WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats Site City/County: Jefferson Sampling Date: 8/22/13

Applicant/Owner: DOE State: CO Sampling Point: A3-C (100)

Investigator(s): Lacy Nels – Section, Township, Range: T2S, R70W, Sec. 11

Landform (hillslope, terrace, etc.): Stream channel Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR): G Lat: 752310. 8747 Long: 2088048. 2976 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 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 ____

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____

Remarks:

Mitigation area. New normal circumstances. Location where coffer dam was located during A3 dam breach project.

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: ____)			
42	1. SAEXI	2		FACW
	2.			
	3.			
	4.			
	5.			
		2 = Total Cover		
	Herb Stratum (Plot size: wetland)			
43	1. XASTI	45	Y	FAC
44	2. HOJU1	20	Y	FACW
45	3. RUCR1	<1		FAC
46	4. SCMA1	<1		OBL
47	5. SCAC1	<1		OBL
48	6. POMO1	17		FACW
49	7. AGCA1	2		FACU
50	8. TYAN1	<1		OBL
51	9. ECCR1	1		FAC
52	10. PORA1	3		FACW
	+1.25	90.25 = Total Cover		
	Woody Vine Stratum (Plot size: ____) ↘ from 2nd page			
	1.			
	2.			
		____ = Total Cover		

% Bare Ground in Herb Stratum 3

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 % cover

SOIL

Sampling Point: A3-C (100)

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	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 w/disturbed soils. Area wet > 14 continuous days during growing season. Hydrophytic veg + wetland hydrology are present, therefore hydric soils are presumed to be developing.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ 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)
- X 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 ____ No X Depth (inches): _____

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

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

Wetland Hydrology Present? Yes X No ____

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

See water level data

Remarks:

Area was flowing much of spring/early summer.

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

Date 8/22/13
Sampling Point A3-C (100)

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
53	11	AGSMI	<1		FACU
54	12	ELMAI	<1		OBL
55	13	COARI	<1		UPL
56	14	PLMAI	<1		FAC
57	15	LASEI	<1		FAC
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

1.25 = 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 8/22/13
Observer(s) Jon Nds -
Location ID A3-2 (1100)

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

		Height			Width		
Species	**Stem Count**	**1**	**2**	**3**	**1**	**2**	**3**
SAEKI	~30	3.5'	3.5'	3.5'	1'	1'	1'

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

Suggestions for management:

Control weeds as needed

Other comments:

Area has filled in w/ good pond bottom species - such as when pond is dry at end of summer.

Completed by: [signature] [signature] Date 8/22/13