WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site:	L3R	Date:	10/01/14
Applicant:	Enbridge	County:	Red Lake
Investigators:	NTT/BEH	Subregion (MLRA or LRR): MLRA 56	State: MN
Soil Unit: I7A		NWI Classification: PFO1A	
Landform: Floodplain		Local Relief: CV	Sample Point: w-151n42w9-a3
Slope (%): 16 - 25%	Latitude: 47.919029	Longitude: -96.047805 Datum:	

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?	Yes	Hydric Soils Present? Yes
Wetland Hydrology Present?	Yes	**Is This Sampling Point Within A Wetland? Yes**

Remarks: The wetland is a floodplain forest located near a large river and dominated by green ash and American elm trees. The groundlayer has very sparse vegetative cover but consists of Canadian wood nettle and Canadian clear weed.

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 tilled)
- ☐ 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.)	**Wetland Hydrology Present?** Y
Saturation Present?	Yes	☐	Depth: _____ (in.)	

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

Remarks: No primary wetland hydrology indicators are present. Wetland hydrology is assumed based on sparse hydrophytic vegetation and landscape position.

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)	%	Mottles Color (Moist)	%	Type	Location	Texture	Remarks
0-12	Hue_10YR 2/1	90	Hue_5YR 4/6	10	C	M	CL	
12-24	Hue_7.5YR 4/1	60	Hue_5YR 4/6	20	C	M	SICL	
			Hue_10YR 2/1	20	C	M	CL	Mixed matrix.

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: _____	Depth: _____	**Hydric Soil Present?** Y

Remarks: Soils meet indicator A11. Redox concentrations are present throughout the soil profile.

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Project/Site:	L3R	Sample Point:	**w-151n42w9-a3**

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

Tree Stratum (Plot size: 30 ft. radius)

#	Species Name	% Cover	Dominant	Ind.Status
1.	Fraxinus pennsylvanica	60	Y	FAC
2.	Ulmus americana	15	Y	FAC
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Total Cover = 75

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 5 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: **100.0%** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	120	x 3 =	360
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0
Total	120 (A)		360 (B)

Prevalence Index = B/A = **3.000**

Sapling/Shrub Stratum (Plot size: 15 ft. radius) — Total Cover = 0

Hydrophytic Vegetation Indicators:
- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test is > 50%
- X 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.

Herb Stratum (Plot size: 5 ft. radius)

#	Species Name	% Cover	Dominant	Ind.Status
1.	Laportea canadensis	25	Y	FAC
2.	Pilea pumila	10	Y	FAC
3.	Elymus virginicus	10	Y	FAC

Total Cover = 45

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.

Woody Vine Stratum (Plot size: 30 ft. radius) — Total Cover = 0

Hydrophytic Vegetation Present? Y

Remarks: The vegetation is dominated by green ash and American elm in the tree stratum. The ground layer is relatively bare with Canadian wood nettle being the most dominant species.

Additional Remarks: