

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Roady Flats Site City/County: Jefferson Sampling Date: 8/21/13
 Applicant/Owner: DOE State: CO Sampling Point: FLU-1b (426)
 Investigator(s): Jay Nelson Section, Township, Range: T2S, R70W, Sec. 10
 Landform (hillslope, terrace, etc.): borrow pit bottom Local relief (concave, convex, none): concave Slope (%): 1-2
 Subregion (LRR): G Lat: 750583.829729 Long: 2081714.958117 Datum: NAD27
 Soil Map Unit Name: mitigation area NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology 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? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: <u>Mitigation area. New normal circumstances. Former borrow pit area.</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																							
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</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>50</u> (A/B)																																							
2. _____	_____	_____	_____																																								
3. _____	_____	_____	_____																																								
4. _____	_____	_____	_____																																								
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0.5</u></td> <td>x 1 = <u>0.5</u></td> </tr> <tr> <td>FACW species <u>27.5</u></td> <td>x 2 = <u>55</u></td> </tr> <tr> <td>FAC species <u>4.75</u></td> <td>x 3 = <u>14.25</u></td> </tr> <tr> <td>FACU species <u>27.25</u></td> <td>x 4 = <u>110</u></td> </tr> <tr> <td>UPL species <u>0.25</u></td> <td>x 5 = <u>1.25</u></td> </tr> <tr> <td>Column Totals: <u>60.25</u> (A)</td> <td><u>181</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0.5</u>	x 1 = <u>0.5</u>	FACW species <u>27.5</u>	x 2 = <u>55</u>	FAC species <u>4.75</u>	x 3 = <u>14.25</u>	FACU species <u>27.25</u>	x 4 = <u>110</u>	UPL species <u>0.25</u>	x 5 = <u>1.25</u>	Column Totals: <u>60.25</u> (A)	<u>181</u> (B)	Prevalence Index = B/A = <u>3.00</u>																								
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Sapling/Shrub Stratum (Plot size: <u>Wetland</u>) 1. <u>JR2113-105E1</u> _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover																																											
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Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover																																											
% Bare Ground in Herb Stratum <u>50</u>																																											
Remarks: <u>21 = 0.25%</u> <u>↓ from 2nd page</u>																																											
Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - 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)																																											
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																											

SOIL

Sampling Point: FCI-1b (426)

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, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR F, G, H)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) (LRR G)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	(LRR H outside of MLRA 72 & 73)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/> High Plains Depressions (F16)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	(MLRA 72 & 73 of LRR H)	

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: *Mitigation area w/ disturbed soils. Area wet >14 continuous days during growing season. Hydrophytic veg + wetland hydrology both present. Thus hydric soil presumed to be developing.*

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	(where tilled)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

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

Remarks: *See water level data - area wet for multiple weeks - 2013 during growing season.*

Wetland Determination Data Form - Great Plains Region
 Extra Page for Vegetation Species

Date 8/21/13
 Sampling Point FC1-1b (42b)

Tree Stratum

	Scientific Name	Absolute % Cover	Dominant Species?	Indicator Status
5				
6				
7				
8				
9				
10				

_____ = Total Cover

Sapling/Shrub Stratum

	Scientific Name	Absolute % Cover	Dominant Species?	Indicator Status
6				
7				
8				
9				
10				

_____ = Total Cover

Herb Stratum

	Scientific Name	Absolute % Cover	Dominant Species?	Indicator Status
11	ASSP1	<1		FAC
12	ASPO1	<1		FACU
13	CANE1	<1		OBL
14	PAV11	4		FAC
15	ELCA1	<1		FACU
16	FEPRI	<1		FACU
17	MEOF1	<1		FACU
18	CAL01	<1		UPL
19	ECCR1	<1		FAC
20	POMO1	<1		FACW
21	XAST1	<1		FAC
22	POCO1	<1		FACU
23	PHPR1	4		FACU
24	ASLA1	<1		FACU
25	ELCA1	<1		FACU
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

duplicate deleted
10/15/13

111
112
113
114
115
116
117
118
119
120
121
122
123
124
~~125~~

11 = Total Cover

Over > ?



Wetland Determination Data Form - Great Plains Region
Extra Page for Vegetation Species

Date _____
 Sampling Point _____

Tree Stratum

	Scientific Name	Absolute % Cover	Dominant Species?	Indicator Status
11				
12				
13				
14				
15				

_____ = Total Cover

Sapling/Shrub Stratum

	Scientific Name	Absolute % Cover	Dominant Species?	Indicator Status
11				
12				
13				
14				
15				

_____ = Total Cover

Herb Stratum

	Scientific Name	Absolute % Cover	Dominant Species?	Indicator Status
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53				
54				
55				
56				
57				
58				
59				
60				
61				

_____ = Total Cover

Wetland Qualitative Revegetation Evaluation Form

Form # _____

Date 8/21/13

Observer(s) Jody Nelson

Location ID FCL-1b (426)

Photographs taken today? Y N

Are desired wetland plant species present? Y N

Are there any issues regarding the establishment of the desired wetland species? Explain, if so.

Yes - area is very dry & does not have as many hydrophytic species (abundance) as in the past.

Are the hydrologic conditions appropriate for successful establishment and sustainability of the wetland. If not, describe the problem/issue.

Not this year. Upland species seem to be more abundant than in past.

Woody Plant Counts

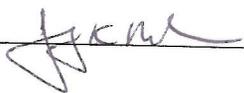
Species	Stem Count	Height			Width		
		1	2	3	1	2	3

Noxious weed evaluation. See separate noxious weed evaluations conducted throughout the summer months (June - August).

Suggestions for management:

Control weeds as needed.

Other comments:

Completed by: *body K Nets*  Date *8/21/13*