FAC:	
				Total Number of Dominant	`
3				Species Across all Strata:	
4				Percent of Dominant Species	
5				that are OBL, FACW, or FAC:	0.00% (A/B)
	0 =	Total Cover	•		
Sapling/Shrub stratum (Plot size: 15 ft. circle )				Prevalence Index Workshe	eet
				Total % Cover of:	- 0
				OBL species 0 x 1 FACW species 0 x 2	
				FAC species 0 x 3	
5				FACU species 20 x 4	
	0 =	Total Cover		UPL species 0 x 5	= 0
Herb stratum (Plot size: 5 ft. circle )				Column totals 20 (A)	80 (B)
1 Poa sp.	60	Υ	unknown	Prevalence Index = B/A =	4.00
2 Festuca sp.	20	Y	unknown		
3 Taraxacum officinale	10	N	FACU	Hydrophytic Vegetation In	
4 Trifolium pratense	10	N	FACU	Rapid test for hydrophyt	•
5				Dominance test is >50% Prevalence index is ≤3.0	
7 -				<del>_</del>	
8				Morphogical adaptations supporting data in Rema	**
9				separate sheet)	2.11.0 01 011 0
10				Problematic hydrophytic	vegetation*
	100 =	Total Cover		(explain)	
Woody vine stratum (Plot size: 15 ft. circle )				*Indicators of hydric soil and wet	land hydrology must be
				present, unless disturbed	l or problematic
		T-1-1-0		Hydrophytic vegetation	
	0 =	Total Cover		present? N	
Remarks: (Include photo numbers here or on a separate s	sheet)				<u>-</u>
Dominated by bluegrass and fescue.	,,,,,,,				
	11-4 17 1		ODDEL TO 40	AA Haaaaaa Niib.ii O Aaaa O	(Fastana Cali
Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant Regions Research and Engineering Laboratory (https://wetland.n.					or Engineers, Cold

SOIL Sampling Point: W-1-S4-Up Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Depth % Loc\*\* (Inches) Color (moist) Color (moist) **Texture** % Type\* Remarks 0-4 10YR 3/2 100 Silty clay loam 4-12 10YR 3/2 98 5YR 4/6 2 С М Clay loam 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 Soils: Histisol (A1) Coast Prairie Redox (A16) (LRR K, L, R) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Black Histic (A3) Stripped Matrix (S6) 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) Thick Dark Surface (A12) Depleted Dark Surface (F7) \*Indicators of hydrophytic vegetation and weltand Sandy Mucky Mineral (S1) Redox Depressions (F8) hydrology must be present, unless disturbed or 5 cm Mucky Peat or Peat (S3) problematic Restrictive Layer (if observed): Hydric soil present? Type: Depth (inches): Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Aquatic Fauna (B13) Surface Soil Cracks (B6) High Water Table (A2) True Aquatic Plants (B14) Drainage Patterns (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots Water Marks (B1) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (B2) (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils Geomorphic Position (D2) Iron Deposits (B5) (C6)FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Sparsely Vegetated Concave Surface (B8) Gauge or Well Data (D9) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Surface water present? No Yes X Depth (inches): X Indicators of wetland Water table present? No Depth (inches): Yes hydrology present? Saturation present? Yes No Depth (inches): Ν (includes capillary fringe) Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Project/Site DPC Q-1 Rebuild City	/County:	La Cross	se Sampling Date:	5/14/2013			
Applicant/Owner: DPC	State:	WI		W-2-S1-Wet			
Investigator(s): Sarah Majerus & Julie Christianseı (AECOM)		Section, Township, Range: Sec 14 T16N R7					
Landform (hillslope, terrace, etc.): Drainage			ve, convex, none):	Concave			
Slope (%): 0-2% Lat: NA	Long:	NA	Datum:	NA			
Soil Map Unit Name 629A (Ettrick silt loam, 0-2% slopes, frequer		NWI	/ WWI Classification:	NA			
Are climatic/hydrologic conditions of the site typical for this time of	of the year?	Υ (Ι	f no, explain in remarks)				
Are vegetation, soil, or hydrology	significantly	disturbed?	Are "normal circun	nstances"			
Are vegetation , soil X , or hydrology	naturally pro	oblematic?		present? Yes			
SUMMARY OF FINDINGS			(If needed, explain any ans	swers in remarks.)			
Hydrophytic vegetation present? Y							
Hydric soil present?	Is the sa	Is the sampled area within a wetland?					
Indicators of wetland hydrology present? Y	f yes, op	tional wetlan	nd site ID: W-2				
Remarks: (Explain alternative procedures here or in a separate r	report.)						
Sail care observed along S.2 hat	turan active	rollroad a	ad hika trail hallaete				
Soil core observed along S-2 bet	ween active	fallroau a	nd dike traii daliasts.				
VEGETATION Use scientific names of plants.							
Absolute	Dominan	Indicator	Dominance Test Worksh	eet			
<u>Tree Stratum</u> (Plot size: <u>30 ft. circle</u> ) % Cover	•	Staus	Number of Dominant Specie				
1 Acer negundo 10	<u> </u>	FAC	that are OBL, FACW, or FAC				
	- ——		Total Number of Dominal				
			Species Across all Strata	`			
5			Percent of Dominant Specie that are OBL, FACW, or FAC				
10	= Total Cover		1100 010 022, 111211, 2111	y			
Sapling/Shrub stratur (Plot size: 15 ft. circle )	-		Prevalence Index Worksl	neet			
1 Lonicera tatarica 10	Y	FACU	Total % Cover of:				
2			· —	1 = 0			
3			FACW species 100 x				
			· —	3 = 30			
10	= Total Cover			4 = <u>40</u> 5 = <u>0</u>			
Herb stratum (Plot size: 5 ft. circle )	_ Total 0010.		Column totals 120 (A				
1 Phalaris arundinacea 90	Υ	FACW	Prevalence Index = B/A =	2.25			
2 Urtica dioica 10	- <u>'</u>	FACW	Trovalonoo mac.	2.20			
3			Hydrophytic Vegetation I	ndicators:			
4			Rapid test for hydroph	ytic vegetation			
5			X Dominance test is >50				
6			X Prevalence index is ≤3	3.0*			
7	- ——		Morphogical adaptatio	**			
8			supporting data in Rer separate sheet)	narks or on a			
10			Problematic hydrophyt	tic vegetation*			
100	= Total Cover		(explain)	ic vegetation			
Woody vine stratum (Plot size: 15 ft. circle )	-		*Indicators of hydric soil and we	etland hydrology must be			
1			present, unless disturbe				
2			Hydrophytic				
0	= Total Cover		vegetation present? Y				
			present:				
Remarks: (Include photo numbers here or on a separate sheet)	ah laaf manla						
Dominated by reed canary grass, twinsisters honeysuckle and a	isn lear maple.						
Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Ver			11. Hanover, NH: U.S. Army Corps	of Engineers, Cold			

SOIL Sampling Point: W-2-S1-Wet Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Depth % Loc\*\* (Inches) Color (moist) Color (moist) Type\* **Texture** Remarks 0-4 10YR 2/1 100 Sandy loam 4-10 10YR 4/4 100 Sand 10-18 7.5YR 3/3 90 5YR 3/4 10 С М Loam With seams of sand (4-10) & black organics (10YR 2/1) 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 Soils: Histisol (A1) Coast Prairie Redox (A16) (LRR K, L, R) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Black Histic (A3) Stripped Matrix (S6) 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) Thick Dark Surface (A12) Depleted Dark Surface (F7) \*Indicators of hydrophytic vegetation and weltand Sandy Mucky Mineral (S1) Redox Depressions (F8) hydrology must be present, unless disturbed or 5 cm Mucky Peat or Peat (S3) problematic Restrictive Layer (if observed): Hydric soil present? Type: Depth (inches): Remarks: Soils do not meet any of the NTCHS hydric soil indicators, however the soil core was observed within an active floodplain which is likely to be inundated for long periods of time. Due to the geomorphic position and presence of redox concentrations in the highchroma subsoils, it is believed that this soil core should be classified as hydric but problematic (Soils with High-Chroma Subsoils). Railroad and bike trail construction may also provide disturbance. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Surface Water (A1) Aquatic Fauna (B13) High Water Table (A2) True Aquatic Plants (B14) X Drainage Patterns (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots Water Marks (B1) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (B2) (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils Geomorphic Position (D2) Iron Deposits (B5) FAC-Neutral Test (D5) (C6) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Sparsely Vegetated Concave Surface (B8) Gauge or Well Data (D9) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Surface water present? No Yes X Depth (inches): X Indicators of wetland Water table present? No Depth (inches): Yes hydrology present? Saturation present? Yes No Depth (inches): (includes capillary fringe) Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Project/Site DPC Q-1 Rebuild	City/	County:	La Cross	se Sampling Date:	5/14/2013
Applicant/Owner: DPC	-	State:	WI	Sampling Point:	W-2-S2-Up
Investigator(s): Sarah Majerus & Julie Christianseı (AE	COM)	Secti	on, Townshi	p, Range: Sec 14	T16N R7W
Landform (hillslope, terrace, etc.): Hillsope	·			ve, convex, none):	Convex
Slope (%): 3-5 % Lat: NA		Long:	NA	Datum:	NA
Soil Map Unit Name 629A (Ettrick silt loam, 0-2% slopes,	frequer		NWI	I / WWI Classification:	NA
Are climatic/hydrologic conditions of the site typical for the			Y (I	If no, explain in remarks)	
Are vegetation , soil , or hydrology	/	significantly	y disturbed?	Are "normal circum	nstances"
Are vegetation , soil , or hydrology	,—	naturally pr	oblematic?	, no nomal on our	present? Yes
SUMMARY OF FINDINGS				(If needed, explain any ans	swers in remarks.)
Hydrophytic vegetation present? N					
Hydric soil present?		Is the s	ampled are	a within a wetland?	N
Indicators of wetland hydrology present?		f yes, op	otional wetlar	nd site ID:	
Remarks: (Explain alternative procedures here or in a sep	parate r	eport.)		<u> </u>	
Soil core observed between old railroa	ad/trail	ballast and	active rail	road near S-3 bridge cros	ssings.
<b>VEGETATION</b> Use scientific names of plants.					
·	bsolute	Dominan	Indicator	Dominance Test Worksho	eet
<u>Tree Stratum</u> (Plot size: <u>30 ft. circle</u> ) %	Cover	t Species	Staus	Number of Dominant Specie	
1				that are OBL, FACW, or FAC	D:(A)
2				Total Number of Dominar	
				Species Across all Strata	
5				Percent of Dominant Specie that are OBL, FACW, or FAC	
	0	= Total Cove	r	111111111111111111111111111111111111111	, <u> </u>
Sapling/Shrub stratum (Plot size: 15 ft. circle )		•		Prevalence Index Worksh	neet
1 Lonicera tatarica	20	Y	FACU	Total % Cover of:	
2					1 = 0
3					2 = 60
4				· —	3 = 0
5	20	= Total Cove	<u> </u>		4 = <u>220</u> 5 = <u>25</u>
Herb stratum (Plot size: 5 ft. circle )	20	- Total Cove	'	Column totals 90 (A	
1 Festuca sp.	30	Υ	unknown	Prevalence Index = B/A =	3.39
2 Phalaris arundinacea	30	<u> </u>	FACW	Trevalence mack Birt	0.00
3 Saponaria officinalis	15	N	FACU	Hydrophytic Vegetation I	ndicators:
4 Glechoma hederacea	10	N	FACU	Rapid test for hydrophy	ytic vegetation
5 Achillea millefolium	10	N	FACU	Dominance test is >50	
6 Verbascum thapsus	5	N	UPL	Prevalence index is ≤3	3.0*
				Morphogical adaptation	**
9				supporting data in Ren separate sheet)	narks or on a
10				Problematic hydrophyti	ic vegetation*
	100	= Total Cove	r	(explain)	io rogotation
Woody vine stratum (Plot size: 15 ft. circle )		•		*Indicators of hydric soil and we	etland hydrology must be
1				present, unless disturbe	
2				Hydrophytic	
	0	= Total Cove	r	vegetation present? N	
Remarks: (Include photo numbers here or on a separate	sheet)				
Dominated by reed canary grass, fescue, and twinflower		uckle.			
	-		(ODDE: 75 / 5	44 11	of Facilities 2000
Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant Regions Research and Engineering Laboratory. (https://wetland_					or Engineers, Cold

SOIL **Sampling Point:** W-2-S2-Up Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Depth % Loc\*\* (Inches) Color (moist) Color (moist) **Texture** Type\* Remarks 0-2 10YR 2/1 100 Sandy loam 2 + Refusal at rock 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 Soils: Histisol (A1) Coast Prairie Redox (A16) (LRR K, L, R) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Black Histic (A3) Stripped Matrix (S6) 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) Thick Dark Surface (A12) Depleted Dark Surface (F7) \*Indicators of hydrophytic vegetation and weltand Sandy Mucky Mineral (S1) Redox Depressions (F8) hydrology must be present, unless disturbed or 5 cm Mucky Peat or Peat (S3) problematic Restrictive Layer (if observed): Hydric soil present? Type: Rock Depth (inches): Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Aquatic Fauna (B13) Surface Soil Cracks (B6) High Water Table (A2) True Aquatic Plants (B14) Drainage Patterns (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots Water Marks (B1) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (B2) (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils Geomorphic Position (D2) Iron Deposits (B5) (C6)FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Sparsely Vegetated Concave Surface (B8) Gauge or Well Data (D9) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: No Surface water present? Yes X Depth (inches): Indicators of wetland Water table present? No Depth (inches): Yes hydrology present? Saturation present? Yes Nο Depth (inches): Ν (includes capillary fringe) Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Project/Site DPC Q-1 Rebuild	City	//County:	La Cross	se Sampling Date:	5/14/2013
Applicant/Owner: DPC		State:	WI		W-2-S3-Wet
Investigator(s): Sarah Majerus & Julie Christiansen	(AECOM)	Sect	ion, Townshi	p, Range: Sec 14	T16N R7W
Landform (hillslope, terrace, etc.): Depression/flood					oncave to flat
Slope (%): 0% Lat: NA	-	Long:	NA	Datum:	NA
Soil Map Unit Name 629A (Ettrick silt loam, 0-2% slop	es, freque	_	NWI	I / WWI Classification:	NA
Are climatic/hydrologic conditions of the site typical fo	r this time	of the year?	Y (	If no, explain in remarks)	
Are vegetation , soil , or hydro	logy	significantl	y disturbed?	Are "normal circun	nstances"
Are vegetation , soil , or hydro	logy	naturally p	roblematic?	7.10 110111141 511041	present? Yes
SUMMARY OF FINDINGS		_		(If needed, explain any ans	swers in remarks.)
Hydrophytic vegetation present? Y					
Hydric soil present? Y	_	Is the s	sampled are	a within a wetland?	Y
Indicators of wetland hydrology present? Y	_	f yes, or	otional wetlar	nd site ID: W-2	
Remarks: (Explain alternative procedures here or in a	separate	report.)			
0-11		fla a dalahata a		- O Di	
Soil core was obs	servea in	floodplain a	liong the La	aCrosse River.	
VEGETATION Use scientific names of plan	ts.				
·	Absolute	Dominan	Indicator	Dominance Test Worksh	eet
Tree Stratum (Plot size: 30 ft. circle )	% Cover	•	Staus	Number of Dominant Specie	
1 Betula nigra	15	<u> </u>	FACW	that are OBL, FACW, or FAC	C:3 (A)
2 Fraxinus pennsylvanica 3	5	Y	FACW	Total Number of Dominal Species Across all Strate	
4				Percent of Dominant Species	
5				that are OBL, FACW, or FAC	
	20	= Total Cove	r		
Sapling/Shrub stratum (Plot size: 15 ft. circle	)	_		Prevalence Index Works	heet
1 Lonicera tatarica	5	<u> Y</u>	FACU	Total % Cover of:	
2				OBL species 0 x FACW species 105 x	1 = <u>0</u> 2 = <u>210</u>
3				· —	$3 = \frac{210}{0}$
5					4 = 80
	5	= Total Cove	r	UPL species 0 x	5 = 0
Herb stratum (Plot size: 5 ft. circle		_		Column totals 125 (A	(B)
1 Phalaris arundinacea	85	Y	FACW	Prevalence Index = B/A =	2.32
2 Bromus inermis	10	N	FACU		
3 Cirsium arvense	5	_ <u>N</u>	FACU	Hydrophytic Vegetation	
5				Rapid test for hydroph X Dominance test is >50	
6				X Prevalence index is ≤3	
7				Morphogical adaptatio	
8				supporting data in Rer	**
9				separate sheet)	
10	400	<del></del>		Problematic hydrophyt	tic vegetation*
Woody vine stratum (Plot size: 15 ft. circle	100	= Total Cove	er	(explain)	
1	,			*Indicators of hydric soil and we present, unless disturbe	
2				Hydrophytic	ou or problemate
	0	= Total Cove	r	vegetation	
				present? Y	_
Remarks: (Include photo numbers here or on a separa	-				
Dominated by reed canary grass, twinsisters honeys	uckle, river	r birch and gree	en ash.		
Plant List Used: Lichvar, R.W. 2012. The National Wetland I Regions Research and Engineering Laboratory. (https://wetla					s of Engineers, Cold

SOIL Sampling Point: W-2-S3-Wet

Profile Des	cription: (Descr	ibe to tr				e indicat	or or confirm the absen	ce of indicators.)
Depth (Inches)	Matrix Color (moist)	%	Re Color (moist)	dox Feat %	ures Type*	Loc**	Texture	Remarks
0-12	10YR 2/1	100	(**************************************		7,1		Mucky sandy loam	Moist
12-20	10YR 4/2	100					Sand	Saturated
12-20	10114/2	100		-			Saliu	Saturated
*Typo: C = (	Concentration, D :	- Doplot	ion PM - Poduo	od Matrix	. MS - N	Anakad S	and Grains **Location	on: PL = Pore Lining, M = Matrix
	oil Indicators:	- Deplet	ion, Rivi – Reduc	eu Maurix	., IVIO – IV	naskeu s		lematic Hydric Soils:
	tisol (A1)		Sai	dy Gley	ad Matrix	(84)		edox (A16) (LRR K, L, R)
	tic Epipedon (A2)			ndy Gleye ndy Redo		(34)	Dark Surface (S	
	ck Histic (A3)			pped Ma				Masses (F12) (LRR K, L, R)
	lrogen Sulfide (A	4)		imy Mucl	, ,	al (F1)		ark Surface (TF12)
	atified Layers (A5	-		my Gley	-		Other (explain in	
	n Muck (A10)	,		oleted Ma			culor (explain ii	Tromano)
	leted Below Dark	c Surface		ox Dark				
	ck Dark Surface (		` <i>'</i> —	oleted Da			*Indicators of hyd	rophytic vegetation and weltand
	ndy Mucky Minera	,		ox Depr			-	be present, unless disturbed or
	n Mucky Peat or					()	n, aronog j maor i	problematic
Postrictivo	Layer (if observe	od):						·
Type:	Layer (II observ	euj.					Hydric soil preser	nt? Y
Depth (inche	56).						riyunc son preser	
Remarks:					•			
HYDROLO								
-	drology Indicate							
	cators (minimum	of one is	required; check					dicators (minimum of two required)
	Water (A1)				Fauna (B	,		Soil Cracks (B6)
X Saturation	iter Table (A2)		_		uatic Plar	nts (B14) Odor (C		e Patterns (B10) son Water Table (C2)
	arks (B1)		_				· ·	Burrows (C8)
	nt Deposits (B2)			(C3)	rttiizosp	incres on		on Visible on Aerial Imagery (C9)
	oosits (B3)			_ ` ′	e of Redu	uced Iron		or Stressed Plants (D1)
	at or Crust (B4)			-				phic Position (D2)
Iron Dep	osits (B5)			(C6)			FAC-Ne	utral Test (D5)
	on Visible on Aeria	-	· · · <u></u>	-	ck Surfac		<del></del>	
	Vegetated Conca		ce (B8)		r Well Da			
_	tained Leaves (B9	)		Other (E	xplain in	Remarks	)	
Field Obser					D			
Surface wat	•	Yes	No No	X	Depth (i		40"	diantary of watered
Water table Saturation p	•	Yes Yes	X No		Depth (i Depth (i			dicators of wetland ydrology present?
	pillary fringe)	162			Debui (i	nones).	<del>- '^</del>   "	yarology present:
		am dalia	e monitoring wo	l apriol r	hotoe n	revious i	nspections), if available:	
Describe let	Joi ded data (Sties	ani yaug	e, monitoring we	ı, acııaı þ	ποιοδ, ρ	i evious II	ispections), ii avaliable.	
Remarks:								

Project/Site DPC Q-1 Rebuild	City/	County:	La Cross	se Sampling Date:	5/14/2013
Applicant/Owner: DPC	City/	State:	WI		W-2-S4-Up
Investigator(s): Sarah Majerus & Julie Christianser(	AECOM)		on, Townshi		T16N R7W
Landform (hillslope, terrace, etc.): Stream terrace	AECOIVI)				Convex
			NA	ve, convex, none): Datum:	NA
Slope (%): 0-1% Lat: NA Soil Map Unit Name 628A (Orion silt loam, 0-3% slope		Long:		/ WWI Classification:	NA NA
Are climatic/hydrologic conditions of the site typical for				If no, explain in remarks)	INA
	ogy		y disturbed?	Are "normal circui	
Are vegetation , soil , or hydrole SUMMARY OF FINDINGS		naturally pr	oblematic?	(If needed, explain any an	present? Yes
	$\overline{}$			(ii fleeded, explain any an	swers in remarks.
Hydrophytic vegetation present?  N	-	la tha a		a within a watland?	N
Hydric soil present?  N	-		•	a within a wetland?	<u>N</u>
Indicators of wetland hydrology present? N		r yes, op	otional wetlar	nd site ID:	
Remarks: (Explain alternative procedures here or in a	separate re	eport.)			
Soil core obs	erved in (	araeeland s	diacent to	S-6/M-2	
30ll core obs	ierved iii g	grassianu e	adjacent to	3-0/VV-2.	
<b>VEGETATION</b> Use scientific names of plant	ts.				
	Absolute	Dominan	Indicator	Dominance Test Worksh	neet
<u>Tree Stratum</u> (Plot size: 30 ft. circle )	% Cover	t Species	Staus	Number of Dominant Specie	
1 Ulmus americana		Y	FACW	that are OBL, FACW, or FA	
2 Quercus palustris/ellipsoides	5 5	N	FACW	Total Number of Domina	
3 Acer saccharinum 4 Juniperus virginiana	5	N	FACU	Species Across all Strat	``
5			1700	Percent of Dominant Species that are OBL, FACW, or FA	
	30	= Total Cove	r		(, 42)
Sapling/Shrub stratum (Plot size: 15 ft. circle )				Prevalence Index Works	heet
1				Total % Cover of:	
2				· —	1 =0
3					2 = 60
4				· —	3 = 0
5	0	= Total Cove			4 = <u>380</u> 5 = 0
Herb stratum (Plot size: 5 ft. circle )		- Total Cove	'	· —	A) 440 (B)
1 Bromus inermis	90	~	FACU	Prevalence Index = B/A =	3.52
2 Phalaris arundinacea	10	N	FACW	Trevalence muex - b/A -	3.32
3				Hydrophytic Vegetation	Indicators:
4				Rapid test for hydroph	
5				Dominance test is >50	0%
6				Prevalence index is ≤	3.0*
7				Morphogical adaptation	**
8				supporting data in Rei	marks or on a
10				separate sheet)	tiaanatatian*
	100	= Total Cove	r	Problematic hydrophy (explain)	tic vegetation"
Woody vine stratum (Plot size: 15 ft. circle )		- Total Gove	•	I — ` · ·	
1				*Indicators of hydric soil and w present, unless disturb	
2				Hydrophytic	· · · · · · · · · · · · · · · · · · ·
	0	= Total Cove	r	vegetation	
				present? N	
Remarks: (Include photo numbers here or on a separa	ite sheet)				
Dominated by brome grass and American elm.					
Plant List Used: Lichvar, R.W. 2012. The National Wetland P	lant List, Vers			-11. Hanover, NH: U.S. Army Corp.	s of Engineers, Cold

SOIL **Sampling Point:** W-2-S4-Up Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Depth (Inches) % Loc\*\* Color (moist) Color (moist) % Type\* **Texture** Remarks 0-6 10YR 2/2 100 Sandy loam 10YR 4/4 6-12 80 10YR 2/2 20 Sand Surface layer mixed in 100 12-18 10YR 2/2 Sandy loam 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 Soils: Coast Prairie Redox (A16) (LRR K, L, R) Histisol (A1) Sandy Gleyed Matrix (S4) Dark Surface (S7) (LRR K, L) Histic Epipedon (A2) Sandy Redox (S5) Stripped Matrix (S6) Iron-Manganese Masses (F12) (LRR K, L, R) Black Histic (A3) 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) Thick Dark Surface (A12) Depleted Dark Surface (F7) \*Indicators of hydrophytic vegetation and weltand Sandy Mucky Mineral (S1) Redox Depressions (F8) hydrology must be present, unless disturbed or 5 cm Mucky Peat or Peat (S3) problematic Restrictive Layer (if observed): Hydric soil present? Type: Depth (inches): Remarks: **HYDROLOGY** 

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required	d; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Water-Stained Leaves (B9)	Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Gauge or Well Data (D9)	Surface Soil Cracks (B6)  Drainage Patterns (B10)  Dry-Season Water Table (C2)
Field Observations: Surface water present? Water table present? Saturation present? (includes capillary fringe)	No X Depth (inches):  No X Depth (inches):  No X Depth (inches):  Depth (inches):	Indicators of wetland hydrology present? N
Describe recorded data (stream gauge, monito	oring well, aerial photos, previous inspections),	if available:

Project/Site DPC Q-1 Rebuild	City/	County:	La Cross	se Sampling Date:	5/20/2013
Applicant/Owner: DPC		State:	WI	Sampling Point:	W-3-S1-Up
Investigator(s): Sarah Majerus & Julie Christianseı (AEC	COM)		on, Township		T17N R7W
Landform (hillslope, terrace, etc.): Hillslope/drainage	,			e, convex, none):	Concave
Slope (%): 15% Lat: NA		Long:	NA	Datum:	NA
Soil Map Unit Name 502C2 (Chelsea fine sand, 2-6% slope	es, mod		ed) NWI	/ WWI Classification:	NA
Are climatic/hydrologic conditions of the site typical for this				f no, explain in remarks)	
Are vegetation , soil , or hydrology				Are "normal circum	netancos"
Are vegetation , soil , or hydrology		naturally pro		Are normal circuit	present? Yes
SUMMARY OF FINDINGS		,		(If needed, explain any ans	
Hydrophytic vegetation present? N					,
Hydric soil present? N		Is the sa	ampled area	a within a wetland?	N
Indicators of wetland hydrology present?		f yes, opt	tional wetlan	d site ID:	
<del></del> _	oroto ro				
Remarks: (Explain alternative procedures here or in a sepa	arate re	port.)			
VEGETATION - Have discipline					
VEGETATION Use scientific names of plants.				Daminanas Taat Warkah	
	solute Cover	Dominan t Species	Indicator Staus	Dominance Test Worksho	
1	OOVEI	t openies	Otaus	Number of Dominant Specie that are OBL, FACW, or FAC	
2				Total Number of Dominar	
3				Species Across all Strata	
4				Percent of Dominant Specie	s
5				that are OBL, FACW, or FAC	C: 25.00% (A/B)
	0	= Total Cover			
Sapling/Shrub stratum (Plot size: 15 ft. circle )	_	V	FACIL	Prevalence Index Worksh	neet
1 Zanthoxylum americanum 2 Ulmus pumila	5	<u>Y</u> ·	FACU UPL	Total % Cover of:  OBL species  0 x	1 = 0
3			— OPL		2 = 80
4				·	3 = 45
5					4 = 100
	10	= Total Cover		UPL species 5 x 5	5 = 25
Herb stratum (Plot size: 5 ft. circle )				Column totals 85 (A	(B) <u>250</u>
	40	Y	FACW	Prevalence Index = B/A =	2.94
	20	<u>Y</u>	FACU		-
	15	N	FAC	Hydrophytic Vegetation I	
4 Potentilla sp. 5 Coronilla varia	5	N	unknown NI	Rapid test for hydrophy Dominance test is >50°	
6				X Prevalence index is ≤3	
7				Morphogical adaptation	
8				supporting data in Ren	**
9				separate sheet)	
10				Problematic hydrophyti	ic vegetation*
	85	= Total Cover	'	(explain)	
Woody vine stratum (Plot size: 15 ft. circle )				*Indicators of hydric soil and we	
				present, unless disturbe  Hydrophytic	ed or problematic
	0	= Total Cover	<del></del>	vegetation	
		10101 00101		present? N	_
Remarks: (Include photo numbers here or on a separate s	heet)				
Dominated by reed canary grass and brome.					
Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant I	List. Vers	sion 3.0. ERDC/0	CRREL TR-12-	11. Hanover, NH; U.S. Army Corps	of Engineers. Cold
Regions Research and Engineering Laboratory. (https://wetland_pl					

SOIL **Sampling Point:** W-3-S1-Up Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Depth % Loc\*\* (Inches) Color (moist) Color (moist) **Texture** Type\* Remarks 0-14 7.5YR 2.5/2 100 Sandy loam 14-18 10YR 5/6 100 Sand 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 Soils: Histisol (A1) Coast Prairie Redox (A16) (LRR K, L, R) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Black Histic (A3) Stripped Matrix (S6) 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) Thick Dark Surface (A12) Depleted Dark Surface (F7) \*Indicators of hydrophytic vegetation and weltand Sandy Mucky Mineral (S1) Redox Depressions (F8) hydrology must be present, unless disturbed or 5 cm Mucky Peat or Peat (S3) problematic Restrictive Layer (if observed): Hydric soil present? Type: Depth (inches): Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Aquatic Fauna (B13) Surface Soil Cracks (B6) High Water Table (A2) True Aquatic Plants (B14) Drainage Patterns (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots Water Marks (B1) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (B2) (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils Geomorphic Position (D2) Iron Deposits (B5) (C6)FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Sparsely Vegetated Concave Surface (B8) Gauge or Well Data (D9) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: No Surface water present? Yes X Depth (inches): X Indicators of wetland Water table present? No Depth (inches): Yes hydrology present? Saturation present? Yes Nο Depth (inches): Ν (includes capillary fringe) Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Project/Site DPC Q-1 Rebuild	City/County:	La Cross	e Sampling Date:	5/20/2013
Applicant/Owner: DPC	State:	WI		W-3-S2-Wet
Investigator(s): Sarah Majerus & Julie Christianser (AECON		on, Township	<del></del> · · · _	T17N R7W
Landform (hillslope, terrace, etc.): Stormwater basin			e, convex, none):	Concave
Slope (%): 0% Lat: NA	Long:		Datum:	NA
Soil Map Unit Name 501A (Finchford loamy sand, 0-3% slope			/ WWI Classification:	NA
Are climatic/hydrologic conditions of the site typical for this tir	-		f no, explain in remarks)	
Are vegetation , soil , or hydrology	significantly	disturbed?	Are "normal circui	mstances"
Are vegetation , soil , or hydrology	naturally pr		7 To Horrian Giroui	present? Yes
SUMMARY OF FINDINGS			(If needed, explain any an	swers in remarks.)
Hydrophytic vegetation present?				,
Hydric soil present? ?	Is the s	ampled area	a within a wetland?	Υ
Indicators of wetland hydrology present?	I .	-	d site ID: W-3	
Remarks: (Explain alternative procedures here or in a separa				<del></del>
The marks. (Explain alternative procedures here of in a separa	ite report.)			
No access to wetland off of I	Riders Club Ro	l. Fenced i	n at I-53 overpass.	
VECETATION Has a significant sector of relative				
<b>VEGETATION</b> Use scientific names of plants.	uta Daminan	Indianton	Dominance Test Worksh	and t
Absol Tree Stratum (Plot size: 30 ft. circle ) % Co		Indicator Staus	Number of Dominant Specie	
1	voi l'Opeoles	Otado	that are OBL, FACW, or FA	
2			Total Number of Domina	
3			Species Across all Strat	
4			Percent of Dominant Specie	es
5			that are OBL, FACW, or FA	C:50.00%(A/B)
0	= Total Cove	·		
Sapling/Shrub stratum (Plot size: 15 ft. circle )			Prevalence Index Works Total % Cover of:	neet
				1 = 0
3				2 = 100
4				3 = 0
5			FACU species 0 x	4 = 0
0	= Total Cove			5 = 0
Herb stratum (Plot size: 5 ft. circle )			Column totals 50 (A	A) <u>100</u> (B)
1 Phalaris arundinacea 50		FACW	Prevalence Index = B/A =	2.00
2 Carex sp. 50	Y	unknown	Hadaaahada Vaaadadaa	L. P. A.
3			Hydrophytic Vegetation Rapid test for hydroph	
5			Dominance test is >50	
6			X Prevalence index is ≤	
7			Morphogical adaptation	ons* (provide
8			supporting data in Re	
9			separate sheet)	
10			Problematic hydrophy	tic vegetation*
100	Total Cove		(explain)	
Woody vine stratum (Plot size: 15 ft. circle )			*Indicators of hydric soil and w present, unless disturb	
			Hydrophytic	ed of problematic
	= Total Cove		vegetation	
			present? Y	
Remarks: (Include photo numbers here or on a separate shee	et)			
Species observations from fenceline.				
Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Regions Research and Engineering Laboratory. (https://wetland_plant:				s of Engineers, Cold

SOIL Sampling Point: W-3-S2-Wet Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Depth (Inches) % Loc\*\* Color (moist) Color (moist) Type\* **Texture** Remarks 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 Soils: Coast Prairie Redox (A16) (LRR K, L, R) Histisol (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Black Histic (A3) Stripped Matrix (S6) 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) Thick Dark Surface (A12) Depleted Dark Surface (F7) \*Indicators of hydrophytic vegetation and weltand Sandy Mucky Mineral (S1) Redox Depressions (F8) hydrology must be present, unless disturbed or problematic 5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Hydric soil present? Type: Depth (inches): Remarks: No access for soil core observations. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) X Surface Water (A1) Aquatic Fauna (B13) Surface Soil Cracks (B6) High Water Table (A2) True Aquatic Plants (B14) Drainage Patterns (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Water Marks (B1) Crayfish Burrows (C8) Oxidized Rhizospheres on Living Roots Saturation Visible on Aerial Imagery (C9) Sediment Deposits (B2) (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils X Geomorphic Position (D2) Iron Deposits (B5) FAC-Neutral Test (D5) (C6) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Sparsely Vegetated Concave Surface (B8) Gauge or Well Data (D9) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Yes No Surface water present? Depth (inches): No Indicators of wetland Water table present? Yes Depth (inches): No Depth (inches): hydrology present? Saturation present? (includes capillary fringe) Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Hydrology observations from fenceline.

Project/Site DPC Q-1 Rebuild	City/	County:	La Cross	se Sampling Date:	5/20/2013
Applicant/Owner: DPC		State:	WI		W-4-S1-Up
Investigator(s): Sarah Majerus & Julie Christianseı (AEC	OM)	Secti	on, Townshi		T17N R7W
Landform (hillslope, terrace, etc.): Hillslope				ve, convex, none):	None
Slope (%): 3-5% Lat: NA		Long:		Datum:	NA
Soil Map Unit Name 501A (Finchford loamy sand, 0-3% slo	pes)			/ WWI Classification:	NA
Are climatic/hydrologic conditions of the site typical for this	time o	of the year?	Y (I	f no, explain in remarks)	
Are vegetation , soil , or hydrology		significantly	disturbed?	Are "normal circum	nstances"
Are vegetation , soil , or hydrology		naturally pr	oblematic?	, as normal susual	present? Yes
SUMMARY OF FINDINGS				(If needed, explain any ans	swers in remarks.)
Hydrophytic vegetation present?					
Hydric soil present? N		Is the s	ampled are	a within a wetland?	N
Indicators of wetland hydrology present?		f yes, op	tional wetlar	nd site ID: W-4	
Remarks: (Explain alternative procedures here or in a sepa	arate re	eport.)		<u> </u>	
				0.000	
Soil core observed along fe	encelin	ie, behind h	nousing on	Cliffview Avenue N.	
VEGETATION Use scientific names of plants.					
Abs	solute	Dominan	Indicator	Dominance Test Worksho	eet
<u>Tree Stratum</u> (Plot size: <u>30 ft. circle</u> ) %	Cover	t Species	Staus	Number of Dominant Specie	
				that are OBL, FACW, or FAC	2:1 (A)
				Total Number of Dominar	
				Species Across all Strata	
5				Percent of Dominant Specie that are OBL, FACW, or FAC	
	0	= Total Cove			(**************************************
Sapling/Shrub stratum (Plot size: 15 ft. circle )				Prevalence Index Worksh	neet
1 Ulmus pumila	5	Y	UPL	Total % Cover of:	
2				OBL species 0 x	
3					2 = 0
5				· —	3 = <u>60</u> 4 = 140
	5	= Total Cove		UPL species 10 x 5	
Herb stratum (Plot size: 5 ft. circle )				Column totals 65 (A	
	30	Υ	FACU	Prevalence Index = B/A =	3.85
2 Festuca sp.	30	Y	unknown		
3 Poa pratensis	20	Υ	FAC	Hydrophytic Vegetation I	ndicators:
	10	N	NI	Rapid test for hydrophy	
5 Asclepias syriaca	5	N	FACU	Dominance test is >50	
6 Daucus carota	5	N	UPL	Prevalence index is ≤3	
8				Morphogical adaptation supporting data in Ren	**
9				separate sheet)	iains of off a
10				Problematic hydrophyti	ic vegetation*
	100	= Total Cove	r	(explain)	
Woody vine stratum (Plot size: 15 ft. circle )				*Indicators of hydric soil and we	etland hydrology must be
1				present, unless disturbe	ed or problematic
		T-1-1-0		Hydrophytic vegetation	
	0	= Total Cove	r	present? N	
Remarks: (Include photo numbers here or on a separate s	heet)				_
Dominated by brome grass, fescue, and Kentucky bluegra					
Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant I		sion 3.0 ERDC	CRREL TR-12	-11 Hanover NH: U.S. Army Corps	of Engineers, Cold
Regions Research and Engineering Laboratory. (https://wetland_pl					J. 2.19.1.5015, 00ld

SOIL **Sampling Point:** W-4-S1-Up Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Depth % Loc\*\* (Inches) Color (moist) Color (moist) **Texture** Type\* Remarks 1-6 10YR 3/3 100 Sandy loam 10YR 4/6 6-18 100 Sand 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 Soils: Histisol (A1) Coast Prairie Redox (A16) (LRR K, L, R) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Black Histic (A3) Stripped Matrix (S6) 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) Thick Dark Surface (A12) Depleted Dark Surface (F7) \*Indicators of hydrophytic vegetation and weltand Sandy Mucky Mineral (S1) Redox Depressions (F8) hydrology must be present, unless disturbed or 5 cm Mucky Peat or Peat (S3) problematic Restrictive Layer (if observed): Hydric soil present? Type: Depth (inches): Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Aquatic Fauna (B13) Surface Soil Cracks (B6) High Water Table (A2) True Aquatic Plants (B14) Drainage Patterns (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots Water Marks (B1) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (B2) (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils Geomorphic Position (D2) Iron Deposits (B5) (C6)FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Sparsely Vegetated Concave Surface (B8) Gauge or Well Data (D9) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: No Surface water present? Yes X Depth (inches): X Indicators of wetland Water table present? No Depth (inches): Yes hydrology present? Saturation present? Yes Nο Depth (inches): Ν (includes capillary fringe) Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Applicant/Owner DPC	Project/Site DPC Q-1 Rebuild	City/County	: La Cros	se Sampling Date:	5/20/2013
Investigator(s): Sarah Majerus & Julie Christianser (AECOM) Landform (hillslope, terrace, etc.): Stormwater basin					
Local relief (concave, convex, none):					
Slope (%): 0%		-			Concave
Soil May Drift Name 501 A, (Finchford loamy sand, 0-3% slopes) Are climatichydrologic conditions of the site typical for this time of the year? Are vegetation					
Are climatichydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks) Are vegetation soil or hydrology naturally disturbed? Are "normal circumstances" present? Yes SUMMARY OF FINDINGS  Hydrophytic vegetation present? Y					NA
Are vegetation soll or hydrology attractive december of the second secon					
Are vegetationsoil					metances"
Hydrophytic vegetation present?   Y   Is the sampled area within a wetland?   Y   Is the sampled area within a wetland?   Y   Is the sampled area within a wetland?   Y   Y   Is the sampled area within a wetland?   Y   Y   Y   Y   Y   Y   Y   Y   Y			-	Ale normal circu	
Hydric soil present?   Y				(If needed, explain any ar	nswers in remarks.)
Indicators of wetland hydrology present? Y fyes, optional wetland site ID: W-4  Remarks: (Explain alternative procedures here or in a separate report.)  No access to wetland due to fenceline.  VEGETATION Use scientific names of plants.  Tree Statum (Plot size: 30 ft. circle ) % Cover t Species Staus 1 (A)  Total Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)  Total Number of Dominant Species Species Across all Strata 1 (B)  Percent of Dominant Species that are OBL, FACW, or FAC: 1 (A)  Total Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)  Total Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)  Total Number of Dominant Species that are OBL, FACW, or FAC: 1 (B)  Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet  Total % Cover or OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet  Total % Cover or OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet  Total % Cover or OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet  Total % Cover or OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet  Total % Cover or OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet  Total % Cover or OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet  Total % Cover or OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet  Total % Cover or OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet  Total % Cover or OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet  Total % Cover or OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet  Total % Cover or OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet  Total % Cover or OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet  Total % Cover or OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet  Total % Cover or OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet  Total % Cover or OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet  Total % Cover or OBL, FACW, or FAC: 100.00% (A/B)	Hydrophytic vegetation present? Y				
Remarks: (Explain alternative procedures here or in a separate report.)  No access to wetland due to fenceline.  VEGETATION Use scientific names of plants.  Tree Stratum (Plot size: 30 ft. circle )	Hydric soil present?	Is	the sampled are	ea within a wetland?	Υ
VEGETATION Use scientific names of plants.    Tree Stratum	Indicators of wetland hydrology present?	f y	es, optional wetla	nd site ID: W-4	
VEGETATION Use scientific names of plants.    Tree Stratum	Remarks: (Evoluin alternative procedures here or in a sens	rate report )			
Name	Themains. (Explain alternative procedures here or in a sepa	arate report.)			
Absolute   Cover   Count   Cover   Count   Cover   Count   Cover   Count   Count   Cover   Count   Count   Cover   Count   Cover   Count   Count   Cover   Count   Cover   Count   Cover   Count   Cover   Count   Cover   C	No acces	s to wetland	d due to fenceli	ne.	
Absolute   Dominan   Indicator   Status   Number of Dominant Species   Status   Number of Dominant   Species Across all Strata:   1	VECETATION Lies estantific names of plants				
Tree Stratum	·	aluta Dami	inan Indicator	Dominance Test Works	heet
that are OBL, FACW, or FAC: 1 (A)  Total Number of Dominant Species Across all Strata: 1 (B)  Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)  Sapling/Shrub stratum (Plot size: 15 ft. circle )  Sapling/Shrub stratum (Plot size: 5 ft. circle )  Sapling/Shrub stratum (Plot size: 15 ft. circle )  Sapling/Shrub stratum (Plot size: 10 ft. circle )  Sapling/Shrub stratum (Plot size: 10 ft. circle )  Sapling/Shrub stratum (Plot size: 10 ft. circle )  Sa					
Species Across all Strata: 1 (B)	1				
Percent of Dominant Species that are OBL, FACW, or FAC:   100.00% (A/B)	2			Total Number of Domina	ant
Sapling/Shrub stratum   (Plot size: 15 ft. circle   )	3			Species Across all Stra	ta:(B)
Sapling/Shrub straturr   (Plot size: 15 ft. circle   )	4			•	
Prevalence Index Worksheet   Total % Cover of:   OBL species   O x 1 = 0   OBL species   O x 3 = 0   FACW species   O x 4 = 0   OBL species   OBL sp	5	O - T-4-1	0	that are OBL, FACW, or FA	C: 100.00% (A/B)
Total % Cover of:   OBL species 0 x1 = 0     FACW species 90 x2 = 180     FACW species 0 x3 = 0     FACW species 0 x4 =	Sanling/Shrub stratum (Plot size: 15 ft circle )	= Total	Cover	Prevalence Index Works	sheet
Color	1				Silect
FACW species   90   x 2 =   180   FACW species   0   x 3 =   0   FACU species   0   x 4 =   0   VACU species   10   X 5 =   50   VACU species   10   VACU spec	2				1 = 0
FACU species   O x 4 = O   UPL species   O x 4 = O x 10   UPL species   O x 4 = O x 10   UPL species   O x 4 = O x 10   UPL species   O x 4 = O x 10   UPL species   O x 4 = O x 10   UPL species   O x 4 = O x 10   UPL species   O x 4 = O x 10   UPL species   O x 4 = O x 10   UPL species   O x 4 = O x 10   UPL species   O x 4 = O x 10   UPL species   O x 4 = O x 10   UPL species   O x 4 = O x 10   UPL species   O x 4 = O x 10   UPL species   O x 4 = O x 10   UPL species   O x 4 = O x 10   UPL species   O x 4 = O x 10   UPL species   O x 10   UPL spec	3				2 = 180
Herb stratum   (Plot size: 5 ft. circle   )	4			FAC species 0 x	3 = 0
Herb stratum	5				
1 Phalaris arundinacea 2 Urtica dioica 3 Daucus carota 1 10 N UPL 4 Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is ≤3.0* Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)  Woody vine stratum (Plot size: 15 ft. circle) 1	Distriction 5 6 sinds	0 = Total	Cover		
2 Urtica dioica 3 Daucus carota 10 N UPL 4 Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is ≤3.0* Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain)  Woody vine stratum Plot size: 15 ft. circle  10 = Total Cover    Total Cover	<del></del>			`	
3   Daucus carota   10   N   UPL   Hydrophytic Vegetation Indicators:   Rapid test for hydrophytic vegetation     X   Dominance test is >50%     X   Prevalence index is ≤3.0*     Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)     10   Total Cover     Woody vine stratum   (Plot size: 15 ft. circle )     1   Total Cover     Remarks: (Include photo numbers here or on a separate sheet)     Remarks: (Include photo numbers here or on a separate sheet)     Remarks: (Include photo numbers here or on a separate sheet)     Remarks: (Include photo numbers here or on a separate sheet)     Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation     X   Dominance test is >50%     X   Prevalence index is ≤3.0*     Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)     Problematic hydrophytic vegetation*     (explain)     *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic vegetation     Hydrophytic vegetation     Problematic hydrophyt				Prevalence Index = B/A =	2.30
Rapid test for hydrophytic vegetation  X Dominance test is >50%  X Prevalence index is ≤3.0*  Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)  Problematic hydrophytic vegetation*  (explain)  *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  Hydrophytic vegetation  Total Cover  Problematic hydrophytic vegetation*  (explain)  *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  Hydrophytic vegetation  regetation  Y  Remarks: (Include photo numbers here or on a separate sheet)				Hydronhytic Vegetation	Indicators:
Solution Sequence in the set is \$100 sequence in the set is \$100 sequence in the sequence in	4				
Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)  Problematic hydrophytic vegetation* (explain)  *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  Hydrophytic vegetation  present?  Y  Remarks: (Include photo numbers here or on a separate sheet)	5			1 <del></del>	, ,
8 supporting data in Remarks or on a separate sheet) 10 Problematic hydrophytic vegetation* (explain)  *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  10 = Total Cover  Hydrophytic vegetation  Problematic hydrophytic vegetation* (explain)  *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  Hydrophytic vegetation present?  Y	6			X Prevalence index is ≤	3.0*
separate sheet)  Problematic hydrophytic vegetation* (explain)  *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  Hydrophytic vegetation  Total Cover  O = Total Cover  Remarks: (Include photo numbers here or on a separate sheet)	7			Morphogical adaptation	ons* (provide
Problematic hydrophytic vegetation*  (explain)  *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  Hydrophytic vegetation  The problematic hydrophytic vegetation*  (explain)  *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  Hydrophytic vegetation vegetation  Problematic hydrophytic vegetation*  (explain)  *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  Hydrophytic vegetation  Problematic hydrophytic vegetation*  (explain)	8				marks or on a
Woody vine stratum (Plot size: 15 ft. circle )  1				I — '	
Woody vine stratum (Plot size: 15 ft. circle )  1		Total	Cover		tic vegetation*
1	<u> </u>	- Total	Cover	I — ' ' '	
2				•	
Remarks: (Include photo numbers here or on a separate sheet)					
Remarks: (Include photo numbers here or on a separate sheet)		0 = Total	Cover		
				present? Y	_
Species observations from fenceline.		neet)			
·	Species observations from fenceline.				
Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory. (https://wetland_plants.usace.army.mii), and BONAP, Chapel Hill, NC. (2013).					os of Engineers, Cold

SOIL Sampling Point: W-4-S2-Wet Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Depth (Inches) % Loc\*\* Color (moist) Color (moist) Type\* **Texture** Remarks 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 Soils: Histisol (A1) Coast Prairie Redox (A16) (LRR K, L, R) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Black Histic (A3) Stripped Matrix (S6) 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) Thick Dark Surface (A12) Depleted Dark Surface (F7) \*Indicators of hydrophytic vegetation and weltand Sandy Mucky Mineral (S1) Redox Depressions (F8) hydrology must be present, unless disturbed or problematic 5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Hydric soil present? Type: Depth (inches): Remarks: No access for soil core observations. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Aquatic Fauna (B13) X Surface Water (A1) Surface Soil Cracks (B6) High Water Table (A2) True Aquatic Plants (B14) Drainage Patterns (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots Water Marks (B1) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (B2) (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils X Geomorphic Position (D2) Iron Deposits (B5) FAC-Neutral Test (D5) (C6) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Sparsely Vegetated Concave Surface (B8) Gauge or Well Data (D9) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Yes No Surface water present? Depth (inches): No Indicators of wetland Water table present? Yes Depth (inches): No Depth (inches): hydrology present? Saturation present? Yes (includes capillary fringe) Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Project/Sto DPC Q-1 Rebuild City/County. La Crosse Sampling Date. \$21/2013 Applicant/Owner. DPC State: WI Sampling Date. \$521/2013 Applicant/Owner. DPC State: Will Sampling DPC. \$521/2013 Applicant/Owner. DPC State: Will Sampling	W212/W2 D212/W			O. C	an oct region	
Investigator(s): Sarah Majeus & Julie Christianses (AECOM) Landform (fillalope, terrace, etc.): Stormwater basin Local relief (concave, convex, none): Concave Sol Map Unit Name 50282 (Chelsea fine sand, 2-6% slopes, moderately endedd) NWI : WWI Classification: NA Are climatic/hydrologic conditions of the site typical for this time of the year? Y (if no, explain in remarks) Are vegelation soil or hydrology significantly disturbed? Are vegelation soil or hydrology naturally problematic? Are vegelation soil or hydrology present? Naturally problematic? Are vegelation with soil or hydrology present? Naturally problematic? Are vegelation with soil or hydrology present? Naturally problematic? Are vegelation with soil or hydrology present? Naturally naturally problematic? Are vegelation with soil or hydrology present? Naturally naturally problematic? Are vegelation with soil or hydrology present? Are normal circumstances* Present vegelation associated with L.B. White Co. development.  VEGETATION Use scientific names of plants.  A besolute of present vegelation or hydrology present?  A besolute of present vegelation or hydrology present?  A besolute of present vegelation or hydrology present.  A besolute of present vegelation indicators: A besolute or problematic present.  A commandation of prese	Project/Site DPC Q-1 Rebuild	_ City/0	County:			
Landform (hillslope, terrace, etc.): Stornwater basin	Applicant/Owner: DPC		State:	WI	Sampling Point:	W-5-S1-Wet
Slope (%): 0%	Investigator(s): Sarah Majeus & Julie Christianseı (AE	COM)	Section	on, Township	o, Range: Sec 32	T17N R7W
Soil Map Unit Name 50282 (Chelesea fine sand, 2-6% stoppes, moderately eroded) Are climatichydrologic conditions of the site typical for this time of the year? Are vegetation	Landform (hillslope, terrace, etc.): Stormwater basin		Local re	elief (concav	re, convex, none):	Concave
Are vegetation	Slope (%): 0% Lat: NA		Long:	NA	Datum:	NA
Are vegetation	Soil Map Unit Name 502B2 (Chelsea fine sand, 2-6% slo	pes, mod	derately erode	ed) NWI	/ WWI Classification:	NA
Are vegetation, soil, or hydrology					f no, explain in remarks)	
Are vegetation soil or hydrology naturally problematic? Yes  SUMMARY OF FINDINGS  Hydrolytic vegetation present? N  Remarks: (Explain alternative procedures here or in a separate report.)  Stormwater basin associated with L.B. White Co. development.  VEGETATION – Use scientific names of plants.  VEGETATION – Use sc						metancoe"
Hydric soil present?   N					Ale normal circui	
Hydrophytic vegetation present?   N   N   St the sampled area within a wetland?   N   N   Fyes, optional wetland site ID:   W-6   N		<i></i>	matar amy pro		(If needed, explain any an	· —
Hydric soil present?   N					(ii iioodod, oxpidiii diiy dii	oworo in romanco.,
Indicators of wetland hydrology present? Y fyes, optional wetland site ID: W-6  Remarks: (Explain alternative procedures here or in a separate report.)  Stormwater basin associated with L.B., White Co. development.  VEGETATION Use scientific names of plants.    Tree Stratum			le the e	ampled are	a within a watland?	N
Remarks: (Explain alternative procedures here or in a separate report.)  Stormwater basin associated with L.B. White Co. development.  VEGETATION Use scientific names of plants.  Tree Stratum (Plot size:30 ft. circle _)				•	<del>-</del>	
Stormwater basin associated with L.B. White Co. development.    VEGETATION Use scientific names of plants.	indicators of wetland hydrology present?		r yes, op	lional wellar	id site iD	
VEGETATION Use scientific names of plants.    Tree Stratum	Remarks: (Explain alternative procedures here or in a se	parate re	eport.)			
VEGETATION Use scientific names of plants.    Tree Stratum	Starmwater hasin as		ا مائندان	White Co	davalanmant	
Absolute   Dominan   Indicator   Species   Staus   Number of Dominant Species   Indicator   Species   Staus   Number of Dominant Species   Indicator   Species   Staus   Sta	Stormwater basin as	ssociate	ed with L.B.	white Co.	development.	
Absolute   Dominan   Indicator   Species   Staus   Number of Dominant Species   Indicator   Species   Staus   Number of Dominant Species   Indicator   Species   Staus   Sta	VEGETATION Use scientific names of plants.					
Tree Stratum		bsolute	Dominan	Indicator	Dominance Test Worksh	neet
that are OBL, FACW, or FAC: 0 (A)  Total Number of Dominant Species Across all Strata: 3 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 0.00% (A/B)  Sapling/Shrub stratum* (Plot size: 15 ft. circle )  Sapling/Shrub stratum* (Plot size: 15 ft. circle )  Total % Cover of:  OBL species 0 x 1 = 0 FACW species 15 x 2 = 30 FAC species 5 x 3 = 15 FACU species 0 x 5 = 0 FACU species 0 x 5 = 0 Column totals 70 (A) 245 (B)  Ambrosia artemisiifolia 30 Y FACU Fragaria virginiana 20 Y FACU Fragaria virginiana 20 Y FACU Total www.  Alopecurus pratensis 10 N FACW Species 5 x 3 = 15 FACU species 5 x 3 = 15 FACU species 5 x 3 = 15 FACU species 70 x 5 = 0 Column totals 70 (A) 245 (B) Prevalence Index = B/A = 3.50  Prevalence Index = B/A = 3.50  FACU species 10 x 5 = 0 Column totals 70 (A) 245 (B) Prevalence Index = B/A = 3.50  FACU species 10 x 5 = 0 Column totals 70 (A) 245 (B) Prevalence Index = B/A = 3.50  FACU species 10 x 5 = 0	Tree Stratum (Plot size: 30 ft. circle ) %	6 Cover			Number of Dominant Specie	es
Species Across all Strata: 3 (B)  4	1					
Percent of Dominant Species that are OBL, FACW, or FAC:	2				Total Number of Domina	ınt
Sapling/Shrub straturr   (Plot size: 15 ft. circle   )	3				Species Across all Strat	a: <u>3</u> (B)
Sapling/Shrub stratum	4					
Sapling/Shrub stratum   Plot size: 15 ft. circle   1	5				that are OBL, FACW, or FA	C: 0.00% (A/B)
Total % Cover of:  OBL species 0 x1 = 0  FACW species 5 x3 = 15  FACU species 5 x4 = 200  UPL species 7 x4 = 200  UPL species 5 x4 = 200  UPL species 7 x4 = 200  UPL species 50 x4 = 200  UPL spec		0 :	= Total Cover	•		_
OBL species 0 x1 = 0 FACW species 15 x2 = 30 FAC species 5 x3 = 15 FACU species 0 x5 = 20 UPL species 0 x5 = 0 Column totals 70 (A) 245 (B)  Prevalence Index = B/A = 3.50  FACU species 0 x5 = 0 Column totals 70 (A) 245 (B)  Prevalence Index = B/A = 3.50  FACU species 0 x5 = 0 FACU species 0 x5 = 0 Column totals 70 (A) 245 (B)  Prevalence Index = B/A = 3.50  FACU species 0 x5 = 0 FACU species 15 x2 = 30 FACU species 15 x = 20 Column totals 70 (A) 245 (B) FACU species 10 x = 20 FACU species 10 x = 20 FACU species 10 x = 20 FACU species 15 x = 20 Column totals 70 (A) 245 (B) FACU species 10 x = 20 FACU species 10 x = 20 FACU species 15 x 2 = 30 FACU species 10 x = 20 FACU species 15 x = 20 Column totals 70 (A) 245 (B) FACU species 10 x = 20 FACU s	Sapling/Shrub stratum (Plot size: 15 ft. circle )					heet
FACW species   15 x 2 =   30						4 = 0
FAC species 5 x 3 = 15 FACU species 50 x 4 = 200    Herb stratum						
Herb stratum (Plot size: 5 ft. circle )						
Herb stratum						
Herb stratum   (Plot size: 5 ft. circle   )   1   Ambrosia artemisiifolia   30   Y   FACU   Prevalence Index = B/A = 3.50     2   Fragaria virginiana   20   Y   EACU   Prevalence Index = B/A = 3.50     3   Trifolium sp.	<u> </u>	0 :	= Total Cover			
1 Ambrosia artemisiifolia 2 Fragaria virginiana 2 0 Y FACU 3 Trifolium sp. 4 Alopecurus pratensis 5 Setaria viridis 6 Solidago gigantea 7 Poa pratensis 5 N FACW 7 Poa pratensis 5 N FACW 8 9 Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet) 10 = Total Cover    Woody vine stratum   (Plot size: 15 ft. circle ) Dominated by common ragweed, wild strawberry, and clover. Newly developed stormwater basin. Hydric species have not had time to colonize.   Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold	Herb stratum (Plot size: 5 ft. circle )					
2 Fragaria virginiana 20 Y Ikhown 3 Trifolium sp. 4 Alopecurus pratensis 5 Setaria viridis 6 Solidago gigantea 7 Poa pratensis 8 Prevalence index is ≤3.0* 8 Prevalence index is ≤3.0* 9 Problematic hydrophytic vegetation 10 FACW 8 Supporting data in Remarks or on a separate sheet) 10 Problematic hydrophytic vegetation* (explain) 10 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic 10 Problematic hydrophytic vegetation 10 Problematic hydrophytic vege	·	30	Y	FACII		
3 Trifolium sp. 20 Y uknown Alopecurus pratensis 10 N FACW Setaria viridis 10 N N II Dominance test is >50% Prevalence index is ≤3.0*  7 Poa pratensis 5 N FAC Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)  10 Total Cover Problematic hydrophytic vegetation*    Woody vine stratum   (Plot size: 15 ft. circle   )					Trovalonoo maax 2//	0.00
4 Alopecurus pratensis  5 Setaria viridis  6 Solidago gigantea  7 Poa pratensis  5 N FACW  7 Poa pratensis  5 N FACW  9					Hydrophytic Vegetation	Indicators:
6 Solidago gigantea 7 Poa pratensis 5 N FAC 8 Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet) 10 Problematic hydrophytic vegetation* (explain)  *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  ### Hydrophytic vegetation  ### Hydrophytic vegetation  ### Hydrophytic vegetation  ### Provalence index is ≤3.0*  Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)  ### Problematic hydrophytic vegetation  #### Hydrophytic vegetation  #### Prevalence index is ≤3.0*  Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)  #### Problematic hydrophytic vegetation  #### Problematic hydrophytic hydrophyti	4 Alopecurus pratensis	10	N			
7 Poa pratensis 5 N FAC Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet) 9 10 Problematic hydrophytic vegetation* (explain)  *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  100 = Total Cover Hydrophytic vegetation present? N  Remarks: (Include photo numbers here or on a separate sheet)  Dominated by common ragweed, wild strawberry, and clover. Newly developed stormwater basin. Hydric species have not had time to colonize.  Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold	5 Setaria viridis	10	N	NI	Dominance test is >50	)%
8 supporting data in Remarks or on a separate sheet)  10 Problematic hydrophytic vegetation* (explain)  *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  10 = Total Cover    Hydrophytic vegetation present?   N    Remarks: (Include photo numbers here or on a separate sheet)   Dominated by common ragweed, wild strawberry, and clover. Newly developed stormwater basin. Hydric species have not had time to colonize.   Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold	6 Solidago gigantea	5	N	FACW	Prevalence index is ≤	3.0*
9 10	7 Poa pratensis	5	N	FAC	Morphogical adaptation	ons* (provide
Problematic hydrophytic vegetation*  (explain)  *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  Hydrophytic vegetation  The state of hydrophytic vegetation present, unless disturbed or problematic  Hydrophytic vegetation present?  N  Remarks: (Include photo numbers here or on a separate sheet)  Dominated by common ragweed, wild strawberry, and clover. Newly developed stormwater basin. Hydric species have not had time to colonize.  Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold	8					marks or on a
Total Cover   (explain)   *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	9				<b>—</b> '	
Woody vine stratum (Plot size: 15 ft. circle )  1	10					tic vegetation*
This case of the solid and west and hydrology must be present, unless disturbed or problematic  Thydrophytic vegetation present?  Remarks: (Include photo numbers here or on a separate sheet)  Dominated by common ragweed, wild strawberry, and clover. Newly developed stormwater basin. Hydric species have not had time to colonize.  Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold		100	= Total Cover		(explain)	
2  Remarks: (Include photo numbers here or on a separate sheet)  Dominated by common ragweed, wild strawberry, and clover. Newly developed stormwater basin. Hydric species have not had time to colonize.  Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold	Woody vine stratum (Plot size: 15 ft. circle )					
Remarks: (Include photo numbers here or on a separate sheet)  Dominated by common ragweed, wild strawberry, and clover. Newly developed stormwater basin. Hydric species have not had time to colonize.  Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold					•	ed or problematic
Remarks: (Include photo numbers here or on a separate sheet)  Dominated by common ragweed, wild strawberry, and clover. Newly developed stormwater basin. Hydric species have not had time to colonize.  Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold			- Total Caver			
Dominated by common ragweed, wild strawberry, and clover. Newly developed stormwater basin. Hydric species have not had time to colonize.  Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold		0	- Total Cover			
Dominated by common ragweed, wild strawberry, and clover. Newly developed stormwater basin. Hydric species have not had time to colonize.  Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold	Remarks: (Include photo numbers here or on a separate	sheet)				
colonize. Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold			ewly develope	d stormwater	basin. Hydric species have r	not had time to
	colonize.					
						s of Engineers, Cold

SOIL Sampling Point: W-5-S1-Wet

(Inches)	<u>Matrix</u>			dox Feat				
	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-2	10YR 2/2	100					Sandy loam	
2-14	10YR 2/2	50	10YR 4/4	50			Sand	Mixed layer
14-18	10YR 4/6	100					Sand	
	oncentration, D :	= Depleti	on, RM = Reduc	ed Matrix	k, MS = N	1asked S		ocation: PL = Pore Lining, M = Matrix
-	I Indicators:							Problematic Hydric Soils:
	sol (A1)				ed Matrix	(S4)		rie Redox (A16) (LRR K, L, R)
	c Epipedon (A2)			ndy Redo				ce (S7) (LRR K, L)
	k Histic (A3)				trix (S6)			anese Masses (F12) (LRR K, L, R)
	ogen Sulfide (A4			-	ky Minera			ow Dark Surface (TF12)
	ified Layers (A5)	)			ed Matrix		Other (exp	lain in remarks)
	Muck (A10)	Curfoco			atrix (F3)			
	eted Below Dark k Dark Surface (/				Surface ark Surface		*Indianton o	f budwards tie verstetien and weltend
	dy Mucky Minera				essions (			f hydrophytic vegetation and weltand nust be present, unless disturbed or
	Mucky Peat or			сох Бері	essions (	(10)	nydrology n	problematic
		` `	,					problematio
	ayer (if observe	ed):					Uhadala asil a	
Type:	-).				-		Hydric soil p	resent? N
Depth (inches					-			
HYDROLO								
-	Irology Indicato							
-	ators (minimum	of ana ia	required: check	all that a				
Surface V	Vater (A1)	or one is	required, check	all that a	pply)			ary Indicators (minimum of two require
		or one is	required, check	Aquatic	Fauna (B		Su	rface Soil Cracks (B6)
High Wate	er Table (A2)	or one is	Tequiled, Check	Aquatic True Aq	Fauna (B uatic Plar	its (B14)	Su Dra	rface Soil Cracks (B6) ainage Patterns (B10)
High Wate Saturation	n (A3)	<u>oi one is</u>		Aquatic True Aq Hydroge	Fauna (B uatic Plar en Sulfide	nts (B14) Odor (C1	Su 	rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2)
High Wate Saturation Water Ma	n (A3) irks (B1)	<u>oi one is</u>	Tequired, Check	Aquatic True Aq Hydroge Oxidized	Fauna (B uatic Plar en Sulfide	nts (B14) Odor (C1	Su Su Dr. ) Dr. Living Roots Cr.	rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8)
High Water Saturation Water Ma Sediment	n (A3) irks (B1) Deposits (B2)	or one is		Aquatic True Aq Hydroge Oxidized (C3)	Fauna (B uatic Plar en Sulfide d Rhizosp	nts (B14) Odor (C1 heres on	Su	rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9)
High Wate Saturation Water Ma Sediment Drift Depo	n (A3) urks (B1) Deposits (B2) osits (B3)	or one is		Aquatic True Aq Hydroge Oxidized (C3) Presence	Fauna (B uatic Plar en Sulfide d Rhizosp ee of Redu	ots (B14) Odor (C1 heres on	Su	urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) uturation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1)
High Wate Saturation Water Ma Sediment Drift Depo	n (A3) lirks (B1) Deposits (B2) osits (B3) or Crust (B4)	or one is		Aquatic True Aq Hydroge Oxidized (C3) Presence	Fauna (B uatic Plar en Sulfide d Rhizosp ee of Redu	ots (B14) Odor (C1 heres on	Su	rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9)
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# Appendix C

Rapid Assessment Methodology for Determining Wetland Functional Value (Summary Page)

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#### RAPID ASSESSMENT METHODOLOGY FOR EVALUATING WETLAND FUNCTIONAL VALUES

#### **GENERAL INFORMATION**

Name of Wetland/Owner: W-1 / DPC						
Location: County <u>La Crosse</u>	_;S\\\14,N\\14, Section 14,Township 16N,Range 7W					
Project Name: DPC Q-1 Wetland Delineation						
Evaluator(s): Sarah Majerus & Julie Christiansen, AECOM						
Date(s) of Site Visit(s): May 14, 2103						

Description of seasonality limitations of this inspection due to time of year of the evaluation and/or current hydrologic and climatologic conditions (e.g. after heavy rains, snow or ice cover, during drought year, during spring flood, during bird migration): Field work completed at the beginning of the growing season.

#### WETLAND DESCRIPTION

Wisconsin Wetlands Inventory classification: NA	
Wetland Type: shallow open water deep marsh floodplain forest alder thicket wet meadow shrub-carr	seasonally flooded basin bog coniferous swamp fen hardwood swamp scrub/shrub
Estimated size of wetland in acres: 1-5 acres	

# **SUMMARY OF FUNCTIONAL VALUES**

Based on the results of the attached functional assessment, rate the significance of each of the functional values for the subject wetland and check the appropriate box. Complete the table as a summary.

FUNCTION	SIGNIFICANCE				
	Low	Medium	High	Exceptional	N/A
Floral Diversity		X			
Wildlife Habitat		X			
Fishery Habitat					X
Flood/Stormwater Attenuation		X			
Water Quality Protection		X			
Shoreline Protection					X
Groundwater	$\times$				
Aesthetics/Recreation/Education	$\times$				

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#### RAPID ASSESSMENT METHODOLOGY FOR EVALUATING WETLAND FUNCTIONAL VALUES

#### **GENERAL INFORMATION**

Name of Wetland/Owner: W-2 / DPC						
Location: County <u>La Crosse</u> ; ½, ½, Section 14 , Township 16N , Range 7W						
Project Name: DPC Q-1 Wetland Delineation						
Evaluator(s): Sarah Majerus & Julie Christiansen, AECOM						
Date(s) of Site Visit(s): May 14, 2103						

Description of seasonality limitations of this inspection due to time of year of the evaluation and/or current hydrologic and climatologic conditions (e.g. after heavy rains, snow or ice cover, during drought year, during spring flood, during bird migration): Field work completed at the beginning of the growing season.

#### WETLAND DESCRIPTION

Wisconsin Wetlands Inventory clas	sification: NA		
Wetland Type: shallow open water floodplain forest wet meadow	deep marsh alder thicket shrub-carr	seasonally flooded coniferous swamp hardwood swamp	fen
Estimated size of wetland in acres:	40+ acres		

# **SUMMARY OF FUNCTIONAL VALUES**

Based on the results of the attached functional assessment, rate the significance of each of the functional values for the subject wetland and check the appropriate box. Complete the table as a summary.

FUNCTION	SIGNIFICANCE					
	Low	Medium	High	Exceptional	N/A	
Floral Diversity		X				
Wildlife Habitat			X			
Fishery Habitat		X				
Flood/Stormwater Attenuation			X			
Water Quality Protection		X				
Shoreline Protection		X				
Groundwater	$\times$					
Aesthetics/Recreation/Education		$\times$				

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#### RAPID ASSESSMENT METHODOLOGY FOR EVALUATING WETLAND FUNCTIONAL VALUES

#### **GENERAL INFORMATION**

Name of Wetland/Owner: W-3 / DPC					
Location: County <u>La Crosse</u>	_;S\\\14,N\\14, Section 33,Township 17N,Range 7W				
Project Name: DPC Q-1 Wetland Delineation					
Evaluator(s): Sarah Majerus & Julie Christiansen, AECOM					
Date(s) of Site Visit(s): May 20, 2103					

Description of seasonality limitations of this inspection due to time of year of the evaluation and/or current hydrologic and climatologic conditions (e.g. after heavy rains, snow or ice cover, during drought year, during spring flood, during bird migration): Field work completed at the beginning of the growing season.

# WETLAND DESCRIPTION

Wisconsin Wetla	nds Inventory clas	sification: NA			
II .	oodplain forest	deep marsh alder thicket shrub-carr		seasonally flooded coniferous swamp hardwood swamp	fen
Estimated size of wetland in acres: <1 acre					

# **SUMMARY OF FUNCTIONAL VALUES**

Based on the results of the attached functional assessment, rate the significance of each of the functional values for the subject wetland and check the appropriate box. Complete the table as a summary.

FUNCTION	SIGNIFICANCE				
	Low	Medium	High	Exceptional	N/A
Floral Diversity	$\times$				
Wildlife Habitat	$\times$				
Fishery Habitat					X
Flood/Stormwater Attenuation		X			
Water Quality Protection	$\times$				
Shoreline Protection					X
Groundwater	$\times$				
Aesthetics/Recreation/Education	X				

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#### RAPID ASSESSMENT METHODOLOGY FOR EVALUATING WETLAND FUNCTIONAL VALUES

#### **GENERAL INFORMATION**

Name of Wetland/Owner: W-3 / DPC					
Location: County <u>La Crosse</u>	_;S\\\14,N\\14, Section 33,Township 17N,Range 7W				
Project Name: DPC Q-1 Wetland Delineation					
Evaluator(s): Sarah Majerus & Julie Christiansen, AECOM					
Date(s) of Site Visit(s): May 20, 2103					

Description of seasonality limitations of this inspection due to time of year of the evaluation and/or current hydrologic and climatologic conditions (e.g. after heavy rains, snow or ice cover, during drought year, during spring flood, during bird migration): Field work completed at the beginning of the growing season.

# WETLAND DESCRIPTION

Wisconsin Wetla	nds Inventory clas	sification: NA		
II .	oodplain forest	deep marsh alder thicket shrub-carr	seasonally flooded coniferous swamp hardwood swamp	fen
Estimated size of	f wetland in acres:	<1 acre		

# **SUMMARY OF FUNCTIONAL VALUES**

Based on the results of the attached functional assessment, rate the significance of each of the functional values for the subject wetland and check the appropriate box. Complete the table as a summary.

FUNCTION	SIGNIFICANCE				
	Low	Medium	High	Exceptional	N/A
Floral Diversity	$\times$				
Wildlife Habitat	$\times$				
Fishery Habitat					X
Flood/Stormwater Attenuation		X			
Water Quality Protection	$\times$				
Shoreline Protection					X
Groundwater	$\times$				
Aesthetics/Recreation/Education	X				

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#### RAPID ASSESSMENT METHODOLOGY FOR EVALUATING WETLAND FUNCTIONAL VALUES

#### **GENERAL INFORMATION**

Name of Wetland/Owner: W-4 / DPC

Location: County <u>La Crosse</u>; NE ¼,NE ¼, Section 32, Township 17N, Range 7W

Project Name: DPC Q-1 Wetland Delineation

Evaluator(s): Sarah Majerus & Julie Christiansen, AECOM

Date(s) of Site Visit(s): May 20, 2103

Description of seasonality limitations of this inspection due to time of year of the evaluation and/or current hydrologic and climatologic conditions (e.g. after heavy rains, snow or ice cover, during drought year, during spring flood, during bird migration): Field work completed at the beginning of the growing season.

#### WETLAND DESCRIPTION

Wisconsin Wetl	ands Inventory clas	sification: NA		
1		deep marsh alder thicket shrub-carr	seasonally flooded coniferous swamp hardwood swamp	fen
Estimated size	of wetland in acres:	<1 acre		

#### **SUMMARY OF FUNCTIONAL VALUES**

Based on the results of the attached functional assessment, rate the significance of each of the functional values for the subject wetland and check the appropriate box. Complete the table as a summary.

FUNCTION	SIGNIFICANCE				
	Low	Medium	High	Exceptional	N/A
Floral Diversity	X				
Wildlife Habitat	$\times$				
Fishery Habitat					X
Flood/Stormwater Attenuation		X			
Water Quality Protection	$\times$				
Shoreline Protection					X
Groundwater	$\times$				
Aesthetics/Recreation/Education	X				

