

Wisconsin Department of Transportation

CTH KR Stormwater Wetland Delineations

October 2018





Document Information

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1 Introduction

Cardno was contracted by the Wisconsin Department of Transportation (WisDOT) to complete a wetland delineation and classification of wetland resources within the proposed County Highway (CTH) KR road corridor in Racine and Kenosha Counties, Wisconsin. The survey area is in addition to previously surveyed areas along CTH KR under WisDOT work order 3763-00-04 (see previous, independent wetland report). The new surveys includes eight discontinuous parcels that total approximately 93.29 acres. These parcels range from 0.78 to 44.69 acres in size and are depicted with the associated delineation boundaries in Figures 1-5.

Based on field investigations conducted by Cardno on September 26 and 27, 2018, and desktop review of related resource maps, it is our professional opinion that ten wetland complexes, totaling 7.01 acres (305,336ft²), and one perennial waterway are located within the parcel boundaries.

This report has been compiled by the following staff that are trained and experienced in delineation methodologies and applicable regulations:

- Eric Englund Assistant Staff Scientist; Wetland Delineator, Report Author: Eric has over four years of experience working in the fields of natural resources and environmental compliance. He holds a Bachelor's of Science in Water Resources with a Minor in GIS and Spatial Analysis from the University of Wisconsin- Stevens Point. Currently, his job responsibilities include wetland delineations, conducting field surveys for T&E species and habitat, permitting, and environmental monitoring for a variety of utility projects.
- Ken Carlson Staff Scientist; Lead Wetland Delineator: Ken has five years of experience in wetland restoration and ecology with Cardno and the past four years participating in wetland delineations and surveys. He holds a B.S. degree in Environmental Policy and Planning/Environmental Science from UW-Green Bay and has completed training including USACE and WDNR Advanced Wetland Delineation, NRCS Hydric Soils Identification, and NASECA erosion control inspection. Ken's experience includes wetland delineation, field surveys for threatened/endangered species and habitat, and environmental project management.
- Alex Cohen Senior GIS Analyst, Geospatial Manager: Alex has over seven years of experience in natural resource ecology, including field work, GIS analysis, cartography, and modelling. He holds a Master of Science in Computational Ecology from Purdue University and a Bachelor of Science in Biology/Psychology from Calvin College. Currently, Alex is responsible for managing the Cardno WI/MN GIS team as well as Cardno's ArcGIS Online organization for the entire Midwest. Alex develops and maintains datasets and web maps for short-term and long-term multi-year projects, and is responsible for setting up GIS data collection files, turning raw field-collected data into project deliverables (including figures and tables), and managing pictures using custom scripts to format and name field-collected photos. Alex also develops custom geospatial tools to meet the many needs of clients.
- Madalyn Lupinek Assistant Staff Scientist: Madalyn has several seasons of field experience and several years of GIS experience in both laboratory and field settings. She holds a B.S. degree in Environmental Sciences from UW-Madison where she completed cartography/GIS courses and a two-year undergraduate research project in soil science. Currently, Madalyn assists with wetland delineations, erosion control monitoring, field surveys for threatened and endangered species and habitat, as well as GIS tasks such as maintaining web maps for projects, setting up GIS data collection files, and processing field data into project figures.

2 Methods

Cardno conducted a field wetland determination and delineation on September 26 and 27, 2018 to identify wetland and waterway limits within the project boundaries provided by WisDOT. Prior to the field investigation, Cardno conducted a desktop review to determine the likelihood and potential location of wetlands and waterways. Sources reviewed include:

- United States Geological Survey (USGS) Topographical Map (Figure 2)
- USDA-NRCS Web Soil Survey Database for Racine and Kenosha Counties, Wisconsin (Figure 3)
- WDNR Wisconsin Wetland Inventory (WWI) Mapping (Figure 4)
- WDNR Surface Water Data Viewer

These maps display wetland indicators, including hydrology and hydric soil units, within the project corridor. Locations that exhibited wetland signatures from aerial imagery review, especially in agricultural areas, were further reviewed in the field to make a final determination on wetland limits. The sole use of any of these maps to make wetland determinations is not acceptable to the regulating agencies.

The delineation of wetlands and waterways was based on the methodology described in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* Version 2.0 (Environmental Laboratory, 2010) as required by current policy.

2.1 Survey Method

During site reconnaissance, Cardno walked the extent of each parcel project boundary with the specific intent of determining wetland and waterway limits. Data points were collected within and near potential wetland areas to document soil characteristics, evidence of hydrology, and vegetation. Wetland ditch systems that were connected through culverted access drives and contained like communities were typically grouped with a representative pair of data points.

Cardno crews surveyed all data point locations and wetland boundaries using GPS technology. Data collection settings for the GPS units use available satellites, including two DGPS (Differential Global Positioning System) satellites, to capture location data. Cardno's GPS units acquire multiple readings per data point and use the Wide Area Augmentation System (WAAS) satellite readings to increase accuracy to sub-meter. While Cardno's GPS surveys provide reasonably spatial accuracy, they do not provide the same accuracy as a professional land survey.

2.2 Naming Protocol

Feature naming for spatial data collected in field followed the following conventions:

- DP-xx = Data Point (may also include photos)
- PP-xx = Photo Point
- S-xx = Stream
- W-xx = Wetland

Feature naming resumed with numbering where the previous CTH KR surveys ended to ensure data integrity when cross referencing between survey efforts.

2.3 Site Photographs

Representative site photographs were taken at wetland and upland sample point locations as well as for general documentation throughout the project corridor and are included in Appendix A. These photographs represent site conditions at the time of inspection within the project corridor.

2.4 Delineation Data Sheets

The Midwest Region routine wetland delineation data sheets used in the wetland delineation process are located in Appendix B. These forms are the written documentation of how representative data point locations meet or do not meet each of the wetland criteria. Plant species nomenclature follows the 2016 National Wetland Plant List (Lichvar et al., 2016). Soils were identified using the methods outlined in the *USDA NRCS Field Indicators of Hydric Soils in the United States*, *Version 8.1* (USDA-NRCS 2017). Wetland community types are based on the WisDOT community classification guide (Appendix C).

3 Results and Discussion

3.1 Desktop Review

3.1.1 Recent Climatic Conditions and Precipitation Data

Recent precipitation data was compared with historic precipitation data from a 46-year dataset (1971-2017) from a nearby weather station (Racine, WI) to determine if normal hydrologic and climatic conditions were present on-site during the delineation. When compared to the WETS Station data, the observed precipitation data from three months prior to the delineation indicated normal precipitation conditions at the time of the delineation. The antecedent hydrologic condition analysis is provided below:

		Long-	term rainfall rec	ords (1971 -	2017)	1 A.		-	
WETS Station: Racine, WI	Month	<30%	Mean	>30%	Actual	Condition	Condition Value	Month Weight Value	Condition Value X Month Weight
3rd Prior Month	June	2.52	3.89	4.68	7.06	Wet	3	1	3
2nd Prior Month	July	2.51	3.45	4.06	2.40	Dry	1	2	2
1st Prior Month	August	2.46	3.86	4.65	5.46	Wet	3	3	9
		1			(march)			Sum:	14
If sum is:					Condition V	alues:	Condit	ions Onsite:	Normal
6 to 9	then prior period has been drier than normal				(1) Dry		Second Street Street		
10 to 14	then prior period has been normal				(2) Normal				
15 to 18	then prior period has been wetter than normal				(3) Wet				

Because the wetland delineation effort was completed at the end of September, antecedent precipitation data was also reviewed for the month of the delineation using the same methods described above. In September 2018, rainfall totaled 4.51". WETS Table averages for September indicate a normal precipitation range of 1.71-4.09" for the month of September. Thus, September would also be considered a wetter than normal month. Field delineators took this antecedent precipitation result into account when conducting field delineation of wetland and waterway limits in the field, noting that evidence of hydrology may be difficult to determine during these conditions.

3.1.2 <u>Topography</u>

The survey area for this project is discontinuous. A review of the USGS Topographical Map (Figure 2) for this project corridor shows rolling hills towards the western portion of the survey area, becoming increasingly irregular to the east. Wetland complexes are evident along much of the route, and the Pike River intersects the survey area in two of the parcels.

3.1.3 Soil Survey

The USDA-NRCS Web Soil Survey Maps (Figure 3) identified 14 soil types, two of which are considered hydric (water is unranked), within the survey boundaries. The WDNR Surface Water Data Viewer layer was also reviewed to further investigate the area. Areas where hydric soil indicators exist were given priority; however data points were collected in all areas as necessary despite existing hydric rating if wetland hydrological or topographical characteristics were present. A summary of mapped soil types and their hydric and wetland soil indicator status are outlined in Table 3-1 below.

Symbol	Map Unit Name	Hydric Rating	Acreage	Percent of Project Area
Am	Alluvial land	No	3.53	3.78%
AtA	Ashkum silty clay loam, 0 to 2 percent slopes	Hydric	1.23	1.32%
AzB	Aztalan loam, 2 to 6 percent slopes	No	1.60	1.71%
BcA	Beecher silt loam, 1 to 3 percent slopes	No	0.90	0.96%
EtB	Elliott silty clay loam, 2 to 6 percent slopes	No	4.74	5.08%
MeB2	Markham silt loam, 2 to 6 percent slopes, eroded	No	0.92	0.99%
MzdB	Ozaukee silt loam, 2 to 6 percent slopes	No	6.64	7.11%
MzdB2	Ozaukee silt loam, 2 to 6 percent slopes, eroded	No	20.11	21.55%
MzdC2	Ozaukee silt loam, 6 to 12 percent slopes, eroded	No	1.25	1.34%
Na	Navan silt loam	Hydric	15.00	16.08%
SzB	Symerton loam, 2 to 6 percent slopes	No	23.67	25.37%
VaB	Varna silt loam, 2 to 6 percent slopes	No	6.70	7.19%
VaB2	Varna silt loam, 2 to 6 percent slopes, eroded	No	6.73	7.22%
VaC2	Varna silt loam 6 to 12 percent slopes, eroded	No	0.26	0.28%
Total			93.29	100.00%

Table 3-1 Mapped Soil Units

3.1.4 <u>Wisconsin Wetland Inventory</u>

The WWI (Figure 4) was reviewed to identify potential wetlands mapped within the boundaries of the project corridor. Areas where mapped wetland features exist were given priority; however data points were collected in all areas as necessary despite existing mapped wetland features if wetland hydrological, topographical, or vegetative characteristics were present. The WWI data identified the approximately 4.49 acres of wetlands outlined in the table below. A summary of mapped WWI wetlands is outlined in Table 3-2 below.

Table 3-2	Mapped WWI Wetlands
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Symbol	Wetland Type	Square Feet	Acreage	Percent of Project Area
T3/E2K	Forested, Emergent/wet meadow, Subclass Broad-leaved deciduous, Narrow-leaved persistent, Wet soil, Palustrine	149,875.25	3.44	76.67%
E2K	Emergent/wet meadow, Narrow-leaved persistent, Wet soil, Palustrine	821.21	0.02	0.42%
E2Kf	Emergent/wet meadow, Narrow-leaved persistent, Wet soil, Palustrine	44,794.79	1.03	22.91%
Total		195,492.01	4.49	100.00%

3.2 General Site Conditions

The project parcels consists primarily of row crop agriculture with suburban and farm housing, becoming increasingly urban towards the east end of the project area. Upland areas are dominated by European grasses and agricultural ruderals.

3.2.1 Wetlands

Based on this field investigation and desktop review of related resource maps, it is our professional opinion that ten wetland complexes containing three wetland communities totaling 7.01 acres and one waterway is located within the parcel boundaries. These features are further described below.

A total of ten wetland communities were identified within the parcel boundaries (Figure 5) and were assigned community types according to WisDOT classification (Appendix C). The wetlands that were identified were generally located in lowland areas where water tends to collect and drain more slowly, such as in roadside ditches. Factors in determining wetland boundaries included topography of the landscape, dominant vegetation, soil, and hydrology observation. Documentation of these features, including wetland community type, associated data points, observed hydrology and hydric soil indictors, and dominant vegetation may be found in the wetland determination forms found in Appendix B, while general descriptions for observed wetland communities are found in Table 3-3 below.

3.2.1.1 Wet Meadow

Approximately 6.41 acres (6.87% project area) of wet meadow community were identified and was the most abundant wetland type found. Dominant vegetation in the wet meadow community included large barnyard grass (*Echinochloa crus-galli*), curlydock (*Rumex crispus*), spotted lady's-thumb (*Persicaria maculosa*), black girdle bulrush (*Scirpus atrocinctus*), prairie cord grass (*Spartina pectinate*), uptight sedge (*Carex stricta*), and hybrid cattail (*Typha X glauca*). In addition, non-dominant vegetation observed included reed canary grass (*Phalaris arundinacea*), monkey flower (*Mimulus* ringens), common reed (*Phragmites australis*), European buckthorn (*Rhamnus cathartica*), and boneset (*Eupatorium perfoliatum*). The dominant soils across the wet meadow communities ranged from silty clay loam, to clay loam to clay. Indicators of hydric soils present included Depleted Matrix (F3), Redox Dark Surface (F6), Redox Depressions (F8), and Thick Dark Surface (A12). Hydrology indicators consisted of Geomorphic Position (D2), FAC Neutral Test (D5), and Saturation (A3).

3.2.1.2 Riparian Wooded Swamp

Approximately 0.28 acres (0.30% project area) of riparian wooded swamp community were identified and was the second most abundant wetland type found. Vegetation in the wooded swamp community was dominated by black willow (*Salix nigra*), eastern cottonwood (*Populus deltoides*), and silver maple (*Acer saccharinum*) in the canopy layer. Shrub layer vegetation consisted of species such as European buckthorn (*Rhamnus cathartica*). Herbaceous vegetation was often sparse or was similar to wet meadow vegetation. Dominant soils across the wooded swamps ranged from clay loam to clay. The most common hydric soils indicators for these areas were found to be Thick Dark Surface (A12) and Redox Dark Surface (F6). Hydrology indicators consisted of Geomorphic Position (D2), FAC Neutral Test (D5), High Water Table (A2), and Saturation (A3).

3.2.1.3 Wooded Swamp

Approximately 1.67 acres (1.79% project area) of wooded swamp community were identified and was the second most abundant wetland type found. Vegetation in the wooded swamp community

was dominated by black willow (*Salix nigra*), eastern cottonwood (*Populus deltoides*), and silver maple (*Acer saccharinum*) in the canopy layer. Shrub layer vegetation consisted of species such as European buckthorn (*Rhamnus cathartica*). Herbaceous vegetation was often sparse or was similar to wet meadow vegetation but also contained species such as reed canary grass (*Phalaris arundinacea*), stinging nettle (*Urtica dioica*), and green ash (*Fraxinus pennsylvanica*) saplings. Dominant soils across the wooded swamps ranged from clay loam to clay. The most common hydric soils indicators for these areas were found to be Thick Dark Surface (A12) and Redox Dark Surface (F6). Hydrology indicators consisted of Geomorphic Position (D2), FAC Neutral Test (D5), High Water Table (A2), and Saturation (A3).

3.2.1.4 Shrub Scrub

Approximately 0.08 acres (0.09% project area) of shrub scrub community were identified and was the third most abundant wetland type found. Dominant vegetation in the shrub scrub community included white dogwood (*Cornus* alba), gray dogwood (*Cornus racemosa*), and European buckthorn (*Rhamnus cathartica*). Dominant herbaceous vegetation consisted of grass-leaved goldenrod (*Euthamia graminifolia*), Canada goldenrod (*Solidago Canadensis*), and sawtooth sunflow (*Helianthus grosseserratus*). In- addition, non-dominant vegetation observed included western poison ivy (*Toxicodendron* radicans), New England aster (*Symphyotrichum novae-angliae*), and uptight sedge (*Carex stricta*). Dominant soils across the shrub scrub community type ranged from silty clay to clay. The most common hydric soil indicators observed in this community were Depleted Below Dark Surface (A11) and Depleted Matrix (F3). Hydrology indicators consisted of Geomorphic Position (D2) and FAC Neutral Test (D5).

Wetland ID	Wetland Type	Square Feet	Acres
W-40	Wet Meadow (M)	30,927.60	0.71
W-41	Wet Meadow (M)	212,560.65	4.88
W-42	Wet Meadow (M)	2,177.09	0.05
W-43	Wet Meadow (M)	9,208.58	0.21
W-44	Wet Meadow (M)	14,784.92	0.34
W-45	Riparian Wooded Wetland (RPF)	12,380.14	0.28
W-46	Wooded Swamp	9,583.20	0.22
W-47	Shrub Scrub (SS)	3,620.45	0.08
W-48	Wet Meadow (M)	8,839.54	0.20
W-49	Wet Meadow (M)	1,141.05	0.03
Total		305,223.22	7.01

Table 3-3 Delineated Wetland Summary Table

3.2.2 Naturally Problematic and Significantly Disturbed Wetlands

Based on the guidance provided in Section 5, Difficult Wetland Situations in the Midwest Region, of the Regional Supplement to the USACE Delineation Manual: Midwest Region, Version 2.0, it was determined that several of the recorded wetland data points existed within significantly disturbed conditions. Details can be found in the wetland determination data forms in Appendix B and are also summarized in Table 3-4 below.

Data Point ID	Naturally Problematic?	Significantly Disturbed?	Remarks
DP-100	-	Vegetation	Sample was located in a cultivated agricultural field. Vegetation in this area is considered significantly disturbed as the area has been planted for soybeans.
DP-101	-	Soil	Sample was located in a cultivated agricultural field. Soils at this location are considered significantly disturbed due to the mixing of layers during tilling operations.

Table 3-4 Naturally Problematic and Significantly Disturbed Data Point Summary

3.3 Waterways

One water feature, the Pike River, was documented at two locations during field surveys (Figure 5). The first location (S-04) has an ordinary high water mark (OHWM) of 15ft and a depth of 3.0ft. The bank width is 18ft with a bank depth of 4ft, and the substrate is mud/silt. The second location (S-05) has an OHWM of 25ft with a depth of 6.0ft. The bank width was estimated at 30ft with a bank depth of 8ft. The substrate of the Pike River was documented as Mud/Silt and it is a tributary of Lake Michigan. Photographs of waterway features are located in Appendix A.

4 Summary and Conclusion

Cardno was contracted to perform a wetland delineation and classification of wetland resources for parcels along the County Highway KR road corridor in Racine and Kenosha Counties, Wisconsin and is in addition to previously surveyed areas along CTH KR under WisDOT work order 3763-00-04 (see previous, independent wetland report). The study limits includes eight discontinuous parcels that range from 0.78 to 44.69 acres in size. The entire project area totals approximately 93.29 acres.

Based on field investigations conducted by Cardno on September 26th and 27th, 2018 and desktop review of related resource maps, it is our professional opinion that ten wetland complexes totaling approximately 7.01 acres (305,335ft²) and one waterway exist within the project corridor.

This report represents our best professional judgment based on our knowledge and experience. The field wetland determination and delineation was conducted within the project corridor boundary provided to Cardno. The project corridor is described generally above and is depicted on all figures that accompany this report.

The wetlands identified for this report may be subject to federal regulation under the jurisdiction of the U.S. Army Corps of Engineers, state regulation under the jurisdiction of Wisconsin DNR, and local jurisdiction under the county, town, city or village.

5 Literature Cited

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Location Map





Topographic Map



Figure

Mapped Soil Units













Figure

Wisconsin Wetland Inventory (WWI)



$W \xrightarrow{N} E$ S Project No. J177001M24

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Figure 5

Wetland Delineation









Data Sources: ESRI Imagery Basemap - Aerial Imagery; Hydrology - WDNR; Soil - NRCS; Roads - WisDOT

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Date Created: 10/11/2018 Date Revised: 10/11/2018 File Path: R:Projectsi171/177(177001M00_WisDOTMasterAgreement2018-2019/24_CTH KR Stomwater WD/GISMXD/Delineation/Delineation_Map.mxd Data Sources: ESRI Imagery Basemap - Aerial Imagery; Hydrology - WDNR; Sol - NRCS; Roads - WisDOT GIS Analyst: madalyn.lupin



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Date Created: 10/11/2018 Date Revised: 10/11/2018 File Path: R:\Projects\17\177\177001M00_WisDOTMasterAgreement2018-2019/24_CTH KR Stormwater WD\GIS\MXD\Delineation\Delineation\Delineation_Map.mxd Data Sources: ESRI Imagery Basemap - Aerial Imagery; Hydrology - WDNR; Soil - NRCS; Roads - WisDOT

CTH KR Stormwater Wetland Delineations



Site Photographs



Photograph DP-82 - View East



Photograph DP-82 - View North





Photograph DP-82 - View South



Photograph DP-82 - View West





Photograph DP-83 - View East



Photograph DP-83 - View North





Photograph DP-83 - View South



Photograph DP-83 - View West





Photograph DP-84 - View East



Photograph DP-84 - View North





Photograph DP-84 - View South



Photograph DP-84 - View West





Photograph DP-85 - View East



Photograph DP-85 - View North





Photograph DP-85 - View South



Photograph DP-85 - View West





Photograph DP-86 - View East



Photograph DP-86 - View North





Photograph DP-86 - View South



Photograph DP-86 - View West





Photograph DP-87 - View East



Photograph DP-87 - View North





Photograph DP-87 - View South



Photograph DP-87 - View West





Photograph DP-89 - View North



Photograph DP-89 - View South





Photograph DP-90 - View East



Photograph DP-90 - View North





Photograph DP-90 - View South



Photograph DP-90 - View West





Photograph DP-91 - View East



Photograph DP-91 - View North





Photograph DP-91 - View South



Photograph DP-91 - View West





Photograph DP-92 - View East



Photograph DP-92 - View North





Photograph DP-92 - View South



Photograph DP-92 - View West







Photograph DP-93 - View East



Photograph DP-93 - View North





Photograph DP-93 - View South



Photograph DP-93 - View West





Photograph DP-94 - View East



Photograph DP-94 - View North





Photograph DP-94 - View South



Photograph DP-94 - View West





Photograph DP-95 - View East



Photograph DP-95 - View North





Photograph DP-95 - View South



Photograph DP-95 - View West





Photograph DP-96 - View North



Photograph DP-96 - View South





Photograph DP-97 - View East



Photograph DP-97 - View North





Photograph DP-97 - View South



Photograph DP-97 - View West





Photograph DP-98 - View East



Photograph DP-98 - View North





Photograph DP-98 - View South



Photograph DP-98 - View West





Photograph DP-99 - View East



Photograph DP-99 - View North





Photograph DP-99 - View South



Photograph DP-99 - View West





Photograph DP-100 - View East



Photograph DP-100 - View North




Photograph DP-100 - View South



Photograph DP-100 - View West





Photograph DP-101 - View East



Photograph DP-101 - View North





Photograph DP-101 - View South



Photograph DP-101 - View West





Photograph PP-117 - View East



Photograph PP-117 - View North





Photograph PP-117 - View South



Photograph PP-117 - View West





Photograph PP-118 - View East



Photograph PP-118 - View North





Photograph PP-118 - View South



Photograph PP-118 - View West





Photograph PP-119 - View East



Photograph PP-119 - View North





Photograph PP-119 - View South



Photograph PP-119 - View West





Photograph PP-120 - View East



Photograph PP-120 - View North





Photograph PP-120 - View South



Photograph PP-120 - View West





Photograph PP-121 - View East



Photograph PP-121 - View West





Photograph PP-122 - View East



Photograph PP-122 - View North





Photograph PP-122 - View South



Photograph PP-122 - View West





Photograph PP-123 - View East



Photograph PP-123 - View North





Photograph PP-123 - View South



Photograph PP-123 - View West





Photograph PP-124 - View East



Photograph PP-124 - View North





Photograph PP-124 - View South



Photograph PP-124 - View West





Photograph PP-125 - View East



Photograph PP-125 - View North





Photograph PP-125 - View South



Photograph PP-125 - View West





Photograph PP-126 - View East



Photograph PP-126 - View North





Photograph PP-126 - View South



Photograph PP-126 - View West





Photograph PP-127 - View East



Photograph PP-127 - View North





Photograph PP-127 - View South



Photograph PP-127 - View West





Photograph PP-128 - View East



Photograph PP-128 - View North





Photograph PP-128 - View South



Photograph PP-128 - View West





Photograph PP-129 - View East



Photograph PP-129 - View North





Photograph PP-129 - View South



Photograph PP-129 - View West





Photograph PP-130 - View East



Photograph PP-130 - View North





Photograph PP-130 - View South



Photograph PP-130 - View West





Photograph PP-131 - View South



Photograph PP-131 - View West

Project No. J177001M24





Photograph PP-132 - View East



Photograph PP-132 - View North





Photograph PP-132 - View South



Photograph PP-132 - View West





Photograph PP-133 - View East



Photograph PP-133 - View North





Photograph PP-133 - View South



Photograph PP-133 - View West





Photograph PP-134 - View East



Photograph PP-134 - View North




Photograph PP-134 - View South



Photograph PP-134 - View West





Photograph PP-135 - View East



Photograph PP-135 - View North





Photograph PP-135 - View South



Photograph PP-135 - View West





Photograph PP-136 - View East



Photograph PP-136 - View North





Photograph PP-136 - View South



Photograph PP-136 - View West





Photograph PP-137 - View East



Photograph PP-137 - View North





Photograph PP-137 - View South



Photograph PP-137 - View West





Photograph PP-138 - View East



Photograph PP-138 - View North





Photograph PP-138 - View South



Photograph PP-138 - View West





Photograph PP-139 - View East



Photograph PP-139 - View North





Photograph PP-139 - View South



Photograph PP-139 - View West





Photograph PP-140 - View East



Photograph PP-140 - View North





Photograph PP-140 - View West



Photograph PP-141 - View East





Photograph PP-141 - View Northeast



Photograph PP-141 - View Northwest





Photograph PP-141 - View South



Photograph PP-142 - View East





Photograph PP-142 - View North



Photograph PP-142 - View South





Photograph PP-142 - View West



Photograph PP-143 - View East





Photograph PP-143 - View North



Photograph PP-143 - View South





Photograph PP-143 - View West



Photograph PP-144 - View East





Photograph PP-144 - View North



Photograph PP-144 - View South





Photograph PP-144 - View West



Photograph PP-145 - View East





Photograph PP-145 - View North



Photograph PP-145 - View South





Photograph PP-145 - View West



Photograph PP-146 - View East





Photograph PP-146 - View North



Photograph PP-146 - View South





Photograph PP-146 - View West



Photograph PP-147 - View East





Photograph PP-147 - View North



Photograph PP-147 - View South





Photograph PP-147 - View West



Photograph PP-148 - View East





Photograph PP-148 - View North



Photograph PP-148 - View South





Photograph PP-148 - View West



Photograph PP-149 - View East





Photograph PP-149 - View North



Photograph PP-149 - View South





Photograph PP-149 - View West



Photograph PP-150 - View East





Photograph PP-150 - View North



Photograph PP-150 - View South





Photograph PP-150 - View West



Photograph PP-151 - View East





Photograph PP-151 - View North



Photograph PP-151 - View South





Photograph PP-151 - View West



Photograph PP-152 - View East





Photograph PP-152 - View North



Photograph PP-152 - View South




Photograph PP-152 - View West



Photograph PP-153 - View East





Photograph PP-153 - View North



Photograph PP-153 - View South





Photograph PP-153 - View West



Photograph PP-154 - View East





Photograph PP-154 - View North



Photograph PP-154 - View South





Photograph PP-154 - View West



Photograph PP-155 - View East





Photograph PP-155 - View North



Photograph PP-155 - View South





Photograph PP-155 - View West



Photograph PP-156 - View East





Photograph PP-156 - View North



Photograph PP-156 - View South





Photograph PP-156 - View West



Photograph PP-157 - View East





Photograph PP-157 - View North



Photograph PP-157 - View South





Photograph PP-157 - View West



Photograph PP-158 - View East





Photograph PP-158 - View North



Photograph PP-158 - View South





Photograph PP-158 - View West



Photograph PP-159 - View East





Photograph PP-159 - View North



Photograph PP-159 - View South





Photograph PP-159 - View West



Photograph PP-160 - View East





Photograph PP-160 - View North



Photograph PP-160 - View South





Photograph PP-160 - View West



Photograph PP-161 - View East





Photograph PP-161 - View North



Photograph PP-161 - View South





Photograph PP-161 - View West



Photograph PP-162 - View East





Photograph PP-162 - View North



Photograph PP-162 - View South





Photograph PP-162 - View West



Photograph PP-163 - View East





Photograph PP-163 - View North



Photograph PP-163 - View South





Photograph PP-163 - View West



Photograph S-04 - View East





Photograph S-04 - View North



Photograph S-04 - View South





Photograph S-05 - View North



Photograph S-05 - View South



CTH KR Stormwater Wetland Delineations

APPENDIX



Wetland Delineation Forms – Midwest Region

Project/Site:	CTH KR Stormwater WD			City/Count	ty: Racine County		Sampling Date: 9/26/2018
Applicant/Owner:	Wisconsin Dept. of Transportation			Stat	te: WI	Sampling Point:	DP-82
Investigator(s):	K. Carlson, E. Englund				Section, Townshi	ip, Range: TWP 3N, RNG 22E, SI	EC 35
Landform (hillslope,	, terrace, etc.): Toeslope				Loca	al relief (concave, convex, none):	concave
Slope (%):	0-1% Lat:	42.6696892		Long:		7.8728561	Datum: NAD83 UTM16N
Soil Map Unit Name	e: Na - Navan silt loam					NWI classif	fication: E2Kf
Are climatic / hydrol	logic conditions on the site typical for this time of	year?		Yes	s X No	(If no, explain in Remarks.)	
Are Vegetation	N , Soil N	, or Hydrology N	significantly dis	turbed?	Are "Norm	al Circumstances" present?	Yes X No
Are Vegetation	N , Soil N	, or Hydrology N	naturally proble	matic?	(If needed,	, explain any answers in Remarks.	
SUMMARY OF	FINDINGS Attach site map showing	sampling point locations	s. transects. im	portant featu	ures. etc.		
	getation Present?	Yes X	No		e Sampled Ar	ea	
Hydric Soil Pres	-	Yes X	No		in a Wetland?		No
Wetland Hydrol		Yes x	No	-			<u> </u>
were wetter than no berm.	ermined that antecedent precipitation conditions ormal. This was taken into considerations during f Use scientific names of plants.						
VEGETATION	Ose scientific names of plants.		Absolute	Dominant	Indicator	1	
Tree Stratum (Plot	size: 30' radius)		% Cover	Species?	Status	Dominance Test worksheet:	
1.	·			. <u> </u>			
2.						Number of Dominant Species	
3.						That Are OBL, FACW, or FAC:	2 (A)
4.							
5.						Total Number of Dominant	
				= Total Cover		Species Across All Strata:	2 (B)
Sapling/Shrub Strat	tum (Plot size: 15' radius)					Percent of Dominant Species	
1.						That Are OBL, FACW, or FAC:	100% (A/B)
~							(1)
3.				·			
4.						Prevalence Index worksheet:	
5.							
				= Total Cover		Total % Cover of:	Multiply by:
				-		That Are OBL, FACW, or FAC:	A/B
Herb Stratum (Plot	t size: 5' radius)					OBL species 20%	x1 = 0.2
1. Echinochloa cru	us-galli		30%	Yes	FACW	FACW species 40%	x2 = 0.8
2. Lythrum salicar	ia		20%	Yes	OBL	FAC species 30%	x3 = 0.9
3. Rumex crispus			15%	No	FAC	FACU species	x4 =
4. Bidens frondos	а		10%	No	FACW	UPL species	x5 =
5. Setaria pumila			10%	No	FAC	Column Totals: 0.90	(A) 1.9 (B)
6. Symphyotrichul	m lanceolatum		5%	No	FAC		
7.						Prevalence Index = E	B/A = 2.11
8.							
9.							
10.						Hydrophytic Vegetation Indic	ators:
11.							
12.						X 1-Rapid Test for Hydro	ophytic Vegetation
13.						X 2-Dominance Test is >	-50%
14.						X 3-Prevalence Index is :	≤3.0 ¹
15.						4-Morphological Adapt	ations ¹ (Provide supporting
16.						data in Remarks or on	n a separate sheet)
17.						Problematic Hydrophy	tic Vegetation ¹ (Explain)
18.							
19.						¹ Indicators of hydric soil and we	tland hydrology must
20.						be present, unless disturbed or	problematic.
			90%	= Total Cover			
Woody Vine Stratur	m (Plot size: 30' radius)					Hydrophytic	
1						Vegetation	
2						Present? Yes	X No
				= Total Cover			
						<u> </u>	
	photo numbers here or on a separate sheet.) ed of species typical of a fallow field depression a	nd was largly comprised of wet gra	asses and invasive a	and weedy spec	ies.		

rofile Descr Depth	Matrix		Re	dox Features				
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-30"	10YR 2/1	90	10YR 4/6	5	С	М	Clay Loam	
			10YR 6/1	5	С	М	Clay Loam	
30-36"	10YR 5/1	80	10YR 4/6	20	С	М	Sandy Clay	
00 00	1011(0/1		1011(4)0				Gandy Glay	
·								
·								-
T		DM Dark				21		NA NA-L-1-
ydric Soil Ir		on, RIVI=Real	uced Matrix, CS=Covere	d or Coated S	and Grains.		on: PL=Pore Lining	
Histosol			Sandy Gleve	ed Matrix (S4)		1051		anese Masses (F12)
	pipedon (A2)		Sandy Redo					ow Dark Surface (F22)
	istic (A3)		Stripped Ma					plain in Remarks)
Hydroge	en Sulfide (A4)		Dark Surfac					
Stratifie	d Layers (A5)		Loamy Mucl	ky Mineral (F1)			
	uck (A10)		Loamy Gley	ed Matrix (F2))			
Deplete	d Below Dark Surface (A11)	Depleted Ma	atrix (F3)				
X Thick D	ark Surface (A12)		X Redox Dark	Surface (F6)			•	indicators have been updated to
Sandy N	Aucky Mineral (S1)		Depleted Da	ark Surface (F	7)		comply with t	he Field Indicators of Hydric Soils
5 cm Mu	ucky Peat or Peat (S3)		X Redox Depr	essions (F8)			in the United	States, Version 8.0, 2016.
estrictive L	ayer (if observed):							
Type:								
	1)					Hydric	Sail Brasant?	Yes X No
edox was ob	served throughout mos	t of the profile	with a depleted layer wit	h redox obser	rved under a		Soil Present?	
emarks: edox was ob	served throughout mos	t of the profile	with a depleted layer wit	h redox obser	rved under a			
emarks: edox was ob IYDROLC Vetland Hyd	served throughout mos OGY rology Indicators:			h redox obser	rved under a		surface.	
emarks: edox was ob YDROLO /etland Hyd Primary Indic	served throughout mos		neck all that apply)	h redox obser			surface.	ators (minimum of two required) oil Cracks (B6)
emarks: edox was ob YDROLC /etland Hyd Primary Indic Surface	Served throughout mos DGY rology Indicators: ators (minimum of one Water (A1)		neck all that apply) Water-Stain	ed Leaves (B			surface. Secondary Indic Surface S	ators (minimum of two required)
emarks: edox was ob YDROLC /etland Hyd Primary Indic Surface	served throughout mos DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2)		neck all that apply) Water-Stain Aquatic Fau	ed Leaves (B	9)		surface. Secondary Indic Surface S Urface S Drainage	ators (minimum of two required) oil Cracks (B6)
emarks: edox was ob YDROLC Vetland Hyd Primary Indic Surface High Wa Saturati	served throughout mos DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2)		neck all that apply) Water-Stain Aquatic Fau	ed Leaves (B na (B13)	9)		Secondary Indic	ators (minimum of two required) oil Cracks (B6) Patterns (B10)
emarks: edox was ob YPDROLC /etland Hyd Primary Indic Surface High Wa Saturati Water M	served throughout mos DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3)		neck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen S	ed Leaves (B na (B13) c Plants (B14)	9)) ;1)	thick dark	Secondary Indic Secondary Indic Surface S Drainage Dry-Seasc Crayfish E	ators (minimum of two required) oil Cracks (B6) Patterns (B10) on Water Table (C2)
Primary Indic Surface High Wa Saturati Water M Sedime	served throughout mos DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) <i>M</i> arks (B1)		neck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen S	ed Leaves (B9 na (B13) c Plants (B14) ulfide Odor (C	9)) C1) n Living Root	thick dark	Secondary Indic Secondary Indic Surface S Drainage Dry-Sease Crayfish E X Saturation	ators (minimum of two required) oil Cracks (B6) Patterns (B10) on Water Table (C2) surrows (C8)
emarks: edox was ob YDROLC Vetland Hyd Primary Indic Surface High Wa Saturati Water M Sedimel Drift De	served throughout mos DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) <i>M</i> arks (B1) nt Deposits (B2)		neck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C izospheres or	9)) C1) n Living Root	thick dark	Secondary Indic Secondary Indic Surface S Drainage Dry-Seasc Crayfish E X Saturatior Stunted or	ators (minimum of two required) oil Cracks (B6) Patterns (B10) on Water Table (C2) surrows (C8) Visible on Aerial Imagery (C9)
emarks: edox was ob Yetland Hyd Primary Indic Surface High Wa Saturati Water M Sedime Drift De Algal Ma	served throughout mos DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3)		neck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reducetion in	9)) C1) n Living Root	thick dark	Secondary Indic Secondary Indic Surface S Drainage Dry-Sease Crayfish E X Saturation Stunted or X Geomorph	ators (minimum of two required) oil Cracks (B6) Patterns (B10) on Water Table (C2) surrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)
YDROLC YDROLC Yetland Hyd Yrimary Indic Surface High Wa Saturati Water M Sedimee Drift De Algal Ma Iron Dep	served throughout mos DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	is required: cł	heck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reducetion in	9)) C1) n Living Root	thick dark	Secondary Indic Secondary Indic Surface S Drainage Dry-Sease Crayfish E X Saturation Stunted or X Geomorph	ators (minimum of two required) oil Cracks (B6) Patterns (B10) on Water Table (C2) surrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) nic Position (D2)
emarks: edox was ob YDROLC /etland Hyd Primary Indic Surface High Wa Saturati Water M Sedimei Drift De Algal Ma Iron Dep Inundati	served throughout mos DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	is required: ch	heck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduced Iror Reduction in Surface (C7)	9) C1) n Living Root n (C4) Tilled Soils (thick dark	Secondary Indic Secondary Indic Surface S Drainage Dry-Sease Crayfish E X Saturation Stunted or X Geomorph	ators (minimum of two required) oil Cracks (B6) Patterns (B10) on Water Table (C2) surrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) nic Position (D2)
emarks: edox was ob Primary Indic Primary Indic Surface High Wa Saturati Water M Sedimee Drift De Algal Ma Iron Deg Inundati Sparsel	served throughout mos DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima y Vegetated Concave S	is required: ch	heck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in Surface (C7) ell Data (D9)	9) C1) n Living Root n (C4) Tilled Soils (thick dark	Secondary Indic Secondary Indic Surface S Drainage Dry-Sease Crayfish E X Saturation Stunted or X Geomorph	ators (minimum of two required) oil Cracks (B6) Patterns (B10) on Water Table (C2) surrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) nic Position (D2)
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emarks: edox was ob IYDROLO Vetland Hyd Primary Indic Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron Dep Inundati Sparsely ield Observ Surface Wate Nater Table Saturation Pr includes cap	served throughout mos DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima y Vegetated Concave S ations: er Present? Present? esent? iillary fringe)	is required: cf agery (B7) surface (B8) Yes No Yes No Yes No	heck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explation) X Depth (inchest X Depth (inchest)	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduced Iror Reduction in Surface (C7) ell Data (D9) ain in Remarks b): N/A b): >18"	9) 1) 1 Living Root n (C4) Tilled Soils (s) Wetlan	thick dark (C3) (C6)	Secondary Indic Secondary Indic Surface S Drainage Dry-Sease Crayfish E X Saturation Stunted ou X Geomorph X FAC-Neut	ators (minimum of two required) oil Cracks (B6) Patterns (B10) on Water Table (C2) surrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) nic Position (D2) ral Test (D5)
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Project/Site:	CTH KR Stormwater V	VD				City/Coun	nty: Racine County		Sar	mpling Date: 9/26	6/2018
Applicant/Owner:	Wisconsin Dept. of Tra	ansportation				Sta	ate: WI	Sampling Point:		DP-83	
Investigator(s):	K. Carlson, E. Englund	d					Section, Townshi	p, Range: TWP 3N, RI	NG 22E, SEC 3	35	
Landform (hillslope,	terrace, etc.):	Shoulder					Loca	I relief (concave, conve	ex, none): conv	/ex	
Slope (%):	3%	Lat:	42.6696548			Long:	_	7.8728027		Datum: NAD83 L	JTM16N
	e: Na - Navan silt loam					· · ·			NWI classificati	on: None	
		site typical for this time of ye	ear?			Ye	s X No	(If no, explain in			
Are Vegetation		, Soil N	, or Hydrology	N s	ignificantly dist			al Circumstances" pres		Yes X No	
Are Vegetation		, Soil N	, or Hydrology		aturally proble			explain any answers in			
-		ch site map showing			• •				,		
	getation Present?	in one map one mig	Yes	No	X		ne Sampled Ar	~~			
Hydric Soil Pres			Yes	No			nin a Wetland?		Yes	No x	
Wetland Hydrole			Yes	No							
Remarks:											
	ermined that antecedent	t precipitation conditions we	ere normal during the mo	nths of June-	August. WETS	analysis also d	determined that du	ing the month of Septe	mber the antec	edent precipitation	on conditions
		to considerations during fie									
VEGETATION -	Use scientific na	ames of plants.									
					Absolute	Dominant	Indicator				
Tree Stratum (Plot	size: 30' radius)				% Cover	Species?	Status	Dominance Test we	orksheet:		
1											
2								Number of Dominant	Species		
3								That Are OBL, FACV	V, or FAC:	1	(A)
4											
5								Total Number of Don	ninant		
						= Total Cover		Species Across All S	itrata:	3	(B)
Sapling/Shrub Strat	um (Plot size: 15' radiu	is)						Percent of Dominant	•		
1								That Are OBL, FACV	V, or FAC:	33%	(A/B)
2											
3.											
								Prevalence Index w	orksheet:		
5.											
r						= Total Cover		Total % Cov		Multiply I	<u> </u>
								That Are OBL, FACW	/, or FAC:		A/B
Herb Stratum (Plot	· · · · ·							OBL species		x1 =	
1. Securigera varia	а				30%	Yes	UPL	FACW species	2%	x2 =0.0	
2. Secale cereale					15%	Yes	UPL	FAC species	20%	x3 =	
3. Symphyotrichur	m lanceolatum				15%	Yes	FAC	FACU species	32%	x4 = 1.2	
4. Daucus carota					10%	No	UPL	UPL species	59%	x5 =	
5. Trifolium praten					10%	No	FACU	Column Totals:	1.13	(A) 4.8	87 (B)
6. Ambrosia trifida					5%	No	FAC				
7. Taraxacum offic	cinale				5%	No	FACU	Prevalenc	e Index = B/A =	= 4.31	
8. Arctium minus					3%	No	FACU				
9. Ambrosia artem					3%	No	FACU				
10. Cirsium arvense					3%	No	FACU	Hydrophytic Vegeta	ation Indicator	s:	
11. Sonchus arven					3%	No	FACU				
12. Echinacea purp					2%	No			t for Hydrophyt		
13. Ratibida pinnata					2%	No			e Test is >50%		
14. Phalaris arundir	nacea				2%	No	FACW		e Index is ≤3.0		orting
15. Oxalis stricta					2%	No	FACU			ns ¹ (Provide supp	oning
16. Rudbeckia hirta					2%	No	FACU		narks or on a se		-:-)
17. Monarda fistulo	sa				1%	No	FACU	Problematic	c Hydropnytic v	egetation ¹ (Expla	ain)
18								Indicators of hurd to	oil ond	hudrola	
19								¹ Indicators of hydric s			
20								be present, unless d	isturbed or prob	piematic.	
					113%	= Total Cover					
Manda 16 01		\ \						Ibulaank di			
	<u>m</u> (Plot size: 30' radius)							Hydrophytic			
1						·		Vegetation	Ver	No. Y	
2						Total Cross		Present?	res	<u>No X</u>	
						= Total Cover					
Pomarka: //=-!!	photo numbers here or	on a constate ab+ \						1			
	ted for a fallow farm field										

0-12" 10YR 3/2 100 C M Clay I 12-21" 10YR 4/3 98 10YR 4/6 2 C M Sandy 12-21" 10YR 4/3 98 10YR 4/6 2 C M Sandy 12-21" 10YR 4/3 98 10YR 4/6 2 C M Sandy 12-21" 10YR 4/3 98 10YR 4/6 2 C M Sandy 12-21" 10YR 4/3 98 10YR 4/6 2 C M Sandy 12-21" 10YR 4/3 98 10YR 4/6 2 C M Sandy 12-21" 10YR 4/3 98 10YR 4/6 2 C M Sandy 12-21" 10YR 4/3 98 3 Sandy Bittice Astriance PL= Test Indicate Test Indicate Hydric Soil Indicators ³ Sandy Gleyed Matrix (S4) Test Indicate Test Indicate Test Indicate Test Indicate Hydrogen Sulfide (A4) Dark Surface (S7) Sandy Redox (S5) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Mu	Texture Remarks
0-12* 10YR 3/2 100	Territane
12:21* 10YR 4/3 98 10YR 4/6 2 C M Sand 1*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL= "Itrype: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL= "Histosol (A1) Sandy Redox (S5) Test Indicators": Test Indicators Histosol (A2) Sandy Redox (S5) Editation (S6) Editation (S6) Editation (S6) Btack Histic (A3) Stripped Matrix (S6) Editation (S7) Editation (S7) Editation (S7) Stratified Layers (A5) Loarny Mucky Mineral (F1) Loarny Mucky Matrix (S6) *The Sandy Mucky Mineral (S1) Depleted Datrix Surface (F7) o *The Sandy Mucky Mineral (S1) Depleted Datrix Surface (F7) o in Type:	Loam gravel inclusions throughout upper 12"
Image:	
Hydric Soil Indicators ¹ : Test Indicat Histicsol (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Dark Surface (S7) Stratified Layers (A5) Loamy Mucky Mineral (F1) 2 cm Muck (A10) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Mucky Peat or Peat (S3) Redox Depressions (F8) rtype:	y Clay Loam
Hydric Soil Indicators ¹ : Test Indicat Histicsol (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Dark Surface (S7) Stratified Layers (A5) Loamy Mucky Mineral (F1) 2 cm Muck (A10) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Mucky Peat or Peat (S3) Redox Depressions (F8) rtype:	
Hydric Soil Indicators ¹ : Test Indicat Histics (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Dark Surface (S7) Stratified Layers (A5) Loamy Mucky Mineral (F1) 2 cm Muck (A10) Loamy Gleyed Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F7) Sandy Mucky Peat or Peat (S3) Redox Depressions (F8) Restrictive Layer (if observed): Type: Type:	
Hydric Soil Indicators ¹ : Test Indicat Histosol (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Dark Surface (S7) Stratified Layers (A5) Loamy Mucky Mineral (F1) 2 cm Muck (A10) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sorf Mucky Peat or Peat (S3) Redox Depressions (F8) rtype:	
Hydric Soil Indicators ¹ : Test Indicat Histosol (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Dark Surface (S7) Stratified Layers (A5) Loamy Mucky Mineral (F1) 2 cm Muck (A10) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sorf Mucky Peat or Peat (S3) Redox Depressions (F8) rtype:	
Hydric Soil Indicators ¹ : Test Indicat Histicsol (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Dark Surface (S7) Stratified Layers (A5) Loamy Mucky Mineral (F1) 2 cm Muck (A10) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Mucky Peat or Peat (S3) Redox Depressions (F8) rtype:	
Hydric Soil Indicators ¹ : Test Indicat Histosol (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Dark Surface (S7) Stratified Layers (A5) Loamy Mucky Mineral (F1) 2 cm Muck (A10) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sorf Mucky Peat or Peat (S3) Redox Depressions (F8) rtype:	Poro Lining M-Matrix
Histosol (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Dark Surface (S7) Stratified Layers (A5) Loamy Mucky Mineral (F1) 2 cm Muck (A10) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Depleted Dark (F2) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) S cm Mucky Peat or Peat (S3) Redox Depressions (F8) Type:	ors of Hydric Soils:
Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Dark Surface (S7) Stratified Layers (A5) Loamy Mucky Mineral (F1) 2 cm Muck (A10) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) S or Mucky Peat or Peat (S3) Redox Depressions (F8) Type:	Iron-Manganese Masses (F12)
Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Dark Surface (S7) Stratified Layers (A5) Loamy Mucky Mineral (F1) 2 cm Muck (A10) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A12) Redox Dark Surface (F6) Standy Mucky Mineral (S1) Depleted Dark Surface (F7) 5 cm Mucky Peat or Peat (S3) Redox Depressions (F8) Type:	Very Shallow Dark Surface (F22)
Hydrogen Sulfide (A4) Dark Surface (S7) Stratified Layers (A5) Loamy Mucky Mineral (F1) 2 cm Muck (A10) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) S andy Mucky Mineral (S1) Depleted Matrix (F3) S andy Mucky Peat or Peat (S3) Redox Depressions (F8) if Restrictive Layer (if observed): Type:	Other (Explain in Remarks)
Stratified Layers (A5) Loamy Mucky Mineral (F1) 2 cm Muck (A10) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F7) Stratified Layers (if observed): Type: Type:	
2 cm Muck (A10) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) 5 cm Mucky Peat or Peat (S3) Redox Depressions (F8) Restrictive Layer (if observed): Type: Type:	
Depleted Below Dark Surface (A12) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) ³ The Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) c S cm Mucky Peat or Peat (S3) Redox Depressions (F8) ir Restrictive Layer (if observed): Type:	
Thick Dark Surface (A12) Redox Dark Surface (F6) ³ The Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) o 5 cm Mucky Peat or Peat (S3) Redox Depressions (F8) ir Restrictive Layer (if observed): Type:	
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) c 5 cm Mucky Peat or Peat (S3) Redox Depressions (F8) ir Restrictive Layer (if observed): Type:	budria anil indicatora baux baan undated to
5 cm Mucky Peat or Peat (S3) Redox Depressions (F8) ir Restrictive Layer (if observed):	e hydric soil indicators have been updated to
Restrictive Layer (if observed): Type: Type:	comply with the Field Indicators of Hydric Soils
Type:	n the United States, Version 8.0, 2016.
Depth (inches): Hydric Soil Price Remarks: No hydric indicators were observed. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required: check all that apply) Secc Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sufface Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes Saturation Present? Yes No X Water Table Present? Yes No X Water Table Present? Yes No X Depth (inches): _>18* Wetland Hydrology Prese (includes capillary fringe) Saturation Present?	
Remarks: No hydric indicators were observed. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required: check all that apply) Secc Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes Sutration Present? Yes No X Depth (inches):	
No hydric indicators were observed. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required: check all that apply) Secc Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Saturation Present? Yes No X No X Depth (inches): >18" Wetland Hydrology Present? Yes No X Includes capillary fringe) Yes No X	esent? Yes No X
Primary Indicators (minimum of one is required: check all that apply) Second Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: No X Surface Water Present? Yes No Yes No X Depth (inches):	
Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Yes No X Depth (inches): >18" Water Table Present? Yes No X Depth (inches): >18" Saturation Present? Yes No X Depth (inches): >18" Water Table Present? Yes No X Depth (inches): >18" Gauge capillary fringe) Yes No X Depth (inches): >18"	ondary Indicators (minimum of two required)
High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes Saturation Present? Yes No X Saturation Present? Yes No X Depth (inches): >18" Water Table Present? Yes No X Depth (inches): >18" Wetland Hydrology Prese (includes capillary fringe) Yes No X Depth (inches): >18" Wetland Hydrology Prese	Surface Soil Cracks (B6)
Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes Saturation Present? Yes No X Water Table Present? Yes No X Depth (inches): >18" Saturation Present? Yes No X Depth (inches): >18" (includes capillary fringe) Wetland Hydrology Present? Yes No X Depth (inches): >18"	Drainage Patterns (B10)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes Saturation Present? Yes No X Saturation Present? Yes No X Depth (inches): >18" Wetland Hydrology Present? Yes No X Depth (inches): >18"	Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes Sutraction Present? Yes No X Saturation Present? Yes No X Includes capillary fringe) Wetland Hydrology Present? Yes	
Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Surface Water Present? Yes Yes No X Depth (inches): Saturation Present? Yes Yes No X Depth (inches): Yes No X Depth (inches): Saturation Present? Yes Yes No X Depth (inches): Yes No X Depth (inches):	Cravitich Burrows (C8)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Surface Water Present? Yes No X Depth (inches): N/A Water Table Present? Yes No X Saturation Present? Yes No X Includes capillary fringe) Wetland Hydrology Present?	Crayfish Burrows (C8)
Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Surface Water Present? Yes No X Depth (inches): >18" Saturation Present? Yes No X Depth (inches): >18" Wetland Hydrology Present (includes capillary fringe)	Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No X Depth (inches): N/A Water Table Present? Yes No X Depth (inches): >18" Wetland Hydrology Present Saturation Present? Yes No X Depth (inches): >18" Wetland Hydrology Present (includes capillary fringe) Wetland Hydrology Present Yes Y	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No X Depth (inches): N/A Water Table Present? Yes No X Depth (inches): >18" Wetland Hydrology Present Saturation Present? Yes No X Depth (inches): >18" Wetland Hydrology Present (includes capillary fringe) Ves No X Depth (inches): >18" Wetland Hydrology Present	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Field Observations: Surface Water Present? Yes No X Depth (inches): N/A Water Table Present? Yes No X Depth (inches): >18" Saturation Present? Yes No X Depth (inches): >18" Uncludes capillary fringe) Wetland Hydrology Present	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Surface Water Present? Yes No X Depth (inches): N/A Water Table Present? Yes No X Depth (inches): >18" Saturation Present? Yes No X Depth (inches): >18" (includes capillary fringe) Ves No X Depth (inches): >18"	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Water Table Present? Yes No X Depth (inches): >18" Saturation Present? Yes No X Depth (inches): >18" (includes capillary fringe) Ves No X Depth (inches): >18"	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Saturation Present? Yes No X Depth (inches): >18" Wetland Hydrology Present (includes capillary fringe)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
(includes capillary fringe)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Remarks:	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
No wetland hydrology was observed.	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)

Project/Site:	CTH KR Stormwater WD			City/County	y: Racine County		Sampling Date: 9/26/2018
Applicant/Owner:	Wisconsin Dept. of Transportation			State	e: WI	Sampling Point:	DP-84
Investigator(s):	K. Carlson, E. Engllund				Section, Townshi	ip, Range: TWP 3N, RNG 22E, SE	EC 35
Landform (hillslope,	, terrace, etc.): Toes	slope			Loca	al relief (concave, convex, none): c	concave
Slope (%):	0-1% Lat:	42.6697006		Long:	-	7.8717194	Datum: NAD83 UTM16N
Soil Map Unit Name	e: SzB - Symerton loam, 2 to 6 percent	slopes				NWI classif	ication: None
Are climatic / hydrol	logic conditions on the site typical for the	nis time of year?		Yes	X No	(If no, explain in Remarks.)	
Are Vegetation	N , Soil	N , or Hydrology	N significantly dis	sturbed?	Are "Norm	al Circumstances" present?	Yes X No
Are Vegetation	N , Soil	N , or Hydrology	N naturally proble		(If needed,	, explain any answers in Remarks.	
SUMMARY OF	FINDINGS Attach site map	showing sampling point log	ations. transects. im	portant featu	ires. etc.		
	getation Present?	Yes X	No		e Sampled Ar		
Hydric Soil Pres	-	Yes X	No	-	n a Wetland?		No
Wetland Hydrol		Yes X	No	_			
	ermined that antecedent precipitation or prmal. This was taken into consideratio						
VEGETATION -	Use scientific names of pla	nts.					
-			Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30 radius)		% Cover	Species?	Status	Dominance Test worksheet:	
1						Number of Deminant Consist	
						Number of Dominant Species	4 (4)
3						That Are OBL, FACW, or FAC:	4 (A)
4 5.						Total Number of Dominant	
J				= Total Cover		Species Across All Strata:	4 (P)
				= Total Cover		Species Across All Strata:	4 (B)
1 2	tum (Plot size: 15' radius)					Percent of Dominant Species That Are OBL, FACW, or FAC:	(A/B)
3							
4						Prevalence Index worksheet:	
5.				Tatal Causa		Total 0/ Course of	No. 16 - La la sa
				= Total Cover		Total % Cover of: That Are OBL, FACW, or FAC:	Multiply by: A/B
Herb Stratum (Plot	size: 5' radius)					OBL species 43%	x1 = 0.43
1. Scirpus atrocine			20%	Yes	OBL	FACW species 34%	$x^{2} = 0.68$
2. Spartina pectina			15%	Yes	FACW	FAC species 3%	$x_2 = 0.00$ $x_3 = 0.09$
3. Typha X glauca			10%	Yes	OBL	FACU species	x4 =
4. Phalaris arundii			10%	Yes	FACW	UPL species	x5 =
5. Helenium autur	nnale		5%	No	FACW	Column Totals: 0.80	(A) 1.2 (B)
6. Carex lacustris			5%	No	OBL		
7. Lythrum salicar			5%	No	OBL	Prevalence Index = E	8/A = 1.50
8. Symphyotrichu			3%	No	FAC		·
9. Mimulus ringen			2%	No	OBL		
10. Silphium perfoli			2%	No	FACW	Hydrophytic Vegetation Indica	ators:
11. Phragmites aus			2%	No	FACW	, , , , , , , , , , , , , , , , , , , ,	
12. Eupatorium per			1%	No	OBL	X 1-Rapid Test for Hydro	phytic Vegetation
13.						X 2-Dominance Test is >	
14.						X 3-Prevalence Index is s	
15.							ations ¹ (Provide supporting
16.						data in Remarks or on	
17.							tic Vegetation ¹ (Explain)
18.							
19.						¹ Indicators of hydric soil and we	tland hydrology must
20.						be present, unless disturbed or	
			80%	= Total Cover	·		•
1	m (Plot size: 30' radius)					Hydrophytic Vegetation	× . N.
2			·	Total Court		Present? Yes	X No
				= Total Cover			
	photo numbers here or on a separate al for a wetland restoration which the ar					4	

SOIL

	cription: (Describe to the	depth neede				bsence o	of indicators.)	
Depth	Matrix			ox Features		2	-	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-2"	10YR 2/2	98	10YR 4/6	2	С	М	Silty Clay Loam	
2-8"	10YR 4/2	100					Silty Clay Loam	
8-18"	10YR 7/1	98	10YR 5/6	2	С	М	Clay	
					·			
	·							
1	·					- 2		
'Type: C=C Hydric Soil I	Concentration, D=Depletion,	, RM=Reduce	d Matrix, CS=Covered	or Coated S	Sand Grains.		on: PL=Pore Lining, Indicators of Hydrid	
Histosc			Sandy Gleyed	Motrix (SA	\	Test	-	nese Masses (F12)
				-)			
	Epipedon (A2)		Sandy Redox					w Dark Surface (F22)
	Histic (A3)		Stripped Matr					ain in Remarks)
	gen Sulfide (A4)			. ,	1)			
	ed Layers (A5)		Loamy Mucky		•			
	luck (A10)	1)	Loamy Gleye		.)			
	ed Below Dark Surface (A1	1)	X Depleted Mat	· · /			³ The budgie cellin	diastors have been visited to
	Dark Surface (A12)		Redox Dark S	,				dicators have been updated to
	Mucky Mineral (S1)		Depleted Dar		-7)			e Field Indicators of Hydric Soils
	lucky Peat or Peat (S3)		Redox Depre	ssions (F8)			in the United S	States, Version 8.0, 2016.
Restrictive L	Layer (if observed):							
Туре:								
Depth (i	inches):					Hydric	Soil Present?	Yes X No
HYDROL								
TIDRUL	OGY							
	OGY drology Indicators:							
Wetland Hyd	drology Indicators:	required: chec	k all that apply)				Secondary Indica	tors (minimum of two required)
Wetland Hyd Primary India	drology Indicators: cators (minimum of one is r	required: chec	11.27	d Leaves (E	39)			tors (minimum of two required)
Wetland Hyc Primary Indio Surface	drology Indicators: cators (minimum of one is r e Water (A1)	equired: chec	Water-Staine		39)		Surface Soi	l Cracks (B6)
Wetland Hyd Primary India Surface X High W	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2)	required: chec	Water-Staine	a (B13)			Surface Soi	l Cracks (B6) atterns (B10)
Wetland Hyd Primary India Surface X High W X Saturat	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2) tion (A3)	required: chec	Water-Staine Aquatic Faun True Aquatic	a (B13) Plants (B14)		Surface Soi	l Cracks (B6) atterns (B10) n Water Table (C2)
Wetland Hyc Primary India Surface X High W X Saturat Water I	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2) tion (A3) Marks (B1)	required: chec	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul	a (B13) Plants (B14 fide Odor (0) C1)	s (C3)	Surface Soi Drainage P Dry-Seasor Crayfish Bu	l Cracks (B6) atterns (B10) I Water Table (C2) rrows (C8)
Wetland Hyc Primary India Surface X High W X Saturat Water I Sedime	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)	required: chec	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhiz	a (B13) Plants (B14 fide Odor (0 cospheres o) C1) n Living Roots	s (C3)	Surface Soi Drainage P Dry-Seasor Crayfish Bu Saturation V	I Cracks (B6) atterns (B10) I Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9)
Wetland Hyd Primary India Surface X High W X Saturat Water I Sedime Drift De	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	equired: chec	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhiz Presence of F	a (B13) Plants (B14 fide Odor ((cospheres o Reduced Iro) C1) n Living Roots n (C4)		Surface Soi	l Cracks (B6) atterns (B10) n Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1)
Wetland Hyd Primary India Surface X High W X Saturat Water I Sedime Drift De Algal M	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) fat or Crust (B4)	equired: chec	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhiz Presence of F	a (B13) Plants (B14 fide Odor (0 cospheres o Reduced Iro Reduction in) C1) n Living Roots n (C4)		Surface Soi Drainage P Dry-Season Crayfish Bu Saturation V Stunted or S X Geomorphic	I Cracks (B6) atterns (B10) water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
Wetland Hyc Primary India Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5)	·	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F Thin Muck Su	a (B13) Plants (B14 fide Odor ((cospheres o Reduced Iro Reduction in Irface (C7)) C1) n Living Roots n (C4) Tilled Soils ((Surface Soi	I Cracks (B6) atterns (B10) water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
Wetland Hyc Primary India Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Inundation	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aerial Image	ery (B7)	Water-Staine Aquatic Faun True Aquatic Faun Understand	a (B13) Plants (B14 fide Odor ((cospheres o Reduced Iro Reduction in Irface (C7) II Data (D9)) C1) n Living Root n (C4) Tilled Soils (0		Surface Soi Drainage P Dry-Season Crayfish Bu Saturation V Stunted or S X Geomorphic	I Cracks (B6) atterns (B10) water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
Wetland Hyc Primary India Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Inundat Sparse	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /lat or Crust (B4) eposits (B5) tion Visible on Aerial Image	ery (B7)	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F Thin Muck Su	a (B13) Plants (B14 fide Odor ((cospheres o Reduced Iro Reduction in Irface (C7) II Data (D9)) C1) n Living Root n (C4) Tilled Soils (0		Surface Soi Drainage P Dry-Season Crayfish Bu Saturation V Stunted or S X Geomorphic	I Cracks (B6) atterns (B10) water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
Wetland Hyc Primary India Surface X High W X Saturat Water I Sedime Drift De Algal M Inundat Sparse	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aerial Image ely Vegetated Concave Surf vations:	ery (B7) ace (B8)	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F Thin Muck Su Gauge or We Other (Explai	a (B13) Plants (B14 fide Odor ((cospheres o Reduced Iro Reduction in Irface (C7) Il Data (D9) n in Remark) C1) n Living Root n (C4) Tilled Soils (0		Surface Soi Drainage P Dry-Season Crayfish Bu Saturation V Stunted or S X Geomorphic	I Cracks (B6) atterns (B10) water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
Wetland Hyc Primary India Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Inundat Sparse Field Observ Surface Wat	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aerial Image bly Vegetated Concave Surf vations: ter Present? Ye	ery (B7) ace (B8) sNo	Water-Staine Aquatic Faun True Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F Thin Muck Su Gauge or We Other (Explai X Depth (inches)	a (B13) Plants (B14 fide Odor ((cospheres o Reduced Iro Reduction in Irface (C7) Il Data (D9) n in Remark) C1) n Living Root n (C4) Tilled Soils (0		Surface Soi Drainage P Dry-Season Crayfish Bu Saturation V Stunted or S X Geomorphic	I Cracks (B6) atterns (B10) water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
Wetland Hyc Primary India Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Sparse Field Observ Surface Water Water Table	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aerial Image by Vegetated Concave Surf vations: ter Present? Ye	ery (B7) ace (B8) sNo	Water-Staine Aquatic Faun True Aquatic Faun True Aquatic Faun Oxidized Rhiz Oxidized Rhiz Presence of F Recent Iron F Thin Muck Su Gauge or We Other (Explai X Depth (inches) Depth (inches)	a (B13) Plants (B14 fide Odor ((cospheres o Reduced Iro Reduction in Inface (C7) II Data (D9) n in Remark) C1) n Living Root: n (C4) Tilled Soils (((s)	C6)	Surface Soi Drainage P Dry-Seasor Crayfish Bu Saturation N Stunted or S X Geomorphic X FAC-Neutra	I Cracks (B6) atterns (B10) I Water Table (C2) Irrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) al Test (D5)
Wetland Hyc Primary India Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Inundat Sparse Field Observ Surface Wat Water Table Saturation P	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aerial Image ely Vegetated Concave Surf vations: ter Present? Ye Present? Ye	ery (B7) ace (B8) sNo	Water-Staine Aquatic Faun True Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F Thin Muck Su Gauge or We Other (Explai X Depth (inches)	a (B13) Plants (B14 fide Odor ((cospheres o Reduced Iro Reduction in Inface (C7) II Data (D9) n in Remark) C1) n Living Root: n (C4) Tilled Soils (((s)	C6)	Surface Soi Drainage P Dry-Season Crayfish Bu Saturation V Stunted or S X Geomorphic	I Cracks (B6) atterns (B10) water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
Wetland Hyc Primary India Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Inundat Sparse Field Observ Surface Wat Water Table Saturation P (includes car	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aerial Image by Vegetated Concave Surf vations: ter Present? Ye Present? Ye pillary fringe)	ery (B7) face (B8) fsNo fsNo fsNo	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F Thin Muck Su Gauge or We Other (Explai Depth (inches) Depth (inches)	a (B13) Plants (B14 fide Odor (C cospheres o Reduced Iro Reduction in Inface (C7) II Data (D9) n in Remark) n Living Root: n (C4) Tilled Soils (C (s)	C6) I Hydrolo	Surface Soi Drainage P Dry-Seasor Crayfish Bu Saturation N Stunted or S X Geomorphic X FAC-Neutra	I Cracks (B6) atterns (B10) I Water Table (C2) Irrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) al Test (D5)
Wetland Hyc Primary India Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Inundat Sparse Field Observ Surface Wat Water Table Saturation P (includes car	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aerial Image ely Vegetated Concave Surf vations: ter Present? Ye Present? Ye	ery (B7) face (B8) fsNo fsNo fsNo	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F Thin Muck Su Gauge or We Other (Explai Depth (inches) Depth (inches)	a (B13) Plants (B14 fide Odor (C cospheres o Reduced Iro Reduction in Inface (C7) II Data (D9) n in Remark) n Living Root: n (C4) Tilled Soils (C (s)	C6) I Hydrolo	Surface Soi Drainage P Dry-Seasor Crayfish Bu Saturation N Stunted or S X Geomorphic X FAC-Neutra	I Cracks (B6) atterns (B10) I Water Table (C2) Irrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) al Test (D5)
Wetland Hyc Primary India Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Inundat Sparse Field Observ Surface Wat Water Table Saturation P (includes car	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aerial Image by Vegetated Concave Surf vations: ter Present? Ye Present? Ye pillary fringe)	ery (B7) face (B8) fsNo fsNo fsNo	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F Thin Muck Su Gauge or We Other (Explai Depth (inches) Depth (inches)	a (B13) Plants (B14 fide Odor (C cospheres o Reduced Iro Reduction in Inface (C7) II Data (D9) n in Remark) n Living Root: n (C4) Tilled Soils (C (s)	C6) I Hydrolo	Surface Soi Drainage P Dry-Seasor Crayfish Bu Saturation N Stunted or S X Geomorphic X FAC-Neutra	I Cracks (B6) atterns (B10) I Water Table (C2) Irrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) al Test (D5)
Wetland Hyc Primary India Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Inundat Sparse Field Observ Sutface Wat Water Table Saturation P (includes car	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aerial Image by Vegetated Concave Surf vations: ter Present? Ye Present? Ye pillary fringe)	ery (B7) face (B8) fsNo fsNo fsNo	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F Thin Muck Su Gauge or We Other (Explai Depth (inches) Depth (inches)	a (B13) Plants (B14 fide Odor (C cospheres o Reduced Iro Reduction in Inface (C7) II Data (D9) n in Remark) n Living Root: n (C4) Tilled Soils (C (s)	C6) I Hydrolo	Surface Soi Drainage P Dry-Seasor Crayfish Bu Saturation N Stunted or S X Geomorphic X FAC-Neutra	I Cracks (B6) atterns (B10) I Water Table (C2) Irrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) al Test (D5)
Wetland Hyd Primary India Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Inundal Sparse Field Observ Surface Wat Water Table Saturation P (includes cap Describe Re	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Image ely Vegetated Concave Surf vations: ter Present? Ye Present? Ye pillary fringe) ecorded Data (stream gauge	ery (B7) Face (B8) Ps No Ps No e, monitoring	Water-Staine Aquatic Faun True Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F Thin Muck Su Gauge or We Other (Explai X Depth (inches) Depth (inches) well, aerial photos, pre-	a (B13) Plants (B14 fide Odor (C cospheres o Reduced Iro Reduction in urface (C7) Il Data (D9) n in Remark) C1) n Living Root: n (C4) Tilled Soils (C (s) Wetlance ctions), if avail	d Hydrolo	Surface Soi Drainage P Dry-Seasor Crayfish Bu Saturation N Stunted or S X Geomorphic X FAC-Neutra	I Cracks (B6) atterns (B10) I Water Table (C2) Irrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) al Test (D5)
Wetland Hyd Primary India Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Inundal Sparse Field Observ Surface Wat Water Table Saturation P (includes cap Describe Re	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Image ely Vegetated Concave Surf vations: ter Present? Ye Present? Ye pillary fringe) ecorded Data (stream gauge	ery (B7) Face (B8) Ps No Ps No e, monitoring	Water-Staine Aquatic Faun True Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F Thin Muck Su Gauge or We Other (Explai X Depth (inches) Depth (inches) well, aerial photos, pre-	a (B13) Plants (B14 fide Odor (C cospheres o Reduced Iro Reduction in urface (C7) Il Data (D9) n in Remark) C1) n Living Root: n (C4) Tilled Soils (C (s) Wetlance ctions), if avail	d Hydrolo	Surface Soi Drainage P Dry-Seasor Crayfish Bu Saturation N Stunted or S X Geomorphic X FAC-Neutra	I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) al Test (D5) Yes X No
Wetland Hyd Primary India Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Inundal Sparse Field Observ Surface Wat Water Table Saturation P (includes cap Describe Re	drology Indicators: cators (minimum of one is r e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aerial Image ely Vegetated Concave Surf vations: ter Present? Ye Present? Ye pillary fringe) ecorded Data (stream gauge	ery (B7) Face (B8) Ps No Ps No e, monitoring	Water-Staine Aquatic Faun True Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron F Thin Muck Su Gauge or We Other (Explai X Depth (inches) Depth (inches) well, aerial photos, pre-	a (B13) Plants (B14 fide Odor (C cospheres o Reduced Iro Reduction in urface (C7) Il Data (D9) n in Remark) C1) n Living Root: n (C4) Tilled Soils (C (s) Wetlance ctions), if avail	d Hydrolo	Surface Soi Drainage P Dry-Seasor Crayfish Bu Saturation N Stunted or S X Geomorphic X FAC-Neutra	I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) al Test (D5) Yes X No

