## WETLAND DETERMINATION DATA FORM Great Plains Region

| Project/Site:   |  | L3R  |   |   |   |                                 |   |                         |   | Date: 09/29/14  |  |  |  |  |  |  |
|---|--|--|---|---|---|---------------------------------|---|-------------------------|---|---|--|--|--|--|--|--|
| Applicant:  |  | Enbridge   |   |   |   |                                 |   |                         |   | County: Pennington  |  |  |  |  |  |  |
| Investigators:  | ators: RAJ/BJC Subregion (MLRA or LRR): MLRA 56  |  |   |   |   |                                 |   |                         | State: MN   |   |  |  |  |  |  |  |
| Soil Unit:  | 155A   |  |   | <u>.</u>  |   |                                 | I Classification:   | PSS1C                   |   |   |  |  |  |  |  |  |
| Landform:   | Dip  |  | 40.00   |   | cal Relief:   |                                 | 110   |                         |   | Sample Point: w-153n44w11-c2  |  |  |  |  |  |  |
| \ /   | 0 - 2%   |  | 48.09   |   | Longitude:  |                                 |   | Datum:                  |   | 4   |  |  |  |  |  |  |
|   |  | nditions on the site typica  |   |   | ar? (If no, exp   |                                 |   |                         | □ No  | Section:  |  |  |  |  |  |  |
| Are Vegetation  |  |  |   | disturbed?  |   | Are                             | e normal circum   | •                       | esent?  | Township:   |  |  |  |  |  |  |
| Are Vegetation  |  |  | ally prob   | olematic?   |   |                                 | Yes   | □ No                    |   | Range: Dir:   |  |  |  |  |  |  |
| SUMMARY O   |  |  |   |   |   |                                 |   |                         |   |   |  |  |  |  |  |  |
| Hydrophytic \   | _  |  | Yes   |   | _   |                                 |   |                         | Is Present?   |   |  |  |  |  |  |  |
| Wetland Hydi  |  |  | Yes   |   | 1 1 1 44  |                                 |   |                         |   | nt Within A Wetland? Yes  |  |  |  |  |  |  |
| Remarks:  | A snallow m  | narsh dominated by reed o  | canary  | grass and n   | /brid catta   | II. AII pa                      | irameters of we   | etiand condi            | tions are m   | iet.  |  |  |  |  |  |  |
|   |  |  |   |   |   |                                 |   |                         |   |   |  |  |  |  |  |  |
| HYDROLOGY   | <u>Y</u>   |  |   |   |   |                                 |   |                         |   |   |  |  |  |  |  |  |
| Wetland Hyd   | drology Ind  | icators (Check all that ap   | ply; Mir  | nimum of on   | e primary   | or two se                       | econdary requi  | red):                   |   |   |  |  |  |  |  |  |
| Primary:  |  |  |   |   |   |                                 |   |                         | <u>Secondary</u>  |   |  |  |  |  |  |  |
|   | A1 - Surface   |  |   |   | B11 - Salt  |                                 |   |                         |   | B6 - Surface Soil Cracks  |  |  |  |  |  |  |
|   | A2 - High Wa   |  |   |   | B13 - Aqua  |                                 |   |                         |   | B8 - Sparsely Vegetated Concave Surface   |  |  |  |  |  |  |
|   | A3 - Saturation B1 - Water M   |  |   |   | C1 - Hydro<br>C2 - Dry S  |                                 |   |                         |   | B10 - Drainage Patterns C3 - Oxidized Rhizospheres on Living Roots (tilled)   |  |  |  |  |  |  |
|   | B2 - Sedimen   |  |   |   |   |                                 | spheres on Living   | Roots (not till         | L □   | C8 - Crayfish Burrows   |  |  |  |  |  |  |
|   | B3 - Drift Dep   | •  |   |   | C4 - Prese  |                                 |   | rtooto (not tiii        | `   | C9 - Saturation Visible on Aerial Imagery   |  |  |  |  |  |  |
| <u> </u>  | B4 - Algal Ma  |  |   |   | C7 - Thin N   |                                 |   |                         | ✓   | D2 - Geomorphic Position  |  |  |  |  |  |  |
|   | B5 - Iron Dep  |  |   |   | Other (Exp  | lain)                           |   |                         | ✓   | D5 - FAC-Neutral Test   |  |  |  |  |  |  |
|   |  | on Visible on Aerial Imagery   |   |   |   |                                 |   |                         |   | D7 - Frost-Heaved Hummocks (LRR F)  |  |  |  |  |  |  |
|   | B9 - Water-S   | ained Leaves   |   |   |   |                                 |   |                         |   |   |  |  |  |  |  |  |
