

Memorandum

To: Scott McCurdy, Cedar Corporation

From: Kelly J. Bopray PSS CWD

Subject: TDI #13 Site, Menomonie, Wisconsin, Wetland Determination
BES 2012-025

Date: August 15, 2012

On August 13, 2012, Bopray Environmental Services (BES) conducted an on-site wetland determination in accordance with the U.S. Army Corps of Engineers "Wetland Delineation Manual" and the "Midwest Regional Supplement" for City of Menomonie's TID #13 Site. The site is located in an industrial park in Sec. 8, T28N, R12W along County Trunk Highway B, in Dunn County, Wisconsin (**Figure 1**). Based on a review of available resource data BES has determined the preponderance of evidence shows that there are no wetlands on the site.

Specific Findings

The Dunn Soil Survey (**Figure 2**) indicates the site is mapped as Dakota silt loam (403B), Rasset sandy loam (413A, 413B), Finchford loamy sand (501B) and Plainfield sand (511F). All of these soils are listed as non-hydric soils map unit. The Wisconsin Wetland Inventory (**Figure 3**) map does not identify any wetlands on the site. Aerial photographs do not show any signs of crop stress due to wetness on the site. There appears to be a non-farmed area along the west side of the site, but that is a soil stock pile berm.

The site is fairly flat according to the USGS topographic map (**Figure 4**). The herbaceous vegetation is dominated by a monocultures of corn (*Zea mize*) and soybeans (*Glycine max*) with almost no volunteer weed species. The Crop was in excellent condition with no evidence of stress due to wetness. There is a man-made stormwater pond/infiltration basin in the east central part of the site. This basin is dominated by upland plant species, had not developed hydric soils features and had no visible hydrology indicators (Attached data sheet).

According to the Wisconsin State Climatology Office's webpage, the area was at 75-100% of average precipitation for the preceding 30 days and for the preceding 90 day periods. The site fails to meet the three mandatory wetland criteria. Ground level photographs of the site are attached as **Figure 5**.

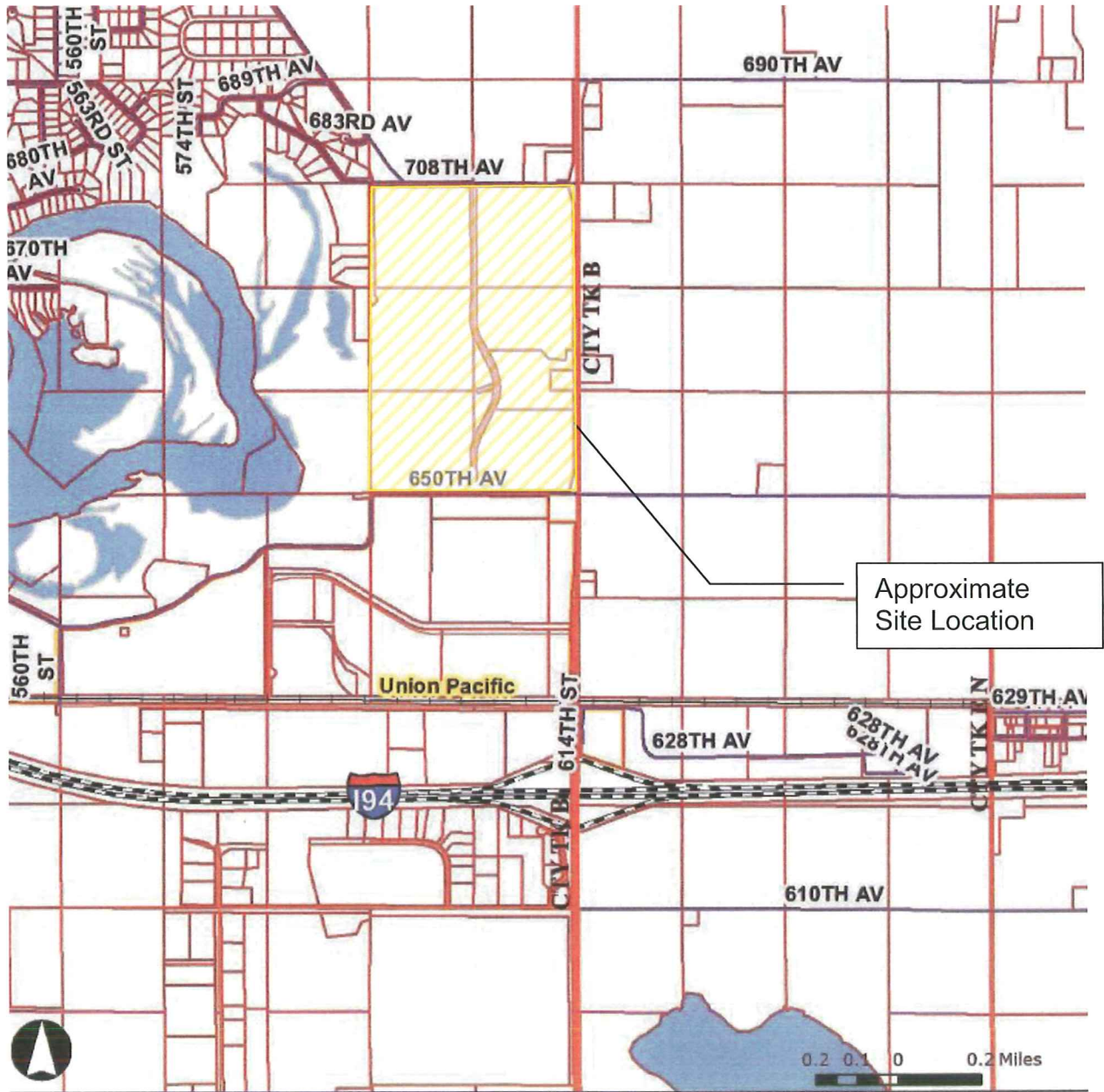


Figure 1. Location Map

TDI #13 Site
Menomonie, Wisconsin

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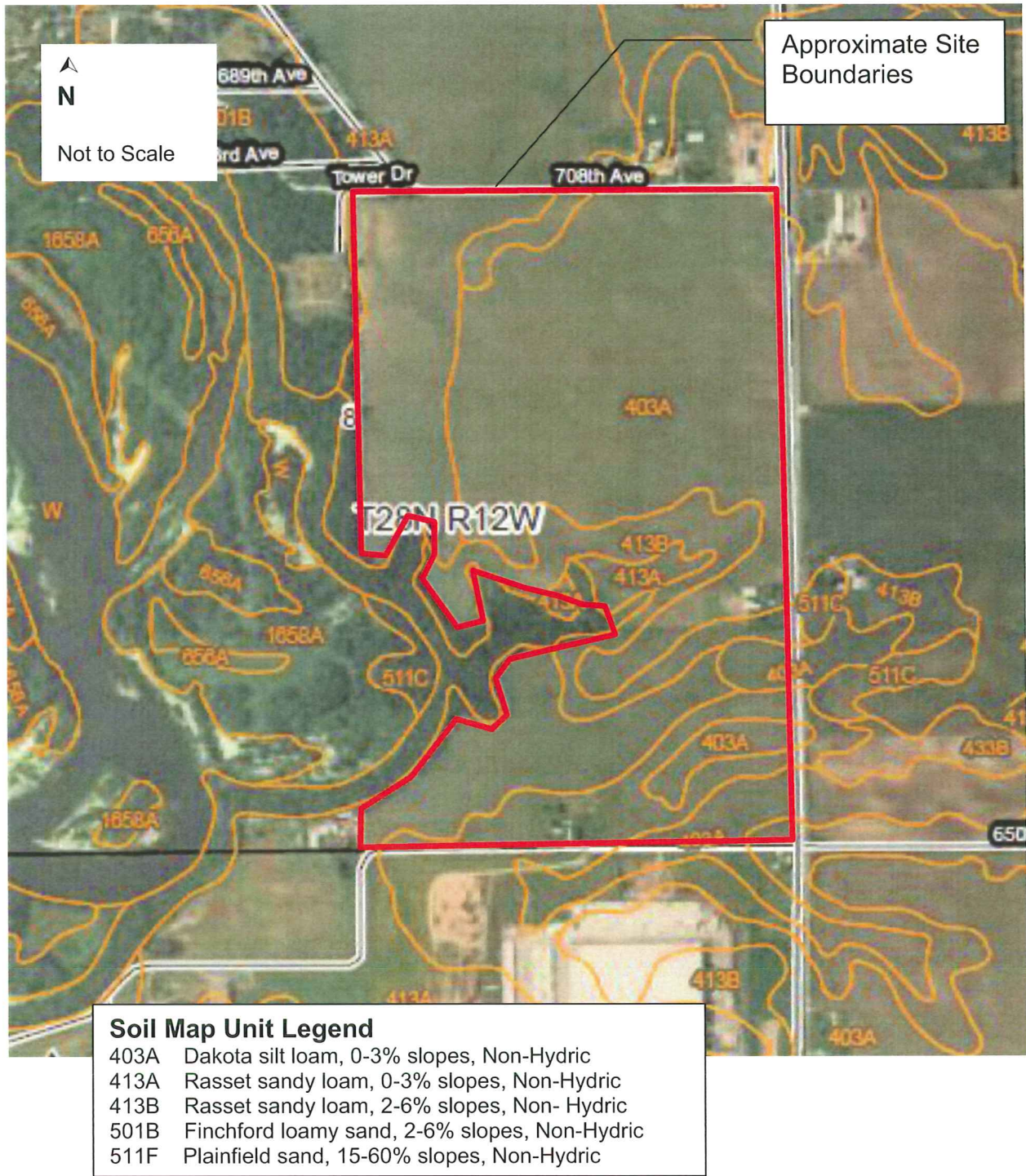
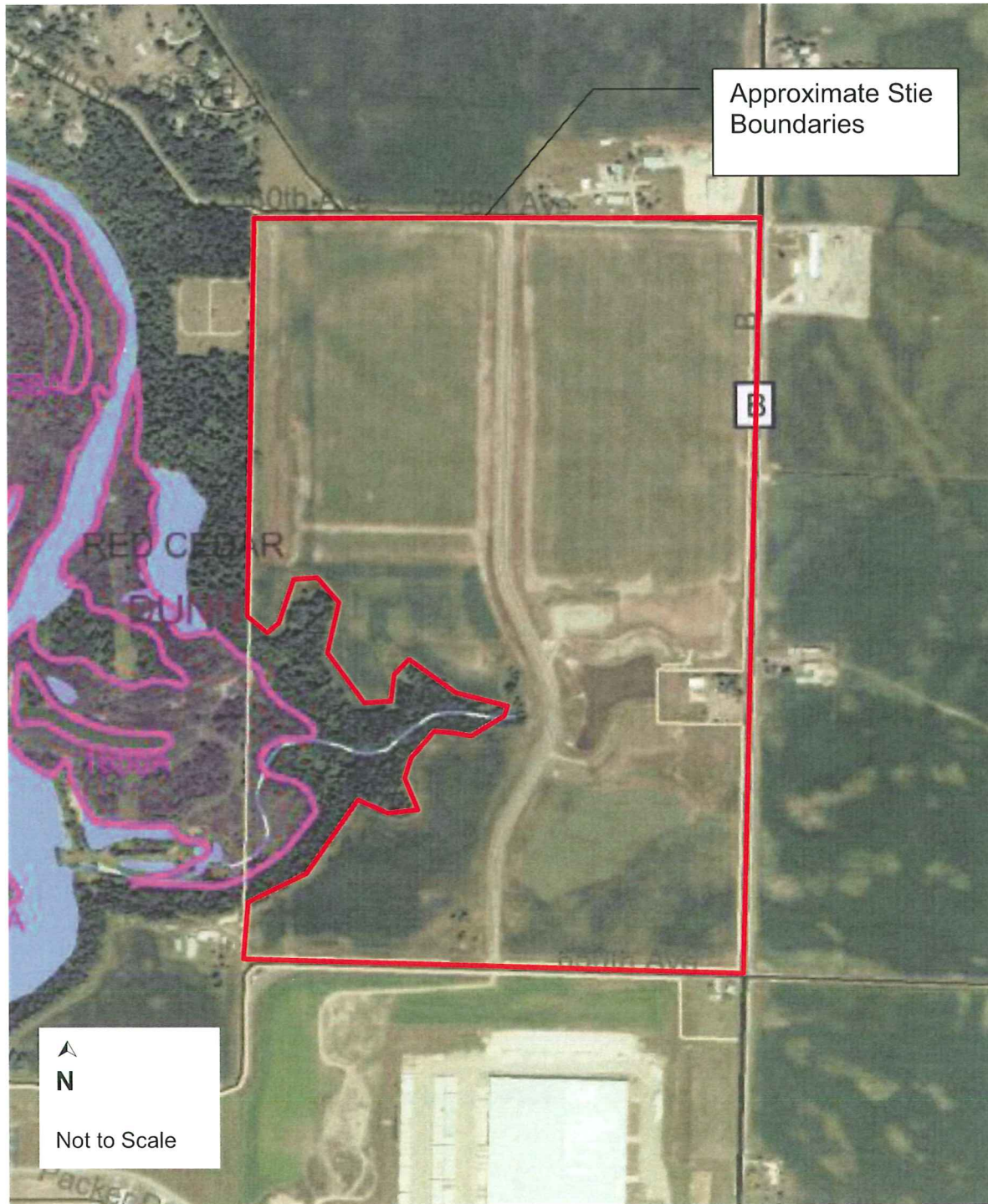


Figure 2. Dunn County Soil Survey

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**Figure 3. Wisconsin Wetland
Inventory Map**
TID #13 Site
Menomonie, Wisconsin

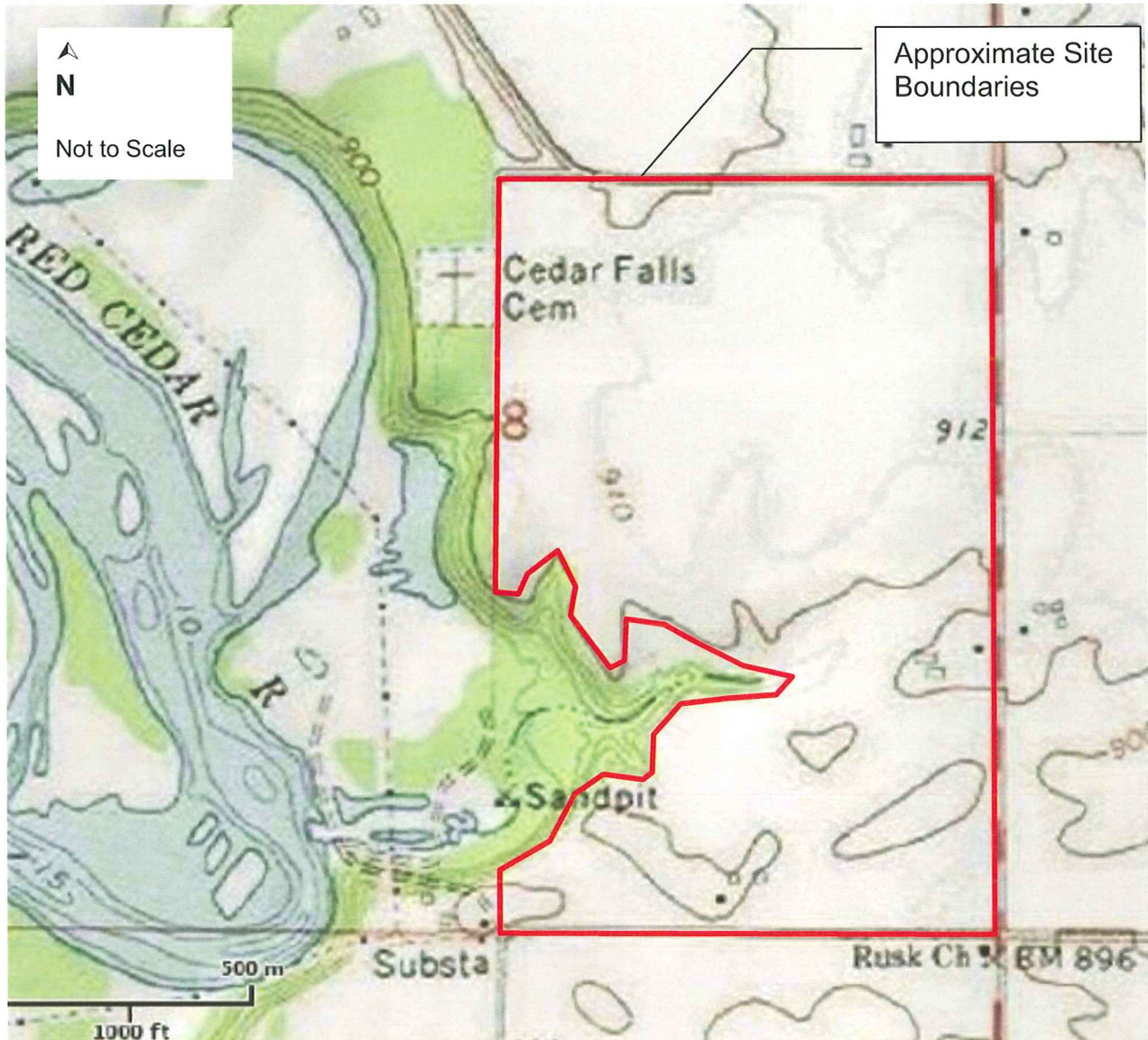


Figure 4. USGS Topographic Map

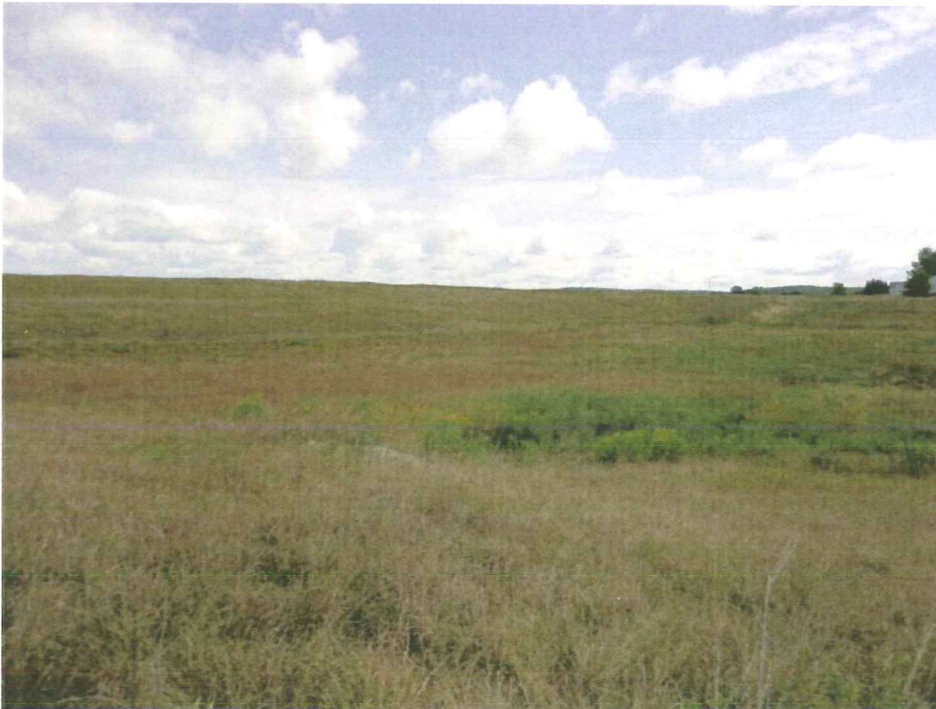
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General view of the northern part of the site. Corn is being grown on the majority of the site. There is a soil stock pile berm along the west side of the site. Soybeans are being grown in the southwest quadrant of the site. There was no indication of wetness stress in the field or on aerial photos.