Project/Site:	CTH KR Stormwater WD					City/Count	y: Racine County			Sampling Dat	te: 9/26/20	018
Applicant/Owner:	Wisconsin Dept. of Transp	ortation				State	e: WI	Sampling Poin	t:	DP-	-85	
Investigator(s):	K. Carlson, E. Englund						Section, Townsh	ip, Range: <u>TWP 3N,</u>	RNG 22E, SE	C 35		
Landform (hillslope	, terrace, etc.):	Backslope					Loca	al relief (concave, cor	ivex, none): c	onvex		
Slope (%):	10%	Lat:	42.669670)1		Long:	-8	7.8715439		Datum: N/	AD83 UTN	/16N
Soil Map Unit Name	e: SzB - Symerton loam, 2 to	6 percent slopes							NWI classifi	cation: No	one	
Are climatic / hydro	logic conditions on the site ty	pical for this time of y	ear?			Yes	X No	(If no, explain	in Remarks.)			
Are Vegetation	N , Soi	I <u>N</u>	, or Hydrology	Ν	significantly dis	turbed?	Are "Norm	al Circumstances" p	esent?	Yes	X_No	
Are Vegetation	N, Soi	NN	, or Hydrology	Ν	naturally proble	matic?	(If needed	, explain any answer	s in Remarks.)		
SUMMARY OF	FINDINGS Attach s	ite map showing	sampling point lo	ocations	, transects, im	portant featu	ires, etc.					
	getation Present?		Yes		No <u>x</u>	Is the	e Sampled Ar	ea				
Hydric Soil Pres			Yes		No <u>x</u>	withi	n a Wetland?		Yes	No	Х	
Wetland Hydrol	ogy Present?		Yes		No <u>x</u>	-						
	ermined that antecedent pre ormal. This was taken into co										cipitation o	conditions
VEGETATION	Use scientific name	s of plants.						-				
T					Absolute	Dominant	Indicator					
Tree Stratum (Plot	size: 30' radius)				% Cover	Species?	Status	Dominance Test	worksheet:			
1												
2								Number of Domina				
3								That Are OBL, FA	JW, or FAC:		1	(A)
4						·		Total Number of D				
5						= Total Cover		Total Number of D				
						= Total Cover		Species Across A	i Strata:		4	(B)
Carling/Charle Otas								Demonst of Demin	at Caralian			
	tum (Plot size: 15' radius)							Percent of Domina That Are OBL, FA		01	50/	(A/D)
1 2.								That Ale OBL, PA	JW, OF FAC.	2	5%	(A/B)
2												
3 4.					·			Prevalence Index	worksheet.			
4 5.					·			Fievalence index	worksheet.			
0.						= Total Cover		Total % C	over of:	M	lultiply by:	
						-		That Are OBL, FAC			uluply by:	A/B
Herb Stratum (Plot	size: 5' radius)							OBL species		x1 =		
1. Arctium minus	·		-		25%	Yes	FACU	FACW species	10%	x2 =	0.2	
2. Daucus carota					20%	Yes	UPL	FAC species	5%	x3 =	0.15	
3. Lotus cornicula	tus				10%	Yes	FACU	FACU species	48%	x4 =	1.92	
4. Phalaris arundi	nacea				10%	Yes	FACW	UPL species	30%	x5 =	1.5	
5. Ambrosia arter	nisiifolia				5%	No	FACU	Column Totals:	0.93	(A)	3.77	(B)
6. Pastinaca sativ	a				5%	No	UPL					
7. Ambrosia trifida	3				5%	No	FAC	Prevale	ence Index = B	/A =	4.05	
8. Cirsium arvens	е				5%	No	FACU					
9. Sonchus arven	sis				3%	No	FACU					
10. Secale cereale					2%	No	UPL	Hydrophytic Veg	etation Indica	ators:		
11. Echinacea purp	ourea				2%	No	UPL					
12. Ratibida pinnat	а				1%	No	UPL	1-Rapid 1	Test for Hydrop	phytic Vegeta	tion	
13.								2-Domina	ance Test is >5	50%		
14.								3-Prevale	ence Index is ≤	3.0 ¹		
15.								4-Morpho	logical Adapta	ations ¹ (Provid	de support	ing
16.								data in R	emarks or on	a separate sh	neet)	
17.								Problema	atic Hydrophyt	ic Vegetation	¹ (Explain))
18.												
19.								¹ Indicators of hydr	c soil and wet	land hydrolog	jy must	
20.								be present, unless	disturbed or	problematic.		
					93%	= Total Cover						
-	m (Plot size: 30' radius)							Hydrophytic				
1								Vegetation	¥		v	
2					·	Total O		Present?	Yes	No	<u>^_</u>	
						= Total Cover						
Remarks: (Include	photo numbers here or on a	separate sheet)						1				
	ed mostly of ag weed species											

SOIL

		the depth need	ded to document the in		onfirm the a	bsence o	f indicators.)		
Depth (in the sec	Matrix			lox Features	Turna ¹	12	- -	D	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Re	marks
0-7"	10YR 2/2	100			С	М	Silty Clay Loam		
7-16"	10YR 5/3	100			С	М	Sandy Clay Loam		
16-24"	10YR 5/1	100			С	М	Sandy Clay		
				·					
	properties D Deplet	ion DM Bodu	ced Matrix, CS=Covered	or Costod Sc	and Croine	² L contin	Di Doro Lining	M Motrix	
Hydric Soil I	, ,	ion, RM=Redu	ced Matrix, CS=Covered	f or Coated Sa	and Grains.		on: PL=Pore Lining Indicators of Hydi		
Histoso			Sandy Gleye	d Matrix (S4)		1631	-	anese Masses (F1)	2)
	pipedon (A2)		Sandy Redox					ow Dark Surface (F	
	istic (A3)		Stripped Mat					olain in Remarks)	22)
	en Sulfide (A4)		Dark Surface	. ,				Dialiti iti Remarks)	
				. ,					
	d Layers (A5)			y Mineral (F1)	1				
	uck (A10) d Balaw Dark Surface	(11)		ed Matrix (F2)					
·	d Below Dark Surface	(ATT)	Depleted Ma				³ The huddle as "	ndiaatara have h	n undated to
	ark Surface (A12)		Redox Dark		7)		-	indicators have bee	-
	Aucky Mineral (S1)			rk Surface (F7	()		1,5	he Field Indicators	
5 cm M	ucky Peat or Peat (S3)		Redox Depre	essions (F8)			in the United	States, Version 8.0), 2016.
	ayer (if observed):								
Туре:									
Depth (i	nches):					Hydric	Soil Present?	Yes	<u>No X</u>
HYDROL									
,	rology Indicators:								
	ators (minimum of one	is required: ch		d Loovoo (PO	<u>۸</u>			ators (minimum of t	wo required)
	Water (A1)			ed Leaves (B9)			oil Cracks (B6)	
	ater Table (A2)		Aquatic Faur					Patterns (B10)	х х
Saturat				Plants (B14)				on Water Table (C2)
	Aarks (B1)			Ilfide Odor (C	,	(00)	`	Surrows (C8)	(00)
	nt Deposits (B2)			zospheres on	-	s (C3)		Visible on Aerial In	
	posits (B3)			Reduced Iron				Stressed Plants (E)1)
	at or Crust (B4)			Reduction in T	illed Soils (0	C6)		nic Position (D2)	
	posits (B5)		Thin Muck S	. ,			FAC-Neut	ral Test (D5)	
	on Visible on Aerial Im	0,000	Gauge or We						
Sparse	y Vegetated Concave S	Surface (B8)	Other (Expla	in in Remarks)				
Field Observ	ations:								
Surface Wat	er Present?	Yes No	X Depth (inches)): N/A					
Water Table	Present?	Yes No	X Depth (inches)): >18"					
Saturation P	esent?	Yes No	X Depth (inches)): >18"	Wetland	d Hydrolo	gy Present?	Yes	<u>No X</u>
(includes cap	illary fringe)								
Describe Re	corded Data (stream ga	auge, monitorin	g well, aerial photos, pre	vious inspecti	ions), if avai	lable:			
Remarks:									
	drology was observed.								

Project/Site:	CTH KR Stormwater WD		City/Cour	nty: Racine County		Sampling Date: 9/26/2018
Applicant/Owner:	Wisconsin Dept. of Transportation		Sta	ate: WI	Sampling Point:	DP-86
Investigator(s):	K. Carlson, E. Englund			Section, Townshi	p, Range: TWP 3N, RNG 22E, SE	EC 35
Landform (hillslope	, terrace, etc.): Toeslope			Loca	I relief (concave, convex, none):	concave
Slope (%):	0-1% Lat: 42.6715126		Long:	-8	7.870842	Datum: NAD83 UTM16N
Soil Map Unit Name	e: Na - Navan silt loam				NWI classif	ication: None
Are climatic / hydro	logic conditions on the site typical for this time of year?		Ye	es <u>X</u> No	(If no, explain in Remarks.)	
Are Vegetation		cantly distu	urbed?	Are "Norma	al Circumstances" present?	Yes X No
Are Vegetation		ally problen		-	explain any answers in Remarks.)
SUMMARY OF	FINDINGS Attach site map showing sampling point locations, transe	cts, imp	ortant feat	tures, etc.		
	getation Present? Yes x No			he Sampled Are		
Hydric Soil Pres Wetland Hydrol			with	hin a Wetland?	Yes <u>x</u>	No
· ·						
	termined that antecedent precipitation conditions were normal during the months of June-Augus ormal. This was taken into considerations during field surveys. Feature is a low drainage way w					
VEGETATION	Use scientific names of plants.				1	
Tree Stratum (Plot		bsolute Cover	Dominant Species?		Dominance Test worksheet:	
1.	<u></u>	00101	Openico.		Dominance rest worksheet.	
2.					Number of Dominant Species	
3.					That Are OBL, FACW, or FAC:	1 (A)
4.						
5.					Total Number of Dominant	
			= Total Cover		Species Across All Strata:	1 (B)
Sapling/Shrub Strat	tum (Plot size: 15' radius)				Percent of Dominant Species	
1					That Are OBL, FACW, or FAC:	100% (A/B)
2						
3						
4					Prevalence Index worksheet:	
5.			= Total Cover		Total % Cover of:	Multiply by
			= Total Cover		That Are OBL, FACW, or FAC:	Multiply by: A/B
Herb Stratum (Plot	t size: 5' radius)				OBL species 5%	x1 = 0.05
1. Phalaris arundi		75%	Yes	FACW	FACW species 80%	x2 = 1.6
2. Symphyotrichu	m lanceolatum	10%	No	FAC	FAC species 10%	x3 = 0.3
3. Calamagrostis	canadensis	5%	No	OBL	FACU species 3%	x4 = 0.12
4. Euthamia gram	inifolia	5%	No	FACW	UPL species	x5 =
5. Trifolium prater	1Se	3%	No	FACU	Column Totals: 0.98	(A) 2.07 (B)
6.						
7					Prevalence Index = E	B/A = 2.11
8						
9						
10					Hydrophytic Vegetation Indica	ators:
11						
12 13.				<u> </u>	X 1-Rapid Test for Hydro	
13 14.					X 2-Dominance Test is > X 3-Prevalence Index is s	
15.						ations ¹ (Provide supporting
16.					data in Remarks or on	
17.	·					tic Vegetation ¹ (Explain)
18.						
19.					¹ Indicators of hydric soil and we	land hydrology must
20.					be present, unless disturbed or	problematic.
		98%	= Total Cover			
	m (Plot size: 30' radius)				Hydrophytic	
1					Vegetation	
2					Present? Yes	X No
			= Total Cover			
Romarka: (Izzli I						
	photo numbers here or on a separate sheet.) inated by reed canary grass throughout.					

Profile Descr Depth	Matrix		Re	dox Features							
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-24"	10YR 7/1	90	10YR 4/6	10	С	М	Silty Clay Loam				
24-36"	10YR 6/2	85	10YR 4/6	15	С	М	Clay				
2.00	101110/2						0.00				
						2					
Type: C=Cc ydric Soil In		on, RM=Redu	iced Matrix, CS=Covere	d or Coated S	and Grains.		on: PL=Pore Lining, N Indicators of Hydric				
Histosol			Sandy Gleve	ed Matrix (S4)		1631	•	nese Masses (F12)			
	bipedon (A2)		Sandy Redo					w Dark Surface (F22)			
	stic (A3)		Stripped Ma					ain in Remarks)			
	n Sulfide (A4)		Dark Surfac	. ,			001 (2.4)				
	d Layers (A5)			xy Mineral (F1)						
	ick (A10)			ed Matrix (F2)							
	d Below Dark Surface (A11)	X Depleted Ma								
Thick Da	ark Surface (A12)			Surface (F6)			³ The hydric soil inc	dicators have been updated to			
Sandy M	lucky Mineral (S1)		Depleted Da	rk Surface (F	7)		comply with the	e Field Indicators of Hydric Soils			
5 cm Mu	icky Peat or Peat (S3)		X Redox Depr	essions (F8)			in the United S	tates, Version 8.0, 2016.			
estrictive La	ayer (if observed):										
Type:			_								
edox was obs	served throughout mos	of the profile				Hydric	Soil Present?	Yes <u>X</u> No			
emarks: edox was obs	served throughout mos	of the profile				Hydric	Soil Present?	Yes <u>X</u> No			
emarks: edox was obs YDROLC /etland Hydr	served throughout mos					Hydric		Yes X No			
emarks: edox was obs YDROLC /etland Hydi ?rimary Indica	Served throughout mos		neck all that apply)	ed Leaves (B	9)	Hydric	Secondary Indicat				
emarks: edox was obs YDROLC /etland Hydr Primary Indica Surface	Served throughout most DGY rology Indicators: ators (minimum of one		neck all that apply)		9)	Hydric	Secondary Indicat	ors (minimum of two required)			
emarks: edox was obs YDROLC /etland Hydr Primary Indica Surface	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2)		neck all that apply) Water-Stain Aquatic Fau			Hydric	Secondary Indicat	ors (minimum of two required) I Cracks (B6)			
emarks: edox was obs VYDROLC Vetland Hydr Primary Indica Surface High Wa Saturatio	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2)		neck all that apply) Water-Stain Aquatic Fau True Aquati	na (B13))	Hydric	Secondary Indicat	ors (minimum of two required) Cracks (B6) atterns (B10) Water Table (C2)			
Primary Indica Surface High Wa Saturatic Water M	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3)		neck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S	na (B13) c Plants (B14)) (1)		Secondary Indicat Surface Soil Drainage Pa Dry-Season Crayfish Bur	ors (minimum of two required) Cracks (B6) atterns (B10) Water Table (C2)			
Primary Indica Surface High Wa Saturatic Water M Sedimer	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1)		neck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S	na (B13) c Plants (B14) ulfide Odor (C) 21) n Living Roots		Secondary Indicat Surface Soil Drainage Pa Dry-Season Crayfish Bu Saturation V	ors (minimum of two required) Cracks (B6) atterns (B10) Water Table (C2) rrows (C8)			
Primary Indica Surface High Wa Saturatic Water M Sedimer Drift Deg	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)		neck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of	na (B13) 2 Plants (B14) ulfide Odor (C izospheres or) C1) n Living Roots n (C4)	5 (C3)	Secondary Indicat Surface Soil Drainage Pa Dry-Season Crayfish Bu Saturation V Stunted or S	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) fisible on Aerial Imagery (C9)			
Primary Indica Primary Indica Primary Indica Surface High Wa Saturatic Water M Sedimer Drift Deg Algal Ma	OGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)		neck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of	na (B13) Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in) C1) n Living Roots n (C4)	5 (C3)	Secondary Indicat Surface Soil Drainage Pa Dry-Season Crayfish Bu Saturation V Stunted or S	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) E Position (D2)			
Provide Algal Magerian Control	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	is required: cł	neck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S	na (B13) Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in) C1) n Living Roots n (C4)	5 (C3)	Secondary Indicat Surface Soil Drainage Pa Dry-Season Crayfish But Saturation V Stunted or S X Geomorphic	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) E Position (D2)			
Primary Indica Primary Indica Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	is required: ch	neck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	na (B13) Plants (B14) Ilfide Odor (C izospheres or Reduced Iror Reduction in Surface (C7)) n Living Roots n (C4) Tilled Soils (C	5 (C3)	Secondary Indicat Surface Soil Drainage Pa Dry-Season Crayfish But Saturation V Stunted or S X Geomorphic	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) E Position (D2)			
Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatii Sparsely	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) ht Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Ima / Vegetated Concave S	is required: ch	neck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	na (B13) Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in Gurface (C7) ell Data (D9)) n Living Roots n (C4) Tilled Soils (C	5 (C3)	Secondary Indicat Surface Soil Drainage Pa Dry-Season Crayfish But Saturation V Stunted or S X Geomorphic	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) E Position (D2)			
Primary Indica Primary Indica Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Deg Algal Ma Iron Dep Inundatio Sparsely ield Observa	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Ima v Vegetated Concave S	is required: cł agery (B7) urface (B8)	neck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	na (B13) Plants (B14) Ilfide Odor (C izospheres or Reduced Iror Reduction in Gurface (C7) ell Data (D9) in in Remark) n Living Roots n (C4) Tilled Soils (C	5 (C3)	Secondary Indicat Surface Soil Drainage Pa Dry-Season Crayfish But Saturation V Stunted or S X Geomorphic	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) E Position (D2)			
Primarks: adox was observed Partiand Hyde Primary Indicat Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely Sediserved Surface Wate	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Ima v Vegetated Concave S ations: or Present?	is required: ch agery (B7) urface (B8) Yes No	neck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	na (B13) Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in Gurface (C7) ell Data (D9) in in Remarka) n Living Roots n (C4) Tilled Soils (C	5 (C3)	Secondary Indicat Surface Soil Drainage Pa Dry-Season Crayfish But Saturation V Stunted or S X Geomorphic	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) E Position (D2)			
Primarks: Primary Indication Primary Indication Primary Indication Surface High Wa Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Inundation Sparsely Priface Water Vater Table F	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Ima / Vegetated Concave S ations: present?	is required: ch agery (B7) urface (B8) Yes <u>No</u>	heck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	na (B13) Plants (B14) Ulfide Odor (C izospheres or Reduced Iror Reduction in Surface (C7) ell Data (D9) in in Remark): N/A .): N/A	s) n Living Roots n (C4) Tilled Soils (C	s (C3) C6)	Secondary Indicat Surface Soil Drainage Pa Dry-Season Crayfish But Saturation V Stunted or S X Geomorphic	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) E Position (D2)			
Primary Indica Primary Indica Primary Indica Primary Indica Surface High Wa Saturatio Water N Sedimer Drift Dep Inundatia Sparsely ield Observa Sourface Water Vater Table F Saturation Pro	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Ima / Vegetated Concave S ations: present? Present?	is required: ch agery (B7) urface (B8) Yes No Yes No	heck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla X Depth (inches	na (B13) Plants (B14) Ulfide Odor (C izospheres or Reduced Iror Reduction in Surface (C7) ell Data (D9) in in Remark): N/A .): N/A	s) n Living Roots n (C4) Tilled Soils (C	s (C3) C6)	Secondary Indicat Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S X Geomorphic X FAC-Neutra	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) 'isible on Aerial Imagery (C9) Stressed Plants (D1) : Position (D2) I Test (D5)			
emarks: edox was obs VDROLC Vetland Hydr Primary Indica Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatii Sparsely ield Observa Sourface Water Vater Table F Saturation Pro-	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Ima / Vegetated Concave S ations: present? Present? esent? illary fringe)	is required: ch agery (B7) urface (B8) Yes No Yes No Yes No	heck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla X Depth (inches	na (B13) Plants (B14) Ulfide Odor (C izospheres or Reduced Iror Reduction in Surface (C7) ell Data (D9) in in Remarks N/A N/A N/A N/A) n Living Roots n (C4) Tilled Soils (C s) Wetland	s (C3) C6)	Secondary Indicat Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S X Geomorphic X FAC-Neutra	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) 'isible on Aerial Imagery (C9) Stressed Plants (D1) : Position (D2) I Test (D5)			
Primary Indica Primary Indica Primary Indica Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatii Sparsely ield Observa Sourface Water Vater Table F Saturation Pro-	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Ima / Vegetated Concave S ations: present? Present? esent? illary fringe)	is required: ch agery (B7) urface (B8) Yes No Yes No Yes No	neck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rr Presence of Recent Iron Thin Muck S Gauge or W Other (Expland) X Depth (inchest X Depth (inchest	na (B13) Plants (B14) Ulfide Odor (C izospheres or Reduced Iror Reduction in Surface (C7) ell Data (D9) in in Remarks N/A N/A N/A N/A) n Living Roots n (C4) Tilled Soils (C s) Wetland	s (C3) C6)	Secondary Indicat Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S X Geomorphic X FAC-Neutra	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) 'isible on Aerial Imagery (C9) Stressed Plants (D1) : Position (D2) I Test (D5)			
emarks: edox was obs Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely Sield Observa Surface Wate Nater Table F Saturation Pre includes capi Describe Rec	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Ima / Vegetated Concave S ations: present? Present? esent? illary fringe)	is required: ch agery (B7) urface (B8) Yes No Yes No Yes No	neck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rr Presence of Recent Iron Thin Muck S Gauge or W Other (Expland) X Depth (inchest X Depth (inchest	na (B13) Plants (B14) Ulfide Odor (C izospheres or Reduced Iror Reduction in Surface (C7) ell Data (D9) in in Remarks N/A N/A N/A N/A) n Living Roots n (C4) Tilled Soils (C s) Wetland	s (C3) C6)	Secondary Indicat Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S X Geomorphic X FAC-Neutra	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) 'isible on Aerial Imagery (C9) Stressed Plants (D1) : Position (D2) I Test (D5)			
emarks: edox was obs Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely Sield Observa Surface Wate Nater Table F Saturation Pre includes capi Describe Rec	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Ima v Vegetated Concave S ations: Present? Present? esent? llary fringe) orded Data (stream ga	is required: ch agery (B7) urface (B8) Yes No Yes No Yes No uge, monitorir	Meck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explation) X Depth (inchests) X Depth (inchests) X Depth (inchests) X Depth (inchests)	na (B13) Plants (B14) Ulfide Odor (C izospheres or Reduced Iror Reduction in 1 Gurface (C7) ell Data (D9) in in Remarka N: N/A N: >18" Priore 18" Priore 18" Prio) n Living Roots n (C4) Tilled Soils (C s) Wetland	s (C3) C6)	Secondary Indicat Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S X Geomorphic X FAC-Neutra	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) 'isible on Aerial Imagery (C9) Stressed Plants (D1) : Position (D2) I Test (D5)			
emarks: edox was obs Vetland Hydr Primary Indica Surface High Wa Saturatio Water N Sedimer Drift Deg Algal Ma Iron Deg Inundatii Sparsely ield Observa Surface Wate Vater Table F Saturation Prr includes capi Describe Rec	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Ima v Vegetated Concave S ations: Present? Present? esent? llary fringe) orded Data (stream ga	is required: ch agery (B7) urface (B8) Yes No Yes No Yes No uge, monitorir	neck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rr Presence of Recent Iron Thin Muck S Gauge or W Other (Expland) X Depth (inchest X Depth (inchest	na (B13) Plants (B14) Ulfide Odor (C izospheres or Reduced Iror Reduction in 1 Gurface (C7) ell Data (D9) in in Remarka N: N/A N: >18" Priore 18" Priore 18" Prio) n Living Roots n (C4) Tilled Soils (C s) Wetland	s (C3) C6)	Secondary Indicat Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S X Geomorphic X FAC-Neutra	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) 'isible on Aerial Imagery (C9) Stressed Plants (D1) : Position (D2) I Test (D5)			
Project/Site:	CTH KR Stormwater WD					City/Count	y: Racine County	,	Sar	mpling Date: 9/26	6/2018
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Applicant/Owner:	Wisconsin Dept. of Transport	ation				State	e: WI	Sampling Point:		DP-87	
Investigator(s):	K. Carlson, E. Englund						Section, Townsh	ip, Range: TWP 3N, RN	G 22E, SEC 3	35	
Landform (hillslope,	, terrace, etc.):	Shoulder					Loca	al relief (concave, convex	(, none): conv	/ex	
Slope (%):	3-5% La	at:	42.671470	6		Long:	-8	37.8709183		Datum: NAD83 L	JTM16N
Soil Map Unit Name	e: SzB - Symerton loam, 2 to 6	percent slopes						N	WI classificati	ion: None	
Are climatic / hydro	logic conditions on the site typi	cal for this time of ye	ear?			Yes	X No	(If no, explain in F	(emarks.)		
Are Vegetation	N, Soil	N	, or Hydrology	Ν	significantly dis	turbed?	Are "Norm	al Circumstances" prese	nt?	Yes X No	
Are Vegetation	N, Soil	N	, or Hydrology	Ν	naturally proble	ematic?	(If needed	, explain any answers in	Remarks.)		
SUMMARY OF	FINDINGS Attach site	e map showing	sampling point lo	ocations	s, transects, im	portant featu	ıres, etc.				
Hydrophytic Veg	getation Present?		Yes		No <u>x</u>	Is the	e Sampled Ar	ea			
Hydric Soil Pres			Yes x		No	withi	in a Wetland?	' Y	/es	No <u>x</u>	-
Wetland Hydrol	ogy Present?		Yes		No <u>X</u>	-					
	ermined that antecedent precip ormal. This was taken into cons							ring the month of Septer	ber the antec	edent precipitatio	on conditions
VEGETATION ·	Use scientific names	of plants.						1			
Tree Stratum (Plot	size: 30' radius)				Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test wor	rkshoot		
1.	3126. 30 Taulus)				78 Cover	Opecies :	Status	Dominance rest wor	KSHEEL.		
<u></u>								Number of Dominant S	Snecies		
3.								That Are OBL, FACW		0	(A)
4.								1110110002,111011	-	0	((1)
5.								Total Number of Domi	nant		
						= Total Cover		Species Across All Str		3	(B)
											(=)
Sapling/Shrub Strat	tum (Plot size: 15' radius)							Percent of Dominant S	Species		
1.								That Are OBL, FACW	, or FAC:	0%	(A/B)
•									-		
3.											
4.								Prevalence Index wo	rksheet:		
5.											
						= Total Cover		Total % Cove	r of:	Multiply I	by:
						-		That Are OBL, FACW,	or FAC:		A/B
Herb Stratum (Plot	size: 5' radius)							OBL species		x1 =	
1. Trifolium prater	nse				30%	Yes	FACU	FACW species	5%	x2 =0.	.1
2. Daucus carota					20%	Yes	UPL	FAC species	10%	x3 =0.	.3
3. Ambrosia arten	nisiifolia				15%	Yes	FACU	FACU species	60%	x4 =2	.4
4. Symphyotrichul					10%	No	FAC	UPL species	25%		25
5. Cirsium arvens					10%	No	FACU	Column Totals:	1.00	(A) 4.0	05 (B)
6. Sonchus arven					5%	No	FACU				
7. Phalaris arundi					5%	No	FACW	Prevalence	Index = B/A =	= 4.05	
8. Secale cereale					5%	No	UPL				
9											
10								Hydrophytic Vegetat	ion Indicator	s:	
11 12.								4 Desid Test	feel bedeen bee		
13.								1-Rapid Test	Test is >50%		
13 14.									Index is ≤3.0		
15.										ns ¹ (Provide supp	oorting
15 16.								: •		eparate sheet)	Sorting
17.										/egetation ¹ (Expla	ain)
18.									.,	-9	
19.								¹ Indicators of hydric so	oil and wetland	d hvdroloav must	
20.								be present, unless dis			
					100%	= Total Cover					
μ											
Woody Vine Stratur	m (Plot size: 30' radius)							Hydrophytic			
1.		-						Vegetation			
2.								Present?	Yes	No X	
						= Total Cover					
						-					
	photo numbers here or on a se of clover, wild carrot, and ragw		w field.								

Code Code Code Code Type Loc ² Toture Remarks 0-14 10YR 3/1 80 10YR 4/5 10 C M Stip Cay Learn Image: Cay Care Code Image: Care Code <th>Depth</th> <th>ription: (Describe to tl Matrix</th> <th></th> <th>Re</th> <th>dox Features</th> <th></th> <th></th> <th></th> <th></th>	Depth	ription: (Describe to tl Matrix		Re	dox Features				
14-24* 10YR 5/2 95 10YR 4/8 5 C M Clay Type: Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. **Location: PL=Pore Lining, M=Matrix, CS=Covered or Coated Sand Grains. **Location: PL=Pore Lining, M=Matrix, CS=Covered or Coated Sand Grains. **Location: PL=Pore Lining, M=Matrix, CS=Covered or Coated Sand Grains. **Location: PL=Pore Lining, M=Matrix, CS=Covered or Coated Sand Grains. **Location: PL=Pore Lining, M=Matrix, CS=Covered or Coated Sand Grains. **Location: PL=Pore Lining, M=Matrix, CS=Covered or Coated Sand Grains. **Location: PL=Pore Lining, M=Matrix, CS=Covered or Coated Sand Grains. **Location: PL=Pore Lining, M=Matrix, CS=Covered or Coated Sand Grains. **Location: PL=Pore Lining, M=Matrix, CS=Covered or Coated Sand Grains. **Location: PL=Pore Lining, M=Matrix, CS=Covered or Coated Sand Grains. **Location: PL=Pore Lining, M=Matrix, CS=Covered or Coated Sand Grains. **Location: Covered or Covered or Coated Sand Grains. **Location: Covered Grains. **Location: Covered or Coated Sand Grains. **Location: Covered Grains. **Locate: Covered	•	Color (moist)	%			Type ¹	Loc ²	Texture	Remarks
14-24* 10YR 5/2 95 10YR 4/6 5 C M City 14-24* 10YR 5/2 95 10YR 4/6 5 C M City 14-24* 10YR 5/2 95 10YR 4/6 5 C M City 14:24* 10YR 5/2 95 10YR 4/6 5 C M City 14:24* 10YR 5/2 95 10YR 5/2	0-14"	10YR 3/1	90	10YR 4/6	10	С	М	Silty Clay Loam	
ype: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Grains. "Location: PL-Pore Lining, M-Matrix, tric S01 Indicators? Test Indicators of Hydric Solis: Intro-Manganee Masses (F12) Histop (A1) Sandy Glayed Matrix (S4) Test Indicators of Hydric Solis: Back Histin (K3) Single Matrix (S6) Other (Explain in Remarks) Phydrogen Sulfide (A4) Dark Surface (S7) Other (Explain in Remarks) Strainfield Layers (A2) Learny Mackoy Mineral (F1) Can Mack (Mineral (S1) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) "The hydric soil indicators have been updated to comply with the Field Indicators of Hydric Soils in the United States, Version 8.0, 2016. Strictive Layer (if observed): Type:			95		5	С			
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Heat Epipadon (A2) Sandy Rodox (S5) Vary Shallow Dark Surface (F22) Black Histic (A3) Stripped Matrix (S6) Other (Explain in Remarks) Hydrogen Sulfide (A4) Learny Mucky Mineral (F1) Other (Explain in Remarks) 2 orn Muck (A10) Learny Mucky Mineral (F1) Depleted Bolow Dark Surface (A12) Redox Dark Surface (F6) ³ The hydric soil indicators have been updated to comply with the <i>Field Indicators of Hydric Soil</i> 5 orn Mucky Peat or Peat (S3) Depleted Dark Surface (F7) new Comply with the <i>Field Indicators of Hydric Soil</i> new Lydre (F1) Type:				Sandy Glev	ed Matrix (S4)		1631	•	
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				Loamy Gley	ed Matrix (F2))			
	Deplete	ed Below Dark Surface (A11)						
	Thick D	Park Surface (A12)		X Redox Dark	Surface (F6)			³ The hydric soil ir	ndicators have been updated to
strictive Layer (if observed): Type: Depth (Inches):	Sandy I	Mucky Mineral (S1)		Depleted Da	ark Surface (F	7)		comply with th	e Field Indicators of Hydric Soils
Type:	5 cm M	ucky Peat or Peat (S3)		Redox Depr	essions (F8)			in the United	States, Version 8.0, 2016.
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Project/Site:	CTH KR Stormwater WD			City/County	: Racine County	/	Sampling Date: 9/26/2018
Applicant/Owner:	Wisconsin Dept. of Transportation			State	e: WI	Sampling Point:	DP-88
Investigator(s):	K. Carlson, E. Englund				Section, Townsh	ip, Range: TWP 3N, RNG 22E, S	EC 35
Landform (hillslope	, terrace, etc.): Toeslope				Loca	al relief (concave, convex, none):	concave
Slope (%):	0-1% Lat:	42.6691628		Long:		-87.86306	Datum: NAD83 UTM16N
Soil Map Unit Name	e: MzdB - Ozaukee silt loam, 2 to 6 percent slopes					NWI classi	fication: None
Are climatic / hydro	logic conditions on the site typical for this time of ye	ar?		Yes	X No	(If no, explain in Remarks.)	
Are Vegetation	N , Soil N	, or Hydrology N	significantly dis	turbed?	Are "Norm	nal Circumstances" present?	Yes X No
Are Vegetation	N , Soil N	, or Hydrology N	naturally proble	matic?	(If needed	l, explain any answers in Remarks	
SUMMARY OF	FINDINGS Attach site map showing	sampling point locations	s. transects. im	portant featu	res. etc.		
	getation Present?	Yes x	No		Sampled Ar	'ea	
Hydric Soil Pres		Yes X	No		n a Wetland?		No
Wetland Hydrol		Yes X	No	-			
were wetter than no	ermined that antecedent precipitation conditions we ormal. This was taken into considerations during fiel						intecedent precipitation conditions
VEGETATION	Use scientific names of plants.		A h a a h sha	Deminent	la dia atau		
Tree Stratum (Plot	size: 30' radius)		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Populus deltoid			10%	Yes	FAC	Dominance rest worksheet.	
2.			1070	100		Number of Dominant Species	
3.				· ·	·	That Are OBL, FACW, or FAC:	3 (A)
4.				· ·	·	That Are ODE, I AOW, OF I AO.	<u> </u>
5				·	·	Total Number of Dominant	
J			10%	= Total Cover	·	Species Across All Strata:	3 (B)
			1078			opecies Across Air Otrata.	(D)
Sapling/Shrub Strat 1 2	tum (Plot size: 15' radius)					Percent of Dominant Species That Are OBL, FACW, or FAC:	(A/B)
3							
4					·	Prevalence Index worksheet:	
5.							
				= Total Cover		Total % Cover of:	Multiply by:
						That Are OBL, FACW, or FAC:	A/B
Herb Stratum (Plot	·					OBL species	x1 =
1. Phalaris arundi	nacea		100%	Yes	FACW	FACW species 105%	x2 =2.1
2.					·	FAC species 10%	x3 = 0.3
3					·	FACU species	x4 =
4						UPL species	x5 =
5				·		Column Totals: 1.15	(A) 2.4 (B)
6							
7				·		Prevalence Index = I	B/A =2.09
8				·	·		
9				·	·		
10					·	Hydrophytic Vegetation Indic	ators:
11					·		
12.						1-Rapid Test for Hydro	
13					·	X 2-Dominance Test is >	
14						X 3-Prevalence Index is	
15							ations ¹ (Provide supporting
16.						data in Remarks or or	, ,
17					·	Problematic Hydrophy	rtic Vegetation ¹ (Explain)
18						Indiantors of hundrid and the st	tland hudralaget
19				·		¹ Indicators of hydric soil and we	
20				·		be present, unless disturbed or	problematic.
			100%	= Total Cover			
-	m (Plot size: 30' radius)					Hydrophytic	
1. Vitis riparia			5%	Yes	FACW	Vegetation	
2.						Present? Yes	X No
			5%	= Total Cover			
	photo numbers here or on a separate sheet.) ed by reed canary grass that has outcompeted all or	ther herbaceous vegetation.					

Depth	Matrix		Red	lox Features				
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-10"	10YR 2/2	95	10YR 5/2	5	С	М	Silty Clay Loam	
10-22"	10YR 5/2	85	10YR 5/6	15	С	М	Silty Clay Loam	
					·			
				<u> </u>	<u> </u>	21		
	ndicators ³ :	on, RM=Real	uced Matrix, CS=Covered	or Coated S	and Grains.		on: PL=Pore Lining, N Indicators of Hydric	
Histoso			Sandy Gleye	d Matrix (S4)		1631	•	nese Masses (F12)
	Epipedon (A2)		Sandy Redo					v Dark Surface (F22)
	listic (A3)		Stripped Mat					in in Remarks)
	en Sulfide (A4)		Dark Surface				、	,
	ed Layers (A5)		Loamy Muck	y Mineral (F1)			
	luck (A10)		Loamy Gleye	d Matrix (F2))			
X Deplete	ed Below Dark Surface (A11)	Depleted Ma	trix (F3)				
	Oark Surface (A12)		X Redox Dark					licators have been updated to
	Mucky Mineral (S1)		Depleted Da		7)			Field Indicators of Hydric Soils
5 cm M	lucky Peat or Peat (S3)		X Redox Depre	essions (F8)			in the United S	tates, Version 8.0, 2016.
estrictive L	.ayer (if observed):							
Type:								
emarks: edox was ob		of the profile	with a depleted layer with	n redox obser	rved under a t	-	Soil Present? surface.	Yes <u>X</u> No
emarks: edox was ob	oserved throughout most	of the profile	with a depleted layer with	n redox obser	ved under a t	-		Yes <u>X</u> No
emarks: edox was ob YDROL /etland Hyc	OGY			n redox obser	rved under a t	-	surface.	
YDROL	OGY drology Indicators: cators (minimum of one		neck all that apply)			-	surface.	ors (minimum of two required)
YDROLO (trimary Indice Surface	OGY drology Indicators: cators (minimum of one e Water (A1)		neck all that apply) Water-Staine	ed Leaves (B		-	surface.	ors (minimum of two required) Cracks (B6)
Provide the second seco	OGY drology Indicators: cators (minimum of one e Water (A1) Vater Table (A2)		neck all that apply)	ed Leaves (Be	9)	-	surface. Secondary Indicate Surface Soil	ors (minimum of two required) Cracks (B6)
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Primarks: Primary India Primary India Surface High W Saturat Water I	OGY frology Indicators: cators (minimum of one e Water (A1) fater Table (A2) ion (A3)		neck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St	ed Leaves (Bi na (B13) Plants (B14) Ifide Odor (C	9)	hick dark	Secondary Indicate Secondary Indicate Surface Soil Drainage Pa Dry-Season Crayfish Bur	ors (minimum of two required) Cracks (B6) tterns (B10) Water Table (C2)
YDROLO YDROLO Inimary India Surface High W Saturat Water I Sedime	OGY drology Indicators: cators (minimum of one e Water (A1) dater Table (A2) ion (A3) Marks (B1)		neck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St	ed Leaves (Ba na (B13) Plants (B14) Ifide Odor (C zospheres or	9) 1 21) 1 Living Roots	hick dark	Secondary Indicate Secondary Indicate Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V	ors (minimum of two required) Cracks (B6) tterns (B10) Water Table (C2) rows (C8)
YDROLO YDROLO Yetland Hyc rimary Indic Surface High W Saturat Water I Sedime Drift De	OGY drology Indicators: cators (minimum of one e Water (A1) Vater Table (A2) ion (A3) Marks (B1) ent Deposits (B2)		neck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of	ed Leaves (Ba ha (B13) Plants (B14) Ifide Odor (C zospheres or Reduced Iror	9) 1 21) 1 Living Roots	hick dark	Surface. Secondary Indicate Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S	ors (minimum of two required) Cracks (B6) Itterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (C9)
YDROLO YDROLO Yetland Hyce Yrimary Indice Surface High W Saturat Water I Sedime Drift De Algal M	OGY drology Indicators: cators (minimum of one water (A1) /ater Table (A2) ion (A3) Marks (B1) ont Deposits (B2) eposits (B3)		neck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of	ed Leaves (Ba na (B13) Plants (B14) Ifide Odor (C zospheres or Reduced Iror Reduction in	9) (1) n Living Roots n (C4)	hick dark	Surface. Secondary Indicate Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S	ors (minimum of two required) Cracks (B6) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
marks: dox was ob YDROLO etland Hyo rimary Indio Surface High W Saturat Water I Sedime Drift De Algal M Iron De	OGY drology Indicators: cators (minimum of one a Water (A1) Vater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) aposits (B3) lat or Crust (B4)	is required: ch	neck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron	ed Leaves (B aa (B13) Plants (B14) Ifide Odor (C zospheres or Reduced Iror Reduction in urface (C7)	9) (1) n Living Roots n (C4)	hick dark	Secondary Indicate Surface Soil Drainage Pa Dry-Season Crayfish Bur Saturation V Stunted or S X Geomorphic	ors (minimum of two required) Cracks (B6) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
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Project/Site:	CTH KR Stormwater WD			City/County	: Racine County		Sampling Date: 9/26/2018
Applicant/Owner:	Wisconsin Dept. of Transportation			State	e: WI	Sampling Point:	DP-89
Investigator(s):	K. Carlson, E. Englund				Section, Townsh	ip, Range: TWP 3N, RNG 22E, SE	EC 35
Landform (hillslope,	, terrace, etc.): Shoulder				Loca	al relief (concave, convex, none): c	convex
Slope (%):	5-7% Lat:	42.6691017		Long:	-	7.8630524	Datum: NAD83 UTM16N
Soil Map Unit Name	e: MzdB - Ozaukee silt loam, 2 to 6 percent	slopes				NWI classifi	cation: None
Are climatic / hydrol	logic conditions on the site typical for this ti	me of year?		Yes	X No	(If no, explain in Remarks.)	
Are Vegetation	Y , Soil Y	, or Hydrology N	significantly dist	urbed?	Are "Norm	al Circumstances" present?	Yes No X
Are Vegetation	N , Soil N		naturally proble		(If needed	, explain any answers in Remarks.	
SUMMARY OF	FINDINGS Attach site map sho	owing sampling point location			res. etc.		
	getation Present?	Yes X	No		Sampled Ar	ea	
Hydric Soil Pres	-	Yes	No x		n a Wetland?		No x
Wetland Hydrol		Yes	No X				
	ermined that antecedent precipitation condi rrmal. This was taken into considerations d					ring the month of September the a	ntecedent precipitation conditions
VEGETATION ·	Use scientific names of plants.					Т	
Trop Stratum (DI-4	size: 20' radius)		Absolute	Dominant Species 2	Indicator	Dominance Test werkels of	
Tree Stratum (Plot 1. Acer negundo	3120. 30 Taulus)		% Cover 30%	Species? Yes	Status FAC	Dominance Test worksheet:	
	loo		<u>30%</u>	Yes	FAC	Number of Dominant Special	
 Populus deltoid 3. 	60		10%	TeS	FAG	Number of Dominant Species That Are OBL, FACW, or FAC:	4 (A)
					·	That Are OBL, FACW, of FAC.	(A)
4 5.				·		Total Number of Dominant	
J			40%	= Total Cover	·	Species Across All Strata:	5 (B)
			40%	= Total Cover		Species Across Air Strata.	5(B)
1 2	tum (Plot size: 15' radius)				·	Percent of Dominant Species That Are OBL, FACW, or FAC:	(A/B)
3				·			
						Prevalence Index worksheet:	
5.				= Total Cover	·	Total % Cover of:	Multiply by:
· · · · · · · · · · · · · · · · · · ·						That Are OBL, FACW, or FAC:	A/B
Herb Stratum (Plot	t size: 5' radius)					OBL species	x1 =
1. Schedonorus a			25%	Yes	FACU	FACW species 5%	x2 = 0.1
2. Toxicodendron	radicans		20%	Yes	FAC	FAC species 60%	x3 = 1.8
3. Solidago canad	lensis		15%	No	FACU	FACU species 60%	x4 = 2.4
4. Taraxacum offic	cinale		10%	No	FACU	UPL species	x5 =
5. Parthenocissus	s quinquefolia		5%	No	FACU	Column Totals: 1.25	(A) 4.3 (B)
6. Robinia pseudo	pacacia		3%	No	FACU		<u> </u>
7. Sanguinaria cai			2%	No	FACU	Prevalence Index = B	6/A = 3.44
8.							
9.							
10.						Hydrophytic Vegetation Indica	ators:
11.				-			
12.				-		1-Rapid Test for Hydro	phytic Vegetation
13.				-		X 2-Dominance Test is >5	50%
14.				-		3-Prevalence Index is ≤	\$3.0 ¹
15.				-		4-Morphological Adapta	ations ¹ (Provide supporting
16.				-		data in Remarks or on	a separate sheet)
17.						Problematic Hydrophy	ic Vegetation ¹ (Explain)
18.						—	
19.				-		¹ Indicators of hydric soil and wet	land hydrology must
20.						be present, unless disturbed or	problematic.
			80%	= Total Cover	·		
Woody Vine Stratur	m (Plot size: 30' radius)					Hydrophytic	
1. Vitis riparia			5%	Yes	FACW	Vegetation	
2.						Present? Yes	X No
			5%	= Total Cover		-	
	photo numbers here or on a separate shee dominated by vegetation that prefers sites t						

Profile Descri Depth	Matrix		Re	dox Features					
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-36"	10YR 5/3	60	10YR 3/6	10	С	М	Silty Clay	apperas significantly disturbed-his	toric f
			10YR 4/6	30	С	М	Silty Clay		
						2			
Type: C=Co ydric Soil In	oncentration, D=Depletio	n, RM=Redu	ced Matrix, CS=Covere	d or Coated S	and Grains.		on: PL=Pore Linir Indicators of Hy		
Histosol			Sandy Glov	ed Matrix (S4)		Test	•	nganese Masses (F12)	
	pipedon (A2)		Sandy Gley					allow Dark Surface (F22)	
	istic (A3)		Stripped Ma					Explain in Remarks)	
	en Sulfide (A4)		Dark Surfac	. ,					
	d Layers (A5)			ky Mineral (F1)				
	uck (A10)			ed Matrix (F2)					
	d Below Dark Surface (A	.11)	Depleted M						
	ark Surface (A12)	,	·	Surface (F6)			³ The hydric so	il indicators have been updated to	
	lucky Mineral (S1)			ark Surface (F	7)		-	the Field Indicators of Hydric Soils	;
5 cm Mu	ucky Peat or Peat (S3)			essions (F8)			in the Unite	ed States, Version 8.0, 2016.	
estrictive La	ayer (if observed):								
Type:									
ils appear to	be historically fill and a	re significantl	y disturbed. No hydric ii	ndicators were	observed.	Hydric	Soil Present?	Yes No	x
marks: ils appear to YDROLC	be historically fill and a	re significantl	y disturbed. No hydric ii	ndicators were	e observed.	Hydric	Soil Present?	Yes <u>No</u>	X
marks: ils appear to YDROLC etland Hydr	be historically fill and a			ndicators were	observed.	Hydric		Yes <u>No</u>	<u>x</u>
marks: ils appear to YDROLC etland Hydr rimary Indica	be historically fill and a		eck all that apply)	ndicators were		Hydric	Secondary Inc		X
marks: ils appear to YDROLC etland Hydr rimary Indica Surface	be historically fill and a DGY rology Indicators: ators (minimum of one is		eck all that apply)	ed Leaves (B		Hydric	Secondary Inc	licators (minimum of two required)	X
marks: Ils appear to YDROLC etland Hydr rimary Indica Surface	D be historically fill and a DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2)		eck all that apply) Water-Stair Aquatic Fau	ed Leaves (B	9)	Hydric	Secondary Inc Surface	licators (minimum of two required) Soil Cracks (B6)	x
Marks: Is appear to YDROLC etland Hydr imary Indica Surface High Wa Saturatio	D be historically fill and a DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2)		eck all that apply) Water-Stair Aquatic Fau True Aquati	ed Leaves (Bs na (B13)	9)	Hydric	Secondary Inc Surface Drainag	licators (minimum of two required) Soil Cracks (B6) e Patterns (B10)	<u>x</u>
Marks: Is appear to YDROLC etland Hydr imary Indica Surface High Wa Saturatic Water M	Dobe historically fill and a DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3)		eck all that apply) Water-Stair Aquatic Fau True Aquati Hydrogen S	ed Leaves (Bs na (B13) c Plants (B14)	9)		Secondary Inc Surface Drainag Dry-Sea Crayfish	licators (minimum of two required) Soil Cracks (B6) e Patterns (B10) son Water Table (C2)	x
Marks: Is appear to YDROLC etland Hydr imary Indica Surface High Wa Saturatio Water M Sedimer	D be historically fill and a DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) farks (B1)		eck all that apply) Water-Stair Aquatic Fau True Aquati Hydrogen S	ed Leaves (B9 na (B13) c Plants (B14) ulfide Odor (C	9) :1) n Living Roots		Secondary Inc Surface Drainag Dry-Sea Crayfish Saturatio	licators (minimum of two required) Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8)	x
marks: Ils appear to YDROLC etland Hydr rimary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep	Display the provided state of the provided s		eck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of	ed Leaves (B9 na (B13) c Plants (B14) ulfide Odor (C iizospheres or	9) :1) n Living Roots n (C4)	s (C3)	Secondary Inc Surface Drainag Dry-Sea Crayfish Saturatio Stunted	licators (minimum of two required) Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9)	<u>x</u>
marks: ils appear to YDROLC etland Hydr rimary Indica Surface High Wa Saturatio Water M Sedimer Drift Deg Algal Ma	DGY Tology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3)		eck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of	ed Leaves (Bs na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in	9) :1) n Living Roots n (C4)	s (C3)	Secondary Inc Surface Drainag Dry-Sea Crayfish Saturatio Stunted Geomor	licators (minimum of two required) Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1)	<u>x</u>
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Project/Site:	CTH KR Stormwater WD	City/C	ounty: Kenosha Cou	nty Sampling Date: 9/27/2018
Applicant/Owner:	Wisconsin Dept. of Transportation		State: WI	Sampling Point: DP-90
Investigator(s):	K. Carlson, E. Englund		Section, Townsh	hip, Range: TWP 2N, RNG 22, SEC 2
Landform (hillslope	, terrace, etc.): Toeslope		Loc	al relief (concave, convex, none): concave
Slope (%):	0-1% Lat: 42.6660233	Long:		87.8729858 Datum: NAD83 UTM16N
Soil Map Unit Name	e: Am - Alluvial land			NWI classification: None
Are climatic / hydro	logic conditions on the site typical for this time of year?		Yes X No	(If no, explain in Remarks.)
Are Vegetation	N , Soil N , or Hydrology N significantly	disturbed?	Are "Norn	mal Circumstances" present? Yes X No
Are Vegetation	N , Soil N , or Hydrology N naturally pro	blematic?	(If needed	d, explain any answers in Remarks.)
SUMMARY OF	FINDINGS Attach site map showing sampling point locations, transects, i	important fe	eatures, etc.	
Hvdrophytic Ve	getation Present? Yes X No	-	the Sampled A	rea
Hydric Soil Pres			vithin a Wetland	
Wetland Hydrol	ogy Present? Yes X No			
	ermined that antecedent precipitation conditions were normal during the months of June-August. WE ormal. This was taken into considerations during field surveys. DP taken in lowland field edge. Berm/			
VEGETATION	Use scientific names of plants.			
Trop Starting (D)	Absolute			Deminence Test work is set
Tree Stratum (Plot	· · · · · · · · · · · · · · · · · · ·			Dominance Test worksheet:
1. Acer negundo	5%	Yes	FAC	
2				Number of Dominant Species
				That Are OBL, FACW, or FAC: <u>3</u> (A)
4				
5				Total Number of Dominant
	5%	= Total Co	/er	Species Across All Strata: 3 (B)
0 1 (0) 1 0				
	tum (Plot size: 15' radius)			Percent of Dominant Species
1				That Are OBL, FACW, or FAC: 100% (A/B)
4				Prevalence Index worksheet:
5.				
h		= Total Co	ver	Total % Cover of: Multiply by: That Are OBL, FACW, or FAC: A/B
Herb Stratum (Plot	size: 5' radius)			OBL species x1 =
1. Persicaria mac		Yes	FACW	FACW species 60% $x2 = 1.2$
2. Toxicodendron		Yes		FAC species 26% $x3 = 0.78$
3. Echinochloa cri		No	FACW	FACU species x4 =
4. Phalaris arundi	· · · · · · · · · · · · · · · · · · ·	No	FACW	UPL species 2% $x5 = 0.1$
5. Hibiscus trionul		No	UPL	Column Totals: 0.88 (A) 2.08 (B)
6. Ambrosia trifida		No	FAC	(, , <u></u> (, , <u></u> (, ,
7.				Prevalence Index = B/A = 2.36
8.				
9.				
10.				- Hydrophytic Vegetation Indicators:
11.				
12.				- 1-Rapid Test for Hydrophytic Vegetation
13.				X 2-Dominance Test is >50%
14.				X 3-Prevalence Index is $\leq 3.0^1$
15.				4-Morphological Adaptations ¹ (Provide supporting
16.				data in Remarks or on a separate sheet)
17.				Problematic Hydrophytic Vegetation ¹ (Explain)
18.				
19.				¹ Indicators of hydric soil and wetland hydrology must
20.				be present, unless disturbed or problematic.
	83%	= Total Co	/er	
	0378	- 10tai 00		
Woody Vine Stratu	m (Plot size: 30' radius)			- Hydrophytic
1.				Vegetation
2.				Present? Yes X No
-· <u> </u>		= Total Co	/er	
			-	
Remarks: (Include	photo numbers here or on a separate sheet.)			
,	· · · ·			

Vegetation consisted of species that are typical agricultural weeds and species that have established in from the wood edge.

SOIL

epth	Matrix	0/		0/	Turna ¹	Loc ²		Damailie
inches)	Color (moist)		Color (moist)	%	Type ¹		Texture	Remarks
0-20"	10YR 2/1	95	10YR 4/6	5	<u> </u>	<u>M</u>	Silty Clay Loam	
20-30"	10YR 2/1	85	10YR 5/1	10	<u> </u>	M	Clay	
			10YR 5/6	5	<u> </u>	M	Clay	
30-36"	10YR 2/1	60	10YR 6/1	25	<u> </u>	M	Clay	
			10YR 5/6	15	<u> </u>	M	Clay	
Type: C=C	Concentration, D=Deple	tion, RM=Red	uced Matrix, CS=Covere	d or Coated S	Sand Grains.	² Locatio	on: PL=Pore Lining, I	M=Matrix.
ydric Soil I	Indicators ³ :					Test	Indicators of Hydric	: Soils:
Histoso				ed Matrix (S4)			nese Masses (F12)
	Epipedon (A2)		Sandy Red					w Dark Surface (F22)
	Histic (A3)		Stripped Ma	. ,			Other (Expl	ain in Remarks)
	en Sulfide (A4)		Dark Surfac					
	ed Layers (A5)			ky Mineral (F	,			
	luck (A10)	(ed Matrix (F2	2)			
	ed Below Dark Surface	(A11)	Depleted M				3	Restanders de la destruction
	Dark Surface (A12)			Surface (F6)			,	dicators have been updated to
	Mucky Mineral (S1) lucky Peat or Peat (S3)		X Redox Dep	ark Surface (F	-7)			e Field Indicators of Hydric Soils tates, Version 8.0, 2016.
	_ayer (if observed):			153310113 (FO)				10100, VEISIUII 0.0, 2010.
Type:	_ayer (II ODSETVEO):							
Depth (-					.
emarks: edox was oł	oserved throughout mo	st of the profile	-			Hydric	Soil Present?	Yes <u>X</u> No
emarks: edox was of	oserved throughout mo	st of the profile	-			Hydric	Soil Present?	Yes <u>X</u> No
emarks: edox was of IYDROL Vetland Hyd	oserved throughout mo					Hydric		Yes X No ors (minimum of two required)
emarks: edox was of IYDROL Vetland Hyd Primary India	OSERVED throughout mo		heck all that apply)	ned Leaves (B	39)	Hydric	Secondary Indicat	
emarks: edox was of IYDROL Vetland Hyd Primary India Surface	OGY Cators (minimum of one		heck all that apply)	· ·	39)	Hydric	Secondary Indicat	ors (minimum of two required)
emarks: edox was of IYDROL Vetland Hyd Primary India Surface X High W	OGY drology Indicators: cators (minimum of one e Water (A1)		heck all that apply) Water-Stair Aquatic Fat	· ·		Hydric	Secondary Indicat Surface Soi Drainage Pa	ors (minimum of two required) I Cracks (B6)
emarks: edox was of IYDROL Vetland Hyo Primary India Surface X High W X Saturat	OGY OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2)		heck all that apply) Water-Stair Aquatic Fat True Aquat	ına (B13)	.)	Hydric	Secondary Indicat Surface Soi Drainage Pa	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2)
emarks: edox was of IYDROL Vetland Hyo Primary India Surface X High W X Saturat Water	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3)		heck all that apply) Water-Stair Aquatic Fat True Aquat Hydrogen S	una (B13) c Plants (B14) C1)		Secondary Indicat Surface Soi Drainage Pa Dry-Season Crayfish Bu	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2)
emarks: edox was of IYDROL Vetland Hyd Primary Indii Surface X High W X Satural Water Sedime	OGY Cody Indicators: cators (minimum of one e Water (A1) //ater Table (A2) tion (A3) Marks (B1)		heck all that apply) Water-Stair Aquatic Fat True Aquat Hydrogen S	una (B13) c Plants (B14 sulfide Odor (0) C1) n Living Roo		Secondary Indicat Surface Soi Drainage Pa Dry-Season Crayfish Bu Saturation V	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8)
emarks: edox was of Primary India Surface X High W X Saturat Water Sedime Drift De	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)		heck all that apply) Water-Stain Aquatic Fai True Aquat Hydrogen S Oxidized Ri Presence o	una (B13) c Plants (B14 sulfide Odor (C nizospheres o	.) C1) n Living Roo n (C4)	is (C3)	Secondary Indicat Surface Soi Drainage Pa Dry-Season Crayfish Bu Saturation V Stunted or S	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) /isible on Aerial Imagery (C9)
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Primary India Vetland Hyo Primary India Surface X High W X Saturat Water Drift De Algal M Iron De	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4)	e is required: c	heck all that apply) Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized Ri Presence o Recent Iror Thin Muck	una (B13) c Plants (B14 culfide Odor (C nizospheres o f Reduced Iro Reduction in	.) C1) n Living Roo n (C4) Tilled Soils (is (C3)	Secondary Indicat Surface Soi Drainage Pa Dry-Season Crayfish Bu Saturation V Stunted or S X Geomorphic	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) CPosition (D2)
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emarks: edox was of Primary India Primary India Surface X High W X Saturat Water Sedime Drift De Algal M Iron De Inunda Sparse	OGY drology Indicators: cators (minimum of one e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) fat or Crust (B4) eposits (B5) tion Visible on Aerial In ely Vegetated Concave vations:	e is required: c nagery (B7) Surface (B8)	heck all that apply) Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized Ri Presence o Recent Iror Thin Muck Gauge or V Other (Expl	una (B13) c Plants (B14 sulfide Odor (C nizospheres o f Reduced Iro Reduction in Surface (C7) /ell Data (D9) ain in Remark) C1) n Living Roo n (C4) Tilled Soils (is (C3)	Secondary Indicat Surface Soi Drainage Pa Dry-Season Crayfish Bu Saturation V Stunted or S X Geomorphic	ors (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) C Position (D2)
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Project/Site:	CTH KR Stormwater W	/D			City/Count	ty: Kenosha Cour	nty	Sampling Date: 9/27/2018
Applicant/Owner:	Wisconsin Dept. of Tra	ansportation			Stat	te: WI	Sampling Point:	DP-91
Investigator(s):	K Carlson, E. Englund					Section, Townsh	ip, Range: TWP 2N, RNG 22, S	EC 2
Landform (hillslope,	, terrace, etc.):	Shoulder				Loca	al relief (concave, convex, none)	: convex
Slope (%):	5%	Lat:	42.6660309		Long:		37.8730698	Datum: NAD83 UTM16N
Soil Map Unit Name	e: Am - Alluvial land						NWI clas	sification: T3/E2K
Are climatic / hydrol	logic conditions on the s	ite typical for this time of ye	ar?		Yes	s X No	(If no, explain in Remarks	3.)
Are Vegetation		, Soil N	, or Hydrology	N significantly di	sturbed?		nal Circumstances" present?	Yes X No
Are Vegetation		Soil N	, or Hydrology	N naturally probl		(If needed	, explain any answers in Remark	
SUMMARY OF	FINDINGS Attac	h site map showing	sampling point loca	ations. transects. in	portant featu	ures. etc.		
	getation Present?	<u></u>	Yes	No X		e Sampled Ar	·02	
Hydric Soil Pres			Yes x	No		in a Wetland?		No x
Wetland Hydrol			Yes	No x				
Remarks:					_			
	ermined that antecedent	precipitation conditions we	ere normal during the mor	ths of June-August. WET	S analysis also d	letermined that du	ring the month of September the	antecedent precipitation conditions
							ve the wetland represented by D	
VEGETATION	Use scientific na	mes of plants.						
				Absolute	Dominant	Indicator		
Tree Stratum (Plot	size: 30' radius)			% Cover	Species?	Status	Dominance Test worksheet	:
1								
2							Number of Dominant Species	
3							That Are OBL, FACW, or FAC	C: <u>1</u> (A)
4								
5.							Total Number of Dominant	
					= Total Cover		Species Across All Strata:	<u> </u>
Sapling/Shrub Strat	tum (Plot size: 15' radius	3)					Percent of Dominant Species	
1							That Are OBL, FACW, or FAC	C: <u>33%</u> (A/B)
2								
3.								
							Prevalence Index worksheet	12
5.								
h					= Total Cover		Total % Cover of:	Multiply by:
							That Are OBL, FACW, or FAC	
Herb Stratum (Plot	size: 5' radius)						OBL species	x1 =
1. Securigera vari				55%	Yes	UPL	FACW species 25%	
2. Phalaris arundi				25%	Yes	FACW	FAC species	x3 =
3. Asclepias syria	ca			20%	Yes	FACU	FACU species 20%	
4							UPL species 55%	
5							Column Totals: 1.00) (A) 4.05 (B)
6								
7							Prevalence Index =	= B/A = 4.05
8								
9								
10							Hydrophytic Vegetation Ind	icators:
11								
12							1-Rapid Test for Hyd	
13							2-Dominance Test is	
14							3-Prevalence Index i	
15								ptations ¹ (Provide supporting
16								on a separate sheet)
17							Problematic Hydrop	hytic Vegetation ¹ (Explain)
18								
19							¹ Indicators of hydric soil and v	vetland hydrology must
20							be present, unless disturbed	or problematic.
				100%	= Total Cover			
Woody Vine Stratur	m (Plot size: 30' radius)						Hydrophytic	
1							Vegetation	
2							Present? Yes	s NoX
					= Total Cover			
	photo numbers here or or y non-native species that							

rofile Descı Depth	Matrix		R	edox Features					
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0-36"	10YR 2/2	<u> </u>	10YR 3/6	5	C	M	-		romano
0-30	10111 2/2		10110 3/0		0	IVI	Sandy Clay Loam	<u> </u>	
								_	
								_	
				_				_	
	opportration D_Doplo	tion RM-Rodu	iced Matrix, CS=Covere	d or Costod Sc	and Grains	² Looptic	on: PL=Pore Linin	M_Motrix	
	ndicators ³ :		iceu Matrix, CS=COVER		anu Grains.		Indicators of Hyd		
Histoso			Sandy Glev	ed Matrix (S4)		1001	-	nganese Masses (F12)
	pipedon (A2)		Sandy Red					allow Dark Surface	
_	listic (A3)		Stripped Ma					xplain in Remarks	
	en Sulfide (A4)		Dark Surfac						·)
	d Layers (A5)			ky Mineral (F1))				
-	uck (A10)			ed Matrix (F2)	1				
	d Below Dark Surface	(Δ11)	Depleted M						
	ark Surface (A12)	(711)	X Redox Dark				³ The hydric soi	I indicators have b	neen undated to
	Mucky Mineral (S1)			ark Surface (F6)	7)			the Field Indicators	
-	ucky Peat or Peat (S3)			ressions (F8)	()			d States, Version	
			Redux Dep				in the Onite		8.0, 2010.
	ayer (if observed):								
Type:							Soil Present?	×	× •
						пуанс	Son Fresent?	Yes	<u> </u>
nough hydri	ic indicators were pres	ent within the s	oil profile, no other wetl	and indicators v	were presen	-			
marks: hough hydri YDROL(cindicators were pres	ent within the s	oil profile, no other wetl	and indicators w	were presen	-			
marks: hough hydri YDROL(etland Hyd	ic indicators were pres		·	and indicators v	were presen	-		icators (minimum	of two required)
marks: hough hydri YDROL(etland Hyd	ic indicators were pres DGY Irology Indicators: ators (minimum of one		neck all that apply)			-	Secondary Ind	icators (minimum Soil Cracks (B6)	of two required)
marks: hough hydri YDROL(etland Hyd rimary Indic Surface	DGY Irology Indicators: Water (A1)		neck all that apply) Water-Stair	ned Leaves (B9		-	Secondary Ind	Soil Cracks (B6)	of two required)
marks: hough hydri YDROL(etland Hyd imary Indic Surface High W	DGY Tology Indicators: Water (A1) ater Table (A2)		neck all that apply) Water-Stain Aquatic Fau	ned Leaves (B9 una (B13)		-	Secondary Ind	Soil Cracks (B6) e Patterns (B10)	
marks: hough hydri YDROL(etland Hyd rimary Indic Surface High W. Saturati	DGY DGY Pology Indicators: ators (minimum of one Water (A1) ater Table (A2) ion (A3)		neck all that apply) Water-Stair Aquatic Fat True Aquat	ned Leaves (B9 una (B13) c Plants (B14))	-	Secondary Ind Surface Drainage Dry-Seas	Soil Cracks (B6) e Patterns (B10) son Water Table (
marks: hough hydri YDROL(etland Hyd rimary Indic Surface High W. Saturati Water M	DGY DGY Pology Indicators: ators (minimum of one Water (A1) ater Table (A2) ion (A3) Marks (B1)		neck all that apply) Water-Stair Aquatic Fau True Aquat	ned Leaves (B9 ina (B13) ic Plants (B14) sulfide Odor (C [.]))	t.	Secondary Ind Surface Drainage Dry-Seas Crayfish	Soil Cracks (B6) Patterns (B10) son Water Table (Burrows (C8)	C2)
marks: hough hydri YDROL(etland Hyd rimary Indic Surface High W Saturati Water M Sedime	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2)		neck all that apply) Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized R	ned Leaves (B9 una (B13) c Plants (B14) sulfide Odor (C [.] nizospheres on)) 1) Living Roots	t.	Secondary Ind Surface Drainage Dry-Seas Crayfish Saturatio	Soil Cracks (B6) Patterns (B10) son Water Table (Burrows (C8) on Visible on Aeria	C2) Il Imagery (C9)
marks: hough hydri YDROL(etland Hyd fimary Indic Surface High W Saturati Water M Saturati Urift De	DGY rology Indicators: eators (minimum of one Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3)		neck all that apply) Water-Stain Aquatic Fai True Aquat Hydrogen S Oxidized Ri Presence o	ned Leaves (B9 una (B13) c Plants (B14) sulfide Odor (C hizospheres on f Reduced Iron) 1) Living Roots (C4)	t. s (C3)	Secondary Ind Surface Drainage Dry-Seas Crayfish Saturatic Stunted	Soil Cracks (B6) Patterns (B10) son Water Table (Burrows (C8) on Visible on Aeria or Stressed Plants	C2) Il Imagery (C9) s (D1)
Marks: hough hydri YDROL(etland Hyd imary Indic Surface High W Saturati Water M Sedime Drift De Algal M	ic indicators were pres DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		heck all that apply) Water-Stain Aquatic Fau True Aquat Hydrogen S Oxidized Ri Presence o Recent Iror	ned Leaves (B9 una (B13) c Plants (B14) sulfide Odor (C hizospheres on f Reduced Iron Reduction in T) 1) Living Roots (C4)	t. s (C3)	Secondary Ind Surface Drainage Dry-Seas Crayfish Saturatio Stunted Geomore	Soil Cracks (B6) Patterns (B10) son Water Table (Burrows (C8) on Visible on Aeria or Stressed Plants ohic Position (D2)	C2) Il Imagery (C9) s (D1)
marks: hough hydri YDROLO etland Hyd rimary Indic Surface High W Saturati Water N Sedime Drift De Algal M Iron De	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	e is required: ch	neck all that apply) Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized Ri Presence o Recent Iror Thin Muck	ned Leaves (B9 Ina (B13) c Plants (B14) Sulfide Odor (C nizospheres on f Reduced Iron Reduced Iron Reduction in T Surface (C7)) 1) Living Roots (C4)	t. s (C3)	Secondary Ind Surface Drainage Dry-Seas Crayfish Saturatio Stunted Geomore	Soil Cracks (B6) Patterns (B10) son Water Table (Burrows (C8) on Visible on Aeria or Stressed Plants	C2) Il Imagery (C9) s (D1)
YDROLO etland Hydri Surface High W. Saturati Water M Sedime Drift De Algal M Iron De Inundat	DGY Tology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Im	e is required: ch	neck all that apply) Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V	ned Leaves (B9 ina (B13) ic Plants (B14) sulfide Odor (C nizospheres on f Reduced Iron Reduction in T Surface (C7) /ell Data (D9)	1) Living Roots (C4) Filled Soils (C	t. s (C3)	Secondary Ind Surface Drainage Dry-Seas Crayfish Saturatio Stunted Geomore	Soil Cracks (B6) Patterns (B10) son Water Table (Burrows (C8) on Visible on Aeria or Stressed Plants ohic Position (D2)	C2) Il Imagery (C9) s (D1)
Marks: hough hydri YDROLO etland Hyd rimary Indic Surface High W. Saturati Water M Sedime Drift De Algal M Iron De Inundat	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	e is required: ch	neck all that apply) Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V	ned Leaves (B9 Ina (B13) c Plants (B14) Sulfide Odor (C nizospheres on f Reduced Iron Reduced Iron Reduction in T Surface (C7)	1) Living Roots (C4) Filled Soils (C	t. s (C3)	Secondary Ind Surface Drainage Dry-Seas Crayfish Saturatio Stunted Geomore	Soil Cracks (B6) Patterns (B10) son Water Table (Burrows (C8) on Visible on Aeria or Stressed Plants ohic Position (D2)	C2) Il Imagery (C9) s (D1)
marks: hough hydri YDROLO etland Hyd rimary Indic Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundati Sparsel	ic indicators were pres DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Im y Vegetated Concave	e is required: ch	neck all that apply) Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V	ned Leaves (B9 ina (B13) ic Plants (B14) sulfide Odor (C nizospheres on f Reduced Iron Reduction in T Surface (C7) /ell Data (D9)	1) Living Roots (C4) Filled Soils (C	t. s (C3)	Secondary Ind Surface Drainage Dry-Seas Crayfish Saturatio Stunted Geomore	Soil Cracks (B6) Patterns (B10) son Water Table (Burrows (C8) on Visible on Aeria or Stressed Plants ohic Position (D2)	C2) Il Imagery (C9) s (D1)
marks: hough hydri YDROLO etland Hyd rimary Indic Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundati Sparsel	ic indicators were pres DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Im y Vegetated Concave	e is required: ch hagery (B7) Surface (B8)	neck all that apply) Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized R Presence o Recent Iror Thin Muck Gauge or V	ned Leaves (B9 una (B13) c Plants (B14) bulfide Odor (C ⁻ nizospheres on f Reduced Iron Reduced Iron Reduction in T Surface (C7) /ell Data (D9) ain in Remarks	1) Living Roots (C4) Filled Soils (C	t. s (C3)	Secondary Ind Surface Drainage Dry-Seas Crayfish Saturatio Stunted Geomore	Soil Cracks (B6) Patterns (B10) son Water Table (Burrows (C8) on Visible on Aeria or Stressed Plants ohic Position (D2)	C2) Il Imagery (C9) s (D1)
Marks: hough hydri YDROLO etland Hyd imary Indic Surface High W. Saturati Water N Sedime Drift De Drift De Inundati Sparsel eld Observ urface Wate	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Im y Vegetated Concave of rations: er Present?	e is required: ch hagery (B7) Surface (B8) Yes No	neck all that apply) Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized Ri Presence o Recent Iror Thin Muck Gauge or V Other (Expl	ned Leaves (B9 Ina (B13) c Plants (B14) Sulfide Odor (C ⁻ nizospheres on f Reduced Iron Reduction in T Surface (C7) /ell Data (D9) ain in Remarks s): <u>N/A</u>	1) Living Roots (C4) Filled Soils (C	t. s (C3)	Secondary Ind Surface Drainage Dry-Seas Crayfish Saturatio Stunted Geomore	Soil Cracks (B6) Patterns (B10) son Water Table (Burrows (C8) on Visible on Aeria or Stressed Plants ohic Position (D2)	C2) Il Imagery (C9) s (D1)
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Marks: hough hydri yDROL(etland Hydri fimary Indic Surface High W. Saturati Water N Sedime Drift De Algal M. Iron De Inundat Sparsel eld Observ urface Wate Yater Table aturation Pr	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Im y Vegetated Concave : rations: er Present? Present?	e is required: ch hagery (B7) Surface (B8) Yes No Yes No	heck all that apply) Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized Rl Presence o Recent Iror Thin Muck Gauge or V Other (Expl X Depth (inche	ned Leaves (B9 Ina (B13) c Plants (B14) sulfide Odor (C ⁻ nizospheres on f Reduced Iron Reduction in T Surface (C7) /ell Data (D9) ain in Remarks s): <u>N/A</u> s): <u>N/A</u>)) Living Roots (C4) Filled Soils (C	s (C3)	Secondary Ind Surface Drainage Dry-Seas Crayfish Saturatic Stunted Geomorp FAC-Net	Soil Cracks (B6) e Patterns (B10) son Water Table (Burrows (C8) on Visible on Aeria or Stressed Plants ohic Position (D2) utral Test (D5)	C2) Il Imagery (C9) s (D1)
Marks: hough hydri YDROL(etland Hydri Timary Indic Surface High W. Saturati Water N Sedime Drift De Algal M. Iron De Inundat Sparsel eld Observ vater Table aturation Pr holudes cap	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial In y Vegetated Concave of rations: er Present? Present? resent? billary fringe)	e is required: ch hagery (B7) Surface (B8) Yes No Yes No Yes No	heck all that apply) Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized Rl Presence o Recent Iror Thin Muck Gauge or V Other (Expl X Depth (inche	hed Leaves (B9 una (B13) c Plants (B14) bulfide Odor (C- nizospheres on f Reduced Iron Reduction in T Surface (C7) /ell Data (D9) ain in Remarks s): <u>N/A</u> s): <u>>18"</u> s): <u>>18"</u>	1) Living Roots (C4) Filled Soils (C s) Wetlanc	t. s (C3) C6)	Secondary Ind Surface Drainage Dry-Seas Crayfish Saturatic Stunted Geomorp FAC-Net	Soil Cracks (B6) e Patterns (B10) son Water Table (Burrows (C8) on Visible on Aeria or Stressed Plants ohic Position (D2) utral Test (D5)	C2) Il Imagery (C9) s (D1)
Marks: hough hydri yDROL(etland Hydri Sauface High W. Saturati Water N Sedime Drift De Algal M. Iron De Inundat Sparsel eld Observ urface Wate fater Table aturation Pr ncludes cap	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial In y Vegetated Concave of rations: er Present? Present? resent? billary fringe)	e is required: ch hagery (B7) Surface (B8) Yes No Yes No Yes No	neck all that apply) Water-Stain Aquatic Fai True Aquati True Aquati Hydrogen S Oxidized RI Presence o Recent Iror Thin Muck Gauge or V Other (Expl X Depth (inche X Depth (inche X Depth (inche	hed Leaves (B9 una (B13) c Plants (B14) bulfide Odor (C- nizospheres on f Reduced Iron Reduction in T Surface (C7) /ell Data (D9) ain in Remarks s): <u>N/A</u> s): <u>>18"</u> s): <u>>18"</u>	1) Living Roots (C4) Filled Soils (C s) Wetlanc	t. s (C3) C6)	Secondary Ind Surface Drainage Dry-Seas Crayfish Saturatic Stunted Geomorp FAC-Net	Soil Cracks (B6) e Patterns (B10) son Water Table (Burrows (C8) on Visible on Aeria or Stressed Plants ohic Position (D2) utral Test (D5)	C2) Il Imagery (C9) s (D1)
marks: hough hydri YDROLO etland Hyd rimary Indic Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundati Sparsel eld Observ urface Wate /ater Table aturation Pr ncludes cap escribe Red	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial In y Vegetated Concave of rations: er Present? Present? resent? billary fringe)	e is required: ch hagery (B7) Surface (B8) Yes No Yes No Yes No	neck all that apply) Water-Stain Aquatic Fai True Aquati True Aquati Hydrogen S Oxidized RI Presence o Recent Iror Thin Muck Gauge or V Other (Expl X Depth (inche X Depth (inche X Depth (inche	hed Leaves (B9 una (B13) c Plants (B14) bulfide Odor (C- nizospheres on f Reduced Iron Reduction in T Surface (C7) /ell Data (D9) ain in Remarks s): <u>N/A</u> s): <u>>18"</u> s): <u>>18"</u>	1) Living Roots (C4) Filled Soils (C s) Wetlanc	t. s (C3) C6)	Secondary Ind Surface Drainage Dry-Seas Crayfish Saturatic Stunted Geomorp FAC-Net	Soil Cracks (B6) e Patterns (B10) son Water Table (Burrows (C8) on Visible on Aeria or Stressed Plants ohic Position (D2) utral Test (D5)	C2) Il Imagery (C9) s (D1)
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Marks: hough hydri Marks: hough hydri Etland Hyd imary Indic Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundati Sparsel Etl Observ urface Wate ater Table aturation Pr ncludes cap escribe Rec	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial In y Vegetated Concave of rations: er Present? Present? resent? billary fringe)	ais required: ch agery (B7) Surface (B8) Yes No Yes No Yes No auge, monitorir	neck all that apply) Water-Stain Aquatic Fai True Aquati True Aquati Hydrogen S Oxidized RI Presence o Recent Iror Thin Muck Gauge or V Other (Expl X Depth (inche X Depth (inche X Depth (inche	hed Leaves (B9 una (B13) c Plants (B14) bulfide Odor (C- nizospheres on f Reduced Iron Reduction in T Surface (C7) /ell Data (D9) ain in Remarks s): <u>N/A</u> s): <u>>18"</u> s): <u>>18"</u>	1) Living Roots (C4) Filled Soils (C s) Wetlanc	t. s (C3) C6)	Secondary Ind Surface Drainage Dry-Seas Crayfish Saturatic Stunted Geomorp FAC-Net	Soil Cracks (B6) e Patterns (B10) son Water Table (Burrows (C8) on Visible on Aeria or Stressed Plants ohic Position (D2) utral Test (D5)	C2) Il Imagery (C9) s (D1)
Marks: hough hydri yDROLO etland Hyd imary Indic Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundati Sparsel etld Observ urface Wate aturation Pr hcludes cap escribe Rec	ic indicators were pres DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Im y Vegetated Concave rations: er Present? Present? resent? illary fringe) corded Data (stream g	ais required: ch agery (B7) Surface (B8) Yes No Yes No Yes No auge, monitorir	neck all that apply) Water-Stain Aquatic Fai True Aquati True Aquati Hydrogen S Oxidized RI Presence o Recent Iror Thin Muck Gauge or V Other (Expl X Depth (inche X Depth (inche X Depth (inche	hed Leaves (B9 una (B13) c Plants (B14) bulfide Odor (C- nizospheres on f Reduced Iron Reduction in T Surface (C7) /ell Data (D9) ain in Remarks s): <u>N/A</u> s): <u>>18"</u> s): <u>>18"</u>	1) Living Roots (C4) Filled Soils (C s) Wetlanc	t. s (C3) C6)	Secondary Ind Surface Drainage Dry-Seas Crayfish Saturatic Stunted Geomorp FAC-Net	Soil Cracks (B6) e Patterns (B10) son Water Table (Burrows (C8) on Visible on Aeria or Stressed Plants ohic Position (D2) utral Test (D5)	C2) Il Imagery (C9) s (D1)

Project/Site:	CTH KR Stormwater WD		City/County	: Kenosha Count	y	Sampling Date: 9/27/2018
Applicant/Owner:	Wisconsin Dept. of Transportation		State	: WI	Sampling Point:	DP-92
Investigator(s):	K. Carlson, E. Englund			Section, Townshi	p, Range: TWP 2N, RNG 22, SEC	2
Landform (hillslope	e, terrace, etc.): Toeslope			Loca	I relief (concave, convex, none): c	oncave
Slope (%):	0-1% Lat: 42.6674232		Long:	-8	7.8724518	Datum: NAD83 UTM16N
Soil Map Unit Name	e:Na - Navan silt loam				NWI classifi	cation: T3/E2K
Are climatic / hydro	plogic conditions on the site typical for this time of year?		Yes	X No	(If no, explain in Remarks.)	
Are Vegetation	N, Soil N, or Hydrology N significa	antly disturb	ed?	Are "Norma	al Circumstances" present?	Yes X No
Are Vegetation	N, Soil N, or Hydrology N natural	ly problemat	tic?	(If needed,	explain any answers in Remarks.)	
SUMMARY OF	FINDINGS Attach site map showing sampling point locations, transec	cts, impo	rtant featu	res, etc.		
	getation Present? Yes <u>x</u> No			Sampled Are		
Hydric Soil Pres			withir	n a Wetland?	Yes x	No
Wetland Hydrol	logy Present? Yes <u>x</u> No					
	termined that antecedent precipitation conditions were normal during the months of June-Augus ormal. This was taken into considerations during field surveys. DP located in swale between two			termined that dur	ing the month of September the ar	tecedent precipitation conditions
VEGETATION	Use scientific names of plants.		D	1. 1	1	
Tree Stratum (Plot		solute Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Acer negundo		30%	Yes	FAC	Dominance reat workaneet.	
2. Populus deltoid		25%	Yes	FAC	Number of Dominant Species	
3. Juglans nigra		5%	No	FACU	That Are OBL, FACW, or FAC:	7 (A)
4.						
5.					Total Number of Dominant	
	6	60% = T	Total Cover		Species Across All Strata:	8 (B)
Sapling/Shrub Strat	atum (Plot size: 15' radius)				Percent of Dominant Species	
1. Rhamnus catha		15%	Yes	FAC	That Are OBL, FACW, or FAC:	88% (A/B)
2. Acer negundo		5%	Yes	FAC		
3						
4					Prevalence Index worksheet:	
5.		20% = 1	Total Cover	<u> </u>	Total % Cover of:	Multiply by
<u> </u>	2	20% = 1	otal Cover		That Are OBL, FACW, or FAC:	Multiply by: A/B
Herb Stratum (Plot	t size: 5' radius)				OBL species	x1 =
1. Phalaris arundi		30%	Yes	FACW	FACW species 47%	x2 = 0.94
2. Impatiens cape	ənsis 1	15%	Yes	FACW	FAC species 92%	x3 = 2.76
3. Hydrophyllum v	virginianum 1	10%	No	FAC	FACU species 10%	x4 = 0.4
4. Rhamnus catha	artica	5%	No	FAC	UPL species	x5 =
5. Acer negundo		2%	No	FAC	Column Totals: 1.49	(A) 4.1 (B)
6.						
7					Prevalence Index = B	/A = 2.75
8						
9						
10					Hydrophytic Vegetation Indica	itors:
11					4 Denid Test for Under	
12 13.					1-Rapid Test for Hydrop X 2-Dominance Test is >5	
14.				<u> </u>	x 3-Prevalence Index is ≤	
15.						tions ¹ (Provide supporting
16	·				data in Remarks or on	
17.				·	Problematic Hydrophyti	
18.					—	
19.					¹ Indicators of hydric soil and wetl	and hydrology must
20.					be present, unless disturbed or p	problematic.
	6	62% = 1	Total Cover			
	Im (Plot size: 30' radius)				Hydrophytic	
1. Parthenocissus		5%	Yes	FACU	Vegetation	
2. Vitis riparia		2%	Yes	FACW	Present? Yes	X No
		7% = 1	Total Cover			
	photo numbers here or on a separate sheet.) nse and has limited herbacous layer growth.				1	

Depth	Matrix		Ree	dox Features			_	
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-30"	10YR 2/1	95	10YR 4/6	5	С	М	Silty Clay Loam	
30-36"	10YR 5/2	85	10YR 4/6	10	С	М	Sandy Clay	
			10YR 5/6	5	С	М	Sandy Clay	
				•				
				•				
Type: C-C	Concentration, D=Depletio	n RM-Reduc	ed Matrix, CS-Covered	l or Coated S	and Grains		on: PL=Pore Lining	M–Matrix
71	Indicators ³ :						Indicators of Hydi	
Histoso			Sandy Gleye	d Matrix (S4)			•	anese Masses (F12)
Histic E	Epipedon (A2)		Sandy Redo	x (S5)			Very Shall	ow Dark Surface (F22)
Black H	Histic (A3)		Stripped Mat	rix (S6)			Other (Exp	olain in Remarks)
Hydrog	en Sulfide (A4)		Dark Surface	e (S7)				
Stratifie	ed Layers (A5)		Loamy Muck	y Mineral (F1)			
	luck (A10)			ed Matrix (F2)	I			
	ed Below Dark Surface (A	.11)	Depleted Ma	. ,			3	
	Dark Surface (A12)		X Redox Dark		-		,	indicators have been updated to
	Mucky Mineral (S1)			rk Surface (F	7)			he Field Indicators of Hydric Soils
5 cm IV	lucky Peat or Peat (S3)		X Redox Depre	essions (F8)			in the United	States, Version 8.0, 2016.
estrictive L	_ayer (if observed):							
Type:								
Depth (i						пуанс	Soil Present?	Yes X No
	oserved throughout most	of the profile w	ith a depleted layer wit	n redox obser	ved under a t	-		
edox was ol	oserved throughout most	of the profile w	ith a depleted layer with	n redox obser	ved under a t	-		
edox was of IYDROL Vetland Hyd	OGY			n redox obser	ved under a t	-	surface	
edox was of IYDROL Vetland Hyd Primary India	OGY Cators (minimum of one is		ck all that apply)			-	surface	ators (minimum of two required)
edox was of IYDROL Vetland Hyd Primary India Surface	OGY drology Indicators: cators (minimum of one is e Water (A1)		ck all that apply) Water-Stain	ed Leaves (B		-	surface Secondary Indic Surface S	oil Cracks (B6)
edox was of IYDROL Vetland Hyo Primary India Surface High W	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2)		ck all that apply) Water-Stain Aquatic Fau	ed Leaves (Bs na (B13)	9)	-	surface Secondary Indic Surface S Drainage	oil Cracks (B6) Patterns (B10)
edox was of IYDROL Vetland Hyd Primary India Surface High W Saturat	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3)		ck all that apply) Water-Stain Aquatic Fau True Aquatic	ed Leaves (Bs na (B13) : Plants (B14)	9)	-	Secondary Indic	oil Cracks (B6) Patterns (B10) on Water Table (C2)
edox was of IYDROL Vetland Hyd Primary India Surface High W Satural Water	OGY drology Indicators: cators (minimum of one is e Water (A1) //ater Table (A2) tion (A3) Marks (B1)		ck all that apply) Water-Staine Aquatic Fau True Aquatic Hydrogen St	ed Leaves (B9 na (B13) : Plants (B14) ulfide Odor (C	9)	thick dark	Secondary Indic Secondary Indic Surface S Drainage Dry-Seasc Crayfish E	oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8)
edox was of IYDROL Vetland Hyd Primary India Surfaca High W Saturat Water Sedime	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)		ck all that apply) Water-Staine Aquatic Fau True Aquatic Hydrogen St Oxidized Rh	ed Leaves (B9 na (B13) Plants (B14) ulfide Odor (C zospheres or	9) 1) 1 Living Roots	thick dark	Secondary Indic Secondary Indic Surface S Drainage Dry-Sease Crayfish E Saturation	oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) I Visible on Aerial Imagery (C9)
edox was of Vetland Hyo Primary India Surface High W Saturat Water Sedime Drift De	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)		ck all that apply) Water-Staine Aquatic Fau True Aquatic Hydrogen St Oxidized Rh Presence of	ed Leaves (Bs na (B13) Plants (B14) Ilfide Odor (C izospheres or Reduced Iror	9) 1) n Living Roots n (C4)	thick dark	Secondary Indic Secondary Indic Surface S Drainage Dry-Seasc Crayfish E Saturation Stunted or	oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) I Visible on Aerial Imagery (C9) I Stressed Plants (D1)
edox was of Yetland Hyd Primary India Surfaca High W Saturat Water Sedime Drift De Algal M	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) fat or Crust (B4)		ck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen Su Oxidized Rh Presence of Recent Iron	ed Leaves (Bs na (B13) : Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reducetion in	9) 1) n Living Roots n (C4)	thick dark	Secondary Indic Secondary Indic Surface S Drainage Dry-Seaso Crayfish E Saturation Stunted or X Geomorph	oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) I Visible on Aerial Imagery (C9) Stressed Plants (D1) nic Position (D2)
edox was of YDROL Vetland Hyd Primary India Surface High W Saturat Water Sedime Drift De Algal M Iron De	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) fat or Crust (B4) eposits (B5)	required: che	ck all that apply) Water-Staine Aquatic Fau True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S	ed Leaves (Ba na (B13) Plants (B14) Ilfide Odor (C izospheres or Reduced Iror Reduced Iror Reduction in	9) 1) n Living Roots n (C4)	thick dark	Secondary Indic Secondary Indic Surface S Drainage Dry-Seasc Crayfish E Saturation Stunted or	oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) I Visible on Aerial Imagery (C9) Stressed Plants (D1) nic Position (D2)
edox was of Vetland Hyd Primary India Surface High W Satural Water Sedime Drift De Algal M Iron De Inunda	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) fat or Crust (B4) eposits (B5) tion Visible on Aerial Imag	required: che	ck all that apply) Water-Staine Aquatic Fau True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	ed Leaves (Ba na (B13) Plants (B14) Ilfide Odor (C izospheres or Reduced Iror Reduced Iror Reduction in urface (C7) ell Data (D9)	9) 11) 1 Living Roots 1 (C4) Tilled Soils (C	thick dark	Secondary Indic Secondary Indic Surface S Drainage Dry-Seaso Crayfish E Saturation Stunted or X Geomorph	oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) I Visible on Aerial Imagery (C9) Stressed Plants (D1) nic Position (D2)
edox was of IYDROL Vetland Hyo Primary India Surfaca High W Saturat Water Sedime Drift De Algal M Iron De Inunda Sparse	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aerial Imagely Vegetated Concave Su	required: che	ck all that apply) Water-Staine Aquatic Fau True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	ed Leaves (Ba na (B13) Plants (B14) Ilfide Odor (C izospheres or Reduced Iror Reduced Iror Reduction in	9) 11) 1 Living Roots 1 (C4) Tilled Soils (C	thick dark	Secondary Indic Secondary Indic Surface S Drainage Dry-Seaso Crayfish E Saturation Stunted or X Geomorph	oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) I Visible on Aerial Imagery (C9) Stressed Plants (D1) nic Position (D2)
edox was of IYDROL Vetland Hyd Primary India Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inunda Sparse Sield Obser	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) fat or Crust (B4) eposits (B5) tion Visible on Aerial Imaged by Vegetated Concave Su	gery (B7)	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Oauge or W Other (Explage)	ed Leaves (B na (B13) Plants (B14) Ifide Odor (C izospheres or Reduced Iror Reduced Iror Reduction in urface (C7) ell Data (D9) in in Remarks	9) 11) 1 Living Roots 1 (C4) Tilled Soils (C	thick dark	Secondary Indic Secondary Indic Surface S Drainage Dry-Seaso Crayfish E Saturation Stunted or X Geomorph	oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) I Visible on Aerial Imagery (C9) Stressed Plants (D1) nic Position (D2)
edox was of IYDROL Vetland Hyd Primary India Surface High W Satural Water Sedime Drift De Algal M Iron De Inunda Sparse Surface Wat	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) fat or Crust (B4) eposits (B5) tion Visible on Aerial Image by Vegetated Concave Su vations: ter Present?	gery (B7) rface (B8)	ck all that apply) Water-Staine Aquatic Faun True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explate) X Depth (inchest	ed Leaves (Ba na (B13) Plants (B14) Ilfide Odor (C izospheres or Reduced Iror Reduced Iror Reduction in urface (C7) ell Data (D9) in in Remarks	9) 11) 1 Living Roots 1 (C4) Tilled Soils (C	thick dark	Secondary Indic Secondary Indic Surface S Drainage Dry-Seaso Crayfish E Saturation Stunted or X Geomorph	oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) I Visible on Aerial Imagery (C9) Stressed Plants (D1) nic Position (D2)
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edox was of Primary India Primary India Surface High W Saturat Water Drift De Algal M Iron De Inunda Sparse Surface Water Saturation P	OGY cators (minimum of one is cators (minimum of one is e Water (A1) //ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) tion Visible on Aerial Image ly Vegetated Concave Su vations: ter Present?	gery (B7) rface (B8)	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla X Depth (inches X Depth (inches	ed Leaves (BS na (B13) : Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in urface (C7) ell Data (D9) in in Remarks): <u>N/A</u>): <u>N/A</u>	9) 1 Living Roots 1 (C4) Tilled Soils (C s)	s (C3)	Secondary Indic Secondary Indic Surface S Drainage Dry-Seaso Crayfish E Saturation Stunted or X Geomorph	oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) I Visible on Aerial Imagery (C9) Stressed Plants (D1) nic Position (D2)
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HYDROL Vetland Hyp Primary India Surface High W Saturat Water Sedime Drift De Algal M Iron De Inunda Sparse Field Obsern Surface Wat Water Table Saturation P Quincludes cal	OGY drology Indicators: cators (minimum of one is e Water (A1) //ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) tion Visible on Aerial Imaged ly Vegetated Concave Su vations: ter Present? Present? pillary fringe)	gery (B7) rface (B8) 'és No 'és No 'és No	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla X Depth (inches) X Depth (inches)	ed Leaves (BS ha (B13) Plants (B14) Ilfide Odor (C izospheres or Reduced Iror Reduced Iror Reduction in urface (C7) ell Data (D9) in in Remarks): <u>N/A</u>): <u>>18"</u>	9) 11) 1 Living Roots 1 (C4) Tilled Soils (C 5) Wetland	s (C3) C6)	Secondary Indic Secondary Indic Surface S Drainage Dry-Seasc Crayfish E Saturation Stunted or X Geomorph X FAC-Neut	oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) I Visible on Aerial Imagery (C9) Stressed Plants (D1) nic Position (D2) ral Test (D5)
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edox was of IYDROL Vetland Hyg Primary India Surface High W Saturat Water Sedime Drift De Algal M Iron De Inunda Sparse Field Obsert Surface Walt Water Table Saturation P (includes ca Describe Re	OGY drology Indicators: cators (minimum of one is e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aerial Imaged by Vegetated Concave Succession vations: ter Present?	gery (B7) rface (B8) res No res No ge, monitoring	ck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen Su Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain X Depth (inchess X Depth (inchess	ed Leaves (BS na (B13) Plants (B14) Ilfide Odor (C izospheres or Reduced Iror Reduced Iror Reduction in urface (C7) ell Data (D9) in in Remarks): <u>N/A</u>): <u>>18"</u>): <u>>18"</u>	9) 11) 1 Living Roots 1 (C4) Tilled Soils (C 5) Wetland	s (C3) C6)	Secondary Indic Secondary Indic Surface S Drainage Dry-Seasc Crayfish E Saturation Stunted or X Geomorph X FAC-Neut	oil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) I Visible on Aerial Imagery (C9) Stressed Plants (D1) nic Position (D2) ral Test (D5)

Project/Site:	CTH KR Stormwater WD			City/Count	y: Kenosha Coun	ty	5	Sampling Date	e: 9/27/201	18
Applicant/Owner:	Wisconsin Dept. of Transportation			State	e: WI	Sampling Point		DP-9		
Investigator(s):	K. Carlson, E. Englund				Section, Townshi	p, Range: TWP 2N,	RNG 22, SEC	2		
Landform (hillslope,	, terrace, etc.): Shoulder				Loca	I relief (concave, con	vex, none): co	onvex		
Slope (%):	3% Lat:	42.667511		Long:	-	37.872551		Datum: NA	AD83 UTM1	16N
Soil Map Unit Name	e:Na - Navan silt loam			-			NWI classific	ation: T3	/E2K	
Are climatic / hydrol	logic conditions on the site typical for this time of	year?		Yes	X No	(If no, explain i	n Remarks.)			
Are Vegetation	N, Soil N	, or Hydrology N	significantly dis	turbed?	Are "Norm	al Circumstances" pr	esent?	Yes X	<no< td=""><td></td></no<>	
Are Vegetation	N, Soil N	, or Hydrology N	naturally proble	matic?	(If needed	explain any answers	in Remarks.)			
SUMMARY OF	FINDINGS Attach site map showin	g sampling point locatior	ns, transects, im	portant featu	ires, etc.					
Hydrophytic Veg	getation Present?	Yes	No x	Is the	e Sampled Ar	ea				
Hydric Soil Pres		Yes X	No	withi	n a Wetland?		Yes	No	Х	
Wetland Hydrol	ogy Present?	Yes	No <u>x</u>	-						
	ermined that antecedent precipitation conditions prmal. This was taken into considerations during									
woodland.	ormai. This was taken into considerations during	neid surveys. Dr taken on bernin	evee closest to water	way approximate	ely 2.5 above DP		icea dominano	e persistant	Infoughout	the
VEGETATION -	Use scientific names of plants.					1				
Tree Stratum (Plot	size: 30' radius)		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test	vorkshoot			
1. Acer negundo	3126. 30 Tadius)		10%	Yes	FAC	Dominance rest	VOIKSHEEL.			
2. Juglans nigra			10%	Yes	FACU	Number of Domina	nt Species			
3.			10%	165	FACO	That Are OBL, FAC		4	1 ((A)
4.						mat Are ODE, I AC	, or i Ao.		·((~)
5.						Total Number of De	ominant			
··			20%	= Total Cover		Species Across All		g)	(B)
			2070			000007101000711	Oliala.		`	(2)
Sapling/Shrub Strat	tum (Plot size: 15' radius)					Percent of Domina	nt Species			
1. Juglans nigra			10%	Yes	FACU	That Are OBL, FAC		44	%	(A/B)
2. Rhamnus catha	artica		5%	Yes	FAC	,,	,		<u>,,,</u>	()
3. Acer negundo			2%	No	FAC					
4.				·		Prevalence Index	worksheet:			
5.										
L			17%	= Total Cover		Total % Co	over of:	M	ultiply by:	
				-		That Are OBL, FAC	W, or FAC:			A/B
Herb Stratum (Plot	size: 5' radius)					OBL species	_	x1 =		
1. Arctium minus			25%	Yes	FACU	FACW species	15%	x2 =	0.3	
2. Phalaris arundii	nacea		15%	Yes	FACW	FAC species	27%	x3 =	0.81	
3. Convolvulus an	vensis		10%	Yes	UPL	FACU species	52%	x4 =	2.08	
4. Alliaria petiolata	1		10%	Yes	FAC	UPL species	25%	x5 =	1.25	
5. Securigera vari	a		10%	Yes	UPL	Column Totals:	1.19	(A)	4.44	(B)
6. Oxalis stricta			5%	No	FACU					
7. Brassica nigra			5%	No	UPL	Prevaler	nce Index = B/	A =	3.73	
8. Parthenocissus	s quinquefolia		2%	No	FACU					
9										
10.						Hydrophytic Vege	tation Indica	tors:		
11										
12						1-Rapid T	est for Hydrop	hytic Vegetat	ion	
13.							nce Test is >5			
14							nce Index is ≤			
15						4-Morphol	ogical Adapta	ions ¹ (Provid	e supportin	ıg
16							emarks or on a			
17						Problema	tic Hydrophyti	c Vegetation ¹	(Explain)	
18.										
19						¹ Indicators of hydric	soil and wetla	and hydrology	/ must	
20						be present, unless	disturbed or p	roblematic.		
			82%	= Total Cover						
						1				
Woody Vine Stratur	m (Plot size: 30' radius)					Hydrophytic				
1						Vegetation				
2						Present?	Yes	<u>No X</u>	<u>(</u>	
				= Total Cover		1				
						1				
	photo numbers here or on a separate sheet.) ed mostly of weedy species.									

inches)	Matrix		Re	dox Features				
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-30"	10YR 2/1	97	7.5YR 4/6	3	С	М	Silty Clay Loam	
30-36"	10YR 6/2	90	7.5YR 4/6	8	С	М	Sandy Clay Loam	
		· <u> </u>	10YR 4/6	2	C	M	Sandy Clay Loam	
		·	1011(4/0			101	Sandy Clay Loan	
		·					. <u> </u>	
		·					·	
		·						
		· <u> </u>				2	- <u> </u>	
71	,	on, RM=Redu	ced Matrix, CS=Covere	d or Coated S	and Grains.		on: PL=Pore Lining,	
ydric Soil In Histosol			Sandy Clay	ed Matrix (S4)		Test	Indicators of Hydri	rese Masses (F12)
	ipedon (A2)		Sandy Gley					w Dark Surface (F22)
Black His			Stripped Ma					ain in Remarks)
	n Sulfide (A4)		Dark Surfac					an in Remarks)
					`			
	Layers (A5)			ky Mineral (F1				
2 cm Mu	. ,			ed Matrix (F2))			
	Below Dark Surface (A	\11)	Depleted Ma				3	
	rk Surface (A12)		X Redox Dark				,	dicators have been updated to
	ucky Mineral (S1)		·	ark Surface (F	7)			e Field Indicators of Hydric Soils
5 cm Mu	cky Peat or Peat (S3)		Redox Depr	essions (F8)			in the United S	States, Version 8.0, 2016.
estrictive La	yer (if observed):							
Туре:								
Depth (in	ches):					Hydric	Soil Present?	Yes X No
						dark surfa		
YDROLO								
etland Hydr	ology Indicators:	s required: ch	eck all that apply)					tors (minimum of two reauired)
/etland Hydr Primary Indica	ology Indicators: tors (minimum of one is	s required: ch	11 2/				Secondary Indica	tors (minimum of two required)
Vetland Hydr Primary Indica Surface	ology Indicators: tors (minimum of one is Water (A1)	s required: ch	Water-Stain	ed Leaves (B			Secondary Indica	il Cracks (B6)
Vetland Hydr Primary Indica Surface V High Wa	ology Indicators: tors (minimum of one is Water (A1) ter Table (A2)	s required: ch	Water-Stain Aquatic Fau	ed Leaves (B na (B13)	9)		Secondary Indica Surface So Drainage P	il Cracks (B6) atterns (B10)
Vetland Hydr Primary Indica Surface V High Wa Saturatio	ology Indicators: tors (minimum of one is Water (A1) ter Table (A2) n (A3)	s required: ch	Water-Stain Aquatic Fau True Aquati	ed Leaves (B na (B13) c Plants (B14)	9)		Secondary Indica Surface So Drainage P Dry-Seasor	il Cracks (B6) atterns (B10) n Water Table (C2)
Vetland Hydr Primary Indica Surface V High Wa Saturatio Water M	ology Indicators: tors (minimum of one is Water (A1) ter Table (A2) n (A3) arks (B1)	s required: ch	Water-Stain Aquatic Fau True Aquati Hydrogen S	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C	9) ; ;1)		Secondary Indica Surface So Drainage P Dry-Seasor Crayfish Bu	il Cracks (B6) atterns (B10) n Water Table (C2) nrows (C8)
Vetland Hydr Primary Indica Surface V High Wa Saturatio Water M Sedimen	ology Indicators: tors (minimum of one is Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2)	s required: ch	Water-Stain Aquatic Fau True Aquati Hydrogen S	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C izospheres or	9)) :1) 1 Living Root		Secondary Indica Surface So Drainage P Dry-Seasor Crayfish Bu Saturation	il Cracks (B6) atterns (B10) n Water Table (C2) irrows (C8) visible on Aerial Imagery (C9)
Vetland Hydr Primary Indica Surface V High Wa Saturatio Water M Sedimen Drift Dep	ology Indicators: ttors (minimum of one is Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3)	s required: ch	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror	9)) 21) n Living Root n (C4)	s (C3)	Secondary Indica Surface So Drainage P Dry-Seasor Crayfish Bu Saturation V Stunted or	il Cracks (B6) atterns (B10) n Water Table (C2) nrrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)
Vetland Hydr Primary Indica Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma	ology Indicators: ttors (minimum of one is Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)	s required: ch	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reducetion in	9)) 21) n Living Root n (C4)	s (C3)	Secondary Indica Surface So Drainage P Dry-Seasor Crayfish Bu Saturation V Stunted or Geomorphi	il Cracks (B6) atterns (B10) n Water Table (C2) nrrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
Vetland Hydr Primary Indica Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma	ology Indicators: ttors (minimum of one is Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3)	s required: ch	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reducetion in	9)) 21) n Living Root n (C4)	s (C3)	Secondary Indica Surface So Drainage P Dry-Seasor Crayfish Bu Saturation V Stunted or	il Cracks (B6) atterns (B10) n Water Table (C2) nrrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
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Vetland Hydr Primary Indica Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatic Sparsely	ology Indicators: ttors (minimum of one is Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Image Vegetated Concave Su	gery (B7)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in Surface (C7) ell Data (D9)	9) 11) 1 Living Root 1 (C4) Tilled Soils ((s (C3)	Secondary Indica Surface So Drainage P Dry-Seasor Crayfish Bu Saturation V Stunted or Geomorphi	il Cracks (B6) atterns (B10) n Water Table (C2) nrrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
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Vetland Hydr Primary Indica Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatic Sparsely ield Observa Surface Water Vater Table F Saturation Pre	ology Indicators: ttors (minimum of one is Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Imag Vegetated Concave Su tions: r Present?	gery (B7) urface (B8) Yes No Yes No	Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expland) X Depth (inchest)	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in Surface (C7) ell Data (D9) ain in Remarka s): N/A s): N/A	9) 1) 1 Living Root n (C4) Tilled Soils ((s)	s (C3) C6)	Secondary Indica Surface So Drainage P Dry-Seasor Crayfish Bu Saturation V Stunted or Geomorphi	il Cracks (B6) atterns (B10) n Water Table (C2) nrrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
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Vetland Hydr Primary Indica Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatic Sparsely ield Observa Surface Water Vater Table F Saturation Pre includes capil	ology Indicators: ttors (minimum of one is Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Imag Vegetated Concave Su tions: r Present? Sent? Valary fringe)	gery (B7) urface (B8) Yes No Yes No Yes No	Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expland) X Depth (inchest X Depth (inchest	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in Surface (C7) ell Data (D9) ain in Remark s): <u>N/A</u> s): <u>>18"</u>	9) 1) n Living Root n (C4) Tilled Soils ((s) Wetland	s (C3) C6)	Secondary Indica Surface So Drainage P Dry-Seasor Crayfish Bu Saturation Stunted or Geomorphi FAC-Neutra	il Cracks (B6) atterns (B10) n Water Table (C2) Irrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) al Test (D5)
Vetland Hydr Primary Indica Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatic Sparsely ield Observa Surface Water Vater Table F Saturation Pre includes capil	ology Indicators: ttors (minimum of one is Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Imag Vegetated Concave Su tions: r Present? Sent? Valary fringe)	gery (B7) urface (B8) Yes No Yes No Yes No	Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expland) X Depth (inchests) X Depth (inchests)	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in Surface (C7) ell Data (D9) ain in Remark s): <u>N/A</u> s): <u>>18"</u>	9) 1) n Living Root n (C4) Tilled Soils ((s) Wetland	s (C3) C6)	Secondary Indica Surface So Drainage P Dry-Seasor Crayfish Bu Saturation Stunted or Geomorphi FAC-Neutra	il Cracks (B6) atterns (B10) n Water Table (C2) Irrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) al Test (D5)
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Vetland Hydr Primary Indica Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatic Sparsely ield Observa Surface Water Vater Table F Saturation Pre- includes capil Describe Reco	ology Indicators: ttors (minimum of one is Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Image Vegetated Concave Su tions: r Present? Present? Se	gery (B7) urface (B8) Yes No Yes No Yes No	Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expland) X Depth (inchests) X Depth (inchests)	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in Surface (C7) ell Data (D9) ain in Remark s): <u>N/A</u> s): <u>>18"</u>	9) 1) n Living Root n (C4) Tilled Soils ((s) Wetland	s (C3) C6)	Secondary Indica Surface So Drainage P Dry-Seasor Crayfish Bu Saturation Stunted or Geomorphi FAC-Neutra	il Cracks (B6) atterns (B10) n Water Table (C2) Irrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) al Test (D5)
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Project/Site:	CTH KR Stormwater WD		City/County	: Kenosha Count	у	Sampling Date: 9/27/2018
Applicant/Owner:	Wisconsin Dept. of Transportation		State	: WI	Sampling Point:	DP-94
Investigator(s):	K. Carlson, E. Englund		:	Section, Township	p, Range: TWP 2N, RNG 22, SE	22
Landform (hillslope	, terrace, etc.): Toeslope			Local	I relief (concave, convex, none):	concave
Slope (%):	0-1% Lat: 42.6674309		Long:	-87	7.8726654	Datum: NAD83 UTM16N
Soil Map Unit Name	e: Na - Navan silt loam				NWI classif	ication: T3/E2K
Are climatic / hydro	logic conditions on the site typical for this time of year?		Yes	X No	(If no, explain in Remarks.)	
Are Vegetation		antly dist	urbed?	Are "Norma	al Circumstances" present?	Yes X No
Are Vegetation		ly probler			explain any answers in Remarks.)
SUMMARY OF	FINDINGS Attach site map showing sampling point locations, transec	cts, imp	ortant featur	res, etc.		
	getation Present? Yes x No			Sampled Are		
Hydric Soil Pres Wetland Hydrol			withir	n a Wetland?	Yes <u>x</u>	No
-						
	termined that antecedent precipitation conditions were normal during the months of June-Augus ormal. This was taken into considerations during field surveys. DP taken in flatter area along wa			termined that dur	ing the month of September the a	ntecedent precipitation conditions
VEGETATION	Use scientific names of plants.					
VEGETATION		solute	Dominant	Indicator		
Tree Stratum (Plot	t size: 30' radius) %	Cover	Species?	Status	Dominance Test worksheet:	
1. Salix nigra	2	20%	Yes	OBL		
2					Number of Dominant Species	
3					That Are OBL, FACW, or FAC:	3 (A)
4						
5					Total Number of Dominant	
	2	20%	= Total Cover		Species Across All Strata:	<u> </u>
Conling/Chruh Stro	tum (Dist size: 15' radius)				Percent of Dominant Species	
1. Rhamnus catha	tum (Plot size: 15' radius)	5%	Yes	FAC	That Are OBL, FACW, or FAC:	100% (A/B)
2.		070	100	1/10		(//D)
3.						
4.					Prevalence Index worksheet:	
5.						
		5%	= Total Cover		Total % Cover of:	Multiply by:
					That Are OBL, FACW, or FAC:	A/B
Herb Stratum (Plot	t size: 5' radius)				OBL species 20%	x1 = 0.2
1. Phalaris arundi		75%	Yes	FACW	FACW species 98%	x2 = 1.96
2. Fraxinus penns		10%	No	FACW	FAC species 5%	x3 = 0.15
3. Urtica dioica		10%	No	FACW	FACU species 2%	x4 = 0.08
 Echinocystis lo Convolvulus ar 		3% 2%	No No	FACW UPL	UPL species 2% Column Totals: 1.27	x5 = 0.1 (A) 2.49 (B)
6. Solidago canad		2%	No	FACU		(A) <u>2.45</u> (B)
7.		2 /0	110	1400	Prevalence Index = E	B/A = 1.96
8.						100
9.						
10.					Hydrophytic Vegetation Indic	ators:
11.						
12.					1-Rapid Test for Hydro	phytic Vegetation
13.					X 2-Dominance Test is >	50%
14					X 3-Prevalence Index is :	
15					4-Morphological Adapt	ations ¹ (Provide supporting
16					data in Remarks or on	
17					Problematic Hydrophy	tic Vegetation ¹ (Explain)
18					1 maile stand of building and una	
19					¹ Indicators of hydric soil and we	
20		02%	= Total Cover		be present, unless disturbed or	problematic.
L	1	v∠ /0				
Woody Vine Stratu	m (Plot size: 30' radius)				Hydrophytic	
1.	· · · · · · · · · · · · · · · · · · ·				Vegetation	
2.					-	X No
			= Total Cover		-	
	photo numbers here or on a separate sheet.) nated by reed canary grass along the banks of the Pike River.					

P rofile Descri Depth	ption: (Describe to th Matrix	•		dox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-24"	10YR 2/1	90	10YR 3/6	5	C	M	Silty Clay Loam	
0 24	1011(2/1		10YR 5/2	5	C	M		
04.00"							Sandy Clay Loam	
24-36"	10YR 4/2	90	10YR 4/6	10	C	М	Silty Clay	
		·						
		on, RM=Redu	ced Matrix, CS=Covere	d or Coated S	and Grains.		n: PL=Pore Lining,	
dric Soil In			Sandy Clay	d Motrix (C4)		lest	Indicators of Hydri	
Histosol	pipedon (A2)		Sandy Gleye	ed Matrix (S4)				anese Masses (F12) ow Dark Surface (F22)
Black Hi			Stripped Ma					lain in Remarks)
	n Sulfide (A4)		Dark Surfac					
	Layers (A5)			ky Mineral (F1)			
2 cm Mu				ed Matrix (F2)	-			
_	Below Dark Surface (A	A11)	Depleted Ma					
	ark Surface (A12)		X Redox Dark				³ The hydric soil ir	ndicators have been updated to
Sandy M	lucky Mineral (S1)		Depleted Da	ark Surface (F	7)		comply with th	ne Field Indicators of Hydric Soils
5 cm Mu	cky Peat or Peat (S3)		X Redox Depr	essions (F8)			in the United	States, Version 8.0, 2016.
estrictive La	yer (if observed):							
Type:	,							
								Yes X No
Depth (in marks: dox was obs	erved throughout most	of the profile	with a depleted layer wi	th redox obser	rved under a	_	Soil Present?	
Depth (in marks: dox was obs	erved throughout most	of the profile	with a depleted layer wi	th redox obser	rved under a	_		
Depth (in marks: dox was obs YDROLC etland Hydr	erved throughout most			th redox obser	rved under a	_	surface.	ators (minimum of two required)
Depth (in marks: dox was obs YDROLC etland Hydr rimary Indica	erved throughout most		neck all that apply)	th redox obser		_	surface.	
Depth (in marks: dox was obs YDROLO etland Hydr rimary Indica Surface	Berved throughout most		neck all that apply)	ed Leaves (B		_	surface. Secondary Indica	ators (minimum of two required)
Depth (in marks: dox was obs YDROLO etland Hydr rimary Indica Surface	erved throughout most OGY ology Indicators: ators (minimum of one i Water (A1) ater Table (A2)		neck all that apply) Water-Stain Aquatic Fau	ed Leaves (B	9)	_	Secondary Indica	ators (minimum of two required) iil Cracks (B6)
Depth (in marks: dox was obs YDROLC etland Hydr rimary Indica Surface High Wa Saturatic	erved throughout most OGY ology Indicators: ators (minimum of one i Water (A1) ater Table (A2)		neck all that apply) Water-Stain Aquatic Fau True Aquatic	ed Leaves (Bs na (B13)	9)	_	Secondary Indica Surface Sc Drainage F Dry-Seaso	ators (minimum of two required) bil Cracks (B6) Patterns (B10)
Depth (in marks: dox was obs YDROLC etland Hydr rimary Indica Surface High Wa Saturatic Water M Sedimer	DGY Dology Indicators: ators (minimum of one i Water (A1) tter Table (A2) on (A3) larks (B1) tt Deposits (B2)		neck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen S	ed Leaves (B9 na (B13) c Plants (B14) ulfide Odor (C izospheres or	9) :1) h Living Root:	thick dark	Secondary Indica Surface Sc Drainage F Dry-Seaso Crayfish Bi Saturation	ators (minimum of two required) nil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9)
Depth (in marks: dox was obs YDROLC etland Hydr rimary Indica Surface High Wa Saturatic Water M Sedimer	DGY ology Indicators: ators (minimum of one i Water (A1) atter Table (A2) on (A3) arks (B1)		neck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen S	ed Leaves (B9 na (B13) c Plants (B14) ulfide Odor (C	9) :1) h Living Root:	thick dark	Secondary Indica Surface Sc Drainage F Dry-Seaso Crayfish Bi Saturation	ators (minimum of two required) vil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8)
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Project/Site:	CTH KR Stormwater WD	City/0	County:	Kenosha Coun	ıty	Sampling Date: 9/27/2018
Applicant/Owner:	Wisconsin Dept. of Transportation		State:	WI	Sampling Point:	DP-95
Investigator(s):	K. Carlson, E. Englund		S	Section, Townsh	ip, Range: TWP 2N, RNG 22E, S	EC 3
Landform (hillslope	e, terrace, etc.): Toeslope			Loca	al relief (concave, convex, none):	concave
Slope (%):	0-1% Lat: 42.6668816	Long:		-8	37.8835144	Datum: NAD83 UTM16N
Soil Map Unit Nam	e: EtB - Elliott silty clay loam, 2 to 6 percent slopes				NWI classi	fication: None
Are climatic / hydro	ologic conditions on the site typical for this time of year?		Yes	X No	(If no, explain in Remarks.)	1
Are Vegetation	N , Soil N , or Hydrology N significantly di	isturbed?		Are "Norm	al Circumstances" present?	Yes X No
Are Vegetation	N , Soil N , or Hydrology N naturally probl				, explain any answers in Remarks	.)
	FINDINGS Attach site map showing sampling point locations, transects, in	nportant f	eature	es, etc.		
	getation Present? Yes x No No			Sampled Ar		
Hydric Soil Pres Wetland Hydrol		_ `	vithin	a Wetland?	Yes <u>×</u>	<u> </u>
	termined that antecedent precipitation conditions were normal during the months of June-August. WET ormal. This was taken into considerations during field surveys. Drainage way off edge of old driveway.		ilso deti	ermined that du	ring the month of September the a	antecedent precipitation conditions
VEGETATION	Use scientific names of plants.					
Tree Stratum (Plot	t size: 30' radius) Absolute % Cover	Domir Speci		Indicator Status	Dominance Test worksheet:	
1.		Opeci	531	Otatus	Dominance rest worksneet.	
2.					Number of Dominant Species	
3.					That Are OBL, FACW, or FAC:	6 (A)
4.						
5.					Total Number of Dominant	
		= Total Co	over		Species Across All Strata:	6 (B)
Sapling/Shrub Stra	tum (Plot size: 15' radius)				Percent of Dominant Species	
1. Cornus racemo		Yes		FAC	That Are OBL, FACW, or FAC:	(A/B)
2. Rhamnus catha		Yes		FAC		
3. Cornus alba	10%	Yes		FACW		
4. Acer negundo	5%	No	<u> </u>	FAC	Prevalence Index worksheet:	
5.	50%	= Total Co			Total % Cover of:	Multiply by
	50%	_= 101a1 CC	vei		That Are OBL, FACW, or FAC:	Multiply by: A/B
Herb Stratum (Plot	t size: 5' radius)				OBL species 15%	x1 = 0.15
1. Euthamia gram	ninifolia 25%	Yes	s	FACW	FACW species 50%	x2 = 1
2. Cornus racemo	osa 20%	Yes	s	FAC	FAC species 70%	x3 = 2.1
3. Carex stricta	15%	Yes	s	OBL	FACU species 5%	x4 = 0.2
4. Helianthus gros	sseserratus 10%	No	,	FACW	UPL species	x5 =
5. Toxicodendron	radicans 10%	No	,	FAC	Column Totals: 1.40	(A) 3.45 (B)
	im novae-angliae 5%	No		FACW		
7. Solidago canad	densis 5%	No	•	FACU	Prevalence Index = I	B/A = 2.46
8						
9						
10					Hydrophytic Vegetation Indic	ators:
11 12.					1-Rapid Test for Hydro	polytic Vagatation
13.					X 2-Dominance Test is >	
14.					X 3-Prevalence Index is	
15.						ations ¹ (Provide supporting
16.					data in Remarks or or	n a separate sheet)
17.						rtic Vegetation ¹ (Explain)
18.						
19.					¹ Indicators of hydric soil and we	tland hydrology must
20.					be present, unless disturbed or	problematic.
	90%	= Total Co	ver			
Woody Vine Stratu	m (Plot size: 30' radius)				Hydrophytic	
1.					Vegetation	
2.				·	-	X No
		= Total Co	over			
		_				
	photo numbers here or on a separate sheet.) ed by shrub species that have established after the area has been left fallow.					

Profile Descr Depth	Matrix		Re	dox Features					
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-6"	10YR 3/1	90	10YR 5/6	10	С	М	Clay		
6-24"	10YR 6/2	80	10YR 5/6	15	С	М	Silty Clay		
02.	1011110/2		10YR 4/6	5	C	M	Silty Clay		
						101	Silty Clay		
				. <u> </u>		2			
Type: C=Co ydric Soil Ir		n, RM=Redu	uced Matrix, CS=Covered	d or Coated S	and Grains.		on: PL=Pore Linin		
Histosol			Sandy Gleve	ed Matrix (S4)		1631	•	iganese Masses (F12)	
_	pipedon (A2)		Sandy Redo					allow Dark Surface (F22)	
	istic (A3)		Stripped Ma					xplain in Remarks)	
	en Sulfide (A4)		Dark Surface	. ,					
	d Layers (A5)		Loamy Muck)				
2 cm Mu	uck (A10)		Loamy Gleye	ed Matrix (F2))				
X Deplete	d Below Dark Surface (A	.11)	X Depleted Ma						
Thick Da	ark Surface (A12)		X Redox Dark	Surface (F6)			³ The hydric soi	I indicators have been update	d to
Sandy N	/lucky Mineral (S1)		Depleted Da	rk Surface (F	7)		comply with	the Field Indicators of Hydric	Soils
5 cm Mu	ucky Peat or Peat (S3)		X Redox Depr	essions (F8)			in the Unite	d States, Version 8.0, 2016.	
estrictive La	ayer (if observed):								
Type:									
						Hydria	Soil Present?	Yes X No	,
edox was ob	served throughout most	of the profile	with a depleted layer wit	h redox obser	rved under a	-			
emarks: edox was obs	served throughout most	of the profile	with a depleted layer wit	h redox obser	rved under a	-			
emarks: edox was obs YDROLC /etland Hyd	served throughout most			h redox obser	rved under a	-	ace.		
YDROLC	served throughout most DGY rology Indicators: ators (minimum of one is		heck all that apply)	h redox obser		-	ace.	icators (minimum of two requi	
YDROLC Vetland Hyd rimary Indic Surface	Served throughout most DGY rology Indicators: ators (minimum of one is Water (A1)		heck all that apply) Water-Stain	ed Leaves (B		-	ace. Secondary Ind	icators (minimum of two requir Soil Cracks (B6)	
Primarks: adox was observed YDROLC Yetland Hyd Irimary Indic Surface High Wa	served throughout most DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2)		heck all that apply) Water-Stain Aquatic Fau	ed Leaves (B na (B13)	9)	-	sce. Secondary Ind Surface	icators (minimum of two requin Soil Cracks (B6) ∋ Patterns (B10)	
Primarks: PyDROLC Primary Indic Surface High Wa Saturatio	served throughout most DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3)		heck all that apply) Water-Stain Aquatic Fau True Aquatic	ed Leaves (B	9)	-	Secondary Ind	icators (minimum of two requir Soil Cracks (B6)	
Primary Indic Surface High Wa Saturatia Water M	served throughout most DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2)		heck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen St	ed Leaves (B na (B13) : Plants (B14) ulfide Odor (C	9)	dark surfa	Secondary Ind	icators (minimum of two requin Soil Cracks (B6) 9 Patterns (B10) son Water Table (C2)	red)
Primary Indic Primary Indic Surface High Wa Saturati Water M Sedimen	Served throughout most DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) Marks (B1)		heck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen St Oxidized Rh	ed Leaves (B na (B13) : Plants (B14) ulfide Odor (C	9)) 21) n Living Root:	dark surfa	Secondary Ind Surface Drainage Crayfish Saturatio	icators (minimum of two requin Soil Cracks (B6) 9 Patterns (B10) son Water Table (C2) Burrows (C8)	red)
YDROLC Yetland Hyd Yrimary Indic Surface High Wa Saturati Water M Sedimer Drift De	Served throughout most DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2)		heck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen St Oxidized Rh Presence of	ed Leaves (B na (B13) Plants (B14) Ilfide Odor (C izospheres or Reduced Iror	9)) 21) n Living Root:	dark surfa	Secondary Ind Surface Drainage Crayfish Saturatic Stunted	icators (minimum of two requir Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C	red)
YDROLC YUROLC Yetland Hyd Yrimary Indic Surface High Wa Saturatii Water M Sedimen Drift Dej Algal Ma	Served throughout most DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3)		heck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen St Oxidized Rh Presence of	ed Leaves (B na (B13) Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reducetion in	9)) 21) n Living Roots n (C4)	dark surfa	Secondary Ind Surface Drainage Crayfish Saturatio X Geomor	icators (minimum of two requin Soil Cracks (B6) P Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C or Stressed Plants (D1)	red)
marks: dox was ob: YDROLC etland Hyd rimary Indic Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	Served throughout most DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	a required: cl	heck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron	ed Leaves (B ha (B13) Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduced Iror Reduction in urface (C7)	9)) 21) n Living Roots n (C4)	dark surfa	Secondary Ind Surface Drainage Crayfish Saturatio X Geomor	icators (minimum of two requin Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C or Stressed Plants (D1) ohic Position (D2)	red)
	Served throughout most DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	s required: cl	heck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	ed Leaves (B ha (B13) Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduced Iror Reduction in urface (C7)	9) 21) n Living Root: n (C4) Tilled Soils (0	dark surfa	Secondary Ind Surface Drainage Crayfish Saturatio X Geomor	icators (minimum of two requin Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C or Stressed Plants (D1) ohic Position (D2)	red)
YDROLC YUROLC Yetland Hydd Yrimary Indic Surface High Wa Saturativ Water M Sedimen Drift Dep Algal Ma Iron Dep Inundati Sparselv	Served throughout most DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima- y Vegetated Concave Su	s required: cl	heck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	ed Leaves (B ha (B13) Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduced Iror Reduction in urface (C7) ell Data (D9)	9) 21) n Living Root: n (C4) Tilled Soils (0	dark surfa	Secondary Ind Surface Drainage Crayfish Saturatio X Geomor	icators (minimum of two requin Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C or Stressed Plants (D1) ohic Position (D2)	red)
	served throughout most DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima y Vegetated Concave Su ations:	gery (B7)	heck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	ed Leaves (B ha (B13) Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduced Iror Reduction in urface (C7) ell Data (D9) in in Remark	9) 21) n Living Root: n (C4) Tilled Soils (0	dark surfa	Secondary Ind Surface Drainage Crayfish Saturatio X Geomor	icators (minimum of two requin Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C or Stressed Plants (D1) ohic Position (D2)	red)
Provide Constraints Provi	Served throughout most DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Ima y Vegetated Concave Su ations: er Present?	gery (B7) gery (B8)	heck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	ed Leaves (B ha (B13) Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduced Iror Reduction in urface (C7) ell Data (D9) in in Remark	9) 21) n Living Root: n (C4) Tilled Soils (0	dark surfa	Secondary Ind Surface Drainage Crayfish Saturatio X Geomor	icators (minimum of two requin Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C or Stressed Plants (D1) ohic Position (D2)	red)
marks: dox was ob: YDROLC etland Hyd rimary Indic Surface High Wa Saturatie Water M Sedimen Drift Den Iron Den Inundati Sparsely eld Observa Jarface Wate Jarface Wate Jarface Wate	served throughout most DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima y Vegetated Concave Su ations: er Present?	gery (B7) Inface (B8)	heck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	ed Leaves (B ha (B13) Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduced Iror Reduction in urface (C7) ell Data (D9) in in Remark): <u>N/A</u>	9) 21) n Living Roots n (C4) Tilled Soils ((s)	s (C3)	Secondary Ind Surface Drainage Dry-Sea Crayfish Saturatic Stunted X Geomory X FAC-Net	icators (minimum of two requin Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C or Stressed Plants (D1) ohic Position (D2)	red) C9)
	Served throughout most DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima- y Vegetated Concave Su ations: er Present?	gery (B7) Inface (B8)	heck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla X Depth (inchess	ed Leaves (B ha (B13) Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduced Iror Reduction in urface (C7) ell Data (D9) in in Remark): <u>N/A</u>	9) 21) n Living Roots n (C4) Tilled Soils ((s)	s (C3)	Secondary Ind Surface Drainage Crayfish Saturatio X Geomor	icators (minimum of two requir Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C or Stressed Plants (D1) ohic Position (D2) utral Test (D5)	red) C9)
	Served throughout most DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima- y Vegetated Concave Su ations: er Present? Present? Ser Present? Ser Present	gery (B7) Inface (B8) Yes No Yes No Yes No	heck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla X Depth (inchess	ed Leaves (B ha (B13) : Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in urface (C7) ell Data (D9) in in Remark): <u>N/A</u>): <u>>18"</u>	9) 21) n Living Roots n (C4) Tilled Soils (C s) Wetland	s (C3) C6)	Secondary Ind Surface Drainage Dry-Sea Crayfish Saturatic Stunted X Geomory X FAC-Net	icators (minimum of two requir Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C or Stressed Plants (D1) ohic Position (D2) utral Test (D5)	red) C9)
Primary Indice Primary Indice Primary Indice High Wa Saturatie Water M Sedimen Drift Dep Algal Ma Iron Dep Inundati Sparsele Surface Water Vater Table I Saturation Princludes cap	Served throughout most DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima- y Vegetated Concave Su ations: er Present? Present? Ser Present? Ser Present	gery (B7) Inface (B8) Yes No Yes No Yes No	heck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla X Depth (inches X Depth (inches	ed Leaves (B ha (B13) : Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in urface (C7) ell Data (D9) in in Remark): <u>N/A</u>): <u>>18"</u>	9) 21) n Living Roots n (C4) Tilled Soils (C s) Wetland	s (C3) C6)	Secondary Ind Surface Drainage Dry-Sea Crayfish Saturatic Stunted X Geomory X FAC-Net	icators (minimum of two requir Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C or Stressed Plants (D1) ohic Position (D2) utral Test (D5)	red) C9)
emarks: edox was ob: Vetland Hyd Primary Indic Surface High Wa Saturati Water M Sedimen Drift Dej Algal Ma Iron Dep Inundati Sparsel ield Observa Surface Wate Vater Table I Saturation Pr includes cap	Served throughout most DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima- y Vegetated Concave Su ations: er Present? Present? Ser Present? Ser Present	gery (B7) Inface (B8) Yes No Yes No Yes No	heck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla X Depth (inches X Depth (inches	ed Leaves (B ha (B13) : Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in urface (C7) ell Data (D9) in in Remark): <u>N/A</u>): <u>>18"</u>	9) 21) n Living Roots n (C4) Tilled Soils (C s) Wetland	s (C3) C6)	Secondary Ind Surface Drainage Dry-Sea Crayfish Saturatic Stunted X Geomory X FAC-Net	icators (minimum of two requir Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C or Stressed Plants (D1) ohic Position (D2) utral Test (D5)	red) C9)
emarks: edox was ob: Primary Indic Primary Indic Surface High Wa Saturation Vater M Sedimen Drift De Algal Ma Iron Dep Inundati Sparsel Surface Wate Nater Table I Saturation Pri includes cap Describe Rec	Served throughout most DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima- y Vegetated Concave Su ations: er Present? Present? Sorded Data (stream gau	gery (B7) Inface (B8) Yes No Yes No ge, monitoria	heck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain X Depth (inchess X Depth (inchess X A A A A A A A A A A A A A	ed Leaves (B na (B13) : Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in urface (C7) ell Data (D9) in in Remark): <u>N/A</u>): <u>>18"</u>): <u>>18"</u>	9) 21) n Living Roots n (C4) Tilled Soils (C s) Wetland	s (C3) C6)	Secondary Ind Surface Drainage Dry-Sea Crayfish Saturatic Stunted X Geomory X FAC-Net	icators (minimum of two requir Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C or Stressed Plants (D1) ohic Position (D2) utral Test (D5)	red) C9)
emarks: edox was ob: /etland Hyd Primary Indic Drimary Indic Surface High Wa Saturation Water M Sedimen Drift De Algal Ma Iron Dep Inundati Sparsely ield Observ Surface Wate Vater Table I Saturation Pri includes cap Describe Rec	Served throughout most DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima- y Vegetated Concave Su ations: er Present? Present? Sorded Data (stream gau	gery (B7) Inface (B8) Yes No Yes No ge, monitoria	heck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla X Depth (inches X Depth (inches	ed Leaves (B na (B13) : Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reduction in urface (C7) ell Data (D9) in in Remark): <u>N/A</u>): <u>>18"</u>): <u>>18"</u>	9) 21) n Living Roots n (C4) Tilled Soils (C s) Wetland	s (C3) C6)	Secondary Ind Surface Drainage Dry-Sea Crayfish Saturatic Stunted X Geomory X FAC-Net	icators (minimum of two requir Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C or Stressed Plants (D1) ohic Position (D2) utral Test (D5)	red) C9)

Project/Site:	CTH KR Stormwater WD			City/County	: Kenosha Cour	nty	s	Sampling Date: 9/27	7/2018
Applicant/Owner:	Wisconsin Dept. of Transportation			State	: WI	Sampling Point:		DP-96	
Investigator(s):	K. Carlson, E. Englund				Section, Townsh	ip, Range: <u>TWP 2N, I</u>	RNG 22E, SEC	3	
Landform (hillslope	, terrace, etc.): Shoulder				Loca	al relief (concave, con	vex, none): <u>co</u>	nvex	
Slope (%):	3-5% Lat:	42.6668854		Long:	-8	37.8835602		Datum: NAD83 U	JTM16N
Soil Map Unit Nam	e: EtB - Elliott silty clay loam, 2 to 6 percent slopes						NWI classific	ation: None	
Are climatic / hydro	logic conditions on the site typical for this time of ye	ear?		Yes	X No	(If no, explain i	n Remarks.)		
Are Vegetation	N, Soil N	, or Hydrology N	significantly dis	turbed?	Are "Norm	al Circumstances" pre	esent?	Yes X No	
Are Vegetation	<u>N</u> , Soil <u>N</u>	, or Hydrology N	naturally proble	ematic?	(If needed	, explain any answers	in Remarks.)		
SUMMARY OF	FINDINGS Attach site map showing	sampling point location	s, transects, im	portant featur	res, etc.				
	getation Present?	Yes X	No		Sampled Ar				
Hydric Soil Pres		Yes	No <u>x</u>	within	n a Wetland?		Yes	<u>No x</u>	
Wetland Hydrol	logy Present?	Yes	No <u>x</u>	-					
Remarks:	termined that antegedent presinitation conditions	are normal during the menths of		Conclusio determi	ined that during t	the menth of Contemb	or the entered	lant provinitation on	nditiona wara
	termined that antecedent precipitation conditions we . This was taken into considerations during field sur						er the anteced	ent precipitation co	nullions were
	-		-						
VEGETATION	Use scientific names of plants.								
	•		Absolute	Dominant	Indicator				
Tree Stratum (Plot	t size: 30' radius)		% Cover	Species?	Status	Dominance Test v	vorksheet:		
1									
2						Number of Domina	•		
3			·			That Are OBL, FAC	W, or FAC:	4	(A)
4									
5						Total Number of Do		_	
				= Total Cover		Species Across All	Strata:	7	(B)
						Demont of Demine			
	tum (Plot size: 15' radius)		5%	Yes	FAC	Percent of Dominar That Are OBL, FAC		57%	(A/P)
Acer negundo Acer negundo Prunus serotina	9		5%	Yes	FAC	That Are OBL, FAC	W, OF FAC.	57%	(A/B)
3. Rhamnus catha			8%	Yes	FAC				
4. Cornus racemo			5%	Yes	FAC	Prevalence Index v	vorksheet.		
5.				100	1710		inorikoneet.		
			23%	= Total Cover		Total % Co	over of:	Multiply b	ov:
				-		That Are OBL, FAC	W, or FAC:		A/B
Herb Stratum (Plot	t size: 5' radius)	_				OBL species		x1 =	
1. Poa pratensis			30%	Yes	FAC	FACW species		x2 =	
2. Bromus inermis	8		30%	Yes	FACU	FAC species	53%	x3 = 1.5	59
3. Solidago canad			20%	Yes	FACU	FACU species	65%	x4 =2.	.6
4. Symphyotrichu			5%	No	UPL	UPL species	5%	x5 = 0.2	
5. Melilotus officin			5%	No	FACU	Column Totals:	1.23	(A) 4.4	44 (B)
6. Plantago major			5%	No	FAC				
7. Potentilla simpl			3%	No	FACU	Prevaler	nce Index = B//	A = 3.61	
8. Asparagus offic	cinalis		2%	No	FACU				
9 10				·		Hudronbutio Vogo	tation Indiaat		
11.						Hydrophytic Vege		015.	
12.						1-Rapid Te	est for Hydroph	nytic Vegetation	
13.						X 2-Dominar			
14.							nce Index is ≤3		
15.						4-Morphol	ogical Adaptati	ions ¹ (Provide supp	orting
16.			·			data in Re	marks or on a	separate sheet)	
17.						Problema	tic Hydrophytic	Vegetation ¹ (Expla	ain)
18.									
19.						¹ Indicators of hydric	soil and wetla	ind hydrology must	
20.						be present, unless	disturbed or pr	oblematic.	
			100%	= Total Cover					
	m (Plot size: 30' radius)					Hydrophytic			
1						Vegetation			
2						Present?	Yes	X No	
				= Total Cover					
	photo numbers here or on a separate sheet.) s was dominant throughout herbaceous layer.								

Depth (inches) 0-4"	Matrix		Redo	ox Features				
	Color (moist)	% C	olor (moist)	%	Type ¹	Loc ²	Texture	Remarks
	10YR 3/2	100					Loam	gravel after 4"
							· ·	
							·	
				·			·	
							·	
							·	
1						2		<u></u>
Type: C=Con Tydric Soil Ind	ncentration, D=Depleti	on, RM=Reduced M	atrix, CS=Covered of	or Coated Sa	nd Grains.		n: PL=Pore Lining, Indicators of Hydri	
Histosol			Sandy Gleyed	Matrix (S4)		16311	-	anese Masses (F12)
	ipedon (A2)	-	Sandy Redox					ow Dark Surface (F22)
Black His		-	Stripped Matri					lain in Remarks)
	n Sulfide (A4)	-	Dark Surface				、.	,
Stratified	Layers (A5)	-	Loamy Mucky					
2 cm Mu	ck (A10)	-	Loamy Gleyed	Matrix (F2)				
Depleted	Below Dark Surface ((A11)	Depleted Matr	ix (F3)				
	rk Surface (A12)	_	Redox Dark S					ndicators have been updated to
	ucky Mineral (S1)	-	Depleted Dark)			ne Field Indicators of Hydric Soils
5 cm Mu	cky Peat or Peat (S3)	-	Redox Depres	ssions (F8)			in the United	States, Version 8.0, 2016.
estrictive La	yer (if observed):							
Type: gr								
Depth (ind	ches): 4					Hydric S	Soil Present?	Yes NoX
YDROLO	GY ology Indicators:							
-								
minary mulca		is required: check al	ll that apply)				Secondary Indica	ators (minimum of two required)
	Water (A1)	is required: check al	ll that apply) Water-Stained	d Leaves (B9))			ators (minimum of two required) iil Cracks (B6)
Surface \		is required: check al		. ,)		Surface Sc	
Surface \	Water (A1) ter Table (A2)	is required: check al - -	Water-Stained	a (B13))		Surface Sc Drainage F	il Cracks (B6)
Surface V	Water (A1) ter Table (A2) n (A3)	is required: check al - - -	Water-Stained Aquatic Fauna True Aquatic F Hydrogen Sulf	a (B13) Plants (B14) fide Odor (C1)		Surface So Drainage F Dry-Seaso	vil Cracks (B6) Patterns (B10)
Surface V High Wa Saturatio Water Ma	Water (A1) ter Table (A2) n (A3)	is required: check al - - - -	Water-Stained Aquatic Fauna True Aquatic F	a (B13) Plants (B14) fide Odor (C1)	s (C3)	Surface Sc Drainage F Dry-Seaso Crayfish Bu	vil Cracks (B6) Patterns (B10) n Water Table (C2)
Surface V High Wa Saturatio Water Ma Sedimen	Water (A1) ter Table (A2) n (A3) arks (B1)	is required: check al - - - - - -	Water-Stained Aquatic Fauna True Aquatic F Hydrogen Sulf	a (B13) Plants (B14) fide Odor (C1 ospheres on) Living Roots	s (C3)	Surface Sc Drainage F Dry-Seaso Crayfish Bi Saturation	vil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8)
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Surface V High Wa Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dep Inundatio	Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Im- Vegetated Concave S tions: r Present?	agery (B7) Surface (B8)	Water-Stained Aquatic Fauna True Aquatic F Hydrogen Sulf Oxidized Rhize Presence of R Recent Iron R Thin Muck Sun Gauge or Wel Other (Explain Depth (inches): Depth (inches):	a (B13) Plants (B14) fide Odor (C1 ospheres on educted Iron eduction in Ti rface (C7) I Data (D9) n in Remarks) <u>N/A</u> >18") Living Root: (C4) illed Soils ((Surface Sc Drainage F Dry-Seaso Crayfish Bu Saturation Stunted or Geomorph	ill Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2)
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SOIL

Depth	Matrix		Red	ox Features			_	
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-10"	10YR 2/1	100			С	М	Silty Clay Loam	
10-21"	10YR 2/1	100			С	М	Silty Clay	
21-28"	10YR 6/1	80	10YR 4/6	18	С	М	Silt Loam	
			7.5YR 5/8	2	C	М	Silt Loam	
		·					0	
		·						
		·						
	oncentration D-Depletic	n RM-Redu	uced Matrix, CS=Covered	or Coated St	and Grains	² Locatio	on: PL=Pore Lining	M–Matrix
lydric Soil li		, rui=ruu		01 000100 01			Indicators of Hyd	
Histoso			Sandy Gleyed	d Matrix (S4)			•	ganese Masses (F12)
Histic E	pipedon (A2)		Sandy Redox	(S5)			Very Sha	llow Dark Surface (F22)
Black H	listic (A3)		Stripped Matr	ix (S6)			X Other (Ex	plain in Remarks)
Hydroge	en Sulfide (A4)		Dark Surface	(S7)				
Stratifie	d Layers (A5)		Loamy Mucky	/ Mineral (F1)			
2 cm M	uck (A10)		Loamy Gleye	d Matrix (F2)				
Deplete	d Below Dark Surface (A	(11)	Depleted Mat	rix (F3)				
Thick D	ark Surface (A12)		Redox Dark S	Surface (F6)			³ The hydric soil	indicators have been updated to
Sandy M	Mucky Mineral (S1)		Depleted Dar	k Surface (F	7)		comply with	the Field Indicators of Hydric Soils
5 cm M	ucky Peat or Peat (S3)		Redox Depre	ssions (F8)			in the United	States, Version 8.0, 2016.
estrictive L	ayer (if observed):							
Туре:	,							
	achae);		-			Hydric	Soil Present?	Yes X No
oils are highl	y disturbed due to agricu	Itual activitie	s and were assumed to b	e hydric if no	rmal conditio	_		
emarks: oils are highl	y disturbed due to agricu	Iltual activitie	es and were assumed to b	e hydric if no	rmal conditio	_		
emarks: oils are highl IYDROLO Vetland Hyd	y disturbed due to agricu			e hydric if no	rmal conditio	_	present.	cators (minimum of two required)
emarks: oils are highl IYDROL(Vetland Hyd Primary Indic	y disturbed due to agricu DGY Irology Indicators:					_	present.	
emarks: oils are highl IYDROL(Vetland Hyd Primary Indic Surface	y disturbed due to agricu DGY Irology Indicators: ators (minimum of one is		neck all that apply)	d Leaves (BS		_	oresent. Secondary India Surface S	cators (minimum of two required)
emarks: oils are highl IYDROL(Vetland Hyd Primary Indic Surface	y disturbed due to agricu DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2)		neck all that apply)	d Leaves (Bs a (B13)	9)	_	Secondary India	cators (minimum of two required) Soil Cracks (B6)
International Sectors And Andrew Sectors And Andrew Sectors Andrew	y disturbed due to agricu DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2)		neck all that apply) Water-Staine Aquatic Faun	d Leaves (Bs a (B13) Plants (B14))	_	Secondary India	cators (minimum of two required) Soil Cracks (B6) Patterns (B10)
emarks: oils are highl IYDROL(Vetland Hyd Primary Indic Surface High W Saturati Water M	y disturbed due to agricu DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) ion (A3)		neck all that apply) Water-Staine Aquatic Faun True Aquatic	d Leaves (BS a (B13) Plants (B14) Ifide Odor (C	9) 1)	ns were p	Secondary India Secondary India Units Surface S Drainage Dry-Seas Crayfish I	cators (minimum of two required) Soil Cracks (B6) Patterns (B10) on Water Table (C2)
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emarks: oils are highl IYDROL(Vetland Hyd Primary Indic Surface High W Saturati Water M Sedime Drift De	y disturbed due to agricu DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2)		neck all that apply) Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz	d Leaves (BS a (B13) Plants (B14) Ifide Odor (C zospheres or Reduced Iron	9) 1) 1 Living Roots 1 (C4)	ns were p	Secondary India Surface S Drainage Dry-Seas Crayfish I X Saturation Stunted c	cators (minimum of two required) Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9)
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emarks: oils are highl Vetland Hyd Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De	y disturbed due to agricu DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	s required: cł	neck all that apply) Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of f Recent Iron F	d Leaves (BS a (B13) Plants (B14) Ifide Odor (C zospheres or Reduced Iron Reduction in urface (C7)	9) 1) 1 Living Roots 1 (C4)	ns were p	Secondary India Surface S Drainage Dry-Seas Crayfish I X Saturation Stunted c X Geomorp	cators (minimum of two required) Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2)
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emarks: oils are highl HYDROLO Vetland Hyd Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel	y disturbed due to agricu DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima y Vegetated Concave Su	s required: cf	neck all that apply) Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of f Recent Iron F Thin Muck Su Gauge or We	d Leaves (BS a (B13) Plants (B14) Ifide Odor (C zospheres or Reduced Iron Reduced Iron Reduction in arface (C7) Il Data (D9)	9) 1 Living Roots 1 (C4) Tilled Soils (C	ns were p	Secondary India Surface S Drainage Dry-Seas Crayfish I X Saturation Stunted c X Geomorp	cators (minimum of two required) Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2)
Inundat Field Observ	y disturbed due to agricu DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima y Vegetated Concave So rations:	s required: cf gery (B7) urface (B8)	neck all that apply) Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of f Recent Iron F Thin Muck Su Gauge or We Other (Explai	d Leaves (BS a (B13) Plants (B14) Ifide Odor (C zospheres or Reduced Iron Reduced Iron Reduction in urface (C7) Il Data (D9) n in Remarks	9) 1 Living Roots 1 (C4) Tilled Soils (C	ns were p	Secondary India Surface S Drainage Dry-Seas Crayfish I X Saturation Stunted c X Geomorp	cators (minimum of two required) Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2)
emarks: oils are highl IYDROLO Vetland Hyd Primary Indic Surface High W Saturati Water M Sedime Drift De Drift De Algal M Iron De Inundat Sparsel	y disturbed due to agricu DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima y Vegetated Concave Su rations: er Present?	s required: cf gery (B7) urface (B8) /esNo	heck all that apply) Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of f Recent Iron F Thin Muck Su Gauge or We Other (Explai	d Leaves (BS a (B13) Plants (B14) Ifide Odor (C zospheres or Reduced Iron Reduced Iron Reduction in arface (C7) Il Data (D9) n in Remarks	9) 1 Living Roots 1 (C4) Tilled Soils (C	ns were p	Secondary India Surface S Drainage Dry-Seas Crayfish I X Saturation Stunted c X Geomorp	cators (minimum of two required) Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2)
emarks: oils are highl Vetland Hyd Primary Indic Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Surface Wate Nater Table	y disturbed due to agricu DGY rology Indicators: ators (minimum of one is Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima y Vegetated Concave Sta rations: er Present?	s required: cł gery (B7) urface (B8) /esNo /esNo	heck all that apply) Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of f Recent Iron F Thin Muck Su Gauge or We Other (Explai X Depth (inches)	d Leaves (BS a (B13) Plants (B14) Ifide Odor (C zospheres or Reduced Iron Reduced Iron Reduction in arface (C7) Il Data (D9) n in Remarks : <u>N/A</u>	9) 1 Living Roots n (C4) Tilled Soils (C s)	ns were p	Secondary India Surface S Drainage Dry-Seas Crayfish I X Saturation Stunted c X Geomorp X FAC-Neu	cators (minimum of two required) Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2) tral Test (D5)
emarks: oils are highl Vetland Hyd Primary Indico Primary Indico Surface High W. Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Surface Wate Nater Table Saturation Pr	y disturbed due to agricu DGY rology Indicators: ators (minimum of one is water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima y Vegetated Concave Su rations: er Present?	s required: cł gery (B7) urface (B8) /esNo /esNo	heck all that apply) Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of f Recent Iron F Thin Muck Su Gauge or We Other (Explai	d Leaves (BS a (B13) Plants (B14) Ifide Odor (C zospheres or Reduced Iron Reduction in Reduction in urface (C7) II Data (D9) n in Remarks : <u>N/A</u>	9) 1 Living Roots n (C4) Tilled Soils (C s)	ns were p	Secondary India Surface S Drainage Dry-Seas Crayfish I X Saturation Stunted c X Geomorp	cators (minimum of two required) Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2)
emarks: oils are highl IYDROLO Vetland Hyd Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Observ Surface Wate Water Table Saturation Pr (includes cap	y disturbed due to agricu DGY rology Indicators: ators (minimum of one is water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima y Vegetated Concave Su rations: er Present? Present? pillary fringe)	s required: cf gery (B7) urface (B8) /es No /es No /es No	neck all that apply) Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of Recent Iron F Thin Muck St Gauge or We Other (Explain X Depth (inches) X Depth (inches)	d Leaves (BS a (B13) Plants (B14) Ifide Odor (C zospheres or Reduced Iron Reduction in urface (C7) Il Data (D9) n in Remarks :	9) 1 Living Roots 1 (C4) Tilled Soils (C 5) Wetland	ns were p s (C3) C6)	Secondary India Surface S Drainage Dry-Seas Crayfish I X Saturation Stunted c X Geomorp X FAC-Neu	cators (minimum of two required) Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2) tral Test (D5)
emarks: oils are highl IYDROLO Vetland Hyd Primary Indic Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Observ Surface Wate Water Table Saturation Pr (includes cap	y disturbed due to agricu DGY rology Indicators: ators (minimum of one is water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima y Vegetated Concave Su rations: er Present? Present? pillary fringe)	s required: cf gery (B7) urface (B8) /es No /es No /es No	heck all that apply) Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of f Recent Iron F Thin Muck Su Gauge or We Other (Explai X Depth (inches)	d Leaves (BS a (B13) Plants (B14) Ifide Odor (C zospheres or Reduced Iron Reduction in urface (C7) Il Data (D9) n in Remarks :	9) 1 Living Roots 1 (C4) Tilled Soils (C 5) Wetland	ns were p s (C3) C6)	Secondary India Surface S Drainage Dry-Seas Crayfish I X Saturation Stunted c X Geomorp X FAC-Neu	cators (minimum of two required) Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2) tral Test (D5)
Internation Price Water Table Saturation Price Water Content of the sector of the sect	y disturbed due to agricu DGY rology Indicators: ators (minimum of one is water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima y Vegetated Concave Su rations: er Present? Present? pillary fringe)	s required: cf gery (B7) urface (B8) /es No /es No /es No	neck all that apply) Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of Recent Iron F Thin Muck St Gauge or We Other (Explain X Depth (inches) X Depth (inches)	d Leaves (BS a (B13) Plants (B14) Ifide Odor (C zospheres or Reduced Iron Reduction in urface (C7) Il Data (D9) n in Remarks :	9) 1 Living Roots 1 (C4) Tilled Soils (C 5) Wetland	ns were p s (C3) C6)	Secondary India Surface S Drainage Dry-Seas Crayfish I X Saturation Stunted c X Geomorp X FAC-Neu	cators (minimum of two required) Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2) tral Test (D5)
Internation Price Water Table Saturation Price Water Content of the sector of the sect	y disturbed due to agricu DGY rology Indicators: ators (minimum of one is water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima y Vegetated Concave Su rations: er Present? Present? pillary fringe)	s required: cf gery (B7) urface (B8) /es No /es No /es No	neck all that apply) Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of Recent Iron F Thin Muck St Gauge or We Other (Explain X Depth (inches) X Depth (inches)	d Leaves (BS a (B13) Plants (B14) Ifide Odor (C zospheres or Reduced Iron Reduction in urface (C7) Il Data (D9) n in Remarks :	9) 1 Living Roots 1 (C4) Tilled Soils (C 5) Wetland	ns were p s (C3) C6)	Secondary India Surface S Drainage Dry-Seas Crayfish I X Saturation Stunted c X Geomorp X FAC-Neu	cators (minimum of two required) Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2) tral Test (D5)
emarks: oils are highl Vetland Hyd Primary Indic Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Sield Observ Surface Wate Vater Table Saturation Pr (includes cap Describe Red	y disturbed due to agricu DGY irology Indicators: eators (minimum of one is water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Ima y Vegetated Concave Su rations: er Present? Present? esent? billary fringe) corded Data (stream gau	s required: cf gery (B7) Irface (B8) /es No /es No /es No ge, monitorii	neck all that apply) Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of Recent Iron F Thin Muck St Gauge or We Other (Explain X Depth (inches) X Depth (inches)	d Leaves (BS a (B13) Plants (B14) Ifide Odor (C zospheres or Reduced Iron Reduction in Ifface (C7) Il Data (D9) n in Remarks : N/A : >18" : >18" : >18"	9) 1 Living Roots 1 (C4) Tilled Soils (C 5) Wetland	ns were p s (C3) C6)	Secondary India Surface S Drainage Dry-Seas Crayfish I X Saturation Stunted c X Geomorp X FAC-Neu	cators (minimum of two required) Soil Cracks (B6) Patterns (B10) on Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2) tral Test (D5)

Investigator(s): DP-97 Section, Township, Range: TWP 2N, RNG 22E, SEC 3 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): concave	Project/Site:	CTH KR Stormwater	r WD				City/Count	y: Kenosha Coun	ty	Sampling Date: 9/27/2018
<pre>index in the result is a result is a result in the result is a result is a result in the result in the result is a result in the result is a result in the result is a result in the result i</pre>	Applicant/Owner:	Wisconsin Dept. of	Transportation				State	e: WI	Sampling Point:	
Bace Nut: Designed Nutrition Designed Nutrition Designed Nutrition Bace Nutrition 0.0000 Nutrition Note Note Note Bace Nutrition 0.0000 Nutrition Note	Investigator(s):	DP-97						Section, Townshi	p, Range: TWP 2N, RNG 2	2E, SEC 3
Base No. Loc Oracle Description Description Description Description Base No. 1.03 Y		terrace, etc.):	Toeslope							
bit No. Where (b): Litter strongents, it is generatives (b): (M) descriptions (b): (M) d	Slope (%):	0-1%	Lat:	42.6680412			Long:			
inclusion: Yeak		e: EtB - Elliott silty clay	loam, 2 to 6 percent slopes						NWI	classification: None
N Side Y , et inductory N Section 2014 No							Yes	X No		
Normality Normality <t< td=""><td>-</td><td>•</td><td></td><td></td><td>N</td><td>significantly dis</td><td></td><td></td><td></td><td></td></t<>	-	•			N	significantly dis				
SUMMARY OF FINDINGS - Attach alis map showing sampling point locations. transects, important features, etc. Hydrophyck (progener) Yes	-									
Hydrochydry loogetation Prozent? Yee X No Strike No Strike No <	-									
Which is a Unit in a Weishand? Yes X No Within a Weishand? Yes X No Remarks Mode and Hydrology Present? Yes X No			aon one map ene mig							
Weightender Unschleicher Aufreg führen anzumsichen Ausse diesen in der										x No
Server: Colspan="2">Colspan="2">Colspan="2">Colspan="2" Colspan="2">Colspan="2" Colspan="2"							-		100	<u></u>
NTCS subjects determined that should be determined from a charmed but adving the moth of Segmenter the ansatzed in procession and the moth of Segmenter the ansatzed in procession and the moth of Segmenter the ansatzed in the segment ansatzed in the segmenter the ansatzed in the segmenter the segmenter the ansatzed in the segmenter the segmenter the segment ansatzed in the segment an		0,					-			
VEETATION - Use scientific names of plants. Thm Strutum (Plot size: 30' radius) Abudue Scientific names of plants. 1 5: Cover Specient 2 Strutum (Plot size: 30' radius) Instructur (Plot size: 30' radius) 2	WETS analysis dete							etermined that du	ring the month of September	the antecedent precipitation conditions
Abcular Derivative Species? Derivative Status Derivative Species? Derivative Species? <th< td=""><td>were weller than no</td><td>imai. mis was taken</td><td>into considerations during ne</td><td>a surveys. Dr takerrina</td><td>n ag neid ei</td><td>iciosed depress</td><td>501.</td><td></td><td></td><td></td></th<>	were weller than no	imai. mis was taken	into considerations during ne	a surveys. Dr takerrina	n ag neid ei	iciosed depress	501.			
Time Share (Price size 30" and up) Y_COVE Spaces? Status Dominane Test workshoet: 1	VEGETATION -	Use scientific r	names of plants.			Abaaluta	Dominant	Indiantor		
1	Tree Stratum (Plot	size: 30' radius)							Dominance Test works	neet:
2		5120.00 100103)				78 00001	Opecies:	Olaius	Dominance rest works	leet.
3.	<u></u>								Number of Dominant Spor	
4.										
5									That Are OBL, FACW, OF	FAC. <u>2</u> (A)
- Total Cover Species Across At Strats: 2 (B) SadingShub_Statum (Plot size: 15 radius) - - - 1. - - - - 3. - - - - 3. - - - - 4. - - - - - 5. - - - - - 6. - - - - - 1. Proceine for down worksheet: - - - 7. Total Statum (Plot size: 57 radius) - - - 1. Proceine for down worksheet: - - - 2. Proceine	-								Total Number of Dominan	
SadingShinub.Statum (Pot tize: 15' radus)	5.						Total Cover			
1							= Total Cover		Species Across All Strata	<u> </u>
1	Carling/Charle Cturt		(Descent of Descionant Const	
2		um (Plot size: 15 rad	ius)							
3.	<u></u>								That Are OBL, FACW, or	FAC: 100% (A/B)
4.										
5. Total % Cover d: Multiply br: That Are CBL, FACW, or FAC: Multiply br: 1. Parsianie nacuosa 20% Y ess FAC 2. Panicum capilare 15% Y ess FAC 3. Parsianie hydropper 5% No OBL FACU species 7% x4 = 0.23 6. Abution theophrasif 2% No FACU PUT Les Orderes 15%, x5 = 0.05 7. Medicas fortuna 2% No FACU PUT Les Orderes 7%, x4 = 0.23 6. Abution theophrasif 2% No FACU PUT Les Orderes 15%, x5 = 0.05 7. Medicas fortuna 2% No FACU PUT Les Orderes 14, x5 2.58 8. 2 No FACU PUT Les Orderes 14, x5 2.53 9. 2 2.50 No FACU PUT Les Orderes 14, x5 12, x5 1. 2 14, x5 12, x5 12, x5 1. 14, x5 12, x										
= Total Cover Total Secure d: Multiply by: 1. Porstaria macubas 20% Yes FACW FACW Secure 20% Secure 20									Prevalence Index works	neet:
Harb Stratum (Plot size: 5' radius)	э.						Tatal Causa		Tatal % Causa af	
Heith Stratum (Plot size: 5' radius)	·						= Total Cover			
1. Parabaria maculasa 20% Yes FAC FAC FAC Second Phythopian 2. Paincian flystigation 5% No OBL FAC FAC Second Phythopian 0.4 4. Portulaca oleracea 3% No FAC FAC Second Phythopian 0.4 0.4 5. Amandhus retroflexus 2% No FACU UPL species 1%, x5 = 0.05 6. Authon theophytinstit 2% No FACU FACU Provestation for the phythopian 7. Habscus triorum 1% No UPL Prevalence Index = B/A = 2.56 8.	Herb Stratum (Plot	size: 5' radius)								
2. Panicum capillare 15% Yes FAC FAC species 15% x 3 = 0.45 3. Persidaria hydropper 3% No FACU FACU species 7% x 4 = 0.28 4. Portulace oleracea 3% No FACU UPL species 7% x 4 = 0.28 6. Abuiton theophrasi 2% No FACU UPL species 1% x 5 = 0.05 6. Abuiton theophrasi 2% No FACU UPL species 1% x 4 = 0.28 9. 11 1% No UPL Prevalence index = B(A = 2.56 14. 11 2 2 1 1 1 1 2 2 1 1 1 1 1 1 1 2 1 1 1 2 1 1 <t< td=""><td></td><td>· · · · ·</td><td></td><td>-</td><td></td><td>20%</td><td>Voc</td><td>EACW/</td><td></td><td></td></t<>		· · · · ·		-		20%	Voc	EACW/		
3. Perskaria hydropiper 5% No OBL FACU species 7% x4 = 0.28 4. Portulaca oleracea 3% No FACU UPL species 1% x5 = 0.05 5. Amaranhus retroflexus 2% No FACU OUL species 1% x5 = 0.05 6. Adution theophrasi 2% No FACU OUL species 1% x5 = 0.05 7. Hbickus triorum 1% No EAU Prevalence Index = B(A = 2.56 9.	-									
4. Portulace denacee 3% No FACU UPL species 1% x5 = 0.05 5. Anarahtus setroflexus 2% No FACU Column Totals: 0.48 (A) 1.23 (B) 6. Abuiton theophrasi 2% No FACU Prevalence Index = B/A = 2.56 8. 1 1% No UPL Prevalence Index = B/A = 2.56 9. 1<						-			· · · · · · · · · · · · · · · · · · ·	
5. Amaranthus retroflexus 2% No FACU Column Totals: 0.48 (A) 1.23 (B) 6. Abulan theophrasii 2% No FACU Prevalence Index = B/A =									· · · ·	
6. Abuilon theophrasti 2% No FACU 7. Hibiscus trionum 1% No UPL Prevalence Index = B/A =	-								· · · ·	
7. Hibiscus trionum 1% No UPL Prevalence Index = B/A =	-									(A) <u>1.23</u> (B)
8.						-	·		Provalance Ind	or - B/A - 2.56
9						170			i revalence ind	EX = D/A =
11.	0									
11.	10								Hudronbutio Vogotation	Indiantero
12.									Hydrophytic vegetation	indicators.
13.	-								1 Danid Test for	Hudrophytic Vegetetion
IA	-									
15.										
Indext of the second sequence of the	-									
17.										
18.										
19.										
20	-								¹ Indicators of hydric soil of	nd wetland bydrology must
48% = Total Cover Woody Vine Stratum (Plot size: 30' radius)	-						·			
1. Vegetation 2. = Total Cover Present? Yes X No	20. <u> </u>					48%	= Total Cover		be present, unless disturb	
1.	W	- (Dist.)							Hadren I. C.	
2 = Total Cover Present? Yes X No Remarks: (Include photo numbers here or on a separate sheet.)		<u>n</u> (Plot size: 30' radit	us)							
= Total Cover									-	Yes X No
Remarks: (Include photo numbers here or on a separate sheet.)	<u></u>						- Total Covor		i lesent:	
									<u>I</u>	

Project/Site:	CTH KR Stormwater WD		City/County	: Kenosha Coun	ty	Sampling Date: 9/27/2018
Applicant/Owner:	Wisconsin Dept. of Transportation		State	: WI	Sampling Point:	DP-98
Investigator(s):	K. Carlson, E. Englund			Section, Townsh	p, Range: TWP 2N, RNG 22E,	SEC 3
Landform (hillslope,	, terrace, etc.): Backslope			Loca	I relief (concave, convex, none)	convex
Slope (%):	3% Lat: 42.668087		Long:	-8	37.893364	Datum: NAD83 UTM16N
Soil Map Unit Name	e: VaB - Varna silt loam, 2 to 6 percent slopes				NWI class	sification: None
Are climatic / hydrol	logic conditions on the site typical for this time of year?		Yes	X No	(If no, explain in Remarks	.)
Are Vegetation	N , Soil N , or Hydrology	N significantly dist	urbed?	Are "Norm	al Circumstances" present?	Yes X No
Are Vegetation	N , Soil N , or Hydrology	N naturally problem	natic?	(If needed	explain any answers in Remark	s.)
SUMMARY OF	FINDINGS Attach site map showing sampling point loca	tions, transects, imp	oortant featu	res, etc.		
	getation Present? Yes	No <u>X</u>		Sampled Ar		
Hydric Soil Pres		No <u>x</u>	withir	n a Wetland?	Yes	<u>No x</u>
Wetland Hydrol	logy Present? Yes	No <u>x</u>				
	termined that antecedent precipitation conditions were normal during the mont ormal. This was taken into considerations during field surveys. DP collected at		analysis also de	termined that du	ring the month of September the	antecedent precipitation conditions
VEGETATION -	Use scientific names of plants.				I	
Trop Stratum (Diat	nize: 20' rediue)	Absolute	Dominant	Indicator	Deminente Test merkekert	
Tree Stratum (Plot	size: 30 radius)	% Cover	Species?	Status	Dominance Test worksheet	
1 2.		·			Number of Dominant Species	
3.		·			That Are OBL, FACW, or FAC	: 0 (A)
4.					That Are ODE, I AOW, OF AC	(<)
5.					Total Number of Dominant	
··		·	= Total Cover		Species Across All Strata:	1 (B)
Sapling/Shrub Strat	tum (Plot size: 15' radius)				Percent of Dominant Species	
1.	· · · · · · · · · · · · · · · · · · ·				That Are OBL, FACW, or FAC	: 0% (A/B)
2.						
3.						
4.					Prevalence Index worksheet	:
5.						
			= Total Cover		Total % Cover of:	Multiply by:
					That Are OBL, FACW, or FAC	A/B
Herb Stratum (Plot	size: 5' radius)				OBL species	x1 =
1. Glycine max		65%	Yes	UPL	FACW species	x2 =
2. Amaranthus ret		10%	No	FACU	FAC species 2%	x3 = 0.06
3. Portulaca olera		10%	No	FACU	FACU species 22%	
4. Panicum capilla		2%	No No	FAC FACU	UPL species 65% Column Totals: 0.89	
5. Abutilon theoph 6.		2%	INO	FACU	Column Totals: 0.89	(A) 4.19 (B)
7.					Prevalence Index =	: B/A = 4.71
8.					i levalence index -	4.11
9						
10.					Hydrophytic Vegetation Ind	icators:
11.					ingui opinguo rogotation ina	
12.					1-Rapid Test for Hyd	rophytic Vegetation
13.					2-Dominance Test is	
14.					3-Prevalence Index is	s ≤3.0 ¹
15.					4-Morphological Ada	otations ¹ (Provide supporting
16.					data in Remarks or o	on a separate sheet)
17.					Problematic Hydroph	nytic Vegetation ¹ (Explain)
18.						
19.					¹ Indicators of hydric soil and w	etland hydrology must
20.					be present, unless disturbed of	or problematic.
		89%	= Total Cover			
	m (Plot size: 30' radius)				Hydrophytic	
1					Vegetation	
2					Present? Yes	
			= Total Cover			
Pomarka: (Incluid-	photo numbers here or on a separate sheet.)					
	cum fade out considerably and transition to soybean crop.					

Parting Data No. No. Yea Type Loc ² Totator Remarks 6-5' 10YR 3/1 100	rofile Desc Depth	 Matrix		Por	lox Features					
6-8 ⁺ 10178 3/1 100	•		%			Tvpe ¹	L oc ²	_ Texture	Re	marks
8-30* 10YR 3/1 100 Cay 30:36* 10YR 4/2 65 10YR 4/6 15 C M Sit Leam 30:36* 10YR 6/2 65 10YR 4/6 15 C M Sit Leam Type: C:Concentration, DuDeplation, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. Test Indicators of Hydric Solis: Histos Eppeden (X2) Sandy Redax (S1) Test Indicators of Hydric Solis: Test Indicators of Hydric Solis: Histos Eppeden (X2) Sandy Redax (S1) Unor-Monganee Masses (F12) Unor-Monganee Masses (F12) Black Husic (X3) Entry Muck (S6) Unor-Monganee Masses (F12) Unor-Monganee Masses (F12) 2 on Muck (X10) Dark Surface (X11) Depleted Matrix (K3) Other (Explain in Remarks) 3 stratient Layer (If observed): Type: Depleted Matrix (F2) Depleted Matrix (F3) 5 on Muck (Material (S1) Depleted Matrix (F3) Seconday Indicators (minimum of two required) 5 winds: Name (A1) Mater Stained Lawes (B9) Seconday Indicators (minimum of two required) Stafface Warer (A1) Mater Stained Lawes (B9)					70	.) 0	200			inano
28.36* 10YR 4/2 85 10YR 4/6 15 C M Sit Loam Type: C=/Concentration.D=/Dipletion.RM=Reduced Matrix CS=-Coverad of Coated Sand Grains. *Location: PL=Porte Lining, M=Matrix. yrine Sail Indicators* Sandy Gleyed Matrix (S4) Test Indicators of Hydric Soils: Filescoil (A1) Histoin (A1) Sandy Gleyed Matrix (S8) Other (Explain in Remarks) Wery Shallow Dark Surface (F22) Black Hist (A3) Singleyed Matrix (S8) Other (Explain in Remarks) Other (Explain in Remarks) Synallow Dark Surface (A1) Dark Surface (F3) The hydric soil indicators have been updated to sole source (F7) Other (Explain in Remarks) Sondy Mucky Meral (S1) Depieted Matrix (F3) The hydric soil indicators have been updated to sole source (F7) The hydric soil indicators have been updated to sole source (F3) Sondy Mucky Meral (S1) Depieted Dark Surface (F9) The hydric Soil Present? Yes										
Type: C::Concentration, D::Depletion, RM:-Reduced Matrix, CS::Covered of Coated Sand Grans. *Location: PL::Proc Lining, M:-Matrix, Type: C::Concentration, D::Depletion, RM:-Reduced Matrix, CS::Covered of Coated Sand Grans. *Location: PL::Proc Lining, M:-Matrix, Histic Epideon (1/2) Sandy Reduced (1/2) Sandy Reduced (1/2) User Surface (1/2) Black Hats (X3) Stripped Matrix, (S5) Other (Explain in Remarks) Hydrogon Sulfield (A4) Dark Surface (77) Other (Explain in Remarks) Stratified Layers (A5) Loamy Wulky Mineral (F1) Depleted Matrix (F3) 2 cm Muak (A10) Depleted Matrix (F3) Bedox Dark Surface (77) 2 cm Muak (A10) Depleted Dark Surface (F7) comply with the Field Indicators of Hydric Solis 5 cm Mucky Patrix Petra Petra (1/3) Redox Dapressions (F8) in the United States, Version 8.0, 2016. Startick Layer (1/4) Aquakis Fauna (S13) Depleted Dark Surface (F7) comply with the Field Indicators (minmum of two required) Startick User (1/4) Matrix Sintee (F1) Surface Sintee (F8) Drainage Patterns (B10) Startation (A3) Hydric Solit Present? Yes_ NoX Startation (A3) Hydric Solit Present (A1) Surface Solit Ca) Cordird Hydrology Matrix (V										
yptr Soll Indicators *: Test Indicators Phylic Solls: Histosci (A1)	30-36"	10YR 6/2	85	10YR 4/6	15	<u> </u>	M	Silt Loam		
yptr Soll Indicators *: Test Indicators Phylic Solls: Histosci (A1)										
yptr Soll Indicators *: Test Indicators Phylic Solls: Histosci (A1)										
yptr Soll Indicators *: Test Indicators Phylic Solls: Histosci (A1)										
yptr Soll Indicators *: Test Indicators Phylic Solls: Histosci (A1)										
yptr Soll Indicators *: Test Indicators Phylic Solls: Histosci (A1)	Type: C=C	oncentration, D=Deplet	on, RM=Redu	ced Matrix, CS=Covered	or Coated Sa	and Grains.	² Locatio	n: PL=Pore Lining	, M=Matrix.	
Histic Epipodon (A2) Sandy Rodox (S5) Vory Shallow Dark Surface (F22) Black Histic (A3) Shripped Matrix (S6) Other (Explain in Remarks) Hydrogen Surface (A10) Learny Mucky Mineral (F1) Dark Surface (F2) 2 orn Muck (A10) Depleted Matrix (F3) "The hydric soil indicators have been updated to comply with the Field Indicators of Hydric Soils in the United States, Version 8.0, 2016. 5 orn Mucky Peat or Peat (S3) Redox Dark Surface (F6) in the United States, Version 8.0, 2016. Stratified Layer (If observed): Type: Depleted Dark Surface (F7) NoX Depth (Inches): Hydric Soil Present? Yes NoX Secondary Indicators (minimum of one is required: check all that apply) Secondary Indicators (minimum of one is required: check all that apply) Secondary Indicators (minimum of one is required: check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Water Stained Lawser (B9) Surface Soil Cracks (B6) Surface Vater (A1) Hydric Sained Lawser (B9) Surface Soil Cracks (B6) Surface Vater (A1) Hydric Sained Lawser (B9) Surface Soil Cracks (B6) Surface Vater (A1) Hydric Sained Lawser (B										
Bisk Histic (A3) Stripped Matrix (S5) Other (Explain in Remarks) Hydrogen Sulidie (A4) Dark Surface (S7) Dark Surface (S7) Stratified Layers (A5) Loarny Gleyed Matrix (F2) Depleted Boark Surface (A12) Redox Dark Surface (F6) *The hydric soil indicators have been updated to comp With the Field Indicators of Hydric Soils S mm Muck y Mineral (S1) Depleted Dark Surface (F6) *The hydric soil indicators have been updated to comp with the Field Indicators of Hydric Soils S mm Muck y Mineral (S1) Depleted Dark Surface (F6) in the United States, Version 8.0, 2016. Striptic Indicators (S3) Redox Dapressions (F8) in the United States, Version 8.0, 2016. Striptic Indicators were observed. Hydric Soil Present? Yes NoX Might indicators (minimum of one is required: check all that apply) Secondary Indicators (minimum of two required) Surface Out Cracks (B6) True Aquatic Plants (B14) Drys-Season Water Table (C2) Standard Vatric (A1) High Water Table (A2) Aquatic Fauna (B13) Drainage Paterns (B10) Standard Dytropois (B2) Oxidace Ahicospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Standard Overs (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Striptic Ov	Histoso	l (A1)		Sandy Gleye	d Matrix (S4)			Iron-Mang	anese Masses (F1	2)
Hydrogen Sulfate (A4) Dark Surface (S7)	Histic E	pipedon (A2)		Sandy Redox	(S5)			Very Shall	ow Dark Surface (F	-22)
Statisfied Layers (A5) Loamy Mucky Mineral (F1) 2 cm Muck (A10) Loamy Glayed Matrix (F2) Depleted Bold Dark Surface (A11) Depleted Matrix (F3) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Peat or Peat (S3) Redox Dark Surface (F7) comply with the Field Indicators of Hydric Soils in the United States, Version 8.0, 2016. estrictive Layer (if observed): Type: Type: Depth (inches): Type: Depth (inches): warr Hydric Soil Present? Yes No X Marks: hydric indicators (minimum of one is required: check all that apply) Surface Water Table (A2) Aquatic Fauna (B13) Dialage Patterns (B10) Surface Water Table (A2) Aquatic Fauna (B13) Dialage Patterns (B10) Saturation (A3) Water Marks (B1) Marks (B1) Marks (B1) Aquatic Fauna (B13) Dialage Patterns (B10) Saturation (A3) Water Marks (B1) Aquatic Fauna (B13) Dialage Patterns (B10) Saturation (A3) Water Marks (B1) Aquatic Fauna (B13) Dialage Patterns (B10) Saturation Visible on Aerial Imagery (C9) Didicators (B3) Presence of Reduced fron (C4) Saturation Visible on Aerial Imagery (C9) Did Data (D9) Sparsetly Vegetated Concave Surface (B8) <td>Black H</td> <td>listic (A3)</td> <td></td> <td>Stripped Mat</td> <td>rix (S6)</td> <td></td> <td></td> <td>Other (Exp</td> <td>olain in Remarks)</td> <td></td>	Black H	listic (A3)		Stripped Mat	rix (S6)			Other (Exp	olain in Remarks)	
	Hydrog	en Sulfide (A4)		Dark Surface	e (S7)					
Depleted Balow Dark Surface (A11) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky (Mineral (S1) Depleted Dark Surface (F7) Redox Depressions (F8) in the United States, Version 8.0, 2016. Serictive Layer (If observed): Type: Depth (inches): Depth (i	Stratifie	ed Layers (A5)		Loamy Muck	y Mineral (F1)				
Thick Dark Surface (A12) Redox Dark Surface (F6) *The hydric soil indicators have been updated to comply with the Field Indicators of Hydric Soils in the United States, Version 8.0, 2016. setrictive Layer (If observed): Type:	2 cm M	uck (A10)		Loamy Gleye	d Matrix (F2)					
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) comply with the Field Indicators of Hydric Soils In the United States, Version 8.0, 2016. structive Layer (if observed): Type:	Deplete	ed Below Dark Surface	(A11)	Depleted Ma	trix (F3)					
	Thick D	ark Surface (A12)		Redox Dark	Surface (F6)			³ The hydric soil	indicators have bee	en updated to
setrictive Layer (if observed): Type:	Sandy I	Mucky Mineral (S1)		Depleted Da	k Surface (F	7)		comply with t	he Field Indicators	of Hydric Soils
Type:	5 cm M	ucky Peat or Peat (S3)		Redox Depre	essions (F8)			in the United	States, Version 8.0	0, 2016.
Depth (inches): Hydric Soil Present? Yes No X marks: hydric indicators were observed. PVENCLOCY etland Hydrology Indicators: imary Indicators (minimum of one is required: check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxid/zed Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Dirin Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B3) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) etd Observations: urface Water Present? Yes No X Indudator Present? Yes	estrictive L	ayer (if observed):								
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hydric indicators were observed. Strand Hydrology Indicators: immary Indicators (minimum of one is required: check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Plants (B14) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crafyfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Sturted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) In nundation Visible on Aerial Imagery (B7) Gauge or Weil Data (D9) FAC-Neutral Test (D5) In undation Present? Yes No X Depth (inches): <u>> >18"</u> Vetand Hydrology Present? Yes No X etarble Present? Yes No X Depth (inches): <u>> >18"</u> Vetand Hydrology Present? Yes	Depth (i	nches).					Hydric	Soil Present?	Yes	No X
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Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) eld Observations:	YDROLO etland Hyd imary India Surface High W Saturat Water M Sedime Drift De	cators were observed. DGY Irology Indicators: cators (minimum of one Water (A1) ater Table (A2) ion (A3) Marks (B1) ont Deposits (B2) eposits (B3)	is required: ch	Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of	a (B13) Plants (B14) lfide Odor (C zospheres on Reduced Iron	1) I Living Roots I (C4)		Surface S Drainage Dry-Sease Crayfish E Saturation Stunted or	oil Cracks (B6) Patterns (B10) on Water Table (C2 Burrows (C8) I Visible on Aerial Ir Stressed Plants (E) nagery (C9)
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) eld Observations: urface Water Present? Yes No X urface Water Present? Yes No X Depth (inches): >18" Vater Table Present? Yes No X Depth (inches): >18" Wetland Hydrology Present? Yes No X aturation Present? Yes No X Depth (inches): >18" Wetland Hydrology Present? Yes No X ncludes capillary fringe) escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: emarks: emarks: Emarks:	hydric india YDROL(etland Hydri rimary India Surface High W Saturati Water N Sedime Drift De Algal M	cators were observed. DGY Irology Indicators: cators (minimum of one Water (A1) ater Table (A2) ion (A3) Marks (B1) mt Deposits (B2) eposits (B3) lat or Crust (B4)	is required: ch	Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron F	a (B13) Plants (B14) Ifide Odor (C zospheres on Reduced Iron Reduction in T	1) I Living Roots I (C4)		Surface S Drainage Dry-Sease Crayfish E Saturation Stunted of Geomorph	oil Cracks (B6) Patterns (B10) on Water Table (C2 Burrows (C8) I Visible on Aerial Ir Stressed Plants (E nic Position (D2)) nagery (C9)
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escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Pydric individual	cators were observed. DGY rology Indicators: cators (minimum of one a Water (A1) ater Table (A2) ion (A3) Marks (B1) ont Deposits (B2) posits (B3) lat or Crust (B4) posits (B5) ion Visible on Aerial Im ly Vegetated Concave S vations: er Present? Present?	agery (B7) Surface (B8) Yes No	Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron F Thin Muck Su Gauge or We Other (Explain X Depth (inches)	a (B13) Plants (B14) Ifide Odor (C zospheres on Reduced Iron Reduction in ⊺ urface (C7) ell Data (D9) in in Remarks .: <u>N/A</u> .: <u>>18"</u>	1) Living Root: (C4) Γilled Soils (C		Surface S Drainage Dry-Sease Crayfish E Saturation Stunted of Geomorph	oil Cracks (B6) Patterns (B10) on Water Table (C2 Burrows (C8) I Visible on Aerial Ir Stressed Plants (E nic Position (D2)) nagery (C9)
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Project/Site:	CTH KR Stormwater WD			City/County	: Kenosha Cour	ity	Sampling Date: 9/27/2018
Applicant/Owner:	Wisconsin Dept. of Transportation			State	: WI	Sampling Point:	DP-99
Investigator(s):	K. Carlson, E. Englund				Section, Townsh	ip, Range: TWP 2N, RNG 22E	E, SEC 3
Landform (hillslope,	, terrace, etc.): Backslop	e			Loca	al relief (concave, convex, none	e): convex
Slope (%):	2-3% Lat:	42.6683388		Long:	-8	7.8907928	Datum: NAD83 UTM16N
Soil Map Unit Name	e: VaC2 - Varna silt loam 6 to 12 percent slo	pes, eroded				NWI cla	assification: E2K
Are climatic / hydro	logic conditions on the site typical for this tir	ne of year?		Yes	X No	(If no, explain in Remar	·ks.)
Are Vegetation	N , Soil N	, or Hydrology N	significantly dis	turbed?	Are "Norm	al Circumstances" present?	Yes X No
Are Vegetation	N , Soil N		naturally proble	matic?	(If needed	, explain any answers in Rema	
SUMMARY OF	FINDINGS Attach site map sho	wing sampling point location	s, transects, im	portant featu	res. etc.		
	getation Present?	Yes X	No		Sampled Ar	ea	
Hydric Soil Pres	-	Yes	No x		n a Wetland?		No x
Wetland Hydrol		Yes	No X	_		_	
were wetter than no hydrology.	ermined that antecedent precipitation condi						
VEGETATION	Use scientific names of plants.		Absolute	Dominant	Indicator	1	
Tree Stratum (Plot	size: 30' radius)		% Cover	Species?	Status	Dominance Test workshee	et:
1. Ulmus pumila	· · · · · · · ,		15%	Yes	UPL		
2. Acer saccharin	um		10%	Yes	FACW	Number of Dominant Specie	25
3. Acer negundo			5%	No	FAC	That Are OBL, FACW, or FA	
4. Gleditsia triacar	nthos		5%	No	FACU		(*)
5.						Total Number of Dominant	
· · ·			35%	= Total Cover		Species Across All Strata:	5 (B)
							()
Sapling/Shrub Strat	tum (Plot size: 15' radius)					Percent of Dominant Specie	18
1. Rhamnus catha	· · · · · · · · · · · · · · · · · · ·		10%	Yes	FAC	That Are OBL, FACW, or FA	
2. Cornus racemo			5%	Yes	FAC		(***)
3.							
4.						Prevalence Index workshe	et.
5.							
			15%	= Total Cover		Total % Cover of:	Multiply by:
				-		That Are OBL, FACW, or FA	
Herb Stratum (Plot	size: 5' radius)					OBL species	x1 =
1. Phalaris arundi	nacea		90%	Yes	FACW	FACW species 105	5% x2 = 2.1
2. Helianthus gros	sseserratus		5%	No	FACW	FAC species 20	0% x3 = 0.6
3. Solidago canad	lensis		3%	No	FACU	FACU species 10	0% x4 = 0.4
4. Asclepias syria	са		2%	No	FACU	UPL species 15	i% x5 = 0.75
5.						Column Totals: 1.5	50 (A) 3.85 (B)
6.							
7.						Prevalence Index	x = B/A = 2.57
8.							
9.							
10.						Hydrophytic Vegetation In	ndicators:
11.							
12.						1-Rapid Test for Hy	ydrophytic Vegetation
13.						X 2-Dominance Test	is >50%
14.						3-Prevalence Index	s ≤ 3.0 ¹
15.						4-Morphological Ad	daptations ¹ (Provide supporting
16.						data in Remarks o	r on a separate sheet)
17.						Problematic Hydro	pphytic Vegetation ¹ (Explain)
18.							
19.						¹ Indicators of hydric soil and	wetland hydrology must
20.						be present, unless disturbed	d or problematic.
			100%	= Total Cover			
Woody Vine Stratur	m_ (Plot size: 30' radius)					Hydrophytic	
1						Vegetation	
2						Present? Ye	es_X_No
				= Total Cover			
						<u> </u>	
	photo numbers here or on a separate shee pical of a planted windrow with an understo		canary grass.				

Depth	Matrix		Rec	ox Features					
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Re	emarks
0-12"	10YR 2/2	98	10YR 3/6	2	С	М	Sandy Clay Loam		
12-24"	10YR 5/2	90	10YR 4/6	10	С	М	Sandy Clay Loam		
						-			
						- 2			
		on, RM=Redu	uced Matrix, CS=Covered	or Coated S	and Grains.		n: PL=Pore Lining		
	ndicators ³ :					Test	Indicators of Hydr		0)
Histoso			Sandy Gleye)			anese Masses (F1	
_	pipedon (A2) listic (A3)		Sandy Redox Stripped Mat					ow Dark Surface (F blain in Remarks)	-22)
_	en Sulfide (A4)		Dark Surface						
_ · ·	ed Layers (A5)		Loamy Muck		D)				
	uck (A10)		Loamy Gleye						
	ed Below Dark Surface (Q11)	Depleted Mat		/				
	ark Surface (A12)		Redox Dark S	()			³ The hydric soil i	ndicators have bee	en updated to
	Mucky Mineral (S1)		Depleted Dar					he Field Indicators	
	ucky Peat or Peat (S3)		Redox Depre		•)		1,2	States, Version 8.0	
									-,
	ayer (if observed):								
Type:			-						
marks: hydric indi	nches):					Hydric \$	Soil Present?	Yes	<u>No ></u>
marks: hydric indid YDROL(cators were observed.		-			Hydric \$	Soil Present?	Yes	<u>No </u>
marks: hydric indid YDROL(etland Hyd	cators were observed.	s required: c	- heck all that apply)			Hydric \$		Yes	
marks: hydric indie (DROL(etland Hyd imary Indic	cators were observed. OGY Irology Indicators:	s required: c	heck all that apply)	d Leaves (B	9)	Hydric \$	Secondary Indic		
marks: hydric indid (DROLO etland Hyd imary Indic Surface	cators were observed. OGY Irology Indicators: cators (minimum of one	s required: c			9)	Hydric \$	Secondary Indic	ators (minimum of	
marks: hydric indid (DROLO etland Hyd imary Indic Surface High W	Cators were observed. DGY Irology Indicators: Cators (minimum of one Water (A1)	s required: c	Water-Staine	a (B13)		Hydric :	Secondary Indic Surface S	ators (minimum of bil Cracks (B6)	two required)
marks: hydric indid YDROL(etland Hyd imary Indic Surface High W Saturat	Cators were observed. DGY Irology Indicators: Cators (minimum of one Water (A1) ater Table (A2)	s required: c	Water-Staine Aquatic Faun	a (B13) Plants (B14))	Hydric :	Secondary Indic Surface S Drainage Dry-Seaso	ators (minimum of oil Cracks (B6) ^P atterns (B10)	two required)
Marks: hydric indid (DROL(etland Hyd imary Indic Surface High W Saturat Water N	Cators were observed.	s required: c	Water-Staine Aquatic Faun True Aquatic	a (B13) Plants (B14) Ifide Odor (C) C1)		Secondary Indic Surface S Drainage I Dry-Seasc Crayfish B	ators (minimum of bil Cracks (B6) Patterns (B10) n Water Table (C2	two required)
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marks: hydric indid (DROLO etland Hyd imary Indic Surface High W Saturat Water N Saturat Urift De	cators were observed. OGY Irology Indicators: cators (minimum of one a Water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2)	s required: c	Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi	a (B13) Plants (B14) lfide Odor (C cospheres of Reduced Iron) C1) n Living Roots	s (C3)	Secondary Indic Surface S Drainage I Dry-Seaso Crayfish B Saturation Stunted or	ators (minimum of bil Cracks (B6) Patterns (B10) n Water Table (C2 urrows (C8) Visible on Aerial Ir	two required) ?) magery (C9)
Marks: hydric indid (DROLO etland Hyd imary Indic Surface High W Saturat Water N Sedime Drift De Algal M	cators were observed. DGY Irology Indicators: cators (minimum of one Water (A1) ater Table (A2) ion (A3) Marks (B1) what Deposits (B2) eposits (B3)	s required: c	Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi	a (B13) Plants (B14) fide Odor (C cospheres of Reduced Iron Reduction in) C1) n Living Roots n (C4)	s (C3)	Secondary Indic Surface S Drainage I Dry-Seaso Crayfish B Saturation Stunted or Geomorph	ators (minimum of oil Cracks (B6) Patterns (B10) on Water Table (C2 urrows (C8) Visible on Aerial Ir Stressed Plants (I	two required) ?) magery (C9)
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Marks: hydric india ydric india etland Hyd imary India Surface High W Saturat Water N Sedime Drift De Algal M Iron De Inundat	Cators were observed. DGY frology Indicators: cators (minimum of one a Water (A1) fater Table (A2) ion (A3) Marks (B1) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) posits (B5)	gery (B7)	Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron F	a (B13) Plants (B14) Ifide Odor (C cospheres or Reduced Iron Reduction in Irface (C7) Il Data (D9)) c1) n Living Root: n (C4) Tilled Soils (0	s (C3)	Secondary Indic Surface S Drainage I Dry-Seaso Crayfish B Saturation Stunted or Geomorph	ators (minimum of bil Cracks (B6) Patterns (B10) on Water Table (C2 urrows (C8) Visible on Aerial Ir Stressed Plants (E bic Position (D2)	two required) ?) magery (C9)
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Project/Site:	CTH KR Stormwater WD			City/County	Racine County	5	Sampling Date: 9/27/2018
Applicant/Owner:	Wisconsin Dept. of Transportation			State	: WI	Sampling Point:	DP-100
Investigator(s):	K. Carlson, E. Englund				Section, Townshi	p, Range: TWP 3N, RNG 22E, SE	C 33
Landform (hillslope	, terrace, etc.): Toeslope				Loca	I relief (concave, convex, none): co	onvex
Slope (%):	0-1% Lat:	42.6699333		Long:	-8	7.9109955	Datum: NAD83 UTM16N
Soil Map Unit Name	e: VaB - Varna silt loam, 2 to 6 percent slope	s				NWI classific	cation: None
Are climatic / hydro	logic conditions on the site typical for this tin	ne of year?		Yes	X No	(If no, explain in Remarks.)	
Are Vegetation	Y , Soil Y	, or Hydrology N	significantly dist	urbed?	Are "Norma	al Circumstances" present?	Yes No X
Are Vegetation	N , Soil N	, or Hydrology N	naturally proble	matic?	(If needed,	explain any answers in Remarks.)	
SUMMARY OF	FINDINGS Attach site map sho	wing sampling point locations	. transects. im	oortant featu	res. etc.		
	getation Present?	Yes x	No		Sampled Are	 Pa	
Hydric Soil Pres		Yes X	No		n a Wetland?		No
Wetland Hydrol	ogy Present?	Yes X	No				
	ermined that antecedent precipitation condit rrnal. This was taken into considerations du						
VEGETATION	Use scientific names of plants.					Т	
Tree Stratum (Plot	cizo: 20' rodius)		Absolute	Dominant Species?	Indicator	Dominance Test worksheet:	
1.	size. Su radius)		% Cover	Species?	Status	Dominance Test worksheet:	
				·	<u> </u>	Number of Dominant Species	
<u>^</u>				·	<u> </u>	That Are OBL, FACW, or FAC:	1 (A)
3						THAL ALE ODE, FACW, OF FAC:	(A)
4 5.			<u></u>	·		Total Number of Dominant	
J				= Total Cover	<u> </u>	Species Across All Strata:	2 (B)
					<u> </u>	opecies Across Air Strata.	(D)
1	tum (Plot size: 15' radius)					Percent of Dominant Species That Are OBL, FACW, or FAC:	(A/B)
<u></u>				·			
4.						Prevalence Index worksheet:	
5.				·			
				= Total Cover		Total % Cover of:	Multiply by:
						That Are OBL, FACW, or FAC:	A/B
Herb Stratum (Plot	size: 5' radius)					OBL species	x1 =
1. Glycine max			35%	Yes	UPL	FACW species	x2 =
2. Panicum capilla	are		25%	Yes	FAC	FAC species 25%	x3 = 0.75
3. Amaranthus re	troflexus		3%	No	FACU	FACU species 5%	x4 = 0.2
4. Portulaca olera	сеа		2%	No	FACU	UPL species 35%	x5 = 1.75
5.						Column Totals: 0.65	(A) 2.7 (B)
6.				·			
7.				·		Prevalence Index = B/	A = 4.15
8.							
9.				· <u> </u>			
10.				· <u> </u>		Hydrophytic Vegetation Indica	tors:
11.							
12.						1-Rapid Test for Hydrop	hytic Vegetation
13.						2-Dominance Test is >50	0%
14.						3-Prevalence Index is ≤	3.0 ¹
15.						4-Morphological Adapta	tions ¹ (Provide supporting
16.						data in Remarks or on a	a separate sheet)
17.						Problematic Hydrophytic	c Vegetation ¹ (Explain)
18.							
19.						¹ Indicators of hydric soil and wetla	and hydrology must
20.						be present, unless disturbed or p	roblematic.
			65%	= Total Cover			
Woody Vine Stratu	m (Plot size: 30' radius)					Hydrophytic Vegetation	
2.						Present? Yes	X No
				= Total Cover			_
	photo numbers here or on a separate sheet icantly disturbed due to the feature being lo		ation appeared stun	ted at the time of	f survey.		

rofile Descr Depth	Matrix		Re	dox Features				
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-14"	10YR 2/1	95	10YR 3/6	5	С	М	Clay Loam	
14-20"	10YR 5/2	90	10YR 4/6	10	С	М	Clay	
						2		•• •• •
	oncentration, D=Depleti	on, RM=Redu	uced Matrix, CS=Covere	d or Coated S	and Grains.		on: PL=Pore Lining, Indicators of Hydri	
Histosol			Sandy Gleve	ed Matrix (S4)		1631	•	anese Masses (F12)
	pipedon (A2)		Sandy Redo					w Dark Surface (F22)
_ '	istic (A3)		Stripped Ma					lain in Remarks)
_	en Sulfide (A4)		Dark Surfac	. ,				
	d Layers (A5)			ky Mineral (F1)			
	uck (A10)			ed Matrix (F2)				
_	d Below Dark Surface (A11)	Depleted Ma					
	ark Surface (A12)		X Redox Dark				³ The hydric soil ir	ndicators have been updated to
	lucky Mineral (S1)			ark Surface (F	7)			e Field Indicators of Hydric Soils
_	ucky Peat or Peat (S3)			essions (F8)			in the United S	States, Version 8.0, 2016.
estrictive La	ayer (if observed):							
Type:	, , , , , , , , , , , , , , , , , , , ,							
								.
dox was obs	served throughout most	of the profile	with a depleted layer wi	h redox obsei	rved under a	-	Soil Present? surface.	Yes <u>X</u> No
marks: dox was obs	served throughout most	of the profile	with a depleted layer wi	h redox obser	rved under a	-		Yes <u>X</u> NO
marks: dox was obs YDROLC etland Hydr	served throughout most			h redox obser	rved under a t	-	surface.	Yes X No
marks: dox was obs YDROLC etland Hydr rimary Indica	served throughout most		neck all that apply)	h redox obser		-	surface.	
marks: dox was obs YDROLC etland Hydr rimary Indica Surface	served throughout most DGY rology Indicators: ators (minimum of one		neck all that apply)	ed Leaves (B		-	surface. Secondary Indica	tors (minimum of two required)
marks: dox was obs YDROLC etland Hydr rimary Indica Surface	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2)		neck all that apply) Water-Stain Aquatic Fau	ed Leaves (B	9)	-	surface. Secondary Indica Surface So Drainage P	tors (minimum of two required) il Cracks (B6)
marks: dox was obs YDROLC etland Hydi rimary Indica Surface High Wa Saturatio	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2)		neck all that apply) Water-Stain Aquatic Fau True Aquati	ed Leaves (B na (B13)	9)	-	surface. Secondary Indica Surface So Drainage P	tors (minimum of two required) il Cracks (B6) latterns (B10) n Water Table (C2)
marks: dox was obs YDROLC etland Hydr rimary Indica Surface High Wa Saturatic Water M	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3)		neck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S	ed Leaves (B na (B13) c Plants (B14)	9)) ;1)	thick dark	Secondary Indica Secondary Indica Surface So Drainage P Dry-Seasor Crayfish Bu	tors (minimum of two required) il Cracks (B6) latterns (B10) n Water Table (C2)
marks: dox was obs YDROLC etland Hydu rimary Indica Surface High Wa Saturatio Water M Sedimer	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) farks (B1)		neck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C	9)) 21) n Living Roots	thick dark	Secondary Indica Secondary Indica Surface So Drainage P Dry-Seasor Crayfish Bu X Saturation	tors (minimum of two required) il Cracks (B6) tatterns (B10) n Water Table (C2) urrows (C8)
marks: dox was obs YDROLC etland Hydr rimary Indica Surface High Wa Saturatic Water M Sedimer Drift Dep	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2)		neck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C izospheres or	9)) 21) n Living Roots n (C4)	thick dark	Secondary Indica Secondary Indica Surface So Drainage P Dry-Seasor Crayfish Bu X Saturation ' X Stunted or	tors (minimum of two required) il Cracks (B6) 'atterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9)
marks: dox was obs YDROLC etland Hydu rimary Indica Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3)		neck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reducetion in	9)) 21) n Living Roots n (C4)	thick dark	Secondary Indica Surface So Drainage P Dry-Seasor Crayfish Bu X Saturation X Stunted or X Geomorphi	tors (minimum of two required) il Cracks (B6) 'atterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)
marks: dox was obs yDROLC etland Hydu rimary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	DGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	is required: cl	heck all that apply) Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S	ed Leaves (B na (B13) c Plants (B14) ulfide Odor (C izospheres or Reduced Iror Reducetion in	9)) 21) n Living Roots n (C4)	thick dark	Secondary Indica Surface So Drainage P Dry-Seasor Crayfish Bu X Saturation X Stunted or X Geomorphi	tors (minimum of two required) il Cracks (B6) 'atterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
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Project/Site:	CTH KR Stormwater WD					City/Cou	nty: Racine County	,	Sampling Date: 9/27/2018
Applicant/Owner:	Wisconsin Dept. of Transportation	on				St	ate: WI	Sampling Point:	DP-101
Investigator(s):	K. Carlson, E. Englund						Section, Townsh	ip, Range: TWP 3N, RNG 22E, S	EC 33
Landform (hillslope,	terrace, etc.):	Backslope					Loca	al relief (concave, convex, none):	convex
Slope (%):	3% Lat:		42.6699944	4		Long:	-8	37.9109955	Datum: NAD83 UTM16N
Soil Map Unit Name	: VaB - Varna silt loam, 2 to 6 per	cent slopes						NWI classi	fication: None
Are climatic / hydrol	ogic conditions on the site typical	for this time of ye	ar?			Ye	es X No	(If no, explain in Remarks.)	
Are Vegetation	N , Soil	Y	, or Hydrology	Ν	significantly dis	turbed?	Are "Norm	al Circumstances" present?	Yes No X
Are Vegetation	N , Soil	N	, or Hydrology	Ν	naturally proble	matic?	(If needed	, explain any answers in Remarks	
SUMMARY OF	FINDINGS Attach site n	nap showing	sampling point lo	cations,	transects, im	portant feat	tures, etc.		
	getation Present?	•	Yes		No x		he Sampled Ar	ea	
Hydric Soil Pres			Yes x		No	-	hin a Wetland?		No x
Wetland Hydrole	ogy Present?		Yes		No X	-			
	ermined that antecedent precipita rmal. This was taken into conside							ring the month of September the a	intecedent precipitation conditions
VEGETATION -	 Use scientific names of 	plants.							
Tree Stratum (Plot	size: 30' radius)				Absolute % Cover	Dominant Species?		Dominance Test worksheet:	
1.	size. 30 radius)				% Cover	Species?	Status	Dominance rest worksneet:	
<u></u>						· ·		Number of Dominant Species	
3.						· ·		That Are OBL, FACW, or FAC:	0 (A)
3 4.						· ·		That Are OBL, FACW, OF FAC.	(A)
4 5.								Total Number of Dominant	
J						= Total Cover		Species Across All Strata:	1 (B)
						- 10101 00101		opeoles / loross / lir oli ala.	(2)
	um (Plot size: 15' radius)							Percent of Dominant Species That Are OBL, FACW, or FAC:	00/ (A/D)
1 2.								That Are OBL, FACW, of FAC.	(A/B)
3.									
								Prevalence Index worksheet:	
5.						· ·		Flevalence index worksheet.	
0.						= Total Cover		Total % Cover of:	Multiply by:
						- 101ai 00vei		That Are OBL, FACW, or FAC:	A/B
Herb Stratum (Plot	size: 5' radius)							OBL species	x1 =
1. Glycine max					70%	Yes	UPL	FACW species	x2 =
2. Hibiscus trionur	n				5%	No	UPL	FAC species 1%	x3 = 0.03
3. Amaranthus ret	roflexus				5%	No	FACU	FACU species 5%	x4 = 0.2
4. Panicum capilla	re				1%	No	FAC	UPL species 75%	x5 = 3.75
5.								Column Totals: 0.81	(A) 3.98 (B)
6.									
7.								Prevalence Index =	B/A = 4.91
8.									
9.									
10.								Hydrophytic Vegetation Indic	ators:
11.									
12.								1-Rapid Test for Hydro	phytic Vegetation
13.								2-Dominance Test is >	50%
14.								3-Prevalence Index is	≤3.0 ¹
15.								4-Morphological Adapt	ations ¹ (Provide supporting
16.								data in Remarks or or	a separate sheet)
17.								Problematic Hydrophy	rtic Vegetation ¹ (Explain)
18.									
19.								¹ Indicators of hydric soil and we	tland hydrology must
20.								be present, unless disturbed or	problematic.
					81%	= Total Cover	r		
Woody Vine Stratur	n (Plot size: 30' radius)							Hydrophytic	
1								Vegetation	
2.								Present? Yes	No X
						= Total Cover	r		
	photo numbers here or on a sepa ated by soy beans which had bee		ocation.						

Profile Description: (Describe to the de							
Depth Matrix			lox Features	— 1	. 2	-	
		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12" 10YR 2/1	98	10YR 3/6	2	С	М	Clay Loam	
12-24" 10YR 5/2	60	10YR 4/6	40	С	Μ	Clay	
							_
· · · ·							
¹ Type: C=Concentration, D=Depletion, R		Antrix CS-Covered	or Costed S	and Grains		on: PL=Pore Linin	a M-Matrix
Type: C=Concentration, D=Depletion, N				anu Grains.		Indicators of Hyd	
Histosol (A1)		Sandy Gleye	d Matrix (S4)		1001	•	ganese Masses (F12)
Histic Epipedon (A2)	•	Sandy Redo					llow Dark Surface (F22)
Black Histic (A3)	•	Stripped Mat					(plain in Remarks)
Hydrogen Sulfide (A4)		Dark Surface					
Stratified Layers (A5)		Loamy Muck	. ,)			
2 cm Muck (A10)		Loamy Gleye		-			
Depleted Below Dark Surface (A11)		Depleted Ma					
X Thick Dark Surface (A12)		X Redox Dark				³ The hydric soi	indicators have been updated to
Sandy Mucky Mineral (S1)	•	Depleted Da		7)		-	the Field Indicators of Hydric Soils
5 cm Mucky Peat or Peat (S3)	•	Redox Depre		/			d States, Version 8.0, 2016.
			()				
estrictive Layer (if observed):							
Туре:					Uvdria	Soil Present?	Yes X No
	and use but st	ill showed evidence	e of hydric ind	licators.			
emarks: bils appear to be mixed from agricultural l	and use but st	ill showed evidence	e of hydric ind	licators.			
emarks: bils appear to be mixed from agricultural IYDROLOGY Vetland Hydrology Indicators:			of hydric ind	licators.			
emarks: pils appear to be mixed from agricultural YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one is rec		III that apply)				Secondary Indi	cators (minimum of two required)
Permarks: pils appear to be mixed from agricultural by YDROLOGY /etland Hydrology Indicators: Primary Indicators (minimum of one is reconstructed by the second by		ill that apply) Water-Staine	ed Leaves (BS			Secondary Indi	Soil Cracks (B6)
emarks: bils appear to be mixed from agricultural b YDROLOGY /etland Hydrology Indicators: Primary Indicators (minimum of one is rec		II that apply) Water-Staine	ed Leaves (BS	9)		Secondary Indi	Soil Cracks (B6) Patterns (B10)
Provide the second seco		II that apply) Water-Staine Aquatic Faur True Aquatic	ed Leaves (BS na (B13) Plants (B14)	9)		Secondary Indi	Soil Cracks (B6) Patterns (B10) son Water Table (C2)
Provide the second seco		II that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su	ed Leaves (BS ha (B13) Plants (B14) Ifide Odor (C	9)		Secondary Indi Surface S Drainage Dry-Seas Crayfish	Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8)
Primarks: ills appear to be mixed from agricultural l YDROLOGY Vetland Hydrology Indicators: trimary Indicators (minimum of one is rec Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)		II that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi	ed Leaves (B9 na (B13) Plants (B14) Iffide Odor (C zospheres on	9) :1) 1 Living Root	s (C3)	Secondary Indi Surface S Drainage Dry-Seas Crayfish Saturatio	Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9)
Permarks: Perma		II that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of	ed Leaves (BS na (B13) Plants (B14) Ifide Odor (C zospheres on Reduced Iron	9) 1) 1 Living Root 1 (C4)		Secondary Indi Surface S Drainage Dry-Seas Crayfish Saturatio Stunted o	Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Permarks: iils appear to be mixed from agricultural l YDROLOGY /etland Hydrology Indicators: 'rimary Indicators (minimum of one is rec Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		Il that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron F	ed Leaves (BS ha (B13) Plants (B14) Ifide Odor (C zospheres on Reduced Iron Reducetion in	9) 1) 1 Living Root 1 (C4)		Secondary Indi Surface S Drainage Dry-Seas Crayfish Saturatio Stunted o Geomorp	Soil Cracks (B6) Patterns (B10) son Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) or Stressed Plants (D1) whic Position (D2)
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CTH KR Stormwater Wetland Delineations



WisDOT Community Classification Guide

Cir39 Classification	Wetland Type Bank Site *	Examples of Vegetational Community Types
1A Seasonally flooded basin or flat	Riparian wetland(RPF) (wooded)	Floodplain Forest (includes Bottomland Hardwood forests **), Riparian Shrub Carr and Alder Thickets
1B Seasonally flooded basin or flat	Riparian wetland(RPE) (emergent)	Riparian Wet and Sedge Meadows, Bars and Mudflats
2 Inland fresh meadow	Wet Meadow(M)	Wet Meadow, Wet/Wet Mesic Prairie, Sedge Meadow, Vernal pools, (also includes Fens **)
3 Inland shallow fresh marsh	Shallow Marsh (SM)	Emergent Aquatic
4 Inland deep fresh marsh	Deep Marsh(DM)	Emergent and Submergent Aquatic
5 Inland open fresh water	Aquatic Bed (AB)	Submergent Aquatic, Aquatic Bed (depth less than 3 Meters)
6 Shrub swamp	Shrub Scrub (SS)	Shrub Carr, Alder Thicket
7 Wooded swamp	Wooded Swamp(WS) (Forested Wetland)	Wet/Wet-Mesic Deciduous Forests White Cedar Swamps
8 Bog	Bog (Bog)	Open Bog, Forested Bog

* Wetland types used for purposes of this bank system. These should be refered to by name or by acronym (e.g. RPF, SM, AB, etc.) ** Red flag wetlands

About Cardno

Cardno is an ASX-200 professional infrastructure and environmental services company, with expertise in the development and improvement of physical and social infrastructure for communities around the world. Cardno's team includes leading professionals who plan, design, manage, and deliver sustainable projects and community programs. Cardno is an international company listed on the Australian Securities Exchange [ASX:CDD].

Cardno Zero Harm



At Cardno, our primary concern is to develop and maintain safe and healthy conditions for anyone involved at our project worksites. We require full compliance with our Health and Safety Policy Manual and established work procedures and expect the same protocol from our subcontractors. We are committed to achieving our Zero Harm goal by continually improving our safety systems, education, and vigilance at the workplace and in the field.

Safety is a Cardno core value and through strong leadership and active employee participation, we seek to implement and reinforce these leading actions on every job, every day.

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