2009 Annual Wetland Mitigation Monitoring Report

for the Rocky Flats Site

(Click on the links below to view the wetland report, wetland project photos and forms)

2009 Annual Wetland Mitigation Monitoring Report (PDF Version)

2009 Photopoint Monitoring Photos

2009 Water Level Forms

Rocky Flats Site Vascular Flora List

Example Wetland Delineation Forms/Qualitative Wetland Assessment Forms

Wetland Locations	Wetland Delineation Forms/ Qualitative Wetland Assessment Forms	Noxious Weed Forms
A-1 Pond Wetland	2009 forms	Noxious weed forms
A-2 Pond Wetland	2009 forms	Noxious weed forms
B116 Wetlands	2009 forms	Noxious weed forms
B131 Wetland	2009 forms	Noxious weed forms
B131 SAEX1 Area	2009 forms	Noxious weed forms
B371 Wetlands	2009 forms	Noxious weed forms
B771 North Wetland	2009 forms	Noxious weed forms

B771 NW Wetland	2009 forms	Noxious weed forms
B881 Wetland	2009 forms	Noxious weed forms
Bowman's Pond/B771 Wetland	2009 forms	Noxious weed forms
B-1 Pond Wetland	2009 forms	Noxious weed forms
B-2 Pond Wetland	2009 forms	Noxious weed forms
B-3 Pond Wetland	2009 forms	Noxious weed forms
B-4 Pond Wetland	2009 forms	Noxious weed forms
C-1 Pond Wetland	2009 forms	Noxious weed forms
C-2 Pond Wetland	2009 forms	Noxious weed forms
East Shooting Range Wetland	2009 forms	Noxious weed forms
East Trenches Wetland	2009 forms	Noxious weed forms
Functional Channel 1 Wetland	2009 forms	Noxious weed forms
Functional Channel 1 Road Crossing	2009 forms	Noxious weed forms
Functional Channel 2 Wetland	2009 forms	Noxious weed forms
Functional Channel 2 Hillside Wetland	2009 forms	Noxious weed forms
Functional Channel 2/3 Confluence	2009 forms	Noxious weed forms
Functional Channel 3 Upper Wetland	2009 forms	Noxious weed forms
Functional Channel 3 Lower Wetland	2009 forms	Noxious weed forms
Functional Channel 4 Wetland	2009 forms	Noxious weed forms
Functional Channel 4 Hillside Wetland	2009 forms	Noxious weed forms
Functional Channel 5 Wetlands	2009 forms	Noxious weed forms
Mound East Wetland	2009 forms	Noxious weed forms
Mound West Wetland	2009 forms	Noxious weed forms
Mound SW Wetland	2009 forms	Noxious weed forms
Mound West-West Wetland	2009 forms	Noxious weed forms
Mound Well Wetland	2009 forms	Noxious weed forms
Original Landfill Wetlands	2009 forms	Noxious weed forms
Present Landfill Wetlands	2009 forms	Noxious weed forms
Ridge Road Wetland	2009 forms	Noxious weed forms
SW093 West Wetland	2009 forms	Noxious weed forms
Solar Ponds Well Area	2009 forms	Noxious weed forms
Solar Pond Discharge Gallery Wetland	2009 forms	Noxious weed forms
SPPTS Sump Installation	2009 forms	Noxious weed forms

NOTE: Calculations normally done on the Wetland Delineation Forms were done in electronic files. The results are presented in the spreadsheets in the report.

2009 Wetland Water Level Monitoring

Click on the links below to the see the monitoring data for a specific date.

May 5, 2009

May 7, 2009

May 11, 2009

May 14, 2009

May 18, 2009

May 21, 2009

May 27, 2009

June 4, 2009

2009 Wetland Mitigation Water Level Evaluation Datasheet

Date 5/5/09
Observer Judy Nelson

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
A-1 Pond		1-24"	yes	Flowing
A-1 Pond Exit		1-12"	yes	
A-2 Pond		1-36"	yes	Flowing
A-2 Pond Exit		1-12"	yes	
B-1 Pond A	1	1-12"	yes	water flowing in + out of pond
B-1 Pond B	2	—	yes/no	
B-1 Pond C	3	—	no	
B-2 Pond A	4	1-7"	yes	water flowing in + out of pond
B-2 Pond B	5	—	yes/no	
B-3 Pond A	6	1-12"	yes	water flowing in + out of pond
B-3 Pond B	7	—	yes	
B-3 Pond C	8	—	no	
B-3 Pond Exit		1-12"	yes	Flowing
B-4 Pond		1-8"	yes	water flowing in + out of pond
B-4 Pond Exit		1-3"	yes	
B116 Wetland A	9	1-3"	yes	
B116 Wetland B	10	1-3"	yes	
B131	11	1-2"	yes	
B131 SAEX1 Area	12	1-2"	no	water in adjacent ditch, but surface beneath SAEX1 not saturated
B371 Hillside Wetland	13	—	yes	
B771 N Wetland	14	0-2"	yes	
B771 NW Wetland	15	0-1"	yes	
B881 Wetland	16	0-2"	yes	
C-1 Pond - A	17	—	yes	
C-1 Pond - B	18	1-36"	yes	chorus frog present (3) - water flowing through step logs ~2" deep
C-1 Pond - C	19	1-4"	yes	
C-1 Pond - D	20	1-4"	yes	
East Shooting Range	21	1+4"	yes	water flowing in creek
East Trenches Wetland	22	1"	yes	" "
FC-1 Road Crossing	23	1"	yes	" "
FC-1 Wetland A	24	—	yes	
FC-1 Wetland B	25	—	yes	
FC-1 Wetland C	26	1-3"	yes	
FC-1 Wetland D	27	1-3"	yes	

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
FC-1 Wetland E	28	1-3"	yes	
FC-1 Wetland F	29	—	yes	
FC-1 Wetland G	30	1-4"	yes	
FC-1 Wetland H	31	—	yes	
FC-1 Wetland I	32	1-3"	yes	water flowing
FC-1 Wetland J	33	1-3"	yes	"
FC-1 Wetland K	34	1-12"	yes	"
FC-1 Wetland L	35	—	yes	
FC-1 Wetland M	36	—	yes	
FC1 New Wetland		1-3"	yes	Channel flowing / bottom mostly saturated
FC-2 Hillside Wetland A	37	1-6"	yes	
FC-2 Hillside Wetland B	38	0-1"	yes	
FC-2 Wetland A	39	1-8"	yes	water flowing through wetland
FC-2 Wetland B	40	0-4"	yes/no	
FC2 Wetland C	81	8" [illegible]	yes	
FC-2/FC-3 Confluence A	41	0-12" [illegible]	yes	
FC-2/FC-3 Confluence B	42	12-36"	yes	
FC2/FC3 Confluence C	82	36"+	yes	
FC-3 Lower Wetland	43	1-4"	yes	
FC-3 Upper Wetland	44	0-3"	yes	
FC-4 Hillside Wetland A	45	1-2"	yes	
FC-4 Hillside Wetland B	46	0-1"	yes	
FC-4 Hillside Wetland C	47	1-6"	yes	
FC-4 Hillside Wetland D	48	—	yes	
FC-4 Wetland A	49	1-6"	yes	water flowing through wetland
FC-4 Wetland B	50	—	yes	
FC-5 East Wetland	51	1-2"	yes	
FC-5 West Wetland	52	1-3"	yes	
Melvin's Way Wetland	53	0-4"	yes/no	
Mound East Wetland	54	0-1"	yes	
Mound SW Wetland	55	—	yes	
Mound Well Wetland	56	—	yes	
Mound West Wetland	57	—	yes/no	
Mound W-W Wetland	58	—	yes/no	
OLF - Wetland A	59	0-1"	yes	
OLF - Wetland B	60	1-3"	yes	
OLF - Wetland C	61	1-2"	yes	

2009 Wetland Mitigation Water Level Evaluation Datasheet

Page 3 of 3

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
OLF - Wetland D	62	—	yes / no	
OLF - Wetland E	63	—	yes	
OLF - Wetland F	64	1-3"	yes / no	
PLF - N Channel	65	1-3"	yes	
PLF - S Channel	66	1-2"	yes	
OLF - E - Berm 6/7		—	yes	
OLF - W Channel		0-1"	yes	
PLF - E Face North Wetland	67	0-1"	yes	
PLF - E Face West Wetland	68	0-3"	yes	
PLF - SAEX1 Area	69	—	no	
PLF - SW Hillside Wetland	70	—	yes / no	
PLF Pond A	71	1-36"	yes	
PLF Pond B	72	1-12"	yes	
PLF Pond C	73	1-2"	yes	
SPPTS Well Wetland	74	0-3"	yes	
SPDG - Wetland A	75	0-6"	yes / no	
SPDG - Wetland B	76	0-1"	yes / no	
SPDG - Wetland C	77	—	~~yes / no~~ no 5/5/09	
SW093 - Wetland A	78	0-5"	yes	
SW093 - Wetland B	79	—	no	
Bowman Pond/B771 Wetland	80	0-2"	yes	

Completed By [signature] Print [signature] Sign **Date** 5/5/09

2009 Wetland Mitigation Water Level Evaluation Datasheet

Date 5/7/09

Observer Jody K Nelson

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
A-1 Pond		0-24"	Y	Water Flowing through breach
A-1 Pond Exit		0-12	Y	
A-2 Pond		0-36"	Y	Water Flowing through breach
A-2 Pond Exit		0-6"	Y	
B-1 Pond A	1	0-12"	Y	Water flowing through breach
B-1 Pond B	2	— ~~0-18"~~ 5/7/09	Y/N	
B-1 Pond C	3	—	N	
B-2 Pond A	4	0-12"	Y	Water flowing through breach Frogs (1)
B-2 Pond B	5	—	Y	
B-3 Pond A	6	0-3"	Y	Water Flowing through breach
B-3 Pond B	7	0-12"	Y	
B-3 Pond C	8	—	Y/N	
B-3 Pond Exit		0-12"	Y	
B-4 Pond		0-10"	Y	Water Flowing through breach
B-4 Pond Exit		0-3"	Y	
B116 Wetland A	9	0-3"	Y	Water Flowing through area
B116 Wetland B	10	0-1"	Y	
B131	11	0-3"	Y	Flowing
B131 SAEX1 Area	12	—	N	
B371 Hillside Wetland	13	—	Y	
B771 N Wetland	14	—	Y	
B771 NW Wetland	15	0-1"	Y	
B881 Wetland	16	0-3"	Y	
C-1 Pond - A	17	0-12" ~~0-24"~~	Y	Pond Flowing through today
C-1 Pond - B	18	0-24"	Y	
C-1 Pond - C	19	0-6"	Y	
C-1 Pond - D	20	0-4"	Y	
East Shooting Range	21	0-6"	Y	Flowing today
East Trenches Wetland	22	0-1"	Y	Flowing today
FC-1 Road Crossing	23	0-3"	Y	Water Flowing
FC-1 Wetland A	24	—	Y	
FC-1 Wetland B	25	—	Y	
FC-1 Wetland C	26	1-4"	Y	
FC-1 Wetland D	27	1-4"	Y	

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
FC-1 Wetland E	28	0 - 3"	Y	
FC-1 Wetland F	29	— ~~0~~ 5/7/09	Y	
FC-1 Wetland G	30	0 - 6"	Y	
FC-1 Wetland H	31	—	Y/N	
FC-1 Wetland I	32	0-3"	Y	Flowing
FC-1 Wetland J	33	0-8"	Y	
FC-1 Wetland K	34	0-18"	Y	
FC-1 Wetland L	35	— ~~0-8"~~ 5/7/09	Y	
FC-1 Wetland M	36	—	Y/N	
FC1 New Wetland		0-2"	Y/N	along eastern half of wetland where water is flowing the grd is saturated
FC-2 Hillside Wetland A	37	0-6"	Y	flowing
FC-2 Hillside Wetland B	38	0-2"	Y	flowing
FC-2 Wetland A	39	0-8"	Y	Flowing through wetland
FC-2 Wetland B	40	0-1"	Y	
FC2 Wetland C	81	0-8"	Y	
FC-2/FC-3 Confluence A	41	0-12"	Y	flowing
FC-2/FC-3 Confluence B	42	12"-36"	Y	
FC2/FC3 Confluence C	82	12"-36"	Y	
FC-3 Lower Wetland	43	0-4"	Y	Flowing ~~today~~
FC-3 Upper Wetland	44	0-4"	Y	flowing
FC-4 Hillside Wetland A	45	0-1"	Y	
FC-4 Hillside Wetland B	46	0-2"	Y	water flowing on surface
FC-4 Hillside Wetland C	47	0-3"	Y	
FC-4 Hillside Wetland D	48	—	Y	
FC-4 Wetland A	49	0-6"	Y	
FC-4 Wetland B	50	0-3"	Y/N	
FC-5 East Wetland	51	—	Y	
FC-5 West Wetland	52	0-3"	Y	
Melvin's Way Wetland	53	0-2"	Y/N	
Mound East Wetland	54	0-1"	Y	Flowing ~~today~~
Mound SW Wetland	55	—	Y	
Mound Well Wetland	56	—	Y	
Mound West Wetland	57	—	Y/N	
Mound W-W Wetland	58	—	Y	
OLF - Wetland A	59	0-1"	Y	
OLF - Wetland B	60	0-5"	Y	
OLF - Wetland C	61	0-2"	Y	

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
OLF - Wetland D	62	—	no	
OLF - Wetland E	63	—	Y	
OLF - Wetland F	64	0-1"	Y/N	
PLF - N Channel	65	0-4"	Y	water Flowing
PLF - S Channel	66	0-2"	Y	" "
OLF - E - Berm 6/7		—	Y	
OLF - W Channel		0-½"	Y	
PLF - E Face North Wetland	67	0-1"	Y	
PLF - E Face West Wetland	68	0-3"	Y	
PLF - SAEX1 Area	69	—	N	
PLF - SW Hillside Wetland	70	—	Y	
PLF Pond A	71	0-4"	Y	Flowing
PLF Pond B	72	0-12"	Y	
PLF Pond C	73	12-36"	Y	
SPPTS Well Wetland	74	0-3"	Y	water Flowing today
SPDG - Wetland A	75	0-4"	Y/N	
SPDG - Wetland B	76	0-1"	Y/N	
SPDG - Wetland C	77	—	N	
SW093 - Wetland A	78	0-4"	Y	
SW093 - Wetland B	79	—	N	
Bowman Pond/B771 Wetland	80	0-1"	Y	
SPPTS sump wetland		—	N	

NOTE: All depths are estimated depths.

Completed By Jody K Nels — Print [signature] Sign **Date** 5/7/09

2009 Wetland Mitigation Water Level Evaluation Datasheet

Date 5/11/09
Observer Jody Nels

Rain over weekend ~0.25" at my house – Westminster.

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
A-1 Pond		0-24"	Y	water flowing through beaver
A-1 Pond Exit		0-12"	Y	
A-2 Pond		0-36"	Y	
A-2 Pond Exit		0-6"	Y	
B-1 Pond A	1	0-12"	Y	water flowing through beaver
B-1 Pond B	2	—	Y	
B-1 Pond C	3	—	Y	
B-2 Pond A	4	0-12"	Y	water flowing through beaver
B-2 Pond B	5	—	Y	
B-3 Pond A	6	0-3"	Y	water flowing through beaver
B-3 Pond B	7	0-12"	Y	
B-3 Pond C	8	—	Y	
B-3 Pond Exit		0-12"	Y	
B-4 Pond		0-10"	Y	water flowing through beaver
B-4 Pond Exit		0-3"	Y	
B116 Wetland A	9	0-3"	Y	
B116 Wetland B	10	0-1"	Y	
B131	11	0-6"	Y	flowing
B131 SAEX1 Area	12	—	Y/N	
B371 Hillside Wetland	13	0-1"	Y	
B771 N Wetland	14	0-2"	Y	
B771 NW Wetland	15	0-1"	Y	
B881 Wetland	16	0-3"	Y/N	
C-1 Pond - A	17	0-12"	Y	
C-1 Pond - B	18	0-24"	Y	
C-1 Pond - C	19	0-6"	Y	
C-1 Pond - D	20	0-4"	Y	
East Shooting Range	21	0-6"	Y	
East Trenches Wetland	22	0-1"	Y	
FC-1 Road Crossing	23	0-4"	Y	
FC-1 Wetland A	24	0-1"	Y	
FC-1 Wetland B	25	0-2"	Y	
FC-1 Wetland C	26	0-3"	Y	
FC-1 Wetland D	27	0-3"	Y	

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
FC-1 Wetland E	28	0-3"	Y	Flowing
FC-1 Wetland F	29	0-2"	Y	
FC-1 Wetland G	30	0-6"	Y	Flowing
FC-1 Wetland H	31	0-1"	Y	
FC-1 Wetland I	32	0-2"	Y	Flowing
FC-1 Wetland J	33	0-8"	Y	"
FC-1 Wetland K	34	0-18"	Y	"
FC-1 Wetland L	35	0-1"	Y	
FC-1 Wetland M	36	0-1"	Y	
FC1 New Wetland		0-2"	Y/N	Flowing in eastern portion of wetland
FC-2 Hillside Wetland A	37	0-6"	Y	
FC-2 Hillside Wetland B	38	0-3"	Y	Flowing
FC-2 Wetland A	39	0-8"	Y	Flowing
FC-2 Wetland B	40	0-6"	Y	
FC2 Wetland C	81	0-8"	Y	
FC-2/FC-3 Confluence A	41	0-12"	Y	Flowing
FC-2/FC-3 Confluence B	42	12"-36"	Y	
FC2/FC3 Confluence C	82	12"-36+"	Y	
FC-3 Lower Wetland	43	0-4"	Y	Flowing
FC-3 Upper Wetland	44	0-4"	Y	Flowing
FC-4 Hillside Wetland A	45	0-1"	Y	
FC-4 Hillside Wetland B	46	0-2"	Y	
FC-4 Hillside Wetland C	47	0-3"	Y	
FC-4 Hillside Wetland D	48	—	Y	
FC-4 Wetland A	49	0-6"	Y	
FC-4 Wetland B	50	0-3"	Y	
FC-5 East Wetland	51	0-1"	Y	
FC-5 West Wetland	52	0-3"	Y	
Melvin's Way Wetland	53	0-3"	Y/N	
Mound East Wetland	54	0-1"	Y	
Mound SW Wetland	55	—	Y	
Mound Well Wetland	56	—	Y	
Mound West Wetland	57	—	Y	
Mound W-W Wetland	58	—	Y	
OLF - Wetland A	59	0-1"	Y	
OLF - Wetland B	60	0-5"	Y	
OLF - Wetland C	61	0-2"	Y	

2009 Wetland Mitigation Water Level Evaluation Datasheet

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
OLF - Wetland D	62	—	Y	
OLF - Wetland E	63	—	Y	
OLF - Wetland F	64	0-1"	Y	
PLF - N Channel	65	0-4"	Y	
PLF - S Channel	66	0-2"	Y	
OLF - E - Berm 6/7		—	Y	
OLF - W Channel		0-1"	Y	
PLF - E Face North Wetland	67	0-1"	Y	
PLF - E Face West Wetland	68	0-4"	Y	
PLF - SAEX1 Area	69	—	Y	
PLF - SW Hillside Wetland	70	—	Y	
PLF Pond A	71	0-4"	Y	Flowing
PLF Pond B	72	0-12"	Y	
PLF Pond C	73	12"-36"	Y	
SPPTS Well Wetland	74	0-3"	Y	
SPDG - Wetland A	75	0-6"	Y/N	
SPDG - Wetland B	76	0-1"	Y/N	
SPDG - Wetland C	77	—	Y	
SW093 - Wetland A	78	0-5"	Y	
SW093 - Wetland B	79	—	Y/N	
Bowman Pond/B771 Wetland	80	0-1"	Y	
SPPTS sump wetland		—	Y	

M Water depths are estimated visually.

Completed By Jody K Nels — Print [signature] Sign Date 5/11/09

2009 Wetland Mitigation Water Level Evaluation Datasheet

Date 5/14/09
Observer Jody K Nels

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
A-1 Pond		0-24"	Y	Water Flowing through breach
A-1 Pond Exit		0-12"	Y	
A-2 Pond		0-36"	Y	Water Flowing through breach
A-2 Pond Exit		0-6"	Y	
B-1 Pond A	1	0-12"	Y	water Flowing through breach
B-1 Pond B	2	0-2"	Y/N	
B-1 Pond C	3	—	N	
B-2 Pond A	4	0-12	Y	Flowing through breach
B-2 Pond B	5	—	Y/N	
B-3 Pond A	6	0-3"	Y	Flowing through breach
B-3 Pond B	7	0-12"	Y	
B-3 Pond C	8	—	Y/N	
B-3 Pond Exit		0-12"	Y	
B-4 Pond		0-10"	Y	Flowing through breach
B-4 Pond Exit		0-3"	Y	
B116 Wetland A	9	0-1	Y	
B116 Wetland B	10	—	Y/N	
B131	11	0-3"	Y	Flowing
B131 SAEX1 Area	12	—	N	
B371 Hillside Wetland	13	0-1"	Y	
B771 N Wetland	14	0-2"	Y	
B771 NW Wetland	15	0-1"	Y	Flowing
B881 Wetland	16	0-3"	Y/N	
C-1 Pond - A	17	0-12"	Y	Flowing today
C-1 Pond - B	18	0-24"	Y	
C-1 Pond - C	19	0-6"	Y	
C-1 Pond - D	20	0-4"	Y	
East Shooting Range	21	0-6"	Y	
East Trenches Wetland	22	0-1"	Y	Flowing
FC-1 Road Crossing	23	0-3"	Y ~~[illegible]~~ 5/14/09	Flowing
FC-1 Wetland A	24	—	Y/N	
FC-1 Wetland B	25	— ~~0-3"~~ 5/14/09	Y	
FC-1 Wetland C	26	0-3"	Y	
FC-1 Wetland D	27	0-3"	Y	

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
FC-1 Wetland E	28	0-2"	Y	Flowing
FC-1 Wetland F	29	—	Y	
FC-1 Wetland G	30	0-6"	Y	Flowing
FC-1 Wetland H	31	—	Y/N	
FC-1 Wetland I	32	0-3"	Y	Flowing
FC-1 Wetland J	33	0-5"	Y	Flowing
FC-1 Wetland K	34	0-18"	Y/~~N~~ 5/14/09	"
FC-1 Wetland L	35	—	Y	
FC-1 Wetland M	36	—	Y/N	
FC1 New Wetland		0-2"	Y	saturated for entire length of E half of wetland area - water flowing down channel
FC-2 Hillside Wetland A	37	0-6"	Y	
FC-2 Hillside Wetland B	38	0-4"	Y	Flowing
FC-2 Wetland A	39	0-8"	Y	Flowing through wetland
FC-2 Wetland B	40	0-1"	Y/N	
FC2 Wetland C	81	0-8"	Y	
FC-2/FC-3 Confluence A	41	0-12"	Y	
FC-2/FC-3 Confluence B	42	12-36"	Y	
FC2/FC3 Confluence C	82	12-36"+	Y	
FC-3 Lower Wetland	43	0-4"	Y	Flowing
FC-3 Upper Wetland	44	0-~~5~~"	Y	"
FC-4 Hillside Wetland A	45	0-1"	Y	
FC-4 Hillside Wetland B	46	0-1"	Y	
FC-4 Hillside Wetland C	47	0-3"	Y	
FC-4 Hillside Wetland D	48	—	Y/N	
FC-4 Wetland A	49	0-6"	Y	Flowing through tang
FC-4 Wetland B	50	0-3"	Y/N	
FC-5 East Wetland	51	—	Y/~~N~~ 5/14/09	
FC-5 West Wetland	52	0-3"	Y	
Melvin's Way Wetland	53	—	Y/N	
Mound East Wetland	54	0-1"	Y	
Mound SW Wetland	55	—	Y/N	
Mound Well Wetland	56	—	Y/N	
Mound West Wetland	57	—	Y/N	
Mound W-W Wetland	58	—	Y	
OLF - Wetland A	59	0-1"	Y	
OLF - Wetland B	60	0-5"	Y	
OLF - Wetland C	61	0-2"	Y	

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
OLF - Wetland D	62	0-1"	Y/N	
OLF - Wetland E	63	—	N	
OLF - Wetland F	64	0-1"	Y	
PLF - N Channel	65	0-3"	Y	
PLF - S Channel	66	0-2"	Y	
OLF - E - Berm 6/7		—	Y/N	cut SAEX1 + SAAM1 have + to west
OLF - W Channel		0-1"	Y	
PLF - E Face North Wetland	67	—	Y/N	
PLF - E Face West Wetland	68	0-4"	Y/N	
PLF - SAEX1 Area	69	—	N	
PLF - SW Hillside Wetland	70	—	Y/N	
PLF Pond A	71	0-4"	Y	Flowing
PLF Pond B	72	0-12"	Y	
PLF Pond C	73	12-36"	Y	
SPPTS Well Wetland	74	0-3"	Y	
SPDG - Wetland A	75	0-6"	Y/N	
SPDG - Wetland B	76	0-1"	Y	
SPDG - Wetland C	77	—	N	
SW093 - Wetland A	78	0-5"	Y	Flowing
SW093 - Wetland B	79	—	N	
Bowman Pond/B771 Wetland	80	0-1"	Y	
SPPTS Sump Wetland		—	N	

Water depths estimated visually.

Completed By Jody K Nelson (Print) [signature] (Sign) **Date** 5/14/09

2009 Wetland Mitigation Water Level Evaluation Datasheet

Date 5/18/09
Observer Jody Nels—

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
A-1 Pond		0-18"	Y	Flowing through beaver
A-1 Pond Exit		0-8"	Y	
A-2 Pond		0-28"	Y	"
A-2 Pond Exit		0-4"	Y	
B-1 Pond A	1	0-12"	Y	Flowing through beaver
B-1 Pond B	2	0-2"	Y/N	
B-1 Pond C	3	—	N	
B-2 Pond A	4	0-8"	Y	"
B-2 Pond B	5	—	Y/N	
B-3 Pond A	6	0-3"	Y	"
B-3 Pond B	7	0-12"	Y	
B-3 Pond C	8	—	Y/N	
B-3 Pond Exit		0-12"	Y	
B-4 Pond		0-10"	Y	"
B-4 Pond Exit		0-3"	Y	
B116 Wetland A	9	—	Y/N	
B116 Wetland B	10	—	Y/N	
B131	11	0-4"	Y	
B131 SAEX1 Area	12	—	N	
B371 Hillside Wetland	13	—	Y	
B771 N Wetland	14	0-2"	Y/N	
B771 NW Wetland	15	0-1"	Y	Flowing
B881 Wetland	16	0-2"	Y/N	
C-1 Pond - A	17	0-12"	Y/N	Flowing through beaver
C-1 Pond - B	18	0-18"	Y	
C-1 Pond - C	19	0-6"	Y	
C-1 Pond - D	20	0-4	Y	
East Shooting Range	21	0-4"	Y	
East Trenches Wetland	22	0-1"	Y	Flowing
FC-1 Road Crossing	23	0-3"	Y	Flowing
FC-1 Wetland A	24	—	Y/N	
FC-1 Wetland B	25	—	Y/N	
FC-1 Wetland C	26	0-3"	Y/N	
FC-1 Wetland D	27	0-2"	Y/N	

5/18/09

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
FC-1 Wetland E	28	0-3"	Y/N	
FC-1 Wetland F	29	—	Y/N	
FC-1 Wetland G	30	0-6"	Y	flowing
FC-1 Wetland H	31	0-1"	Y/N	
FC-1 Wetland I	32	0-2"	Y	flowing
FC-1 Wetland J	33	0-5"	Y	"
FC-1 Wetland K	34	0-18"	Y	"
FC-1 Wetland L	35	—	Y	
FC-1 Wetland M	36	—	N	
FC1 New Wetland		0-2"	Y	saturated entire length of E edge - water flowing - channels on E side
FC-2 Hillside Wetland A	37	0-6"	Y	flowing
FC-2 Hillside Wetland B	38	0-4"	Y	"
FC-2 Wetland A	39	0-8"	Y	"
FC-2 Wetland B	40	—	Y/N	
FC2 Wetland C	81	0-8	Y	
FC-2/FC-3 Confluence A	41	0-12"	Y	flowing
FC-2/FC-3 Confluence B	42	12-36"	Y	
FC2/FC3 Confluence C	82	12-36"+	Y	
FC-3 Lower Wetland	43	0-3"	Y	flowing
FC-3 Upper Wetland	44	0-2"	Y	flowing
FC-4 Hillside Wetland A	45	0-1"	Y	
FC-4 Hillside Wetland B	46	0-1"	Y/N	
FC-4 Hillside Wetland C	47	0-3"	Y	
FC-4 Hillside Wetland D	48	—	Y/N	
FC-4 Wetland A	49	0-6"	Y	flowing
FC-4 Wetland B	50	0-3"	Y	
FC-5 East Wetland	51	—	Y	
FC-5 West Wetland	52	0-2"	Y	
Melvin's Way Wetland	53	—	N	
Mound East Wetland	54	0-1"	Y	flowing
Mound SW Wetland	55	—	Y/N	
Mound Well Wetland	56	—	N	
Mound West Wetland	57	—	Y/N	
Mound W-W Wetland	58	—	N	
OLF - Wetland A	59	0-2"	Y	
OLF - Wetland B	60	0-3"	Y	flowing
OLF - Wetland C	61	0-2"	Y	"

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
OLF - Wetland D	62	0-1"	Y/N	
OLF - Wetland E	63	—	N	
OLF - Wetland F	64	0-1	Y/N	
PLF - N Channel	65	0-2"	Y	
PLF - S Channel	66	0-2"	Y	
OLF - E - Berm 6/7		—	Y/N	
OLF - W Channel		0-1"	Y	
PLF - E Face North Wetland	67	0-1"	Y/N	
PLF - E Face West Wetland	68	0-3"	Y	
PLF - SAEX1 Area	69	—	N	
PLF - SW Hillside Wetland	70	—	Y/N	
PLF Pond A	71	0-2"	Y	Flowing
PLF Pond B	72	0-12"	Y	
PLF Pond C	73	12-36"	Y	
SPPTS Well Wetland	74	0-3"	Y	
SPDG - Wetland A	75	0-3"	Y/N	
SPDG - Wetland B	76	—	Y	
SPDG - Wetland C	77	—	N	
SW093 - Wetland A	78	0-4"	Y	
SW093 - Wetland B	79	—	N	
Bowman Pond/B771 Wetland	80	0-1"	Y	
SPPTS Sump Wetland		—	N	

Water levels are estimated.

Completed By Jody K Nelson (Print) [signature] (Sign) **Date** 5/18/09

2009 Wetland Mitigation Water Level Evaluation Datasheet

Date 5/21/09
Observer Jody Nelson

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
A-1 Pond		0-18"	Y	Flowing
A-1 Pond Exit		0-8"	Y	
A-2 Pond		0-28"	Y	"
A-2 Pond Exit		0-9"	Y	
B-1 Pond A	1	0-12"	Y	"
B-1 Pond B	2	0-2"	Y/N	
B-1 Pond C	3	—	N	
B-2 Pond A	4	0-8"	Y	"
B-2 Pond B	5	—	Y/N	
B-3 Pond A	6	0-3"	Y	"
B-3 Pond B	7	0-12"	Y	
B-3 Pond C	8	—	Y/N	
B-3 Pond Exit		0-12"	Y	"
B-4 Pond		0-10'	Y	
B-4 Pond Exit		0-3"	Y	
B116 Wetland A	9	—	Y/N	
B116 Wetland B	10	—	Y/N	
B131	11	0-2"	Y	Flowing
B131 SAEX1 Area	12	—	N	
B371 Hillside Wetland	13	0-1"	Y	
B771 N Wetland	14	0-2"	Y/N	
B771 NW Wetland	15	0-2"	Y	Flowing
B881 Wetland	16	0-2"	Y/N	
C-1 Pond - A	17	0-12"	Y/N	"
C-1 Pond - B	18	0-15"	Y	
C-1 Pond - C	19	0-6"	Y	
C-1 Pond - D	20	0-7"	Y	
East Shooting Range	21	0-4"	Y	
East Trenches Wetland	22	0-1"	Y	"
FC-1 Road Crossing	23	0-2"	Y/N	flowing
FC-1 Wetland A	24	—	Y/N	
FC-1 Wetland B	25	—	Y	
FC-1 Wetland C	26	0-3"	Y	
FC-1 Wetland D	27	0-2"	Y	

5/21/09

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
FC-1 Wetland E	28	0-2"	Y	Flowing
FC-1 Wetland F	29	—	Y/N	
FC-1 Wetland G	30	0-6"	Y	"
FC-1 Wetland H	31	0-1"	Y/N	
FC-1 Wetland I	32	0-2"	Y	"
FC-1 Wetland J	33	0-5"	Y	"
FC-1 Wetland K	34	0-18"	Y	"
FC-1 Wetland L	35	—	Y	
FC-1 Wetland M	36	—	Y/N	
FC1 New Wetland		0-2"	Y	" Easter 1/3 also of bottom still saturated
FC-2 Hillside Wetland A	37	0-5"	Y	
FC-2 Hillside Wetland B	38	0-4"	Y	"
FC-2 Wetland A	39	0-8"	Y	"
FC-2 Wetland B	40	—	Y/N	
FC2 Wetland C	81	0-8"	Y	
FC-2/FC-3 Confluence A	41	0-12"	Y	"
FC-2/FC-3 Confluence B	42	12-36"	Y	
FC2/FC3 Confluence C	82	12-36"	Y	
FC-3 Lower Wetland	43	0-3"	Y	"
FC-3 Upper Wetland	44	0-2"	Y	
FC-4 Hillside Wetland A	45	0-2"	Y	
FC-4 Hillside Wetland B	46	0-1"	Y/N	
FC-4 Hillside Wetland C	47	0-4"	Y	
FC-4 Hillside Wetland D	48	—	Y/N	
FC-4 Wetland A	49	0-5"	Y	
FC-4 Wetland B	50	0-3"	Y/N	
FC-5 East Wetland	51	—	Y/N	
FC-5 West Wetland	52	0-2"	Y	
Melvin's Way Wetland	53	—	N	
Mound East Wetland	54	0-1"	Y	
Mound SW Wetland	55	—	Y ~~/N~~ 5/21/09	
Mound Well Wetland	56	—	N	
Mound West Wetland	57	—	Y/N	
Mound W-W Wetland	58	—	N	
OLF - Wetland A	59	0-1"	Y	
OLF - Wetland B	60	0-5"	Y	
OLF - Wetland C	61	0-1"	Y	

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
OLF - Wetland D	62	—	Y/N	
OLF - Wetland E	63	—	N	
OLF - Wetland F	64	0-1"	Y/N	
PLF - N Channel	65	0-2"	Y	
PLF - S Channel	66	0-2"	Y	
OLF - E - Berm 6/7		—	Y/N	
OLF - W Channel		0-1"	Y/N	Flowing
PLF - E Face North Wetland	67	0-1"	Y/N	
PLF - E Face West Wetland	68	0-3"	Y	
PLF - SAEX1 Area	69	—	N	
PLF - SW Hillside Wetland	70	—	Y/N	
PLF Pond A	71	0-2"	Y	Flowing
PLF Pond B	72	0-12"	Y	
PLF Pond C	73	12-36"	Y	
SPPTS Well Wetland	74	0-3"	Y	
SPDG - Wetland A	75	0-4"	Y	Flowing
SPDG - Wetland B	76	0-1	Y/N	
SPDG - Wetland C	77	—	N	
SW093 - Wetland A	78	0-5"	Y	"
SW093 - Wetland B	79	—	N	
Bowman Pond/B771 Wetland	80	0-1"	Y	
SPPTS Sump Wetland		—	N	

Water levels are estimated.

Completed By Jody K Reds — Print Sign Date 5/21/09

2009 Wetland Mitigation Water Level Evaluation Datasheet

Date 5/27/09
Observer Jody R Nelson

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
A-1 Pond		0-24"	Y	Flowing
A-1 Pond Exit		0-15"	Y	
A-2 Pond		0-24"	Y	Flowing
A-2 Pond Exit		0-12"	Y	
B-1 Pond A	1	0-15"	Y	Flowing
B-1 Pond B	2	0-2"	Y	
B-1 Pond C	3	—	Y	
B-2 Pond A	4	0-~~10~~ 12" 5/27/09	Y	Flowing
B-2 Pond B	5	0-1"	Y	
B-3 Pond A	6	0-5"	Y	Flowing
B-3 Pond B	7	~~0-12"~~ 5/27/09 5-12"	Y	
B-3 Pond C	8	0-1"	Y	
B-3 Pond Exit		0-12"	Y	
B-4 Pond		0-10"	Y	Flowing
B-4 Pond Exit		0-6"	Y	
B116 Wetland A	9	0-3"	Y	"
B116 Wetland B	10	0-3"	Y	"
B131	11	0-4	Y	"
B131 SAEX1 Area	12	0-4	Y	in ditch by SAEX1
B371 Hillside Wetland	13	0-1"	Y	
B771 N Wetland	14	0-2"	Y	
B771 NW Wetland	15	0-2"	Y	"
B881 Wetland	16	0-4"	Y	
C-1 Pond - A	17	0-12"	Y	Flowing
C-1 Pond - B	18	12-24"	Y	
C-1 Pond - C	19	0-6"	Y	
C-1 Pond - D	20	0-6"	Y	
East Shooting Range	21	0-5"	Y	Flowing
East Trenches Wetland	22	0-1"	Y	Flowing
FC-1 Road Crossing	23	0-1"	Y	"
FC-1 Wetland A	24	0-2"	Y	
FC-1 Wetland B	25	0-2"	Y	
FC-1 Wetland C	26	0-4"	Y	
FC-1 Wetland D	27	0-4"	Y	

5/27/09

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
FC-1 Wetland E	28	0-3"	Y	Flowing
FC-1 Wetland F	29	0-3"	Y	
FC-1 Wetland G	30	0-7"	Y	"
FC-1 Wetland H	31	0-2"	Y	X 5/27/09
FC-1 Wetland I	32	0-4"	Y	"
FC-1 Wetland J	33	0-6"	Y	"
FC-1 Wetland K	34	0-20"	Y	"
FC-1 Wetland L	35	0-1"	Y	
FC-1 Wetland M	36	0-2"	Y	
FC1 New Wetland		0-3"	Y	Saturated entire bottom - Flowing length of area
FC-2 Hillside Wetland A	37	0-5"	Y	Flowing
FC-2 Hillside Wetland B	38	0-3"	Y	"
FC-2 Wetland A	39	0-7"	Y	Flowing
FC-2 Wetland B	40	0-2"	Y	
FC2 Wetland C	81	3-10"	Y	
FC-2/FC-3 Confluence A	41	0-12"	Y	Flowing
FC-2/FC-3 Confluence B	42	12"-36"	Y	
FC2/FC3 Confluence C	82	12-36"+	Y	
FC-3 Lower Wetland	43	0-5"	Y	Flowing
FC-3 Upper Wetland	44	0-4"	Y	"
FC-4 Hillside Wetland A	45	0-1"	Y	
FC-4 Hillside Wetland B	46	0-2"	Y	
FC-4 Hillside Wetland C	47	0-4	Y	
FC-4 Hillside Wetland D	48	—	Y	
FC-4 Wetland A	49	0-7"	Y	Flowing
FC-4 Wetland B	50	0-5"	Y	
FC-5 East Wetland	51	0-2"	Y	
FC-5 West Wetland	52	0-4"	Y	
Melvin's Way Wetland	53	0-6"	Y	
Mound East Wetland	54	0-1"	Y	Flowing
Mound SW Wetland	55	—	Y	
Mound Well Wetland	56	—	Y	
Mound West Wetland	57	0-1"	Y	
Mound W-W Wetland	58	—	Y	
OLF - Wetland A	59	0-1"	Y	
OLF - Wetland B	60	0-6"	Y	
OLF - Wetland C	61	0-2"	Y	

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
OLF - Wetland D	62	0-1"	Y	
OLF - Wetland E	63	—	Y	
OLF - Wetland F	64	0-2"	Y	
PLF - N Channel	65	0-3"	Y	
PLF - S Channel	66	0-2"	Y	
OLF - E - Berm 6/7		0-1"	Y	
OLF - W Channel		0-2"	Y	
PLF - E Face North Wetland	67	0-1"	Y	
PLF - E Face West Wetland	68	0-4"	Y	
PLF - SAEX1 Area	69	—	Y/N	
PLF - SW Hillside Wetland	70	—	Y	
PLF Pond A	71	0-3"	Y	
PLF Pond B	72	0-12"	Y	
PLF Pond C	73	12-36"	Y	
SPPTS Well Wetland	74	0-2"	Y	Flowing
SPDG - Wetland A	75	0-4"	Y/N	
SPDG - Wetland B	76	0-1"	Y	
SPDG - Wetland C	77	—	Y	
SW093 - Wetland A	78	0-7"	Y	Flowing
SW093 - Wetland B	79	—	Y/N	
Bowman Pond/B771 Wetland	80	0-1"	Y	
SPPTS Surg Installed		—	~~N/A~~ Y	

Water levels are estimated. Rainfall over holiday weekend - 1.5-2" total.

Completed By Jody K Nels — **Print** — **Sign** — **Date** 5/27/09

2009 Wetland Mitigation Water Level Evaluation Datasheet

Date 6/4/09
Observer Jody Nelson

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
A-1 Pond		0-24"	Y	Flowing
A-1 Pond Exit		0-15"	Y	
A-2 Pond		0-24" ~~0-28"~~ 6/4/09	Y	Flowing
A-2 Pond Exit		0-6"		
B-1 Pond A	1	0-15"	Y	Flowing
B-1 Pond B	2	0-2"	Y	
B-1 Pond C	3	—	Y	
B-2 Pond A	4	0-12"	Y	Flowing
B-2 Pond B	5	0-1"	Y	
B-3 Pond A	6	0-2"	Y	Flowing
B-3 Pond B	7	0-12"	Y	
B-3 Pond C	8	0-1"	Y	
B-3 Pond Exit		0-12"	Y	
B-4 Pond		0-8"	Y	Flowing
B-4 Pond Exit		0-3"	Y	"
B116 Wetland A	9	0-4"	Y	Flowing
B116 Wetland B	10	0-2"	Y	"
B131	11	0-4"	Y	Flowing
B131 SAEX1 Area	12	—	Y	0-6" water in ditch E of SAEX1
B371 Hillside Wetland	13	0-2"	Y	
B771 N Wetland	14	0-2"	Y	
B771 NW Wetland	15	0-1"	Y	Whitish/yellowish material in water coming from seeps
B881 Wetland	16	0-2"	Y	
C-1 Pond - A	17	0-12"	Y	
C-1 Pond - B	18	6/4/09 ~~0~~ 0-24"	Y	
C-1 Pond - C	19	0-6"	Y	
C-1 Pond - D	20	0-8"	Y	
East Shooting Range	21	0-6"	Y	
East Trenches Wetland	22	0-1"	Y	
FC-1 Road Crossing	23	0-3"	Y	Flowing
FC-1 Wetland A	24	0-1"	Y	
FC-1 Wetland B	25	0-1"	Y	
FC-1 Wetland C	26	0-3"	Y	
FC-1 Wetland D	27	0-3"	Y	

6/4/09

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
FC-1 Wetland E	28	0-3"	Y	flowing
FC-1 Wetland F	29	0-2"	Y	
FC-1 Wetland G	30	0-6"	Y	
FC-1 Wetland H	31	0-1"	Y	Flowing
FC-1 Wetland I	32	0-4"	Y	"
FC-1 Wetland J	33	0-5"	Y	Flowing
FC-1 Wetland K	34	0-18"	Y	"
FC-1 Wetland L	35	0-1"	Y	"
FC-1 Wetland M	36	0-2"	Y	
FC1 New Wetland		0-2"	Y	entire wetland both saturated - all 3 channels flowing
FC-2 Hillside Wetland A	37	0-5"	Y	Flowing
FC-2 Hillside Wetland B	38	0-4"	Y	Flowing
FC-2 Wetland A	39	0-6"	Y	flowing
FC-2 Wetland B	40	0-2"	Y	
FC2 Wetland C	81	0-6"	Y	"
FC-2/FC-3 Confluence A	41	0-12	Y	flowing
FC-2/FC-3 Confluence B	42	12-36"	Y	
FC2/FC3 Confluence C	82	12-36+"	Y	
FC-3 Lower Wetland	43	0-4"	Y	flowing
FC-3 Upper Wetland	44	0-6"	Y	"
FC-4 Hillside Wetland A	45	0-2"	Y	
FC-4 Hillside Wetland B	46	0-2"	Y	
FC-4 Hillside Wetland C	47	0-4"	Y	
FC-4 Hillside Wetland D	48	—	Y	
FC-4 Wetland A	49	0-6"	Y	
FC-4 Wetland B	50	0-4"	Y	
FC-5 East Wetland	51	0-2"	Y	
FC-5 West Wetland	52	0-4"	Y	
Melvin's Way Wetland	53	0-6"	Y	
Mound East Wetland	54	0-1"	Y	
Mound SW Wetland	55	—	Y	
Mound Well Wetland	56	—	Y	
Mound West Wetland	57	—	Y	
Mound W-W Wetland	58	—	Y	
OLF - Wetland A	59	0-1"	Y	
OLF - Wetland B	60	0-6"	Y	
OLF - Wetland C	61	0-2"	Y	

Location	GIS #	Depth of Water (in.)	Saturated at Surface	Comments
OLF - Wetland D	62	0-2"	Y	
OLF - Wetland E	63	—	Y	
OLF - Wetland F	64	0-2"	Y	
PLF - N Channel	65	0-3"	Y	
PLF - S Channel	66	0-2"	Y	
OLF - E - Berm 6/7		0-1"	Y	
OLF - W Channel		0-1"	Y	flowing
PLF - E Face North Wetland	67	0-1"	Y	
PLF - E Face West Wetland	68	0-4"	Y	
PLF - SAEX1 Area	69	—	Y	
PLF - SW Hillside Wetland	70	—	Y	
PLF Pond A	71	0-3"	Y	flowing
PLF Pond B	72	0-12"	Y	
PLF Pond C	73	12"-36"	Y	
SPPTS Well Wetland	74	0-3"	Y	
SPDG - Wetland A	75	0-6"	Y	
SPDG - Wetland B	76	0-2"	Y	
SPDG - Wetland C	77	—	Y	
SW093 - Wetland A	78	0-6"	Y	flowing
SW093 - Wetland B	79	—	Y	
Bowman Pond/B771 Wetland	80	0-1"	Y	
SPPTS Sump Installation		—	Y	TYLAI coming up!

Almost 1" rain at Site on 6/2/09. Water levels are estimated.

Completed By Jody K Nelson (Print) (Sign) Date 6/4/09

Rocky Flats Site* Vascular Flora List 2009

Family	Scientific Name	Speccode
ACERACEAE	Acer glabrum Torr.	ACGL1
ACERACEAE	Acer negundo L. var. interius (Britt.) Sarg.	ACNE1
ACERACEAE	Acer platanoides L.	ACPL1
AGAVACEAE	Yucca glauca Nutt.	YUGL1
ALISMATACEAE	Alisma triviale Pursh	ALTR1
ALISMATACEAE	Sagittaria latifolia Willd.	SALA1
AMARANTHACEAE	Amaranthus albus L.	AMAL2
AMARANTHACEAE	Amaranthus graecizans L.	AMGR1
AMARANTHACEAE	Amaranthus retroflexus L.	AMRE1
ANACARDIACEAE	Rhus aromatica Ait. var. trilobata (Nutt.) A. Gray	RHAR1
ANACARDIACEAE	Toxicodendron rydbergii (Small) Greene	TORY1
APIACEAE	Berula erecta (Huds.) Cov. var. incisum	BEER1
APIACEAE	Cicuta maculata L. var. angustifolia Hook.	CIMA1
APIACEAE	Conium maculatum L.	COMA1
APIACEAE	Daucus carota L.	DACA2
APIACEAE	Harbouria trachypleura (Gray) C. & R.	HATR1
APIACEAE	Heracleum sphondylium L. ssp. montanum (Schleich.) Briq.	HESP1
APIACEAE	Ligusticum porteri C. & R.	LIPO1
APIACEAE	Lomatium orientale Coult. & Rose	LOOR1
APIACEAE	Musineon divaricatum (Pursh.) Nutt. var. hookeri T. & G.	MUDI1
APIACEAE	Osmorhiza chilensis H. & A.	OSCH1
APIACEAE	Osmorhiza longistylis (Torr.) DC var. longistylis	OSLO1
APOCYNACEAE	Apocynum androsaemifolium L.	APAN1
APOCYNACEAE	Apocynum cannabinum L.	APCA1
ASCLEPIADACEAE	Asclepias incarnata L.	ASIN1
ASCLEPIADACEAE	Asclepias pumila (Gray) Vail	ASPU1
ASCLEPIADACEAE	Asclepias speciosa Torr.	ASSP1
ASCLEPIADACEAE	Asclepias stenophylla A. Gray	ASST1
ASCLEPIADACEAE	Asclepias viridiflora Raf.	ASVI1
ASTERACEAE	Achillea millefolium L. ssp. lanulosa (Nutt.) Piper	ACMI1
ASTERACEAE	Agoseris glauca (Pursh.) Dietr.	AGGL1
ASTERACEAE	Ambrosia artemisiifolia L.	AMAR1
ASTERACEAE	Ambrosia psilostachya DC.	AMPS1
ASTERACEAE	Ambrosia trifida L.	AMTR1
ASTERACEAE	Antennaria microphylla Rydb.	ANMI1
ASTERACEAE	Antennaria parvifolia Nutt.	ANPA1
ASTERACEAE	Anthemis cotula L.	ANCO1
ASTERACEAE	Arctium minus Bernh.	ARMI1
ASTERACEAE	Arnica fulgens Pursh.	ARFU1
ASTERACEAE	Artemisia campestris L. ssp. caudata (Michx.) Hall & Clem.	ARCA1
ASTERACEAE	Artemisia dracunculus L.	ARDR1
ASTERACEAE	Artemisia frigida Willd.	ARFR1
ASTERACEAE	Artemisia ludoviciana Nutt. var. ludoviciana	ARLU1
ASTERACEAE	Aster campestris Nutt.	ASCA2
ASTERACEAE	Aster falcatus Lindl.	ASFA1
ASTERACEAE	Aster fendleri A. Gray	ASFE1
ASTERACEAE	Aster hesperius A. Gray var. hesperius	ASHE1
ASTERACEAE	Aster laevis L. var. geyeri A. Gray	ASLA1
ASTERACEAE	Aster porteri Gray	ASPO1
ASTERACEAE	Bidens cernua L.	BICE1
ASTERACEAE	Bidens frondosa L.	BIFR1
ASTERACEAE	Carduus nutans L. ssp. macrolepis (Peterm.) Kazmi	CANU1
ASTERACEAE	Centaurea cyanus L.	CECY1
ASTERACEAE	Centaurea diffusa Lam.	CEDI1
ASTERACEAE	Centaurea repens L.	CERE1
ASTERACEAE	Centaurea solstitialis L.	CESO1
ASTERACEAE	Chrysanthemum leucanthemum L.	CHLE1
ASTERACEAE	Chrysopsis fulcrata Greene	CHFU1
ASTERACEAE	Chrysopsis villosa Pursh.	CHVI1
ASTERACEAE	Chrysothamnus nauseosus (Pall.) Britt. ssp. graveolens (Nutt.) Piper	CHNA1
ASTERACEAE	Chrysothamnus nauseosus (Pall.) Britt. ssp. nauseosus	CHNA2
ASTERACEAE	Cichorium intybus L.	CIIN1
ASTERACEAE	Cirsium arvense (L.) Scop.	CIAR1
ASTERACEAE	Cirsium flodmanii (Rydb.) Arthur	CIFL1
ASTERACEAE	Cirsium ochrocentrum A. Gray	CIOC1
ASTERACEAE	Cirsium undulatum (Nutt.) Spreng.	CIUN1
ASTERACEAE	Cirsium vulgare (Savi) Ten.	CIVU1
ASTERACEAE	Conyza canadensis (L.) Cronq.	COCA1
ASTERACEAE	Coreopsis tinctoria Nutt.	COTI1
ASTERACEAE	Cosmos bipinnatus Cav.	COBI1
ASTERACEAE	Crepis occidentalis Nutt.	CROC1

* Includes both COU and POU.

Rocky Flats Site* Vascular Flora List 2009 (cont.)

Family	Scientific Name	Speccode
ASTERACEAE	Crepis runcinata (James) T. & G.	CRRU1
ASTERACEAE	Dimorphotheca aurantiaca D.C.	DIAU1
ASTERACEAE	Dyssodia papposa (Vent) Hitchc.	DYPA1
ASTERACEAE	Erigeron canus A. Gray	ERCA1
ASTERACEAE	Erigeron compositus Pursh var. dicoideus A. Gray	ERCO1
ASTERACEAE	Erigeron divergens T. & G.	ERDI1
ASTERACEAE	Erigeron flagellaris A. Gray	ERFL1
ASTERACEAE	Erigeron pumilus Nutt.	ERPU1
ASTERACEAE	Erigeron speciosa (Lindl.) DC. var. macranthus (Nutt.) Cronq.	ERSP1
ASTERACEAE	Erigeron strigosus Muhl. ex Willd.	ERST1
ASTERACEAE	Erigeron vetensis Rydb.	ERVE1
ASTERACEAE	Gaillardia aristata Pursh.	GAAR1
ASTERACEAE	Gnaphalium chilense Spreng.	GNCH1
ASTERACEAE	Grindelia squarrosa (Pursh.) Dun.	GRSQ1
ASTERACEAE	Gutierrezia sarothrae (Pursh.) Britt. & Rusby	GUSA1
ASTERACEAE	Haplopappus spinulosus (Pursh) DC.	HASP1
ASTERACEAE	Helianthus annuus L.	HEAN1
ASTERACEAE	Helianthus ciliaris DC.	HECI1
ASTERACEAE	Helianthus maximilianii Schrad.	HEMA1
ASTERACEAE	Helianthus nuttallii T. & G.	HENU1
ASTERACEAE	Helianthus petiolaris Nutt.	HEPE1
ASTERACEAE	Helianthus pumilus Nutt.	HEPU1
ASTERACEAE	Helianthus rigidus (Cass.) Desf. ssp. subrhomboideus (Rydb.) Heiser	HERI1
ASTERACEAE	Heliomeris multiflora Nuttall	HEMU1
ASTERACEAE	Hymenopappus filifolius Hook. var. cinereus (Rydb.) I. M. Johnst.	HYFI1
ASTERACEAE	Iva axillaris Pursh.	IVAX1
ASTERACEAE	Iva xanthifolia Nutt.	IVXA1
ASTERACEAE	Kuhnia chlorolepis Woot. & Standl.	KUCH1
ASTERACEAE	Kuhnia eupatorioides L.	KUEU1
ASTERACEAE	Lactuca oblongifolia Nutt.	LAOB1
ASTERACEAE	Lactuca serriola L.	LASE1
ASTERACEAE	Leucelene ericoides (Torr.) Greene	LEER1
ASTERACEAE	Liatris punctata Hook.	LIPU1
ASTERACEAE	Lygodesmia juncea (Pursh.) Hook.	LYJU1
ASTERACEAE	Machaeranthera bigelovii (Gray) Greene	MABI1
ASTERACEAE	Machaeranthera canescens (Pursh) A. Gray	MACA1
ASTERACEAE	Madia glomerata Hook.	MAGL1
ASTERACEAE	Microseris cuspidata (Pursh.) Sch. Bip.	MICU1
ASTERACEAE	Onopordum acanthium L.	ONAC1
ASTERACEAE	Picradeniopsis oppositifolia (Nutt.) Rydb.	PIOP1
ASTERACEAE	Ratibida columnifera (Nutt.) Woot. & Standl.	RACO1
ASTERACEAE	Rudbeckia ampla Nelson	RUAM1
ASTERACEAE	Scorzonera laciniata L.	SCLA1
ASTERACEAE	Senecio fendleri Gray	SEFE1
ASTERACEAE	Senecio integerrimus Nutt.	SEIN1
ASTERACEAE	Senecio plattensis Nutt.	SEPL1
ASTERACEAE	Senecio spartioides T. & G.	SESP1
ASTERACEAE	Senecio tridenticulatus Rydb.	SETR1
ASTERACEAE	Solidago canadensis L.	SOCA1
ASTERACEAE	Solidago gigantea Ait.	SOGI1
ASTERACEAE	Solidago missouriensis Nutt.	SOMI1
ASTERACEAE	Solidago mollis Bart.	SOMO1
ASTERACEAE	Solidago nana Nutt.	SONA1
ASTERACEAE	Solidago rigida L.	SORI1
ASTERACEAE	Sonchus arvensis L. ssp. uliginosus (Bieb.) Nyman	SOAR2
ASTERACEAE	Sonchus asper (L.) Hill	SOAS1
ASTERACEAE	Stephanomeria pauciflora (Torr.) A. Nels.	STPA1
ASTERACEAE	Taraxacum laevigatum (Willd.) DC.	TALA1
ASTERACEAE	Taraxacum officinale Weber	TAOF1
ASTERACEAE	Thelesperma megapotanicum (Spreng.) O. Ktze.	THME1
ASTERACEAE	Townsendia grandiflora (Nutt.)	TOGR1
ASTERACEAE	Townsendia hookeri Beaman	TOHO1
ASTERACEAE	Tragopogon dubius Scop.	TRDU1
ASTERACEAE	Tragopogon porrifolius L.	TRPO1
ASTERACEAE	Verbesina encelioides (Cau) Benth. & Hook. ssp. exauriculata (Robins & Greenm.) Coleman	VEEN1
ASTERACEAE	Xanthium strumarium L.	XAST1
BERBERIDACEAE	Berberis repens Lindl.	BERE1
BETULACEAE	Alnus incana (L.) Moench ssp. tenuifolia (Nuttall) Breitung	ALIN1
BETULACEAE	Betula occidentalis Hook.	BEOC1
BORAGINACEAE	Asperugo procumbens L.	ASPR1
BORAGINACEAE	Cryptantha virgata (Porter) Payson	CRVI1

* Includes both COU and POU.

Rocky Flats Site* Vascular Flora List 2009 (cont.)

Family	Scientific Name	Speccode
BORAGINACEAE	Cynoglossum officinale L.	CYOF1
BORAGINACEAE	Hackelia floribunda (Lehm.) I. M. Johnst.	HAFL1
BORAGINACEAE	Lappula redowskii (Hornem.) Greene	LARE1
BORAGINACEAE	Lithospermum incisum Lehm.	LIIN1
BORAGINACEAE	Lithospermum multiflorum Torr.	LIMU1
BORAGINACEAE	Mertensia lanceolata (Pursh.) A. DC.	MELA1
BORAGINACEAE	Onosmodium molle Michx. var. occidentale (Mack.) Johnst.	ONMO1
BORAGINACEAE	Plagiobothrys scouleri (H. & A.) I. M. Johnst.	PLSC1
BRASSICACEAE	Alyssum alyssoides (L.) L.	ALAL1
BRASSICACEAE	Alyssum minus (L.) Rothmaler var. micranthus (C. A. Mey.) Dudley	ALMI1
BRASSICACEAE	Arabis fendleri (S. Wats.) Greene var. fendleri	ARFE3
BRASSICACEAE	Arabis glabra (L.) Bernh.	ARGL1
BRASSICACEAE	Arabis hirsuta (L.) Scop. var. pycnocarpa (Hopkins) Rollins	ARHI1
BRASSICACEAE	Barbarea vulgaris R. Br.	BAVU1
BRASSICACEAE	Camelina microcarpa Andrz. ex DC.	CAMI1
BRASSICACEAE	Capsella bursa-pastoris (L.) Medic.	CABU1
BRASSICACEAE	Cardaria chalepensis (L.) Hand-Mazz	CACH1
BRASSICACEAE	Cardaria draba (L.) Desv.	CADR1
BRASSICACEAE	Chorispora tenella (Pall.) DC.	CHTE1
BRASSICACEAE	Conringia orientalis (L.) Dum.	COOR1
BRASSICACEAE	Descurainia pinnata (Walt.) Britt.	DEPI1
BRASSICACEAE	Descurainia richardsonii (Sweet) Schultz	DERI1
BRASSICACEAE	Descurainia sophia (L.) Webb ex Prantl.	DESO1
BRASSICACEAE	Draba nemorosa L.	DRNE1
BRASSICACEAE	Draba reptans (Lam.) Fern.	DRRE1
BRASSICACEAE	Erysimum capitatum (Nutt.) DC.	ERCA2
BRASSICACEAE	Erysimum repandum L.	ERRE1
BRASSICACEAE	Hesperis matronalis L.	HEMA2
BRASSICACEAE	Lepidium campestre (L.) R. Br.	LECA1
BRASSICACEAE	Lepidium densiflorum Schrad.	LEDE1
BRASSICACEAE	Lesquerella montana (A. Gray) Wats.	LEMO1
BRASSICACEAE	Nasturtium officinale R. Br.	NAOF1
BRASSICACEAE	Physaria vitulifera Rydb.	PHVI1
BRASSICACEAE	Rorippa palustris (L.) Bess. ssp. hispida (Desv.) Jonsell	ROPA1
BRASSICACEAE	Sisymbrium altissimum L.	SIAL1
BRASSICACEAE	Thlaspi arvense L.	THAR1
CACTACEAE	Coryphantha missouriensis (Sweet) Britt. & Rose	COMI1
CACTACEAE	Echinocereus viridiflorus Engelm.	ECVI1
CACTACEAE	Opuntia fragilis (Nutt.) Haw.	OPFR1
CACTACEAE	Opuntia macrorhiza Engelm.	OPMA1
CACTACEAE	Opuntia polyacantha Haw.	OPPO1
CACTACEAE	Pediocactus simpsonii (Engelm.) Britt. & Rose	PESI1
CALLITRICHACEAE	Callitriche verna L.	CAVE1
CAMPANULACEAE	Campanula rotundifolia L.	CARO1
CAMPANULACEAE	Lobelia siphilitica L. var. ludoviciana A. DC.	LOSI1
CAMPANULACEAE	Triodanis leptocarpa (Nutt.) Nieuw.	TRLE1
CAMPANULACEAE	Triodanis perfoliata (L.) Nieuw.	TRPE1
CANNABACEAE	Humulus lupulus L. var. lupuloides E. Small	HULU1
CAPPARACEAE	Cleome serrulata Pursh.	CLSE1
CAPPARACEAE	Polansia dodecandra (L.) DC. ssp. trachysperma (T. & G.) Iltis	PODO2
CAPRIFOLIACEAE	Symphoricarpos occidentalis Hook.	SYOC1
CAPRIFOLIACEAE	Symphoricarpos oreophilus Gray	SYOR1
CAPRIFOLIACEAE	Viburnum opulus L. var. americanum Ait	VIOP1
CARYOPHYLLACEAE	Arenaria fendleri A. Gray	ARFE2
CARYOPHYLLACEAE	Cerastium arvense L.	CEAR1
CARYOPHYLLACEAE	Cerastium brachypodum (Engelm. ex A. Gray) Robins.	CEBR1
CARYOPHYLLACEAE	Cerastium vulgatum L.	CEVU1
CARYOPHYLLACEAE	Conosilene conica (L.) Fourreau ssp. conoidea (L.) Love & Kjellqvist	COCO1
CARYOPHYLLACEAE	Gypsophila elegans Bieb.	GYEL1
CARYOPHYLLACEAE	Paronychia jamesii T. & G.	PAJA1
CARYOPHYLLACEAE	Saponaria officinalis L.	SAOF1
CARYOPHYLLACEAE	Silene antirrhina L.	SIAN1
CARYOPHYLLACEAE	Silene drummondii Hook.	SIDR1
CARYOPHYLLACEAE	Silene pratensis (Raf.) Godr. & Gren	SIPR1
CARYOPHYLLACEAE	Spergularia media (L.) Presl.	SPME1
CARYOPHYLLACEAE	Spergularia rubra (L.) K. Presl.	SPRU1
CARYOPHYLLACEAE	Stellaria longifolia Muhl. ex Willd.	STLO1
CARYOPHYLLACEAE	Vaccaria pyramidata Medic.	VAPY1
CERATOPHYLLACEAE	Ceratophyllum demersum L.	CEDE1
CHENOPODIACEAE	Atriplex canescens (Pursh.) Nutt.	ATCA1
CHENOPODIACEAE	Chenopodium album L.	CHAL1

* Includes both COU and POU.

Rocky Flats Site* Vascular Flora List 2009 (cont.)

Family	Scientific Name	Speccode
CHENOPODIACEAE	Chenopodium atrovirens Nutt.	CHAT1
CHENOPODIACEAE	Chenopodium berlandieri Moq.	CHBE1
CHENOPODIACEAE	Chenopodium botrys L.	CHBO1
CHENOPODIACEAE	Chenopodium dessicatum A. Nels.	CHDE1
CHENOPODIACEAE	Chenopodium fremontii S. Wats.	CHFR1
CHENOPODIACEAE	Chenopodium glaucum L.	CHGL1
CHENOPODIACEAE	Chenopodium leptophyllum Nutt. ex Moq.	CHLE2
CHENOPODIACEAE	Chenopodium overi Aellen	CHOV1
CHENOPODIACEAE	Kochia scoparia (L.) Schrad.	KOSC1
CHENOPODIACEAE	Salsola iberica Senn. & Pau.	SAIB1
CLUSIACEAE	Hypericum majus (A. Gray) Britt.	HYMA1
CLUSIACEAE	Hypericum perforatum L.	HYPE1
COMMELINACEAE	Tradescantia occidentalis (Britt.) Smyth	TROC1
CONVOLVULACEAE	Calystegia macounii (Greene) Brummitt	CAMA1
CONVOLVULACEAE	Calystegia sepium (L.) R. Br. ssp. angulata Brummitt	CASE1
CONVOLVULACEAE	Convolvulus arvensis L.	COAR1
CONVOLVULACEAE	Evolvulus nuttallianus R. & S.	EVNU1
CRASSULACEAE	Sedum lanceolatum Torr.	SELA1
CUPRESSACEAE	Juniperus communis L.	JUCO1
CUPRESSACEAE	Juniperus scopulorum Sarg.	JUSC1
CUSCUTACEAE	Cuscuta approximata Bab.	CUAP1
CYPERACEAE	Carex athrostachya Olney	CAAT1
CYPERACEAE	Carex aurea Nutt.	CAAU1
CYPERACEAE	Carex bebbii (Bailey) Fern	CABE1
CYPERACEAE	Carex brevior (Dew.) Mack. ex Lunell.	CABR1
CYPERACEAE	Carex douglasii F. Boott.	CADO1
CYPERACEAE	Carex eleocharis Bailey	CAEL1
CYPERACEAE	Carex emoryi Dew.	CAEM1
CYPERACEAE	Carex filifolia Nutt.	CAFI1
CYPERACEAE	Carex heliophila Mack.	CAHE1
CYPERACEAE	Carex hystericina Muhl. ex Willd.	CAHY1
CYPERACEAE	Carex interior Bailey	CAIN1
CYPERACEAE	Carex lanuginosa Michx.	CALA1
CYPERACEAE	Carex nebrascensis Dew.	CANE1
CYPERACEAE	Carex oreocharis Holm.	CAOR1
CYPERACEAE	Carex praegracilis W. Boott.	CAPR1
CYPERACEAE	Carex rostrata Stokes ex Willd.	CARO2
CYPERACEAE	Carex scoparia Schkuhr. ex Willd.	CASC1
CYPERACEAE	Carex simulata Mack.	CASI1
CYPERACEAE	Carex stipata Muhl.	CAST1
CYPERACEAE	Carex vulpinoidea Michx.	CAVU1
CYPERACEAE	Cyperus acuminatus Torr. & Hook.	CYAC1
CYPERACEAE	Eleocharis acicularis (L.) R. & S.	ELAC1
CYPERACEAE	Eleocharis compressa Sulliv.	ELCO1
CYPERACEAE	Eleocharis macrostachya Britt.	ELMA1
CYPERACEAE	Eleocharis obtusa (Willd.) J.A. Schult.	ELOB1
CYPERACEAE	Eleocharis parvula Link ex Boff. & Fingerbr. var. anachaeta (Torr.) Svens.	ELPA1
CYPERACEAE	Scirpus acutus Muhl.	SCAC1
CYPERACEAE	Scirpus maritimus L. var. paludosus (A. Nels.) Kukenth.	SCMA1
CYPERACEAE	Scirpus pallidus (Britt.) Fern	SCPA1
CYPERACEAE	Scirpus pungens Vahl	SCPU1
CYPERACEAE	Scirpus validus Vahl.	SCVA1
ELAEAGNACEAE	Elaeagnus angustifolia L.	ELAN1
EQUISETACEAE	Equisetum arvense L.	EQAR1
EQUISETACEAE	Equisetum laevigatum A. Br.	EQLA1
EQUISETACEAE	Equisetum variegatum Schleich.	EQVA1
EUPHORBIACEAE	Euphorbia dentata Michx.	EUDE1
EUPHORBIACEAE	Euphorbia fendleri T. & G.	EUFE1
EUPHORBIACEAE	Euphorbia marginata Pursh.	EUMA1
EUPHORBIACEAE	Euphorbia robusta (Engelm.) Small	EURO1
EUPHORBIACEAE	Euphorbia serpyllifolia Pers.	EUSE1
EUPHORBIACEAE	Euphorbia spathulata Lam.	EUSP1
EUPHORBIACEAE	Euphorbia uralensis Fisch. ex Link	EUUR1
EUPHORBIACEAE	Tragia ramosa Nutt.	TRRA1
FABACEAE	Amorpha fruticosa L.	AMFR1
FABACEAE	Amorpha nana Nutt.	AMNA1
FABACEAE	Astragalus adsurgens Pall. var. robustior Hook.	ASAD1
FABACEAE	Astragalus agrestis Dougl. ex G. Don	ASAG1
FABACEAE	Astragalus bisulcatus (Hook.) A. Gray	ASBI1
FABACEAE	Astragalus canadensis L.	ASCA1
FABACEAE	Astragalus crassicarpus Nutt.	ASCR1

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Rocky Flats Site* Vascular Flora List 2009 (cont.)

Family	Scientific Name	Speccode
FABACEAE	Astragalus drummondii Dougl. ex Hook.	ASDR1
FABACEAE	Astragalus flexuosus (Hook.) G. Don	ASFL1
FABACEAE	Astragalus lotiflorus Hook.	ASLO1
FABACEAE	Astragalus parryi Gray	ASPA1
FABACEAE	Astragalus shortianus Nutt. ex T.&G.	ASSH1
FABACEAE	Astragalus spathulatus Sheld.	ASSP2
FABACEAE	Astragalus tridactylicus Gray	ASTR1
FABACEAE	Coronilla varia L.	COVA1
FABACEAE	Dalea candida Michx. ex Willd. var. oligophylla (Torr.) Shinners.	DACA1
FABACEAE	Dalea purpurea Vent	DAPU1
FABACEAE	Glycyrrhiza lepidota Pursh.	GLLE1
FABACEAE	Lathyrus eucosmus Butters and St. John	LAEU1
FABACEAE	Lotus corniculatus L.	LOCO1
FABACEAE	Lupinus argenteus Pursh ssp. ingratus (Greene) Harmon	LUAR2
FABACEAE	Lupinus argenteus Pursh var. argenteus	LUAR1
FABACEAE	Medicago lupulina L.	MELU1
FABACEAE	Medicago sativa L. ssp. sativa	MESA1
FABACEAE	Melilotus alba Medic.	MEAL1
FABACEAE	Melilotus officinalis (L.) Pall.	MEOF1
FABACEAE	Oxytropis lambertii Pursh.	OXLA1
FABACEAE	Psoralea tenuiflora Pursh.	PSTE1
FABACEAE	Robinia pseudo-acacia L.	ROPS1
FABACEAE	Thermopsis rhombifolia var. divaricarpa (Nels.) Isely	THRH1
FABACEAE	Trifolium hybridum L.	TRHY1
FABACEAE	Trifolium pratense L.	TRPR1
FABACEAE	Trifolium repens L.	TRRE1
FABACEAE	Vicia americana Muhl. ex Willd.	VIAM1
FUMARIACEAE	Fumaria vaillantii Lois	FUVA1
GENTIANACEAE	Gentiana affinis Griseb.	GEAF1
GENTIANACEAE	Swertia radiata (Kell.) O. Ktze.	SWRA1
GERANIACEAE	Erodium cicutarium (L.) L'Her.	ERCI1
GERANIACEAE	Geranium caespitosum James ssp. caespitosum	GECA1
GROSSULARIACEAE	Ribes aureum Pursh	RIAU1
GROSSULARIACEAE	Ribes cereum Dougl.	RICE1
GROSSULARIACEAE	Ribes inerme Rydb.	RIIN1
HALORAGACEAE	Myriophyllum exalbescens Fern.	MYEX1
HYDROPHYLLACEAE	Hydrophyllum fendleri (Gray) Heller	HYFE1
HYDROPHYLLACEAE	Phacelia heterophylla Pursh.	PHHE1
IRIDACEAE	Iris missouriensis Nutt.	IRMI1
IRIDACEAE	Sisyrinchium montanum Greene	SIMO1
JUNCACEAE	Juncus articulatus L.	JUAR1
JUNCACEAE	Juncus balticus Willd.	JUBA1
JUNCACEAE	Juncus bufonius L.	JUBU1
JUNCACEAE	Juncus dudleyi Wieg.	JUDU1
JUNCACEAE	Juncus ensifolius Wikst. var. montanus (Englm.) C. L. Hitchc.	JUEN1
JUNCACEAE	Juncus interior Wieg.	JUIN1
JUNCACEAE	Juncus longistylis Torr.	JULO1
JUNCACEAE	Juncus nodosus L.	JUNO1
JUNCACEAE	Juncus torreyi Cov.	JUTO1
JUNCACEAE	Juncus tracyi Rydb.	JUTR1
JUNCAGINACEAE	Triglochin maritima L.	TRMA1
LAMIACEAE	Dracocephalum parviflorum Nutt.	DRPA1
LAMIACEAE	Hedeoma hispidum Pursh.	HEHI1
LAMIACEAE	Lycopus americanus Muhl. ex Barton	LYAM1
LAMIACEAE	Lycopus asper Greene	LYAS1
LAMIACEAE	Marrubium vulgare L.	MAVU1
LAMIACEAE	Mentha arvensis L.	MEAR1
LAMIACEAE	Monarda fistulosa L. var. menthifolia (Grah.) Fern.	MOFI1
LAMIACEAE	Monarda pectinata Nutt.	MOPE1
LAMIACEAE	Nepeta cataria L.	NECA1
LAMIACEAE	Prunella vulgaris L.	PRVU1
LAMIACEAE	Salvia reflexa Hornem.	SARE1
LAMIACEAE	Scutellaria brittonii Porter	SCBR1
LAMIACEAE	Stachys palustris L. ssp. pilosa (Nutt.) Epling	STPA2
LEMNACEAE	Lemna minor L.	LEMI1
LILIACEAE	Allium cernuum Roth	ALCE1
LILIACEAE	Allium geyeri S. Wats.	ALGE1
LILIACEAE	Allium textile A. Nels. & Macbr.	ALTE1
LILIACEAE	Asparagus officinalis L.	ASOF1
LILIACEAE	Calochortus gunnisonii S. Wats.	CAGU1
LILIACEAE	Leucocrinum montanum Nutt.	LEMO2

* Includes both COU and POU.

Rocky Flats Site* Vascular Flora List 2009 (cont.)

Family	Scientific Name	Speccode
LILIACEAE	Smilacina stellata (L.) Desf.	SMST1
LILIACEAE	Zigadenus venenosus Wats. var. gramineus (Rydb.) Walsh ex Peck	ZIVE1
LINACEAE	Linum perenne L. var. lewisii (Pursh.) Eat. & Wright	LIPE1
LINACEAE	Linum pratense (Nort.) Small	LIPR1
LINACEAE	Linum puberulum (Englem.) Heller	LIPU2
LYTHRACEAE	Ammannia robusta Herr & Regel.	AMRO1
LYTHRACEAE	Lythrum alatum Pursh.	LYAL1
MALVACEAE	Malva neglecta Wallr.	MANE1
MALVACEAE	Sidalcea candida Gray	SICA1
MALVACEAE	Sidalcea neomexicana Gray	SINE1
MALVACEAE	Sphaeralcea coccinea (Pursh.) Rydb.	SPCO1
MALVACEAE	Sphaeralcea parvifolia A. Nelson	SPPA1
NYCTAGINACEAE	Mirabilis hirsuta (Pursh.) MacM.	MIHI1
NYCTAGINACEAE	Mirabilis linearis (Pursh.) Heimerl	MILI1
NYCTAGINACEAE	Mirabilis nyctaginea (Michx.) MacM.	MINY1
OLEACEAE	Fraxinus pennsylvanica Marsh	FRPE1
ONAGRACEAE	Calylophus serrulatus (Nutt.) Raven	CASE2
ONAGRACEAE	Epilobium ciliatum Raf. ssp. glandulosum (Lehm.) Hock & Raven	EPCI1
ONAGRACEAE	Epilobium paniculatum Nutt.	EPPA1
ONAGRACEAE	Gaura coccinea Pursh.	GACO1
ONAGRACEAE	Gaura parviflora Dougl.	GAPA1
ONAGRACEAE	Oenothera albicaulis Pursh	ONAL1
ONAGRACEAE	Oenothera flava (A. Nels.) Garrett	OEFL1
ONAGRACEAE	Oenothera howardii (A. Nels.) W. L. Wagner	OEHO1
ONAGRACEAE	Oenothera villosa Thunb. ssp. strigosa (Rydb.) Dietrich & Raven	OEVI1
ORCHIDACEAE	Habenaria hyperborea (L.) R. Br.	HAHY1
OROBANCHACEAE	Orobanche fasciculata Nutt.	ORFA1
OXALIDACEAE	Oxalis dillenii Jacq.	OXDI1
PAPAVERACEAE	Argemone polyanthemos (Fedde) G. Ownbey	ARPO1
PAPAVERACEAE	Eschscholzia californica Chamisso	ESCA1
PAPPAVERACEAE	Papaver rhoeas L.	PARH1
PINACEAE	Picea pungens Engelm.	PIPU1
PINACEAE	Pinus ponderosa Laws	PIPO1
PINACEAE	Pseudotsuga menziesii (Mirb.) Franco	PSME1
PLANTAGINACE	Plantago lanceolata L.	PLLA1
PLANTAGINACE	Plantago major L.	PLMA1
PLANTAGINACE	Plantago patagonica Jacq.	PLPA1
POACEAE	Aegilops cylindrica Host	AECY1
POACEAE	Agropyron caninum (L.) Beauv. ssp. majus (Vasey) C. L. Hitchc.	AGCA1
POACEAE	Agropyron cristatum (L.) Gaertn.	AGCR1
POACEAE	Agropyron dasystachyum (Hook.) Scribn.	AGDA1
POACEAE	Agropyron desertorum (Fisch.) Schult.	AGDE1
POACEAE	Agropyron elongatum (Host) Beauv.	AGEL1
POACEAE	Agropyron griffithsii Scribn. & Smith	AGGR1
POACEAE	Agropyron intermedium (Host) Beauv.	AGIN1
POACEAE	Agropyron repens (L.) Beauv.	AGRE1
POACEAE	Agropyron smithii Rydb.	AGSM1
POACEAE	Agropyron spicatum (Pursh) Scribn. and Sm.	AGSP1
POACEAE	Agrostis scabra Willd.	AGSC1
POACEAE	Agrostis stolonifera L.	AGST1
POACEAE	Alopecurus geniculatus L.	ALGE2
POACEAE	Andropogon gerardii Vitman	ANGE1
POACEAE	Andropogon saccharoides Sw. var. torreyanus (Steud.) Hack.	ANSA1
POACEAE	Andropogon scoparius Michx.	ANSC1
POACEAE	Apera interrupta (L.) Beauvois	APIN1
POACEAE	Aristida basiramea Engelm. ex Vasey var. basiramea	ARBA1
POACEAE	Aristida purpurea Nutt. var. longiseta (Steud.) Vasey	ARFE1
POACEAE	Aristida purpurea Nutt. var. robusta (Merrill) A. Holmgren & N. Holmgr	ARLO1
POACEAE	Avena fatua var. sativa (L.) Hausskn.	AVFA1
POACEAE	Bouteloua curtipendula (Michx.) Torr.	BOCU1
POACEAE	Bouteloua gracilis (H. B. K.) Lag ex Griffiths	BOGR1
POACEAE	Bouteloua hirsuta Lag	BOHI1
POACEAE	Bromus briziformis F. & M.	BRBR1
POACEAE	Bromus inermis Leyss. ssp. inermis	BRIN1
POACEAE	Bromus japonicus Thunb. ex Murr.	BRJA1
POACEAE	Bromus tectorum L.	BRTE1
POACEAE	Buchloe dactyloides (Nutt.) Engelm.	BUDA1
POACEAE	Calamagrostis stricta (Timm.) Koel	CAST2
POACEAE	Cenchrus longispinus (Hack.) Fern	CELO1
POACEAE	Ceratochloa marginata (Nees ex Stued.) Jackson	CEMA1
POACEAE	Chloris virgata Sw.	CHVI2

* Includes both COU and POU.

Rocky Flats Site* Vascular Flora List 2009 (cont.)

Family	Scientific Name	Speccode
POACEAE	Cynodon dactylon (L.) Pers.	CYDA1
POACEAE	Dactylis glomerata L.	DAGL1
POACEAE	Danthonia spicata (L.) Beauv. ex R. & S.	DASP1
POACEAE	Dichanthelium linearifolium (Scribn.) Gould	DILI1
POACEAE	Dichanthelium oligosanthes (Schultz) Gould var. scribnerianum (Nash) G	DIOL1
POACEAE	Digitaria sanguinalis (L.) Scop.	DISA1
POACEAE	Distichlis spicata (L.) Greene var. stricta (Torr.) Beetle	DISP1
POACEAE	Echinochloa crus-galli (L.) Beauv.	ECCR1
POACEAE	Elymus canadensis L.	ELCA1
POACEAE	Elymus junceus Fisch.	ELJU1
POACEAE	Eragrostis cilianensis (All.) E. Mosher	ERCI2
POACEAE	Eragrostis curvula (Schrad.) Nees	ERCU1
POACEAE	Eragrostis minor Host	ERMI1
POACEAE	Eragrostis pilosa (L.) Beauv.	ERPI1
POACEAE	Eragrostis trichodes (Nutt.) Wood	ERTR1
POACEAE	Festuca octoflora Walt.	FEOC1
POACEAE	Festuca ovina L. var. rydbergii St. Yves	FEOV1
POACEAE	Festuca pratensis Huds.	FEPR1
POACEAE	Glyceria grandis S. Wats. ex A. Gray	GLGR1
POACEAE	Glyceria striata (Lam.) Hitchc.	GLST1
POACEAE	Hordeum brachyantherum Nevski	HOBR1
POACEAE	Hordeum jubatum L.	HOJU1
POACEAE	Hordeum pusillum Nutt.	HOPU1
POACEAE	Koeleria pyramidata (Lam.) Beauv.	KOPY1
POACEAE	Leersia oryzoides (L.) Sw.	LEOR1
POACEAE	Leptochloa fasicularis (Lam.) A. Gray	LEFA1
POACEAE	Lolium perenne L. var. aristatum Willd.	LOPE1
POACEAE	Lolium perenne L. var. perenne	LOPE2
POACEAE	Lycurus phleoides H.B.K.	LYPH1
POACEAE	Muhlenbergia asperifolia (Nees. & Mey.) Parodi	MUAS1
POACEAE	Muhlenbergia filiformis (Thurb.) Rydb.	MUFI1
POACEAE	Muhlenbergia montana (Nutt.) Hitchc.	MUMO1
POACEAE	Muhlenbergia racemosa (Michx.) B. S. P.	MURA1
POACEAE	Muhlenbergia wrightii Vasey	MUWR1
POACEAE	Oryzopsis hymenoides (R. & S.) Ricker	ORHY1
POACEAE	Panicum capillare L.	PACA1
POACEAE	Panicum dichotomiflorum Michx.	PADI1
POACEAE	Panicum virgatum L.	PAVI1
POACEAE	Phalaris arundinacea L.	PHAR1
POACEAE	Phleum pratense L.	PHPR1
POACEAE	Phragmites australis (Cav.) Trin. ex Steud.	PHAU1
POACEAE	Poa bulbosa L.	POBU1
POACEAE	Poa canbyi (Scribn.) Piper	POCA1
POACEAE	Poa compressa L.	POCO1
POACEAE	Poa fendleriana (Steud.) Vasey	POFE1
POACEAE	Poa juncifolia Scribn.	POJU1
POACEAE	Poa palustris L.	POPA1
POACEAE	Poa pratensis L.	POPR1
POACEAE	Polypogon monspeliensis (L.) Desf.	POMO1
POACEAE	Schedonnardus paniculatus (Nutt.) Trel.	SCPA2
POACEAE	Secale cereale L.	SECE1
POACEAE	Setaria viridis (L.) Beauv.	SEVI1
POACEAE	Sitanion hystrix (Nutt.) Sm. var. brevifolium (Sm.) Hitchc.	SIHY1
POACEAE	Sorghastrum nutans (L.) Nash	SONU1
POACEAE	Spartina pectinata Link	SPPE1
POACEAE	Sphenopholis obtusata (Michx.) Scribn.	SPOB1
POACEAE	Sporobolus asper (Michx.) Kunth	SPAS1
POACEAE	Sporobolus cryptandrus (Torr.) A. Gray	SPCR1
POACEAE	Sporobolus heterolepis (A. Gray) A. Gray	SPHE1
POACEAE	Sporobolus neglectus Nash	SPNE1
POACEAE	Stipa comata Trin. & Rupr.	STCO1
POACEAE	Stipa neomexicana (Thur.) Scribn.	STNE1
POACEAE	Stipa robusta (Vasey) Scribn.	STRO1
POACEAE	Stipa spartea Trinius	STSP1
POACEAE	Stipa viridula Trin.	STVI1
POACEAE	Triticum aestivum L.	TRAE1
POACEAE	X Agrohordeum macounii (Vasey) Lepage	AGMA1
POLEMONIACEAE	Collomia linearis Nutt.	COLI1
POLEMONIACEAE	Gilia opthalmoides Brand. ssp. clokeyi (Mason) A. & V. Grant	GIOP1
POLEMONIACEAE	Ipomopsis spicata (Nutt.) V. Grant ssp. spicata	IPSP1
POLEMONIACEAE	Microsteris gracilis (Hook.) Greene	MIGR1

* Includes both COU and POU.

Rocky Flats Site* Vascular Flora List 2009 (cont.)

Family	Scientific Name	Speccode
POLEMONIACEAE	Navarretia minima Nutt.	NAMI1
POLYGONACEAE	Eriogonum alatum Torr.	ERAL1
POLYGONACEAE	Eriogonum effusum Nutt.	EREF1
POLYGONACEAE	Eriogonum jamesii Benth.	ERJA1
POLYGONACEAE	Eriogonum umbellatum Torr.	ERUM1
POLYGONACEAE	Polygonum arenastrum Jord. ex Bor.	POAR1
POLYGONACEAE	Polygonum convolvulus L.	POCO2
POLYGONACEAE	Polygonum douglasii Greene	PODO1
POLYGONACEAE	Polygonum hydropiper L.	POHY1
POLYGONACEAE	Polygonum lapathifolium L.	POLA1
POLYGONACEAE	Polygonum pensylvanicum L.	POPE1
POLYGONACEAE	Polygonum persicaria L.	POPE2
POLYGONACEAE	Polygonum ramosissimum Michx.	PORA1
POLYGONACEAE	Polygonum sawatchense Small	POSA1
POLYGONACEAE	Rumex acetosella L.	RUAC1
POLYGONACEAE	Rumex crispus L.	RUCR1
POLYGONACEAE	Rumex maritimus L.	RUMA1
POLYGONACEAE	Rumex obtusifolius L.	RUOB1
POLYGONACEAE	Rumex salicifolius Weinm. ssp. triangulivalvis Danser	RUSA1
POLYPODIACEAE	Cystopteris fragilis (L.) Bernh.	CYFR1
PORTULACACEAE	Claytonia rosea Rydb.	CLRO1
PORTULACACEAE	Portulaca oleracea L.	POOL1
PORTULACACEAE	Talinum parviflorum Nutt.	TAPA1
POTAMOGETONACEAE	Potamogeton foliosus Raf.	POFO1
POTAMOGETONACEAE	Potamogeton natans L.	PONA1
PRIMULACEAE	Androsace occidentalis Pursh.	ANOC1
PRIMULACEAE	Dodecatheon pulchellum (Raf.) Merrill	DOPU1
PRIMULACEAE	Lysimachia ciliata L.	LYCI1
RANUNCULACEAE	Anemone cylindrica A. Gray	ANCY1
RANUNCULACEAE	Anemone patens L.	ANPA2
RANUNCULACEAE	Clematis hirsutissima Pursh	CLHI1
RANUNCULACEAE	Clematis ligusticifolia Nutt.	CLLI1
RANUNCULACEAE	Delphinium nuttalianum Pritz. ex Walpers	DENU1
RANUNCULACEAE	Delphinium virescens Nutt. ssp. penardii (Huth) Ewan	DEVI1
RANUNCULACEAE	Myosurus minimus L.	MYMI1
RANUNCULACEAE	Ranunculus macounii Britt.	RAMA1
RANUNCULACEAE	Ranunculus scleratus L.	RASC1
RANUNCULACEAE	Ranunculus trichophyllus Chaix	RATR1
RANUNCULACEAE	Thalictrum dasycarpum Fisch. & Ave-Lall	THDA1
RHAMNACEAE	Ceanothus fendleri A. Gray	CEFE1
RHAMNACEAE	Ceanothus herbaceus Raf. var. pubescens (T. & G.)	CEHE1
ROSACEAE	Agrimonia striata Michx.	AGST2
ROSACEAE	Amelanchier alnifolia Nutt.	AMAL1
ROSACEAE	Crataegus erythropoda Ashe	CRER1
ROSACEAE	Crataegus succulenta Link var. occidentalis (Britton) E. J. Palm.	CRSU1
ROSACEAE	Geum aleppicum Jacq.	GEAL1
ROSACEAE	Geum macrophyllum Willd.	GEMA1
ROSACEAE	Physocarpus monogynus (Torr.) Coult.	PHMO1
ROSACEAE	Physocarpus opulifolius (L.) Raf.	PHOP1
ROSACEAE	Potentilla arguta Pursh	POAR2
ROSACEAE	Potentilla fissa Nutt.	POFI1
ROSACEAE	Potentilla gracilis Dougl. ex Hook. var. glabrata (Lehm.) C. L. Hitchc.	POGR1
ROSACEAE	Potentilla hippiana Lehm.	POHI1
ROSACEAE	Potentilla norvegica L.	PONO1
ROSACEAE	Potentilla paradoxa Nutt.	POPA2
ROSACEAE	Potentilla pensylvanica L.	POPE4
ROSACEAE	Potentilla pulcherrima x hippiana	POPU1
ROSACEAE	Potentilla rivalis Nutt.	PORI1
ROSACEAE	Prunus americana Marsh.	PRAM1
ROSACEAE	Prunus pumila L. var. besseyi (Bailey) Gl.	PRPU1
ROSACEAE	Prunus virginiana L. var. melanocarpa (A. Nels.) Sarg.	PRVI1
ROSACEAE	Pyrus malus L.	PYMA1
ROSACEAE	Rosa acicularis Lindl.	ROAC1
ROSACEAE	Rosa arkansana Porter	ROAR1
ROSACEAE	Rosa woodsii Lindl.	ROWO1
ROSACEAE	Rubus deliciosus Torr.	RUDE1
ROSACEAE	Rubus idaeus L. ssp. sachalinensis (Levl.) Focke var. sachalinensis	RUID1
ROSACEAE	Sanguisorba minor Scop.	SAMI1
ROSACEAE	Sorbus scopulina Greene	SOSC1
RUBIACEAE	Galium aparine L.	GAAP1
RUBIACEAE	Galium septentrionale Roemer & Schultes	GASE1

* Includes both COU and POU.

Rocky Flats Site* Vascular Flora List 2009 (cont.)

Family	Scientific Name	Speccode
SALICACEAE	Populus alba L.	POAL1
SALICACEAE	Populus angustifolia James	POAN3
SALICACEAE	Populus deltoides Marsh. ssp. monilifera (Ait.) Eckenw.	PODE1
SALICACEAE	Populus x acuminata Rydb.	POAC1
SALICACEAE	Salix amygdaloides Anderss.	SAAM1
SALICACEAE	Salix exigua Nutt. ssp. exigua	SAEX2
SALICACEAE	Salix exigua Nutt. ssp. interior (Rowlee) Cronq.	SAEX1
SALICACEAE	Salix fragilis L.	SAFR1
SALICACEAE	Salix irrorata Andersson	SAIR1
SALICACEAE	Salix lutea Nutt.	SALU1
SANTALACEAE	Comandra umbellata (L.) Nutt.	COUM1
SAXIFRAGACEAE	Heuchera parvifolia Nutt. ex T.& G.	HEPA1
SAXIFRAGACEAE	Saxifraga rhomboidea Greene	SARH1
SCROPHULARIACEAE	Castilleja integra A. Gray	CAIN2
SCROPHULARIACEAE	Castilleja sessiliflora Pursh.	CASE3
SCROPHULARIACEAE	Collinsia parviflora Doug. ex Lindl.	COPA1
SCROPHULARIACEAE	Gratiola neglecta Torr.	GRNE1
SCROPHULARIACEAE	Limosella aquatica L.	LIAQ1
SCROPHULARIACEAE	Linaria canadensis (L.) Dum. var. texana (Scheele) Penn.	LICA1
SCROPHULARIACEAE	Linaria dalmatica (L.) Mill.	LIDA1
SCROPHULARIACEAE	Linaria vulgaris Hill	LIVU1
SCROPHULARIACEAE	Mimulus floribundus Dougl. ex Lindl.	MIFL1
SCROPHULARIACEAE	Mimulus glabratus H. B. K. var. fremontii (Benth.) A. L. Grant	MIGL1
SCROPHULARIACEAE	Penstemon albidus Nutt.	PEAL1
SCROPHULARIACEAE	Penstemon eatonii A. Gray var. eatonii	PEEA1
SCROPHULARIACEAE	Penstemon palmeri A. Gray	PEPA1
SCROPHULARIACEAE	Penstemon secundiflorus Benth.	PESE1
SCROPHULARIACEAE	Penstemon strictus Bentham in De Candolle	PEST1
SCROPHULARIACEAE	Penstemon virens Penn.	PEVI1
SCROPHULARIACEAE	Penstemon virgatus Gray ssp. asa-grayi Crosswhite	PEVI2
SCROPHULARIACEAE	Scrophularia lanceolata Pursh.	SCLA2
SCROPHULARIACEAE	Verbascum blattaria L.	VEBL1
SCROPHULARIACEAE	Verbascum thapsus L.	VETH1
SCROPHULARIACEAE	Veronica americana (Raf.) Schwein. ex Benth.	VEAM1
SCROPHULARIACEAE	Veronica anagallis-aquatica L.	VEAN1
SCROPHULARIACEAE	Veronica catenata Penn.	VECA1
SCROPHULARIACEAE	Veronica peregrina L. var. xalapensis (H. B. K.) St. John & Warren	VEPE1
SELAGINELLACEAE	Selaginella densa Rydb.	SEDE1
SMILACACEAE	Smilax herbacea L. var. lasioneura (Small) Rydb..	SMHE1
SOLANACEAE	Physalis heterophylla Nees	PHHE2
SOLANACEAE	Physalis pumila Nutt. ssp. Hispida (Waterfall) Hinton	PHPU1
SOLANACEAE	Physalis virginiana P. Mill.	PHVI2
SOLANACEAE	Quincula lobata (Torr.) Raf.	QULO1
SOLANACEAE	Solanum rostratum Dun.	SORO1
SOLANACEAE	Solanum triflorum Nutt.	SOTR1
TAMARICACEAE	Tamarix ramosissima Ledeb.	TARA1
TYPHACEAE	Typha angustifolia L.	TYAN1
TYPHACEAE	Typha latifolia L.	TYLA1
ULMACEAE	Ulmus pumila L.	ULPU1
URTICACEAE	Parietaria pensylvanica Muhl. ex Willd.	PAPE1
URTICACEAE	Urtica dioica L. ssp. gracilis (Ait.) Seland.	URDI1
VERBENACEAE	Lippia cuneifolia (Torr.) Steud.	LICU1
VERBENACEAE	Verbena bipinnatifida Nutt.	VEBI1
VERBENACEAE	Verbena bracteata Lag. & Rodr.	VEBR1
VERBENACEAE	Verbena hastata L.	VEHA1
VIOLACEAE	Hybanthus verticillatus (Ort.) Baill.	HYVE1
VIOLACEAE	Viola nuttallii Pursh.	VINU1
VIOLACEAE	Viola rydbergii Greene	VIRY1
VIOLACEAE	Viola scopulorum (Gray) Greene	VISC1
VIOLACEAE	Viola sororia Willd.	VISO1
VITACEAE	Vitis riparia Michx.	VIRI1
ZYGOPHYLLACEAE	Tribulus terrestris L.	TRTE1

* Includes both COU and POU.

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: _____ City/County: _____ Sampling Date: _____

Applicant/Owner: _____ State: _____ Sampling Point: _____

Investigator(s): _____ Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

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

Remarks:

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: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 _____ No _____

Remarks:

SOIL

Sampling Point: _____

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 %	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)
- ___ 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 _____ No _____

Remarks:

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

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:

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
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				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

_____ = Total Cover

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date_____
Observer(s)_____
Location ID_____

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.

_____
_____
_____
_____
_____
_____
_____
_____

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

_____
_____
_____
_____
_____

Woody Plant Counts

		Height			Width		
Species	**Stem Count**	**1**	**2**	**3**	**1**	**2**	**3**

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

Suggestions for management:

Other comments:

Completed by:_____Date_____

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jeffer Sampling Date: 9/11/09
Applicant/Owner: DOE State: CO Sampling Point: A1 Pond-A
Investigator(s): Jody K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): pond edge Local relief (concave, convex, none): none Slope (%): 6°
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip – 2009

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)			
1356	1. SAEXI	1		
1357	2. PRVIL	<1		
	3.			
	4.			
	5.			
			= Total Cover	
	Herb Stratum (Plot size: wetland)			
1358	1. AGSCI	7		
1359	2. AGCAI	<1		
1360	3. TYLAI	<1		
1361	4. Chenopod sp. CHGLI	<1		
1362	5. POPE2	<1		
1363	6. CIARI	<1		
1364	7. KOSCI	<1		
1365	8. BRJAI	<1		
1366	9. MEOFI	<1		
1367	10. BAVUI	<1		
			= Total Cover	
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
			= Total Cover	

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:
A1 spillway flowing today.

SOIL

Sampling Point: A1 Pond - A

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-36"

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

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

Wetland Hydrology Present? Yes X No ___

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

See earlier summer water level data

Remarks:

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

Date 9/1/09
Sampling Point A1 Pond - A

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	VEANI	<1		
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

_____ = Total Cover

1368

MAT 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 9/1/09
Observer(s) JKW
Location ID A1 Pond - A

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

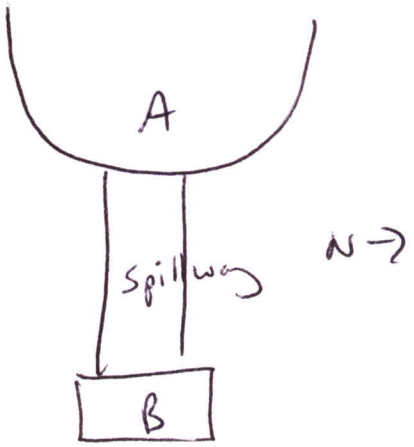
		Height			Width		
Species	**Stem Count**	**1**	**2**	**3**	**1**	**2**	**3**
SAEXI	17	3'	3'	25	1.5'	1'	1'
PRVII	1	2'			2"		

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: Jody K Nelson [signature] Date 9/1/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/1/09

Applicant/Owner: DOE State: CO Sampling Point: 9/1/09 ~~AP~~ Al Pond - B

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Stream channel Local relief (concave, convex, none): Concave Slope (%): 1°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:

above average precip – 2009

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)			
1369	1. SAEXI	7		
1370	2. SYOCI	<1		
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
1371	1. CIARI	<1		
1372	2. MEARI	<1		
1373	3. JUBAI	<1		
1374	4. BAVUI	<1		
	5.			
	6.			
	7.			
	8.			
	9.			
	10.			
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

✓

MGH 1/3/10

SOIL

Sampling Point: A1 Pond-B

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 %	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)
- 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:

not done

Mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0 - 12"

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

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

Wetland Hydrology Present? Yes X No ___

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

See early summer water level data

Remarks:

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 9/1/09
Observer(s) JKW
Location ID A1 Pond - B

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**
SAEXI	4	3'	2.5'	3'	3'	1'	2'
SYOCI	1	6"			5"		

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

Suggestions for management:

Control weeds as needed

Other comments:

Not much growing here yet.

Completed by: Jody K Nelson Date 9/1/09

Wetland Noxious Weed Survey Form

Observer Judy Nelson Date 6/10/09
Location A-1 Pond

Noxious Weed Species Present:

CIARI - <1%

Comments/Notes:

Judy Nelson — Print Name

Signature

6/10/09 — Date

Wetland Noxious Weed Survey Form

Observer [illegible]
Location AT Pond

Date 7/27/09

Noxious Weed Species Present:

CIARI - <1%

Comments:

Planted SAEXI doing well.

Water flowing.

Completed By: [illegible] Print [illegible] Sign

Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN

Location A1 Pond wetland

Date 8/28/09

Noxious Weed Species Present:

CIARI

Total Cover = <1%

Comments:

Water flowing at A1 pond dam

Completed By: JKN JKN Date 8/28/09

Print Sign

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jeffers Sampling Date: 9/1/09
Applicant/Owner: DOE State: CO Sampling Point: A2 Pond - A
Investigator(s): Jody K Nels Section, Township, Range: _____
Landform (hillslope, terrace, etc.): pond edge Local relief (concave, convex, none): none Slope (%): 4°
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip this yr.

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)			
1317	1. PODE1	<1		
1318	2. SAEX1	<1		
1319	3. SAAM1	<1		
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
1320	1. TYLA1	8		
1321	2. Chenopod sp. CHGL1	10		
1322	3. HOJU1	<1		
1323	4. POPE2	1		
1324	5. SCVA1	1		
1325	6. ELCR1	<1		
1326	7. AGSX1	3		
1327	8. AGCA1	<1		
1328	9. VETH1	<1		
1329	10. AMPS1	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: A2Pond - A

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-1'

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

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

Wetland Hydrology Present? Yes X No ___

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

See earlier summer water level data

Remarks:

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

Date	9/1/09
Sampling Point	A2 Pond - A

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
1330	11	JUTO1	<1		
1331	12	KOSC1	<1		
	13	~~HOJU1~~ 9/1/09	~~<1~~		
1332	14	SPPE1	<1		
1333	15	CIAR1	<1		
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 9/1/09
Observer(s) JKW
Location ID A2 Pond - A

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**
POAEI	too numerous	3"	3"	6"	2"	2"	2"
SAEXI	~~3~~ 6	3'	4'	3'	1.5'	2'	2'
SAAMI	2	2.5'	2'		8"	10"	

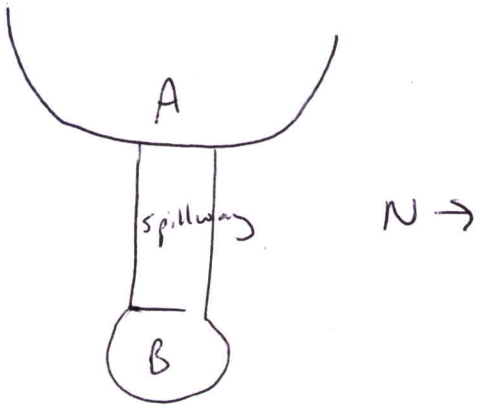
Noxious weed evaluation. See separate noxious weed evaluations conducted throughout the summer months (June – August).

Suggestions for management:

Control weeds as needed.

Other comments:

Wetland sp. starting to grow. 1ST yr.



Completed by: [signature] [signature] Date 9/1/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/1/09

Applicant/Owner: DOE State: Co Sampling Point: A2Pond-B

Investigator(s): Jody K Nels— Section, Township, Range: _____

Landform (hillslope, terrace, etc.): bottom of stream Local relief (concave, convex, none): Concave Slope (%): 1°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:
above average precip in 2009

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)			
1334	1. SAEXI	25		
1335	2. PODEI	<1		
	3.			
	4.			
	5.			
		_____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
1336	1. SCVA	<1		
1337	2. ELCRI	<1		
1338	3. JUTOI	1		
1339	4. POPE2	1		
1340	5. AGCAI	1		
1341	6. AGSCI	5		
1342	7. ELMAI	7		
1343	8. MEOFI	3		
1344	9. Chenopod sp. CHGLI	1		
1345	10. AMARI	<1		
		_____ = Total Cover		
	Woody Vine Stratum (Plot size: _____)			
	1.			
	2.			
		_____ = Total Cover		
	% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 _____ No _____

Remarks:
Spillway not flowing today

SOIL

Sampling Point: A2 Pond - B

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 %	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)
- 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:

not done

mitigation area

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)

- X Surface Soil Cracks (B6)
- X 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)
- ___ 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 ___ 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 earlier Summer water level data

Remarks:

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

Date	9/1/09
Sampling Point	A2 Pond - B

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
1346	11	HEANI	<1		
1347	12	JUBAI	2		
1348	13	CALAI	3		
1349	14	SPPEI	<1		
1350	15	NELAI	<1		
1351	16	LASEI	<1		
1352	17	MEARI	<1		
1353	18	TYLAI	<1		
1354	19	KOSCI	3		
1355	20	CIARI	<1		
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MBT 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 9/1/09
Observer(s) JKN
Location ID A2 Pond - B

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**
SAEXI	Too numerous	5'	6'	4	4'	4'	3'
PODEI	5	6"	5"	4"	2"	2"	2"

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 looking very good for 1st year.

SAEX / Filling in along edge. Lots of other wetland sp. coming up.

Completed by: Jody K Nelson Date 9/1/09

Wetland Noxious Weed Survey Form

Observer Joy Nels Date 6/10/09
Location A2 Pond

Noxious Weed Species Present:

CIARI – Couple of plants – <1%

Comments/Notes:

Joy Nels
Print Name

JKNs
Signature

6/10/09
Date

Wetland Noxious Weed Survey Form

Observer Jody Nels-

Location A2 - Pond

Date 7/27/09

Noxious Weed Species Present:

None

Comments:

SAEXI doing well on N side of pond.
Water Flowing.

Completed By: [signature] Print [signature] Sign

Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN

Location A-2 Pond Wetland

Date 8/28/09

Noxious Weed Species Present:

CIARI

VETHI

Total Cover = <1%

Comments:

No water flowing in A2 today. Pond behind stop logs still present.

Completed By: Jody K Nelson (Print) JKN (Sign) Date 8/28/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/2/09
Applicant/Owner: DOE State: Co Sampling Point: B1 Pond-A
Investigator(s): Judy K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): pond-valley bottom Local relief (concave, convex, none): concave Slope (%): 0°
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip received this yr.

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)			
1511	1. SAEXI	<1		
1512	2. PODEI	<1		
1513	3. TARAI	<1		
1514	4. SYOCI	<1		
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
1515	1. TYLAI	35		
1516	2. SCVAI	1		
1517	3. ELMAI	2		
1518	4. JUTOI	<1		
1519	5. ECCRI	<1		
1520	6. RUMEI	<1		
1521	7. AGCAI	2		
1522	8. POMOI	<1		
1523	9. CIARI	1		
1524	10. TYANI	30		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: B1 Pond-A

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-20"

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date 9/2/09
Sampling Point B1 Pond - A

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
1525	11	AGSMI	2		
1526	12	SPPEI	1		
1527	13	LASEI	<1		
1528	14	RUCRI	<1		
1529	15	HOJUI	<1		
1530	16	GRSQI	<1		
1531	17	PAVII	1		
1532	18	AMARI	<1		
1533	19	OEVII	<1		
1534	20	JUBAI	<1		
1535	21	ASSPI	<1		
1536	22	CANEI	<1		
1537	23	ELCAI	<1		
1538	24	ASFAI	<1		
1539	25	MEOFI	<1		
1540	26	CEDII	<1		
1541	27	HEANI	<1		
1542	28	AGSTI	<1		
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 9/2/09
Observer(s) JKN
Location ID B1 Pond - A

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEXI	too numerous	2'	2'	2'	10"	1'	1.5'
PODEI	too numerous	10"	3'	2'	4"	~~8-10'~~ SPRIA	4"
TARAI	1	3'			4"		
SYOCI	5	2'	2'	2'	4"	6"	4"

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

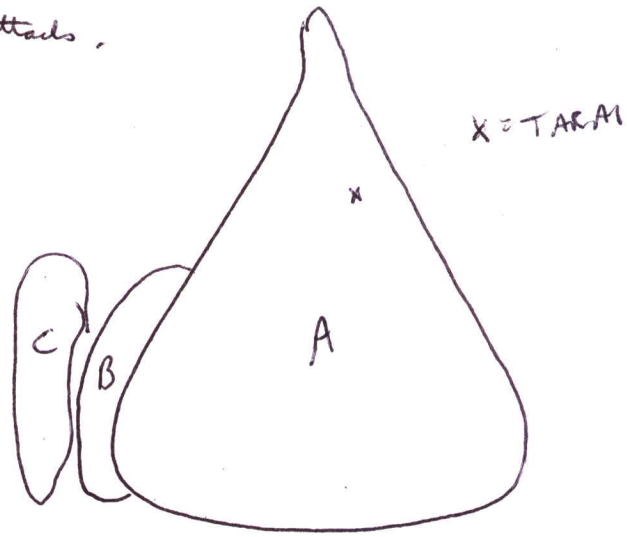
Suggestions for management:

Control weeds as needed.

CIARI + CEDI1 on N side of wetland need sprayed.

Other comments:

Area filling in w/ mostly cattails.



Completed by: [signature] Date 9/2/07

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/2/09
Applicant/Owner: DOE State: CO Sampling Point: B1 Pond - B
Investigator(s): Jody K Nels— Section, Township, Range: _____
Landform (hillslope, terrace, etc.): pond edge hillside Local relief (concave, convex, none): none Slope (%): 10°
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip – 2009

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)			
1543	1. SAEXI	80		
1544	2. SYOCI	8		
1545	3. AMFRI	<1		
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
1546	1. AGSTI	<1		
1547	2. BRINI	30		
1548	3. ASSPI	2		
1549	4. HOLOI	<1		
1550	5. ELMAI	<1		
1551	6. TYLAI	9/2/09 ~~<1~~ 1		
1552	7. ASHEI	<1		
1553	8. CIARI	1		
1554	9. BRJAI	<1		
1555	10. MEARI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: B1 Pond - B

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 %	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)
- 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:

Not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0 - 4"

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date 9/2/09
Sampling Point B1 Pond - B

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
1556	11	LASET	<1		
1557	12	JUBAI	1		
1558	13	CALAI	1		
1559	14	VETHI	2		
1560	15	GAPAI	<1		
1561	16	ASFAI	5		
1562	17	HEANI	<1		
1563	18	AGRI	<1		
1564	19	ALMII	<1		
1565	20	CEDII	<1		
1566	21	POGRI	<1		
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGT 1/3/10

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 9/2/09
Observer(s) JKN
Location ID B1 Pond B

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEXI	too numerous	7'	8'	7'	2'	2'	2'
SYOCI	"	2'	3'	3'	8"	1'	1'
AMFRI	1	3'	3'		3'	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:

SAEXI doing well

Completed by: [illegible] Date 9/2/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/2/09
Applicant/Owner: DOE State: CO Sampling Point: B1 Pond-C
Investigator(s): Jody K Reds Section, Township, Range: _____
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Concave Slope (%): 5°
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip received - 2009

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)			
1567	1. SYOC1	<1		
	2.			
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
1568	1. JUBA1	70		
1569	2. AGCA1	1		
1570	3. ASHE1	<1		
1571	4. ASSP1	1		
1572	5. POCO2	<1		
1573	6. AMAR1	<1		
1574	7. LASE1	<1		
1575	8. BRIN1	10		
1576	9. ASFA1	<1		
1577	10. COCA1	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: B1 Pond-C

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 %	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)
- 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:

not done

mitigation area

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ 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 ___ Depth (inches): _____

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

Wetland Hydrology Present? Yes ___ No X

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

See earlier recorded data (water level)

Remarks:

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

Date 9/2/09
Sampling Point B1 Pond - C

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
1578	11	BARUI	<1		
1579	12	SIALI	<1		
1580	13	POPRI	<1		
1581	14	KOSCI	<1		
1582	15	VETAI	<1		
1583	16	AGREI	<1		
1584	17	NECAI	3		
1585	18	SOFI	5		
1586	19	GEMAI	<1		
1587	20	HEANI	<1		
1588	21	OEVII	<1		
1589	22	VEBLI	<1		
1590	23	MEOFI	<1		
1591	24	LIDAI	<1		
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 9/2/09
Observer(s) JKN
Location ID B1 Pond-C

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.

Water may be an issue - but JUBA1 is dominant species

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

Yes - apparently based on abundance of JUBA1

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3
SYOL1	too numerous	1'	2'	2'	3"	6"	6"

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

Suggestions for management:

Control weeds as needed.

Other comments:

Lots of JUBAI this yr.

Completed by: Jody K Neds — J K Neds Date 9/2/09

Wetland Noxious Weed Survey Form

Observer Jody Meds Date 6/24/09
Location B-1 Pond

Noxious Weed Species Present:

CIARI - 3%
SOARI - <1%
CEDII - <1%
LIDAI - <1%
VETHI - <1%
CYOFI - <1%

Comments/Notes:

Water Flowing. Much of bottom inundated.

Jody Meds
Print Name

Signature

9/24/09
Date

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 7/27/09
Location Big Pond

Noxious Weed Species Present:

CIARI - 1% - mostly along N edge of wetland.
CYOFI - <1%
VETHI - <1%

Comments:

NewSAEXI still doing OK.

Water flowing.

Completed By: Jody K Nelson (Print) Jody K Nelson (Sign) Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN

Location B-1 Pond

Date 8/28/09

Noxious Weed Species Present:

CIARI

Total Cover = 8/28/09 1 %

Comments:

Completed By: Jody K Nelson (Print) JKN (Sign) Date 8/28/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jeffers Sampling Date: 8/24/09
Applicant/Owner: DOE State: CO Sampling Point: B116-South
Investigator(s): Jody K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Channel Local relief (concave, convex, none): Concave channel Slope (%): 1%
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip. received this yr.

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)			
414	1. SAEXI	60		
415	2. TARAI	<1		
	3.			
	4.			
	5.			
		= Total Cover		
	Herb Stratum (Plot size: wetland)			
416	1. TYANI	1		
417	2. SCPUI	1		
418	3. PAVII	10		
419	4. AGSTI	<1		
420	5. HOLUI	<1		
421	6. ELMAI	<1		
422	7. JUBAI	<1		
423	8. FEPRI	15		
424	9. PLLAI	<1		
425	10. CIARI	<1		
		= Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		= Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: B116-South

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 %	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)
- 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:

Not done

Mitigation area

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ 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 ___ 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:

Earlier observation this summer; water was flowing through area & was saturated.

Remarks:

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

Date 8/24/09
Sampling Point B116 South

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
426	11	GRSQ1	<1		
	12				
	13				
	14				
	15				
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/31/09

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/24/09
Observer(s) JKN
Location ID B116 - South

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEXI	too numerous	8'	7'	8'	5'	4'	6'
TARAI	1	3'			6"		

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

Suggestions for management:

Control weeds as needed.

Other comments:

SAEXI + PAUII that were planted + seeded, respectively, several years ago have really grown in now. Doing excellent. Area looks great. Deer use it now as bedding area.

Completed by: Jody K [illegible] Date 8/24/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/24/09
Applicant/Owner: DOE State: CO Sampling Point: B116 - North
Investigator(s): Jody K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Channel Local relief (concave, convex, none): Concave Channel Slope (%): 1%
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:
above average precip received this yr.

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)			
427	1. SAEXI	35		
	2.			
	3.			
	4.			
	5.			
		= Total Cover		
	Herb Stratum (Plot size: wetland)			
428	1. FEPRI	65		
429	2. PAVII	20		
430	3. CANEI	<1		
431	4. AMARI	<1		
432	5. MEOFI	<1		
433	6. GRSQI	<1		
434	7. PLMAI	<1		
435	8. CEDII	<1		
436	9. AGSMI	<1		
437	10. AGCAI	2		
		= Total Cover		
	Woody Vine Stratum (Plot size: _____)			
	1.			
	2.			
		= Total Cover		
	% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): _____ (A)
Total Number of Dominant Species Across All Strata: _____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ 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 _____ No _____

Remarks:

SOIL

Sampling Point: B116 - North

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 %	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)
- 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:

not done

mitigation wetland

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ 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 ___ 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:

earlier observations this summer; area flowing w/ water + soils saturated

Remarks:

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

Date 8/24/09
Sampling Point B116 - North

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
438	11	ASSPI	<1		
439	12	AGSTI	<1		
440	13	CIARI	<1		
441	14	ELCAI	<1		
	15				
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

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✓

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/24/09
Observer(s) JKN
Location ID B116 - North

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.

yes - not super wet most of the time

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

barely - SAEXI have grown + established well
most other common sp. (FEPRI + PAVI3) are FAC sp.

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEXI	too numerous	6'	6'	7'	4'	3'	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:

SAEXI have grown a lot since last year w/ all the precip we received this year. Bottom of drainage has filled in w/ PAVII + FEPRI.

Completed by: Jody K Nel JK Nel Date 8/21/09

Wetland Noxious Weed Survey Form

Observer Jay Nelson Date 6/24/09
Location Bill Wetlands

Noxious Weed Species Present:

CIAR1 - <1%

Comments/Notes:

SAEX1 doing very well.

Jay K Nelson — Print Name
Jay K Nelson — Signature
6/24/09 — Date

Wetland Noxious Weed Survey Form

Observer — Jody Nels —
Location B116 Wetlands

Date 7/27/09

Noxious Weed Species Present:

None

Comments:

SAEXI looks very good this year.

Completed By: Jody Nels Jody Nels Date 7/27/09
Print Sign

Wetland Noxious Weed Survey Form

Observer Jody Nelson **Date** 8/24/09
Location B116 wetland

Noxious Weed Species Present:

CIAR1
TARA1
CEDI1

Total Cover = < 1%

Comments:

Spray as needed, especially the TARA1 (1 plant).
(Southern)

Completed By: Jody Nelson **Date** 8/24/09
Print Sign

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/24/09

Applicant/Owner: DOE State: CO Sampling Point: B131

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): channel Local relief (concave, convex, none): Concave channel Slope (%): 1%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks: above average precip. received this year

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: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

	Herb Stratum (Plot size: wetland)	Absolute % Cover	Dominant Species?	Indicator Status
442	1. TYLAI	25		
443	2. ELCAI	<1		
444	3. SOARI	<1		
445	4. RUCRI	<1		
446	5. AGCAI	<1		
447	6. POMOI	20		
448	7. ELMAI	JS 8/24/09 ~~20~~ 15		
449	8. PAVII	<1		
450	9. AGSCI	<1		
451	10. PLMAI	<1		
		_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ 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 _____ No _____

Remarks:

SOIL

Sampling Point: B131

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ 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)

- X 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)
- ___ 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 ___ Depth (inches): ___

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

Wetland Hydrology Present? Yes X No ___

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

observations earlier in summer show standing water & saturated area

Remarks:

Saturated area is on Southend. Middle + Northend are dry today.

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

Date 8/24/09
Sampling Point ~~RH6~~ B131
8/24/09

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
452	11	SCVA1	15		
453	12	SPME1	1		
454	13	JUTO1	15		
455	14	HOJU1	<1		
456	15	AMAR1	<1		
457	16	ECCR1	<1		
458	17	POPE2	<1		
459	18	JUAU1	<1		
460	19	POCO1	<1		
461	20	HEAN1	<1		
462	21	XASTI	<1		
463	22	JUBA1	1		
464	23	SPPE1	<1		
465	24	AGST1	<1		
466	25	SCPU1	<1		
467	26	OEVI1	<1		
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/31/09

✓

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/24/09
Observer(s) JKN
Location ID B131

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.

no

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

yes - most of time - OBL + FACW species are establishing.

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3

8/24/09

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 nicely this yr w/ all the precip we have received. Looks good.

Completed by: [illegible] [illegible] Date 8/24/09

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 6/24/09
Location B13 Wetland

Noxious Weed Species Present:

CIARI - <1%

Comments/Notes:

Area looks great this year.

Water still flowing through wetland.

Jody K Nelson — Print Name

J K Nelson — Signature

6/24/09 — Date

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 7/27/09
Location B131 Wetland

Noxious Weed Species Present:

None

Comments:

Water standing in parts of wetland - 1" deep

Area filling in very good this year.

Completed By: Jody K Nelson Jody K Nelson Date 7/27/09
Print Sign

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 8/24/09

Location B131 Wetland

Noxious Weed Species Present:

SOARI

XASTI

Total Cover = <1 %

Comments:

Area looks good.

Completed By: Jody K Nelson Date 8/24/09

Print Sign

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 7/25/09

Applicant/Owner: DOE State: CO Sampling Point: B131-SAEX1

Investigator(s): Jody K Nels- Section, Township, Range: _____

Landform (hillslope, terrace, etc.): pediment top next to ditch Local relief (concave, convex, none): Convex/Flat Slope (%): 1%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X 8/25/09 No X (If no, explain in Remarks.)

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

Is the Sampled Area within a Wetland? Yes _____ No _____

Remarks:

above average precip this yr.

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)			
468	1. SAEX1	75		
	2.			
	3.			
	4.			
	5.			
		_____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
469	1. HOJU1	<1		
470	2. PLLA1	<1		
471	3. AMAR1	<1		
472	4. AGCA1	6		
473	5. LASE1	<1		
474	6. GRSQ1	<1		
475	7. CEDI1	2		
476	8. POPE2	<1		
477	9. MEOF1	4		
478	10. RUCR1	<1		
		_____ = Total Cover		
	Woody Vine Stratum (Plot size: _____)			
	1.			
	2.			
		_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ 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 _____ No _____

Remarks:

SOIL

Sampling Point: B131-SAEXI

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 %	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)
- ___ 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:

not done

mitigation area

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ 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 ___ Depth (inches): _____

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

Wetland Hydrology Present? Yes ___ No X

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

Remarks:

Must be a perched water table since no surface water or expression of water is present. Large stand of SAEXI present though

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

Date 8/25/09
Sampling Point B131- SAEX1

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
479	11	ALMI1	1		
480	12	ECCR1	<1		
481	13	ELMA1	<1		
482	14	POCO1	<1		
483	15	SOAR1	<1		
484	16	STVI1	<1		
485	17	BOCU1	1		
486	18	AMPS1	3		
487	19	BUDA1	<1		
488	20	BOGR1	3		
489	21	TRDU1	<1		
490	22	BRJA1	<1		
491	23	SONU1	<1		
492	24	MELU1	<1		
493	25	CIIN1	<1		
494	26	CIAR1	<1		
495	27	ASSP1	<1		
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/31/09

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/25/09
Observer(s) JKN
Location ID B131 - SAEXI

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 - lack of surface water

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

For SAEXI yes - For inundating of wetland plants - no.

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEXI	too numerous	6'	5'	6'	7'	4'	5'

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

Suggestions for management:

Control weeds as needed

Other comments:

SAEXI has grown a lot this year w/ all the precip. Looks great.