General view of the stormwater pond/infiltration basin in the east central part of the site. Although it is designed to receive large volumes of surface run off, the plant community is not hydrophytic and hydric soils have not developed in the basin.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site TDI #13 stormwater pond/infiltration basin City/County: Menomonie/Dunn Sampling Date: 8/13/2012
 Applicant/Owner: City of Menomonie State: Wisconsin Sampling Point: A1
 Investigator(s): Kelly Bopray, PSS, CWD Section, Township, Range: Sec. 8, T28N, R12W
 Landform (hillslope, terrace, etc.): man-made depression Local relief (concave, convex, none): concave
 Slope (%): 0-2% Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name N/A because excavation has removed the native soil profile NWI Classification: not Id'ed on WWI

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation X, soil X, or hydrology X significantly disturbed? Are "normal circumstances" present? Yes
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Hydrophytic vegetation present? <u>N</u>	Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: <u>non-wetland</u>
Hydric soil present? <u>N</u>	
Indicators of wetland hydrology present? <u>N</u>	

Remarks: (Explain alternative procedures here or in a separate report.)
 This basin is a man-made basin that was excavated and revegetated. Large volumes of surface water run-off are directed into the basin. These conditions are now the "new normal".

VEGETATION -- Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft</u>)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across all Strata: <u>2</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)
1					
2					
3					
4					
5					
		<u>0</u>	= Total Cover		Prevalence Index Worksheet Total % Cover of: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>10</u> x 2 = <u>20</u> FAC species <u>7</u> x 3 = <u>21</u> FACU species <u>91</u> x 4 = <u>364</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>108</u> (A) <u>405</u> (B) Prevalence Index = B/A = <u>3.75</u>
Sapling/Shrub stratum	(Plot size: <u>15 ft</u>)				
1					
2					
3					
4					
5					
		<u>0</u>	= Total Cover		
Herb stratum	(Plot size: <u>5 ft</u>)				Hydrophytic Vegetation Indicators: _____ Rapid test for hydrophytic vegetation _____ Dominance test is >50% _____ Prevalence index is ≤3.0* _____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) _____ Problematic hydrophytic vegetation* (explain) _____ *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
1	<i>Phleum pratense</i>	<u>40</u>	<u>Y</u>	<u>FACU</u>	
2	<i>Setaria faberi</i>	<u>20</u>	<u>Y</u>	<u>FACU</u>	
3	<i>Melilotus officinalis</i>	<u>10</u>	<u>N</u>	<u>FACU</u>	
4	<i>Carex vulpinoidea</i>	<u>10</u>	<u>N</u>	<u>FACW</u>	
5	<i>Festuca rubra</i>	<u>10</u>	<u>N</u>	<u>FACU</u>	
6	<i>Ambrosia artemisiifolia</i>	<u>7</u>	<u>N</u>	<u>FACU</u>	
7	<i>Poa pratensis</i>	<u>5</u>	<u>N</u>	<u>FAC</u>	
8	<i>Potentilla simplex</i>	<u>2</u>	<u>N</u>	<u>FACU</u>	
9	<i>Ambrosia trifida</i>	<u>2</u>	<u>N</u>	<u>FAC</u>	
10	<i>Asclepias syriaca</i>	<u>2</u>	<u>N</u>	<u>FACU</u>	
		<u>108</u>	= Total Cover		
Woody vine stratum	(Plot size: <u>30 ft</u>)				
1					
2					
		<u>0</u>	= Total Cover		

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

SOIL

Sampling Point: A1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-14	10YR 2/2						sandy loam	
14-25+	10YR 5/3						sand	

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

Hydric Soil Indicators: <input type="checkbox"/> Histisol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1)		<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)		Indicators for Problematic Hydric Soils: <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (explain in remarks)	
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*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u> </u> N <u> </u>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)	<input type="checkbox"/> FAC-Neutral Test (D5)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)				
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)					
<input type="checkbox"/> Water-Stained Leaves (B9)					

Field Observations: Surface water present? Yes _____ No <u> </u> X Depth (inches): _____ Water table present? Yes _____ No <u> </u> X Depth (inches): <u> </u> >25 Saturation present? Yes _____ No <u> </u> X Depth (inches): <u> </u> >25 (includes capillary fringe)	Indicators of wetland hydrology present? <u> </u> N <u> </u>
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Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 Although this is a stormwater basin there are no visible hydrology indicators present on site or on aerial photographs.