|   |  |  |   |   |   |                                 |   |                         |   |   |  |  |  |  |  |  |
| Field Observ  |  |  |   |   |   |                                 |   |                         |   |   |  |  |  |  |  |  |
| Surface Wate  | er Present?  | Yes  | Depth:  |   | _ (in.)   |                                 |   | Wetland F               | Hydrology   | Present? Y  |  |  |  |  |  |  |
| Water Table   |  | Yes  | Depth:  |   | (in.)   |                                 |   | Trottana i              | .ya.o.ogy   | ——————————————————————————————————————  |  |  |  |  |  |  |
| Saturation Pr   | esent?   | Yes  | Depth:  |   | _ (in.)   |                                 |   |                         |   |   |  |  |  |  |  |  |
| Describe Reco   | orded Data (s  | stream gauge, monitoring w   | ell, aeri   | al photos, pr   | Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  |                                 |   |                         |   |   |  |  |  |  |  |  |
|   |  |  |   |   |   |                                 |   |                         |   |   |  |  |  |  |  |  |
| Remarks:  | The shallow  | marsh area has a mat of  | wetlan  | • • •   | <u>.</u>  | ,                               |   | Indicators of           | of wetland h  | nydrology are present   |  |  |  |  |  |  |
| Remarks:  | The shallow  | marsh area has a mat of  | wetlan  | • • •   | <u>.</u>  | ,                               |   | Indicators of           | of wetland h  | nydrology are present.  |  |  |  |  |  |  |
|   | The shallow  | marsh area has a mat of  | wetlan  | • • •   | <u>.</u>  | ,                               |   | Indicators of           | of wetland h  | nydrology are present.  |  |  |  |  |  |  |
| SOILS   |  |  |   | d moss inte   | rmingled v  | vith a dri                      | ed algal crust.   |                         | of wetland h  | nydrology are present.  |  |  |  |  |  |  |
| SOILS Profile Descrip   | ption (Descr   | be to the depth needed to  | docum   | nent the indi   | rmingled v  | vith a dri                      | ed algal crust. e absence of in                                 | ndicators.)             | of wetland h  | nydrology are present.  |  |  |  |  |  |  |
| SOILS Profile Descrip   | ption (Descr   | be to the depth needed to  | docum   | nent the indi   | rmingled v  | vith a dri                      | ed algal crust. e absence of in                                 | ndicators.)             | of wetland h  | nydrology are present.  |  |  |  |  |  |  |
| SOILS Profile Descrip   | ption (Descr   | be to the depth needed to  | docum   | nent the indi   | rmingled v  | vith a dri                      | ed algal crust. e absence of inore Lining, M=Matr               | ndicators.)             | of wetland h  | nydrology are present.  |  |  |  |  |  |  |
| SOILS Profile Descrip   | ption (Descr   | be to the depth needed to etion, RM=Reduced Matrix, CS=  | docum   | nent the indi   | rmingled v  | vith a dri                      | ed algal crust. e absence of inore Lining, M=Matr               | ndicators.)             | of wetland h  | nydrology are present.  Remarks   |  |  |  |  |  |  |
| SOILS Profile Descrip (Type: C=Concen   | ption (Descr<br>tration, D=Depl  | be to the depth needed to<br>etion, RM=Reduced Matrix, CS=<br>Matrix<br>Color (Moist)  | docum<br>Covered                                    | nent the indi<br>/Coated Sand   | rmingled v  | onfirm the                      | ed algal crust. e absence of inore Lining, M=Matr               | idicators.)             |   | Remarks   |  |  |  |  |  |  |
| SOILS Profile Descrip (Type: C=Concen   | ption (Descriptration, D=Depl  | be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix Color (Moist)  2/1   | % 100   | nent the indi<br>/Coated Sand (   | cator or co   | onfirm the                      | ed algal crust.  e absence of inore Lining, M=Matrees  Type     | dicators.)              | Texture<br>MMI  |   |  |  |  |  |  |  |
| SOILS Profile Descrip (Type: C=Concent  Depth (In.) 0-1 1-6                   | ption (Descriptration, D=Depl<br>Hue_10YR<br>Hue_10YR  | be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix Color (Moist)  2/1 5/2   | % 100 90  | nent the indi<br>/Coated Sand   | cator or co   | onfirm the                      | ed algal crust. e absence of inore Lining, M=Matr               | idicators.)             | Texture   | Remarks the mineral component is loamy fine sand  |  |  |  |  |  |  |
| SOILS Profile Descrip (Type: C=Concen   | ption (Descriptration, D=Depl  | be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix Color (Moist)  2/1 5/2   | % 100   | nent the indi<br>/Coated Sand (   | cator or co   | onfirm the                      | ed algal crust.  e absence of inore Lining, M=Matrees  Type     | dicators.)              | Texture<br>MMI  | Remarks   |  |  |  |  |  |  |
| SOILS Profile Descrip (Type: C=Concent)  Depth (In.) 0-1 1-6                  | ption (Descriptration, D=Depl<br>Hue_10YR<br>Hue_10YR  | be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix Color (Moist)  2/1 5/2   | % 100 90  | nent the indi<br>/Coated Sand (   | cator or co   | onfirm the                      | ed algal crust.  e absence of inore Lining, M=Matrees  Type     | dicators.)              | Texture<br>MMI  | Remarks the mineral component is loamy fine sand  |  |  |  |  |  |  |
| SOILS Profile Descrip (Type: C=Concent)  Depth (In.) 0-1 1-6                  | ption (Descriptration, D=Depl<br>Hue_10YR<br>Hue_10YR  | be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix Color (Moist)  2/1 5/2   | % 100 90  | nent the indi<br>/Coated Sand (   | cator or co   | onfirm the                      | ed algal crust.  e absence of inore Lining, M=Matrees  Type     | dicators.)              | Texture<br>MMI  | Remarks the mineral component is loamy fine sand  |  |  |  |  |  |  |
| SOILS Profile Descrip (Type: C=Concent  Depth (In.) 0-1 1-6 6-18              | ption (Descriptration, D=Depl<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR  | be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix  Color (Moist)  2/1  5/2  2/1  | % 100 90 100  | nent the indi<br>/Coated Sand (   | cator or co<br>Grains; Loca<br>Moist)   | onfirm the                      | ed algal crust.  e absence of inore Lining, M=Matrees  Type  C  | dicators.)              | Texture<br>MMI  | Remarks the mineral component is loamy fine sand  |  |  |  |  |  |  |
| SOILS Profile Descrip (Type: C=Concent)  Depth (In.) 0-1 1-6                  | ption (Descriptration, D=Depl<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR  | be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix  Color (Moist)  2/1  5/2  2/1  | % 100 90 100  | nent the indi<br>/Coated Sand (   | cator or co<br>Grains; Loca<br>Moist)   | onfirm the                      | ed algal crust.  e absence of inore Lining, M=Matrees  Type     | dicators.)              | Texture MMI LFS M   | Remarks the mineral component is loamy fine sand very black   |  |  |  |  |  |  |
| SOILS Profile Descrip (Type: C=Concent  Depth (In.) 0-1 1-6 6-18              | Hue_10YR Hue_10YR Hue_10YR Hue_10YR  | be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix  Color (Moist)  2/1  5/2  2/1  | % 100 90 100 re if ind                              | nent the indi /Coated Sand (  Color (  Hue_10YR   | cator or co<br>Grains; Loca<br>Moist)<br>5/8  | onfirm the                      | ed algal crust.  e absence of inore Lining, M=Matrees  Type  C  | Location  M             | Texture MMI LFS M   | Remarks the mineral component is loamy fine sand  very black  for Problematic Soils <sup>1</sup>  |  |  |  |  |  |  |
| SOILS Profile Descrip (Type: C=Concent  Depth (In.) 0-1 1-6 6-18  NRCS Hydri  | Hue_10YR Hue_10YR Hue_10YR Hue_10YR Al- Histosol   | be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix  Color (Moist)  2/1  5/2  2/1  Indicators (check here  | % 100 90 100 re if ind                              | nent the indi /Coated Sand (  Color (  Hue_10YR  icators are r  | cator or co<br>Grains; Loca<br>Moist)  5/8  not presen  | onfirm the                      | ed algal crust.  e absence of inore Lining, M=Matrees  Type  C  | Location  M             | Texture MMI LFS M  Indicators A9 - 1 cm N   | Remarks the mineral component is loamy fine sand  very black  for Problematic Soils  Muck (LRR I, J)  |  |  |  |  |  |  |
| SOILS Profile Descrip (Type: C=Concent  Depth (In.) 0-1 1-6 6-18  NRCS Hydri  | htration, D=Deplementation, D= | be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix Color (Moist)  2/1  5/2  2/1  Indicators (check here)  | % 100 90 100 re if ind                              | nent the indi /Coated Sand (  Color (  Hue_10YR  icators are r  S5 - Sandy R S6 - Stripped  | cator or co<br>Grains; Loca<br>Moist)  5/8  not presen  edox Matrix   | with a dri                      | ed algal crust.  e absence of inore Lining, M=Matrees  Type  C  | Location  M             | Texture  MMI  LFS  M  Indicators  A9 - 1 cm N  A16 - Coast  | Remarks the mineral component is loamy fine sand  very black  for Problematic Soils¹  Muck (LRR I, J) t Prairie Redox (LRR F, G, H)   |  |  |  |  |  |  |
