WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Wetlands / Rocky Flats Site City/County: Jefferson Sampling Date: 8/20/14

Applicant/Owner: DOE State: CO Sampling Point: PLF-B (102)

Investigator(s): Jody Nelson Section, Township, Range: T2S, R70W, Sec. 2

Landform (hillslope, terrace, etc.): Stream Local relief (concave, convex, none): Concave Slope (%): 0-3

Subregion (LRR): G Lat: 753100.9027 Long: 2084735.8643 Datum: NAD27

Soil Map Unit Name: NA - mitigation area NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil X, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X

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 X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks: mitigation area. New normal circumstances. PLF dam breach project + Stream channel below former dam.

VEGETATION – Use scientific names of plants.

	Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
		_____ = Total Cover		
	Sapling/Shrub Stratum (Plot size: wetland)			
177	1. SAEXI	<1		FACW
178	2. PODEI	<1		FAC
179	3. SAAMI	<1		FACW
4.				
5.				
		0.75 = Total Cover		
	Herb Stratum (Plot size: wetland)			
180	1. POMOI	<1		FACW
181	2. SCACI	30	Y	OBL
182	3. ELMAI	2		OBL
183	4. HEANI	<1		FACU
184	5. SCMAI	2		OBL
185	6. AMARI	<1		FACU
186	7. ~~PONAI~~ PONAI	<1		OBL
187	8. AGSMI	<1		FACU
188	9. TYANI	40	Y	OBL
189	10. JUTOI	2		FACW
		77.25 = Total Cover		
	Woody Vine Stratum (Plot size: _____)	5.50 Page 2		
1.		82.75		
2.				
		_____ = Total Cover		

% Bare Ground in Herb Stratum 5

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 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)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

<1 = 0.25 %

SOIL

Sampling Point: PLF - B (102)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ 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 Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- X Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: Mitigation area - disturbed soils. Hydrophytic veg & wetland hydrology are present - therefore hydric soils are presumed to be developing. Area is wet >14 continuous days out of growing season. Interim monitoring. No soil pits dug this year.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ 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)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-30"

Water Table Present? Yes X No ___ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 0

Wetland Hydrology Present? Yes X No ___

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

See wetland water level data from earlier in summer.

Remarks:

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

Date 8/20/19
Sampling Point PLF - B (102)

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
190	11	PAVI1	<1		FAC
191	12	Juncus sp.? UNKN1	<1		
192	13	JUBA1	1		FACW
193	14	OEVI1	<1		FACU
194	15	CIAR1	<1		FACU
195	16	PLMA1	<1		FAC
196	17	EPCI1	<1		OBL
197	18	XAST1	<1		FAC
198	19	LYAM1	1		OBL
199	20	MEAR1	<1		FACW
200	21	RUCR1	<1		FAC
	22	~~8/20/19 POMO1~~	~~<1~~		
201	23	ECCR1	<1		FAC
202	24	CANE1	1		OBL
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

5.50 = Total Cover

Over > ?	N

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 8/20/14
Observer(s) Jody Meis
Location ID PLF-B (102)

Photographs taken today? Y (N) taken earlier

Are desired wetland plant species present? (Y) N

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

no

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

yes

Woody Plant Counts

Species	Stem Count	Height			Width		
		1	2	3	1	2	3
5	SAEX1	3'	2'	1½'	1'	1'	1'
8	POBE1	1½'	2'	1½'	1'	8"	6"
1	SAAM1	2'			6"		

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

Suggestions for management:

Control weeds as needed. Large CIAR1 patch south of wetland area.

Other comments:

Looks good.

Completed by: Joy K Nels — JKN Date 8/20/14