Appendix D

**Photograph Log** 





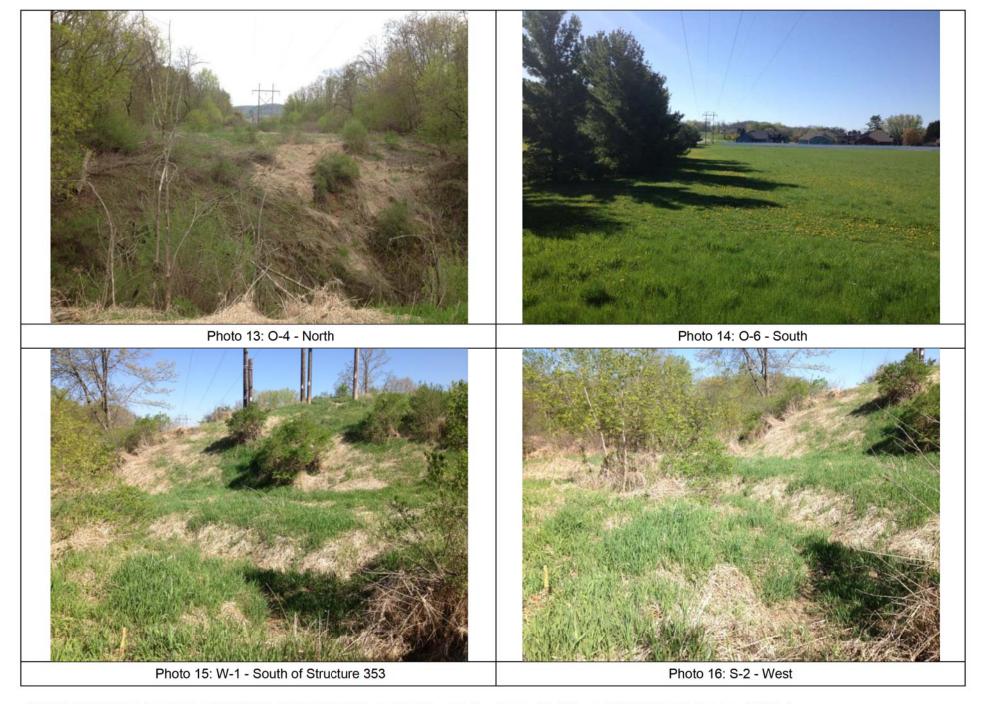




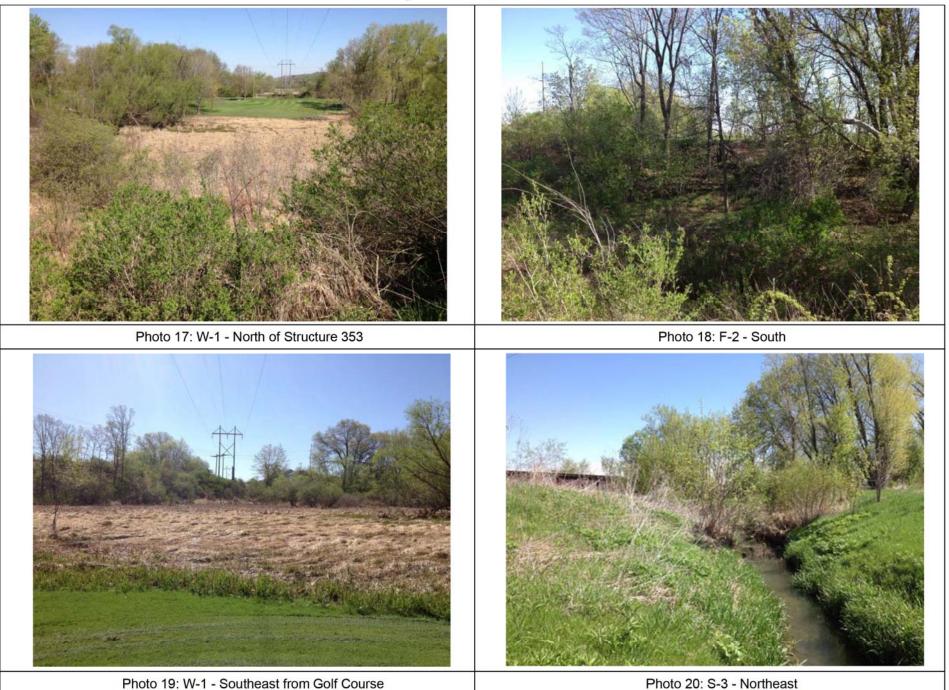




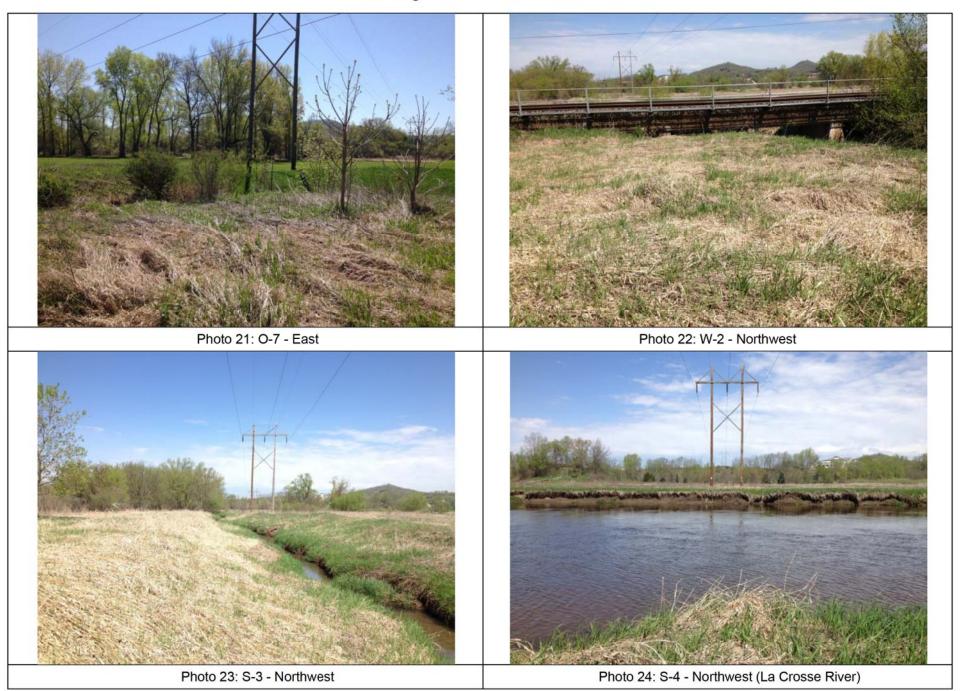




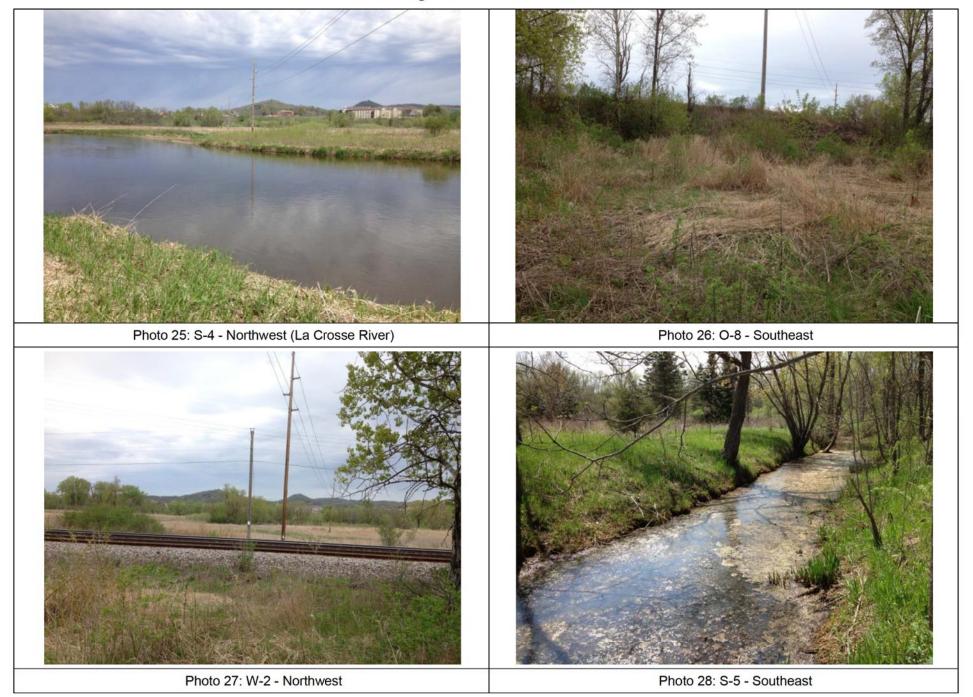




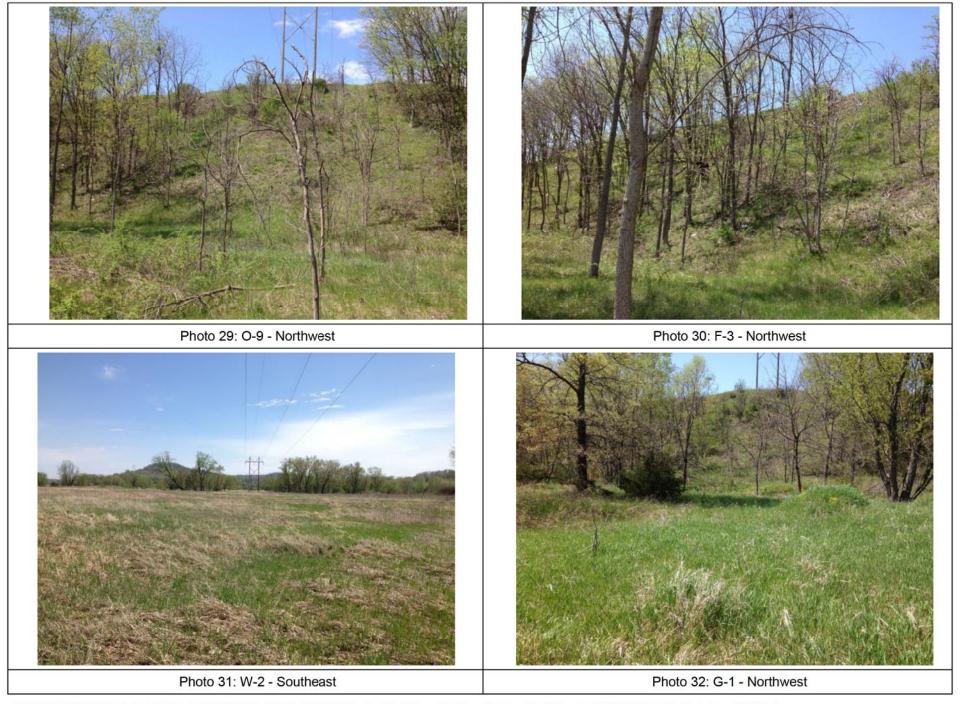




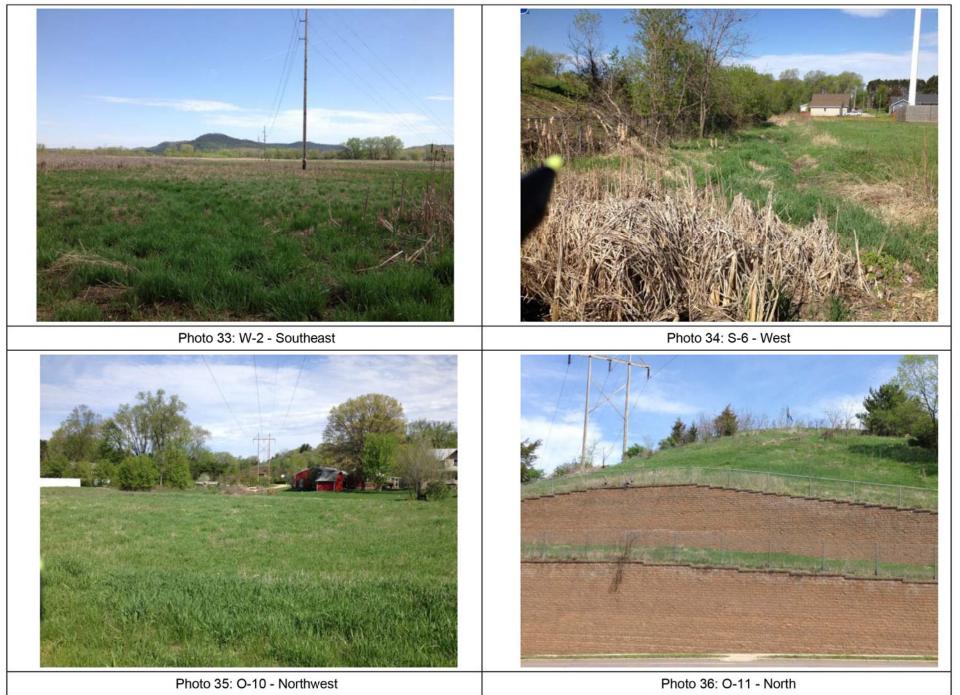












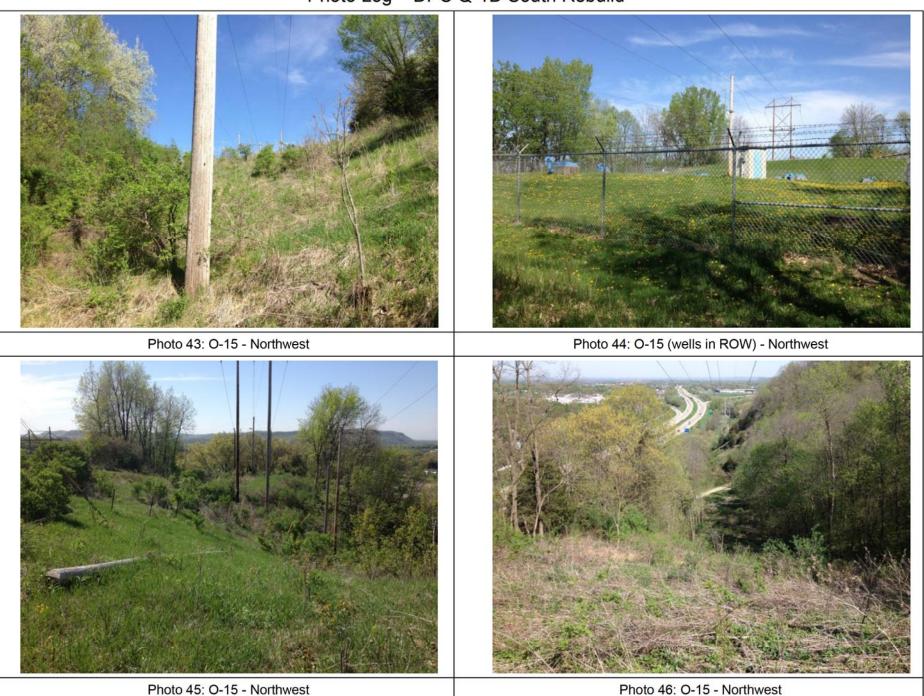




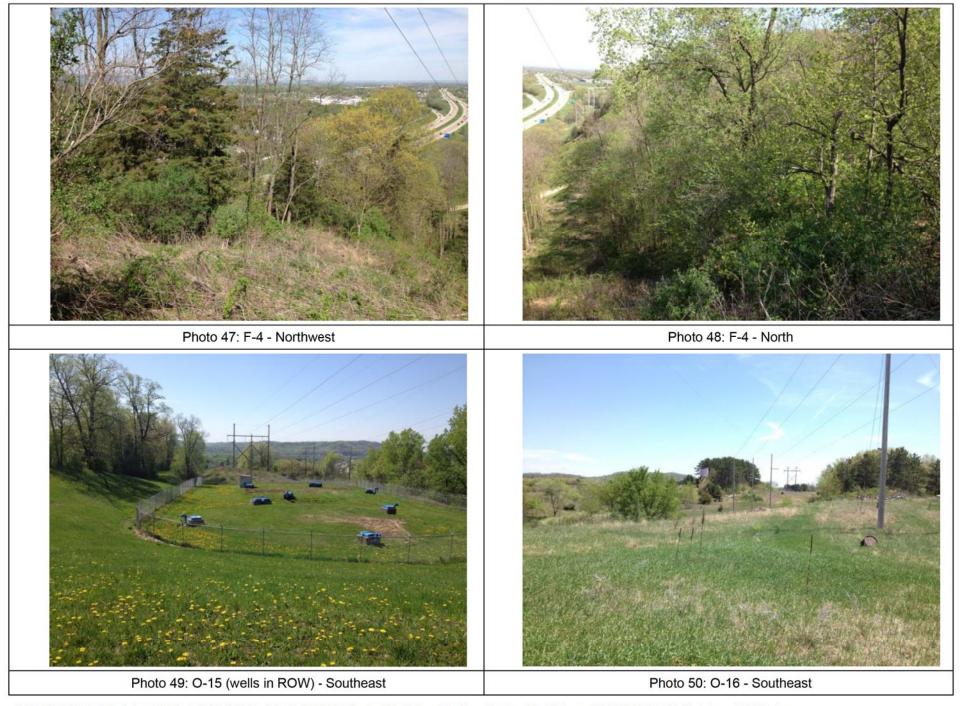








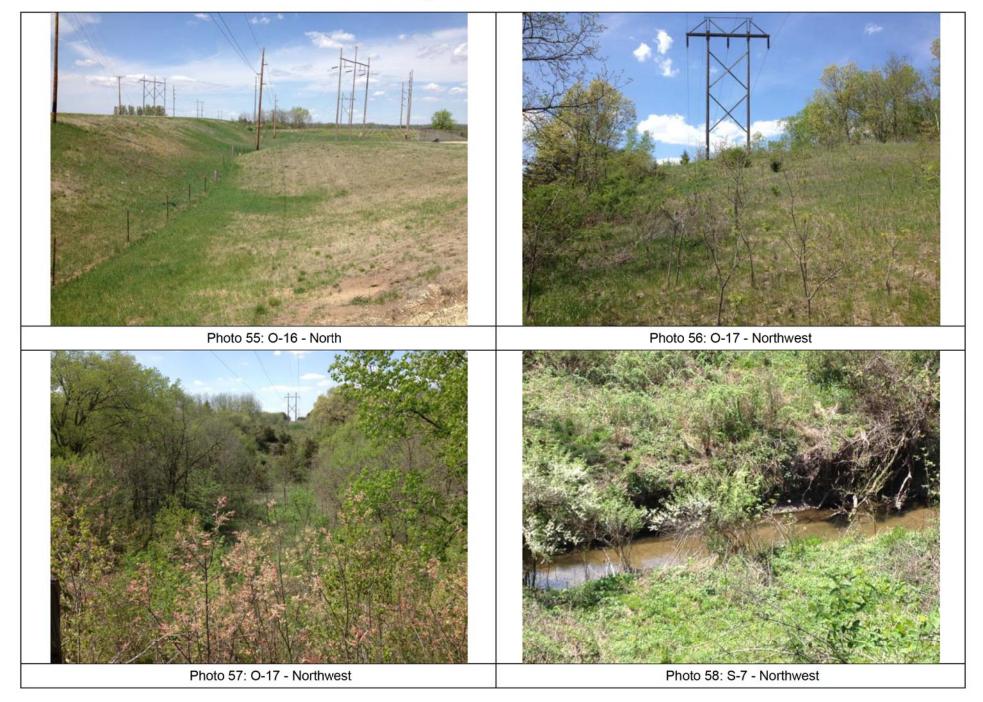














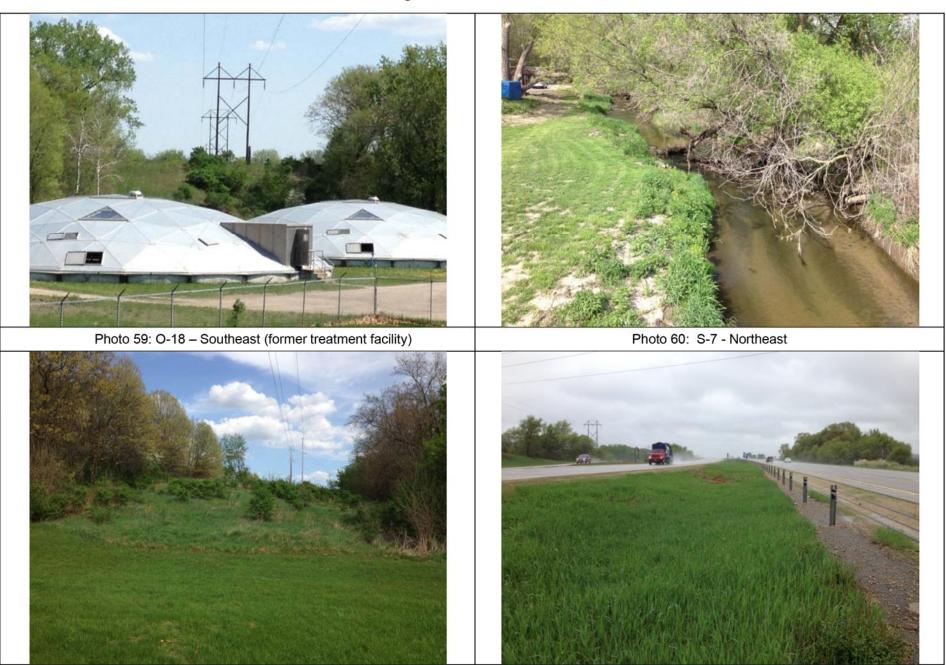


Photo 62: O-20 - Northwest

Photo 61: O-19 - Southeast