| SOILS Profile Descrip (Type: C=Concent)  Depth (In.) 0-1 1-6 6-18  NRCS Hydri | Hue_10YR Hue_10YR Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His   | be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix  Color (Moist)  2/1  5/2  2/1  Indicators (check here)   | % 100 90 100 re if ind                              | color (  Hue_10YR  icators are r  S5 - Sandy R S6 - Stripped F1 - Loamy N   | cator or co<br>Grains; Loca<br>Moist)  5/8  not presen edox Matrix fucky Miner  | with a dri                      | ed algal crust.  e absence of inore Lining, M=Matrees  Type  C  | Location  M             | Indicators: A9 - 1 cm N A16 - Coast S7 - Dark S   | Remarks the mineral component is loamy fine sand  very black  for Problematic Soils¹  Muck (LRR I, J) t Prairie Redox (LRR F, G, H) Surface (LRR G)   |  |  |  |  |  |  |
| Depth (In.) 0-1 1-6 6-18  NRCS Hydri  | Hue_10YR Hue_10YR Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge  | be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix  Color (Moist)  2/1  5/2  2/1  Indicators (check here)  ipedon stic in Sulfide   | % 100 90 100 re if ind                              | color ( Hue_10YR  icators are r  S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O   | cator or co<br>Grains; Locar<br>Moist)  5/8  not presen edox Matrix Mucky Miner   | with a dri                      | ed algal crust.  e absence of inore Lining, M=Matrees  Type  C  | Location  M             | Texture MMI LFS M  Indicators: A9 - 1 cm N A16 - Coast S7 - Dark S F16 - High I   | Remarks the mineral component is loamy fine sand  very black  for Problematic Soils¹  Muck (LRR I, J) t Prairie Redox (LRR F, G, H) Surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73)   |  |  |  |  |  |  |
| Depth (In.) 0-1 1-6 6-18  | Hue_10YR Hue_10YR Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified  | Matrix Color (Moist)  2/1  5/2  2/1  Indicators (check here)  ipedon stic on Sulfide Layers (LRR F)  | % 100 90 100 re if ind                              | color (  Hue_10YR  Color (  Hue_10YR  icators are r  S5 - Sandy R  S6 - Stripped F1 - Loamy N  F2 - Loamy C  F3 - Depleted  | cator or co<br>Grains; Loca<br>Moist)  5/8  not presen edox Matrix flucky Mineral Bleyed Matrix I Matrix  | mottle  Mottle  Mottle  10  t): | ed algal crust.  e absence of inore Lining, M=Matrees  Type  C  | Location  M             | Indicators: A9 - 1 cm M A16 - Coasi S7 - Dark S F16 - High I F18 - Reduce   | Remarks the mineral component is loamy fine sand  very black  for Problematic Soils¹  Muck (LRR I, J) t Prairie Redox (LRR F, G, H) Surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) ced Vertic  |  |  |  |  |  |  |
| Depth (In.) 0-1 1-6 6-18  | Hue_10YR Hue_10YR Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu   | Matrix Color (Moist)  2/1  5/2  2/1  Indicators (check here)  ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH)  | % 100 90 100 re if ind                              | color (  Hue_10YR  Color (  Hue_10YR  icators are r  S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy N F3 - Depleted F6 - Redox D  | cator or co<br>Grains; Loca<br>Moist)  5/8  not presen edox Matrix Mucky Minera Bleyed Matrix I Matrix ark Surface  | with a dri                      | ed algal crust.  e absence of inore Lining, M=Matrees  Type  C  | Location  M             | Indicators A9 - 1 cm N A16 - Coast S7 - Dark S F16 - High I F18 - Reduc   | Remarks the mineral component is loamy fine sand  very black  for Problematic Soils¹  Muck (LRR I, J) t Prairie Redox (LRR F, G, H) Surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) ced Vertic Parent Material  |  |  |  |  |  |  |
| Depth (In.) 0-1 1-6 6-18  NRCS Hydri  | Hue_10YR Hue_10YR Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu   | be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix  Color (Moist)  2/1  5/2  2/1  Indicators (check here)  ipedon stic on Sulfide Layers (LRR F) ck (LRR FGH) de Below Dark Surface   | % 100 90 100 re if ind                              | color (  Hue_10YR  Color (  Hue_10YR  icators are r  S5 - Sandy R  S6 - Stripped F1 - Loamy N  F2 - Loamy C  F3 - Depleted  | cator or constraints; Locar  Moist)  5/8  not presented with the constraints  Mucky Minera  Gleyed Matrix  Mucky Minera  Gleyed Matrix  I Matrix  ark Surface  I Dark Surface | with a dri                      | ed algal crust.  e absence of inore Lining, M=Matrees  Type  C  | Location  M             | Indicators: A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High I F18 - Reduct TF2 - Red F TF12 - Very   | Remarks the mineral component is loamy fine sand  very black  for Problematic Soils¹  Muck (LRR I, J) t Prairie Redox (LRR F, G, H) Surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) ced Vertic  |  |  |  |  |  |  |
| Depth (In.)  0-1  1-6  6-18   | Hue_10YR Hue_10YR Hue_10YR Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete  | Matrix Color (Moist)  2/1  5/2  2/1  Indicators (check here)  ipedon stic in Sulfide Layers (LRR F) ck (LRR FGH) id Below Dark Surface ark Surface   | % 100 90 100 re if ind                              | color (  Hue_10YR  Color (  Hue_10YR  icators are r  S5 - Sandy R  S6 - Stripped  F1 - Loamy N  F2 - Loamy O  F3 - Depleted  F6 - Redox D  F7 - Depleted  F8 - Redox D        | cator or co<br>Grains; Loca<br>Moist)  5/8  oot presen edox Matrix flucky Minera Bleyed Matrix I Matrix ark Surface pressions   | mottle with a dri               | ed algal crust.  e absence of inore Lining, M=Matrees  Type  C  | Location  M             | Indicators: A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High I F18 - Reduct TF2 - Red F TF12 - Very   | Remarks the mineral component is loamy fine sand  very black  for Problematic Soils¹  Muck (LRR I, J) t Prairie Redox (LRR F, G, H) Surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) ced Vertic Parent Material y Shallow Dark Surface   |  |  |  |  |  |  |
| Depth (In.)  0-1  1-6  6-18   | Hue_10YR Hue_10YR Hue_10YR Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm N   | be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix  Color (Moist)  2/1  5/2  2/1  Indicators (check here)  ipedon stic in Sulfide Layers (LRR F) ck (LRR FGH) id Below Dark Surface eark Surface ucky Mineral flucky Peat or Peat (LRR G, H | % 100 90 100 re if ind                              | color (  Hue_10YR  Color (  Hue_10YR  icators are r  S5 - Sandy R  S6 - Stripped  F1 - Loamy N  F2 - Loamy O  F3 - Depleted  F6 - Redox D  F7 - Depleted  F8 - Redox D        | cator or co<br>Grains; Loca<br>Moist)  5/8  oot presen edox Matrix flucky Minera Bleyed Matrix I Matrix ark Surface pressions   | mottle with a dri               | ed algal crust.  e absence of inore Lining, M=Matrones  Type  C | Location  M             | Indicators: A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High I F18 - Reduct TF2 - Red F TF12 - Very   | Remarks the mineral component is loamy fine sand  very black  for Problematic Soils¹  Muck (LRR I, J) t Prairie Redox (LRR F, G, H) Surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) ced Vertic Parent Material y Shallow Dark Surface   |  |  |  |  |  |  |
| Depth (In.) 0-1 1-6 6-18  | Hue_10YR Hue_10YR Hue_10YR Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu  | Matrix Color (Moist)  2/1  5/2  2/1  Indicators (check here)  ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface eark Surface ucky Mineral flucky Peat or Peat (LRR G, H cky Peat or Peat (LRR F)                                    | % 100 90 100 In | color (  Hue_10YR  Color (  Hue_10YR  icators are r  S5 - Sandy R  S6 - Stripped  F1 - Loamy N  F2 - Loamy O  F3 - Depleted  F6 - Redox D  F7 - Depleted  F8 - Redox D        | cator or co<br>Grains; Loca<br>Moist)  5/8  oot presen edox Matrix flucky Minera Bleyed Matrix I Matrix ark Surface pressions   | mottle with a dri               | ed algal crust.  e absence of inore Lining, M=Matrones  Type  C | Location  M             | Indicators  A9 - 1 cm N A16 - Coast S7 - Dark S F16 - High I F18 - Reduct TF2 - Red F TF12 - Very Other (Explain  | Remarks the mineral component is loamy fine sand  very black  for Problematic Soils¹ Muck (LRR I, J) t Prairie Redox (LRR F, G, H) Surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) ced Vertic Parent Material y Shallow Dark Surface ain in Remarks)  hydrophytic vegetation and wetland hydrology must be present, |  |  |  |  |  |  |
| Depth (In.)  0-1  1-6  6-18  NRCS Hydri                                       | Hue_10YR Hue_10YR Hue_10YR Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm N   | Matrix Color (Moist)  2/1  5/2  2/1  Indicators (check here)  ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface eark Surface ucky Mineral flucky Peat or Peat (LRR G, H cky Peat or Peat (LRR F)                                    | % 100 90 100 In | color (  Hue_10YR  Color (  Hue_10YR  icators are r  S5 - Sandy R  S6 - Stripped  F1 - Loamy N  F2 - Loamy O  F3 - Depleted  F6 - Redox D  F7 - Depleted  F8 - Redox D        | cator or co<br>Grains; Loca<br>Moist)  5/8  oot presen edox Matrix flucky Minera Bleyed Matrix I Matrix ark Surface pressions   | mottle with a dri               | ed algal crust.  e absence of inore Lining, M=Matrees  Type  C  | Location  M             | Indicators  A9 - 1 cm N A16 - Coast S7 - Dark S F16 - High I F18 - Reduct TF2 - Red F TF12 - Very Other (Explain  | Remarks the mineral component is loamy fine sand  very black  for Problematic Soils¹  Muck (LRR I, J) t Prairie Redox (LRR F, G, H) Surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) ced Vertic Parent Material y Shallow Dark Surface ain in Remarks)   |  |  |  |  |  |  |
| Depth (In.) 0-1 1-6 6-18  | Hue_10YR Hue_10YR Hue_10YR Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu  | Matrix Color (Moist)  2/1  5/2  2/1  Indicators (check here)  ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface eark Surface ucky Mineral flucky Peat or Peat (LRR G, H cky Peat or Peat (LRR F)                                    | % 100 90 100 In | color (  Hue_10YR  Color (  Hue_10YR  icators are r  S5 - Sandy R  S6 - Stripped  F1 - Loamy N  F2 - Loamy O  F3 - Depleted  F6 - Redox D  F7 - Depleted  F8 - Redox D        | cator or co<br>Grains; Loca<br>Moist)  5/8  oot presen edox Matrix flucky Minera Bleyed Matrix I Matrix ark Surface pressions   | mottle with a dri               | ed algal crust.  e absence of inore Lining, M=Matrones  Type  C | Location  M             | Indicators  A9 - 1 cm N A16 - Coast S7 - Dark S F16 - High I F18 - Reduct TF2 - Red F TF12 - Very Other (Explain  | Remarks the mineral component is loamy fine sand  very black  for Problematic Soils¹ Muck (LRR I, J) t Prairie Redox (LRR F, G, H) Surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) ced Vertic Parent Material y Shallow Dark Surface ain in Remarks)  hydrophytic vegetation and wetland hydrology must be present, |  |  |  |  |  |  |
| Depth (In.) 0-1 1-6 6-18  | Hue_10YR Hue_10YR Hue_10YR Hue_10YR Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu S4 - Sandy G  | Matrix Color (Moist)  2/1  5/2  2/1  Indicators (check here)  ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface eark Surface ucky Mineral flucky Peat or Peat (LRR G, H cky Peat or Peat (LRR F)                                    | % 100 90 100 In | color (  Hue_10YR  Color (  Hue_10YR  icators are r  S5 - Sandy R  S6 - Stripped  F1 - Loamy N  F2 - Loamy O  F3 - Depleted  F6 - Redox D  F7 - Depleted  F8 - Redox D        | cator or constraints; Locar  Moist)  5/8  not presented Matrix Mucky Mineral Matrix I Matrix ark Surface I Dark Surface epressions ains Depressions                           | mottle with a dri               | e absence of in ore Lining, M=Matres  Type  C  RA 72, 73 of LRF | Location  M  CR H)      | Indicators A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High I F18 - Reduct TF2 - Red F TF12 - Very Other (Explain   | Remarks the mineral component is loamy fine sand  very black  for Problematic Soils¹ Muck (LRR I, J) t Prairie Redox (LRR F, G, H) Surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) ced Vertic Parent Material y Shallow Dark Surface ain in Remarks)  hydrophytic vegetation and wetland hydrology must be present, |  |  |  |  |  |  |
| Depth (In.)  0-1  1-6  6-18  NRCS Hydri                                       | Hue_10YR Hue_10YR Hue_10YR Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu S4 - Sandy G   | Matrix Color (Moist)  2/1  5/2  2/1  Indicators (check here)  ipedon stic on Sulfide  Layers (LRR F) ck (LRR FGH) de Below Dark Surface ark Surface ucky Mineral flucky Peat or Peat (LRR G, H cky Peat or Peat (LRR F) leyed Matrix                     | % 100 90 100 In | color (  Hue_10YR  Color (  Hue_10YR  icators are r  S5 - Sandy R S6 - Stripped F1 - Loamy R F2 - Loamy R F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D F16 - High Pl | cator or constraints; Locar  Moist)  5/8  not presented Matrix Mucky Mineral Matrix Il Matrix ark Surface Dark Surface pressions ains Depres                                  | mottle with a dri               | e absence of in ore Lining, M=Matrees  Type  C  Hydric So       | Location  M  HIPresent? | Texture MMI LFS M  Indicators A9 - 1 cm N A16 - Coast S7 - Dark S F16 - High I F18 - Reduct TF2 - Red F TF12 - Very Other (Explain Indicators of I unless disturb | Remarks the mineral component is loamy fine sand  very black  for Problematic Soils¹ Muck (LRR I, J) t Prairie Redox (LRR F, G, H) Surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) ced Vertic Parent Material y Shallow Dark Surface ain in Remarks)  hydrophytic vegetation and wetland hydrology must be present, |  |  |  |  |  |  |

## WETLAND DETERMINATION DATA FORM Great Plains Region

| Project/Site:       | L3R  |            |                 |             | Sample Point: w-153n44w11-c2  |  |  |  |  |
|---------------------|--|------------|-----------------|-------------|---|--|--|--|--|
| -                   |  |            |                 |             | · •   |  |  |  |  |
| <b>VEGETATIO</b>    | N (Species identified in all uppercase are | non-native | species.)       |             |   |  |  |  |  |
| Tree Stratum (      | (Plot size: 30 ft. radius)                 |            |                 |             |   |  |  |  |  |
|                     | Species Name                               | % Cover    | <b>Dominant</b> | Ind.Status  | Dominance Test Worksheet  |  |  |  |  |
| 1.                  |  |            |                 |             |   |  |  |  |  |
| 2.                  |  |            |                 |             | Number of Dominant Species that are OBL, FACW, or FAC:(A)               |  |  |  |  |
| 3.                  |  |            |                 |             |   |  |  |  |  |
| 4.                  |  |            |                 |             | Total Number of Dominant Species Across All Strata: 2 (B)               |  |  |  |  |
| 5.                  |  |            |                 |             |   |  |  |  |  |
| 6.                  |  |            |                 |             | Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)    |  |  |  |  |
| 7.                  |  |            |                 |             |   |  |  |  |  |
| 8.                  |  |            |                 |             | Prevalence Index Worksheet  |  |  |  |  |
| 9.                  |  |            |                 |             | Total % Cover of: Multiply by:  |  |  |  |  |
| 10.                 |  |            |                 |             | OBL spp. 41 X 1 = 41  |  |  |  |  |
| 10.                 | Total Cover =                              | 0          |                 |             | OBL spp. 41   |  |  |  |  |
|                     | 10101 00101 =                              |            |                 |             | FAC spp   |  |  |  |  |
| Sanling/Shrub       | Stratum (Plot size: 15 ft. radius)         |            |                 |             | FACH spp. $0$ $y A = 0$   |  |  |  |  |
| 1.                  | Stratum (Flot Size: 13 ft. radius)         |            |                 |             | I PI spp. 0 x 5 = 0   |  |  |  |  |
| 2.                  |  |            |                 |             | Οι L 3pp  |  |  |  |  |
| 3.                  |  |            |                 |             | Total 111 (A) 191 (B)   |  |  |  |  |
| 4.                  |  |            |                 |             | Total 111 (A) 181 (B)   |  |  |  |  |
| 5.                  |  |            |                 |             | Provolence Index = P/A = 4.624  |  |  |  |  |
|                     |  |            |                 |             | Prevalence Index = B/A = 1.631  |  |  |  |  |
| 6.                  |  |            |                 |             |   |  |  |  |  |
| 7.                  |  |            |                 |             | Hadronkatio Vocatotion Indicatore                                       |  |  |  |  |
| 8.                  |  |            |                 |             | Hydrophytic Vegetation Indicators:                                      |  |  |  |  |
| 9.                  |  |            |                 |             | Rapid Test for Hydrophytic Vegetation                                   |  |  |  |  |
| 10.                 |  |            |                 |             | X Dominance Test is > 50%   |  |  |  |  |
|                     | Total Cover = _                            | 0          | _               |             | X Prevalence Index is ≤ 3.0 *   |  |  |  |  |
|                     |  |            |                 |             | Morphological Adaptations (Explain) *                                   |  |  |  |  |
| Herb Stratum (      | Plot size: 5 ft. radius)                   |            |                 |             | Problem Hydrophytic Vegetation (Explain) *                              |  |  |  |  |
| 1.                  | Phalaris arundinacea                       | 70         | Υ               | FACW        |   |  |  |  |  |
| 2.                  | Typha X glauca                             | 40         | Υ               | OBL         | * Indicators of hydric soil and wetland hydrology must be               |  |  |  |  |
| 3.                  | Eleocharis palustris                       | 1          | N               | OBL         | present, unless disturbed or problematic.                               |  |  |  |  |
| 4.                  |  |            |                 |             | Definitions of Vegetation Strata:                                       |  |  |  |  |
| 5.                  |  |            |                 |             |   |  |  |  |  |
| 6                   |  |            |                 |             | Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast         |  |  |  |  |
| 7.                  |  |            |                 |             | height (DBH), regardless of height.                                     |  |  |  |  |
| 8.                  |  |            |                 |             |   |  |  |  |  |
| 9.                  |  |            |                 |             | Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height. |  |  |  |  |
| 10.                 |  |            |                 |             |   |  |  |  |  |
| 11.                 |  |            |                 |             |   |  |  |  |  |
| 12.                 |  |            |                 |             | Herb - All herbaceous (non-woody) plants, regardless of size.           |  |  |  |  |
| 13.                 |  |            |                 |             |   |  |  |  |  |
| 14.                 | 1  |            |                 |             |   |  |  |  |  |
| 15.                 |  |            |                 |             | Woody Vines - All woody vines, regardless of height.                    |  |  |  |  |
| 10.                 | Total Cover -                              | 111        |                 |             | Troony Times  |  |  |  |  |
|                     | Total Cover = _                            | 111        |                 |             |   |  |  |  |  |
| M                   |  |            |                 |             |   |  |  |  |  |
|                     | ratum (Plot size: 30 ft. radius)           |            |                 |             |   |  |  |  |  |
| 1.                  |  |            |                 |             |   |  |  |  |  |
| 2.                  |  |            |                 |             | Hydrophytic Veretation Duccesto   |  |  |  |  |
| 3.                  |  |            |                 |             | Hydrophytic Vegetation Present?Y  |  |  |  |  |
| 5.                  |  |            |                 |             |   |  |  |  |  |
| 4.                  | T : 12                                     |            |                 |             |   |  |  |  |  |
|                     | Total Cover =                              | 0          |                 |             |   |  |  |  |  |
| Remarks:            | A shallow marsh dominated by reed canary g | rass and   | hybrid catt     | ail with ve | ry little else present. Hydrophytic vegetation is present.              |  |  |  |  |
|                     |  |            |                 |             |   |  |  |  |  |
|                     |  |            |                 |             |   |  |  |  |  |
| Additional Remarks: |  |            |                 |             |   |  |  |  |  |
|                     |  |            |                 |             |   |  |  |  |  |
|                     |  |            |                 |             |   |  |  |  |  |
|                     |  |            |                 |             |   |  |  |  |  |
|                     |  |            |                 |             |   |  |  |  |  |