WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site:	L3R	Date:	09/25/14
Applicant:	Enbridge	County:	Marshall
Investigators:	BEH/NTT	State:	MN
Subregion (MLRA or LRR):	MLRA 56		
Soil Unit:	I24A	NWI Classification:	
Landform:	Talf	Local Relief: VL	
Slope (%):	0 - 2%	Latitude: 48.18938317 Longitude: -96.40311915 Datum:	Sample Point: **u-154n45w2-d1**
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)		☑ Yes ☐ No	Section:
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?	Are normal circumstances present?		Township:
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic?	☑ Yes ☐ No		Range: Dir:

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? No
Wetland Hydrology Present? No
Hydric Soils Present? No
Is This Sampling Point Within A Wetland? **No**

Remarks: Upland sample point in a quaking aspen forest, close to a wet forested depression.

HYDROLOGY

Wetland Hydrology Indicators (Check all that apply; Minimum of one primary or two secondary required)**:**

Primary:
- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☐ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B9 - Water-Stained Leaves
- ☐ B11 - Salt Crust
- ☐ B13 - Aquatic Fauna
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C2 - Dry Season Water Table
- ☐ C3 - Oxidized Rhizospheres on Living Roots (not tille
- ☐ C4 - Presence of Reduced Iron
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain)

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

Field Observations:

Surface Water Present? Yes ☐ Depth: _____ (in.)
Water Table Present? Yes ☐ Depth: _____ (in.)
Saturation Present? Yes ☐ Depth: _____ (in.)

Wetland Hydrology Present? N

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

Remarks: No primary or secondary hydrological indicators were observed.

SOILS

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
(Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Depth (In.)	Matrix Color (Moist)	Matrix %	Mottles Color (Moist)	Mottles %	Mottles Type	Mottles Location	Texture	Remarks
0-12	Hue_10YR 2/1	100					SCL	

NRCS Hydric Soil Field Indicators (check here if indicators are not present)**:** ☑

- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers (LRR F)
- ☐ A9 - 1 cm Muck (LRR FGH)
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Mucky Mineral
- ☐ S2 - 2.5 cm Mucky Peat or Peat (LRR G, H)
- ☐ S3 - 5 cm Mucky Peat or Peat (LRR F)
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ F1 - Loamy Mucky Mineral
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions
- ☐ F16 - High Plains Depressions (MLRA 72, 73 of LRR H)

Indicators for Problematic Soils[1]
- ☐ A9 - 1 cm Muck (LRR I, J)
- ☐ A16 - Coast Prairie Redox (LRR F, G, H)
- ☐ S7 - Dark Surface (LRR G)
- ☐ F16 - High Plains Depressions (LRR H, outside MLRA 72, 73)
- ☐ F18 - Reduced Vertic
- ☐ TF2 - Red Parent Material
- ☐ TF12 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

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

Restrictive Layer Type: Dense gravel layer Depth: 12

Hydric Soil Present? N

Remarks: Soil is dark sandy clay loam underlain by a restrictive gravel layer.

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Project/Site: L3R | Sample Point: **u-154n45w2-d1**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft. radius)

	Species Name	% Cover	Dominant	Ind.Status
1.	*Populus tremuloides*	75	Y	FAC
2.	*Acer negundo*	15	N	FAC
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover =	90		

Sapling/Shrub Stratum (Plot size: 15 ft. radius)

1.	*Prunus virginiana*	25	Y	FACU
2.	*Amelanchier humilis*	15	Y	NI
3.	*Viburnum lentago*	10	N	FACU
4.	*Toxicodendron rydbergii*	5	N	FACU
5.	*Rhamnus cathartica*	5	N	FACU
6.				
7.				
8.				
9.				
10.				
	Total Cover =	60		

Herb Stratum (Plot size: 5 ft. radius)

1.	*Rubus idaeus*	5	Y	FACU
2.	*Maianthemum canadense*	5	Y	FACU
3.	*Viola renifolia*	1	N	FACW
4.	*Symphyotrichum lateriflorum*	1	N	FACW
5.	*Galium triflorum*	1	N	FACU
6	*Phryma leptostachya*	1	N	FACU
7.	*Sanicula marilandica*	1	N	FACU
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
	Total Cover =	15		

Woody Vine Stratum (Plot size: 30 ft. radius)

1.	*Vitis riparia*	1	N	FAC
2.				
3.				
5.				
4.				
	Total Cover =	1		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ***20.0%*** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	2	x 2 =	4
FAC spp.	91	x 3 =	273
FACU spp.	58	x 4 =	232
UPL spp.	15	x 5 =	75
Total	166 (A)		584 (B)

Prevalence Index = B/A = ***3.518***

Hydrophytic Vegetation Indicators:

_____ Rapid Test for Hydrophytic Vegetation
_____ Dominance Test is > 50%
_____ Prevalence Index is ≤ 3.0 *
_____ Morphological Adaptations (Explain) *
_____ Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.

Herb - All herbaceous (non-woody) plants, regardless of size.

Woody Vines - All woody vines, regardless of height.

Hydrophytic Vegetation Present? N

Remarks: The canopy is predominantly quaking aspen with scattered boxelder. Shrub component is primarily chokecherry and serviceberry. Herbaceous cover is sparse with wild red raspberry and Canada mayflower being the most prevalent.

Additional Remarks: