

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: I3_decom City/County: Marshall Sampling Date: 2017-06-23
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: w-155n45w20-aa2
 Investigator(s): SMR, MRG Section, Township, Range: S20, T155N, R45W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): CC Slope (%): 3-7%
 Latitude: 48.2385998731... Longitude: -96.46293173...
 Datum: NAD83
 Soil Map Unit Name: I15A NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in Remarks): Yes
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (if needed, explain any answers in Remarks)

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

Hydrophytic Vegetation Present?	<u>Yes</u>	Is the Sampled Area within a Wetland?	
Hydric Soil Present?	<u>Yes</u>		<u>Yes</u>
Wetland Hydrology Present?	<u>Yes</u>		If yes, optional Wetland Site ID: <u>w-155n45w20-aa</u>

Remarks: (Explain alternative procedures here or in a separate report.)

No digging allowed due to potential utilities present.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot Size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				Hydrophytic Vegetation Indicators: yes <u>1</u> - Rapid Test for Hydrophytic Vegetation yes <u>2</u> - Dominance Test is > 50% yes <u>3</u> - Prevalence Index is ≤ 3.0 ¹ _____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Sapling/Shrub Stratum (Plot Size: <u>15</u>)				
1. <u>Salix bebbiana</u>	<u>30.00</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Populus balsamifera</u>	<u>30.00</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Salix interior</u>	<u>10.00</u>	<u>No</u>	<u>FACW</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>70</u> = Total Cover				
Herb Stratum (Plot Size: <u>5</u>)				
1. <u>Solidago gigantea</u>	<u>70.00</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Phalaris arundinacea</u>	<u>20.00</u>	<u>Yes</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>90</u> = Total Cover				
Woody Vine Stratum (Plot Size: <u>30</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum _____				

Remarks:

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 ¹	Loc ²		

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 1cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5cm Mucky Peat or Peat (S2)(LRR G, H)
- 5cm Mucky Peat or Peat (S3) (LRR F)

- Sandy Gleyed Matrix (S4)
 - Sandy Redox (S5)
 - Stripped Matrix (S6)
 - Loamy Mucky Mineral (F1) (LRR K, L)
 - Loamy Gleyed Matrix (F2)
 - Depleted Matrix (F3)
 - Redox Dark Surface (F6)
 - Depleted Dark Surface (F7)
 - Redox Depressions (F8)
 - High Plains Depressions (F16)
- (MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soil³:

- 1cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16)(LRR K, L, R)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16)
- (LRR H outside of MLRA 72 & 73)**
- Reduced Vertic (F18)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes

Remarks:
No digging allowed due to potential utilities. Hydric soil assumed due to hydrophytic vegetation and hydrology.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Water-Stained Leaves (B9)
- ___ Inundation Visible on Aerial Imagery (B7)

- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- (where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- (where tilled)**
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- yes Geomorphic Position (D2)
- yes FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present? No Depth (inches) _____

Water Table Present? _____ Depth (inches) _____

Saturation Present? _____ Depth (inches) _____

(includes capillary fringe)

Wetland Hydrology Present? Yes

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

Remarks:
No digging allowed due to potential utilities. Could not verify saturation and water table.