Completed by: Jody K [illegible] [illegible] K [illegible] Date 8/25/09

Wetland Noxious Weed Survey Form

Observer [illegible] Date 6/24/09
Location B131SAEX1 Wetland

Noxious Weed Species Present:

CEDII - <1%
CIARI - <1%
ERCII - <1%
COARI - <1%
SOARI - <1%

Comments/Notes:

SAEX1 doing well this year.

[illegible] [illegible] 6/24/09
Print Name Signature Date

Wetland Noxious Weed Survey Form

Observer Jody Nels— Date 7/27/09

Location B131 SAEX1

Noxious Weed Species Present:

CIAR1 <1%

CEDI1 <1%

Comments:

SAEX1 doing well this year.

Completed By: Jody K Nels— Print J K Nels Sign Date 7/27/09

Wetland Noxious Weed Survey Form

Observer Jody Nelson
Location B131 - SAEXI

Date 8/25/09

Noxious Weed Species Present:

CIINI
CEBII
SOARI
CIARI

Total Cover = 3%

Comments:

Spray if needed. Spray may injure SAEXI however.
Area on rejuge now.

Completed By: Jody Nelson (Print) Jody Nelson (Sign) Date 8/25/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jeffer Sampling Date: 9/2/09

Applicant/Owner: DOE State: CO Sampling Point: B2 Pond-A

Investigator(s): Jody Knels Section, Township, Range: _____

Landform (hillslope, terrace, etc.): wetland bottom Local relief (concave, convex, none): Flat Slope (%): 1°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:

above average precip – 2009

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)			
1592	1. SAEXI	<1		
1593	2. SAAMI	<1		
1594	3. TARA	<1		
	4.			
	5.			
		= Total Cover		
	Herb Stratum (Plot size: wetland)			
1595	1. ECCRI	1		
1596	2. SCVAI	25		
1597	3. AGCAI	10		
1598	4. ELCAI	<1		
1599	5. AGSTI	<1		
1600	6. JUTOI	1		
1601	7. underwater CEDEI	5		
1602	8. POMOI	1		
1603	9. AGSMI	3		
1604	10. ELMAI	<1		
		= Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		= Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 ____ No ____

Remarks:

B1 pond Flowing, B2 Pond Flowing

SOIL

Sampling Point: B2 Pond-A

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)

- X Surface Soil Cracks (B6)
- X 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-12"

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date	9/2/09
Sampling Point	B2 Pond – A

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
1605	11	CIARI	2		
1606	12	FEPRI	<1		
1607	13	8/9/2109 ~~MUASI~~ DISPI	<1		
1608	14	chenopod sp. CHGLI 8/9/2109	<1		
1609	15	HOJUI	<1		
1610	16	SOARI	<1		
1611	17	SPPEI	1		
1612	18	POARI	<1		
1613	19	KOSCI	<1		
1614	20	ASPOI	<1		
1615	21	LASEI	<1		
1616	22	PACAI	<1		
1617	23	PLMAI	<1		
1618	24	MEOFI	<1		
1619	25	LEFAI	<1		
1620	26	TYANI	10		
1621	27	ASHEI	<1		
1622	28	TYLAI	20		
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

✓

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 9/2/09
Observer(s) JKN
Location ID B2 Pond - A

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 1	Height 2	Height 3	Width 1	Width 2	Width 3	
SAEXI	9/2/09 1 Too numerous	2'	2'	1.5'	10"	6"	6"	
SAAMI	2 4	2'	3'	2'	10"	1.5'	10"	"
TARAI	2	3'	3.5'		2"	2"		"

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

Suggestions for management:

Control weeds as needed.

Other comments:

Most of bottom of B2 Pond is not a wetland.

Completed by: [illegible] [illegible] Date 9/2/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/2/09

Applicant/Owner: DOE State: CO Sampling Point: B2 Pond-B

Investigator(s): Jody K Nelson Section, Township, Range: 9/2/09

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 15°

Subregion (LRR): G Lat: Long: Datum:

Soil Map Unit Name: NA NWI classification:

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:

above average precip – 2009

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: Wetland)			
1623 1. SAEXI	90		
1624 2. SYOCI	10		
1625 3. TARAI	<1		
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: Wetland)			
1625 1. AGCAI	15		
1627 2. ELCAI	1		
1628 3. AGSMI	10		
1629 4. OEVII	<1		
1630 5. MEOFI	<1		
1631 6. AGSTI	1		
1632 7. PAUII	15		
1633 8. TYLAI	5		
1634 9. CIARI	10		
1635 10. POMOI	<1		
	____ = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		
% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: B2 Pond-B

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 %	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)
- 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:

not done

Mitigation area

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ 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 ___ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No X Depth (inches): most areas a couple spots

Wetland Hydrology Present? Yes X No ___

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

See earlier summer water level data

Remarks:

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

Date 9/2/09
Sampling Point B2 Pond - B

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
1636	11	JUTO1	<1		
1637	12	SPPE1	<1		
1638	13	VEBL1	<1		
1639	14	COCA1	<1		
1640	15	~~BRINT~~ FEPR1	<1		
1641	16	SCVA1	<1		
1642	17	~~EL~~MA1	<1		
1643	18	PLMA1	<1		
1644	19	CEDI1	<1		
1645	20	NECA1	2		
1646	21	CYOF1	<1		
1647	22	LIDA1	<1		
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGT 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 9/2/09
Observer(s) JKN
Location ID BZ Pond - B

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.

hillside - may be a seep or perched water table feeding SAEXI

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

yes - at least for SAEXI

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEXI	Too numerous	7'	7'	8'	3'	3'	4'
SYOCI	"	3'	3'	2'	1'	6"	1'
TARAI	1	5'			1'		

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

✓

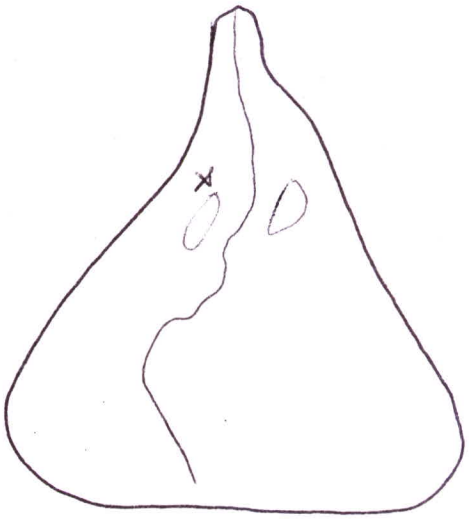
Suggestions for management:

Control weed as needed + as possible.

Other comments:

SAEXI has filled in along hilltop base very well.

X = TARAI



Completed by: Jody K Nelson [signature] Date 9/2/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/2/09

Applicant/Owner: DOE State: Co Sampling Point: B-2 Pond - C

Investigator(s): Judy K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 5°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	Is the Sampled Area within a Wetland? Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:
above average precip this yr.

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: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: wetland)			
1648 1. JUBAI	25		
1649 2. MEOFI	3		
1650 3. BRINI	<1		
1651 4. CIARI	<1		
1652 5. VEBLI	<1		
1653 6. LASEI	<1		
1654 7. OEVII	<1		
8.			
9.			
10.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		
% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ 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 _____ No _____

Remarks:

MGH 1/3/10

SOIL

Sampling Point: B2Pond - C

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)
- 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:

not done

mitigation area

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ 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 ___ Depth (inches): _____

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

Wetland Hydrology Present? Yes ___ No X

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

Remarks:

Under erosion mat

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 9/2/09
Observer(s) JKN
Location ID B2 Pond - C

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.

yes - may not be wet enough.

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

Barely - some JUBAI is coming back up however.

Woody Plant Counts

Species	Stem Count	Height			Width		
		1	2	3	1	2	3

J 9/2/09

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: Jody K Nelson Jody K Nelson Date 9/2/09

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 6/24/09
Location B-2 Pond

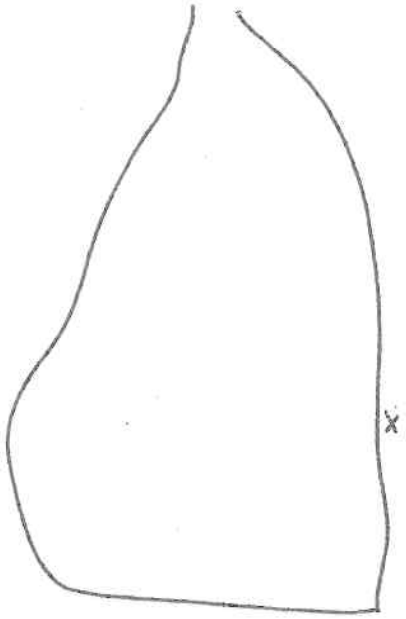
Noxious Weed Species Present:

CIARI-<1%
TARAI-<1%
CANUI-<1%

Comments/Notes:

Water flowing

X = TARAI-



Jody Nelson — Print Name
[signature] — Signature
6/26/09 — Date

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 7/27/09

Location B-2 Pond

Noxious Weed Species Present:

CIARI - 1%

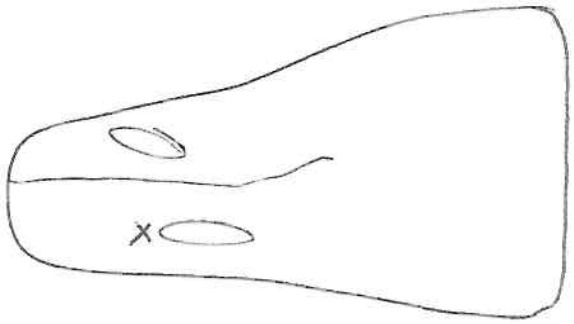
TARAI - <1% 1 plant

Comments:

X = TARAI

New SAEXI not doing very well along pond edge

Water flowing.



Completed By: Jody K Nelson Date 7/27/09

Print Sign

Wetland Noxious Weed Survey Form

Observer JKN Date 8/28/09

Location B-2 Pond

Noxious Weed Species Present:

CIARI

TARAI

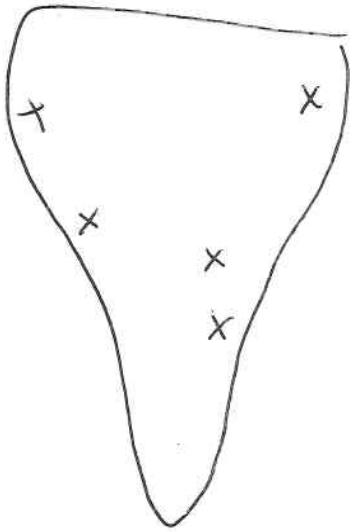
Total Cover = <1%

Comments:

B-2 Flowing today

Control TARAI

X = TARAI



Completed By: [signature] Print [signature] Sign Date 8/28/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/2/09

Applicant/Owner: DOE State: CO Sampling Point: B3 Pond-A

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): pond bottom wetland Local relief (concave, convex, none): Concave Slope (%): 1°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	Is the Sampled Area within a Wetland? Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:
above average precip this yr.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: Wetland)			
1655 1. SAEXI	1		
1656 2. SAAMI	<1		
1657 3. TARAI	<1		
4. ~~AMFRI~~	~~<1~~		
5. J 9/2/09 ~~PRVII~~			
	_____ = Total Cover		
Herb Stratum (Plot size: Wetland)			
1658 1. SPPEI	<1		
1659 2. AGSCI	1		
1660 3. BRINI	<1		
1661 4. KOSCI	<1		
1662 5. POMOI	<1		
1663 6. ECCRI	<1		
1664 7. CIARI	<1		
1665 8. NECAI	<1		
1666 9. POPE2	<1		
1667 10. TYLAI	20		
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		
% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ 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 _____ No _____

Remarks:

SOIL

Sampling Point: B3 Pond - A

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 %	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)
- 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:

Not done

Mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-10"

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

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

Wetland Hydrology Present? Yes X No ___

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

See earlier summer water level data.

Remarks:

Approx 30% of wetland is open water 0-10" deep.

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

Date	9/2/09
Sampling Point	B3 Pond - A

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
1668	11	TYANI	10		
1669	12	AMARI	<1		
1670	13	SCPUI	10		
1671	14	SCVAI	18		
1672	15	ELMAI	<1		
1673	16	JUTOI	<1		
1674	17	HOJUI	<1		
1675	18	BRJAI	<1		
1676	19	HEANI	<1		
1677	20	Chenopod sp CHGLI	<1		
1678	21	SPMEI	<1		
1679	22	JUBAI	<1		
1680	23	underwater CEDEI	25		
1681	24	PAUII	<1		
1682	25	MEOFI	<1		
1683	26	VETHI	<1		
1684	27	LEFAI	<1		
1685	28	SOARI	<1		
1686	29	AGCAI	2		
1687	30	PORAI	<1		
1688	31	EPCII	<1		
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 9/2/09
Observer(s) JKW
Location ID B3 Pond - A

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

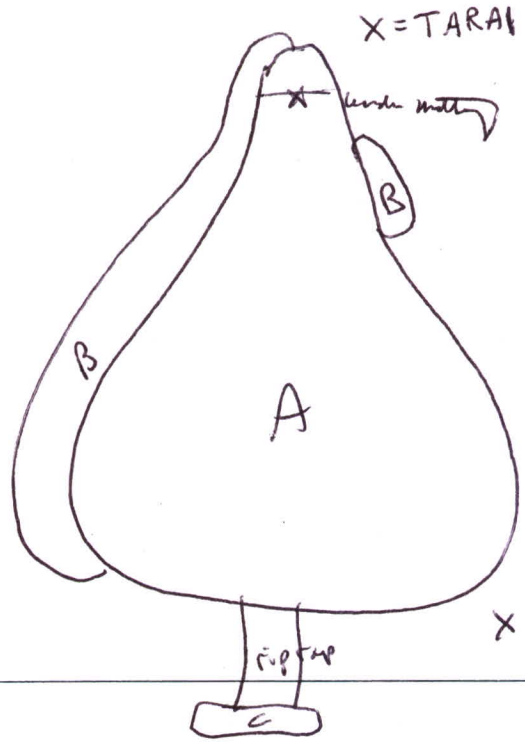
Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEXI	too numerous	5'	3'	2'	2'	6"	8"
TARAI	1	3'			1'		
SAAMI	1	2.5'			1'		
~~9/2/09 AMFRI~~		~~3"~~			~~3"~~		

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: [signature] [signature] Date 9/2/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/2/09

Applicant/Owner: DOE State: CO Sampling Point: B3 Pond - B

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): pond margin hillslope Local relief (concave, convex, none): none / concave Slope (%): 5-15°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip this year

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)			
1689	1. SAEXI	80		
1690	2. PRVI1	2		
1691	3. SYOCI	4		
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: Wetland)			
1692	1. PAVI1	15		
1693	2. ASFAI	2		
1694	3. MEALI	<1		
1695	4. GLLEI	3		
1696	5. OEVI1	<1		
1697	6. AGCAI	5		
1698	7. CIARI	7		
1699	8. SCPUI	<1		
1700	9. TYLAI	3		
1701	10. JUTOI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: B3 Pond - B

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ~~X~~ at seep area Depth (inches): 0-1"

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

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

Wetland Hydrology Present? Yes X No ___

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

See earlier Summer water level data

Remarks:

upper edge of SAEXI patches are not saturated, lower areas along pond wetland edge are saturated

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

Date 9/2/09
Sampling Point B3 Pond - B

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
1702	11	POMOI	<1		
1703	12	SCVAI	<1		
1704	13	XASTI	<1		
1705	14	AMPSI	<1		
1706	15	VETHI	<1		
1707	16	MEOFI	<1		
1708	17	LYAMI	<1		
1709	18	ELMAI	<1		
1710	19	ASHEI	<1		
1711	20	BRINI	1		
1712	21	LASEI	<1		
1713	22	SOMII	<1		
1714	23	RUCRI	<1		
1715	24	NECAI	1 ~~<1~~ 8/9/2009		
1716	25	FEPRI	<1		
1717	26	ASSPI	<1		
1718	27	CYOFI	<1		
1719	28	GEMAI	<1		
1720	29	CEDII	<1		
1721	30	ELCAI	<1		
1722	31	HOLOI	<1		
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 9/2/09
Observer(s) JKN
Location ID B3 Pond - B

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 - however much of water may be from groundwater table - not w/in 1 ft. of surface (guess)

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEXI	too numerous	10'	7'	8'	6'	2'	3'
PRVII	"	9'	8'	6'	5'	4'	3'
SYOCI	"	3'	3'	3'	6"	6"	6"

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

Suggestions for management:

Control weeds as needed.

Other comments:

SAEXI filling in on hillslope very well.

Completed by: Jody K Nels — JK N Date 9/2/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/2/09

Applicant/Owner: DOE State: Co Sampling Point: B3 Pond - C

Investigator(s): Jody E Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Stream channel Local relief (concave, convex, none): Concave Slope (%): 1°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	Is the Sampled Area within a Wetland? Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:
above average precip this year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: Wetland)			
1723 1. TYLAI	25		
1724 2. AGSMI	<1		
1725 3. JUTOI	<1		
1726 4. BRINI	<1		
1727 5. PACAI	<1		
6.			
7.			
8.			
9.			
10.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		
% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ 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 _____ No _____

Remarks:
B-3 Pond not flowing.

MBH 1/3/10

SOIL

Sampling Point: B3 Pond-C

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ 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)
- ___ 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 ___ Depth (inches): ___

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

Wetland Hydrology Present? Yes X No ___

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

See earlier summer water level data

Remarks:

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 9/2/09
Observer(s) JKW
Location ID B3 Pond - C

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

9/2/09

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: [illegible] Date 9/2/09

Wetland Noxious Weed Survey Form

Observer Jody Nels — Date 6/24/09
Location B-3 Pond

Noxious Weed Species Present:

CIARI - 1%
HYPEI - <1%

Comments/Notes:

Area looking good.
Water flowing.

Jody K Nels — Print Name
Signature
6/24/09 Date

Wetland Noxious Weed Survey Form

Observer Jody Neds — Date 7/27/09

Location B-3 Pond

Noxious Weed Species Present:

TARA1 - 2 plants <1%

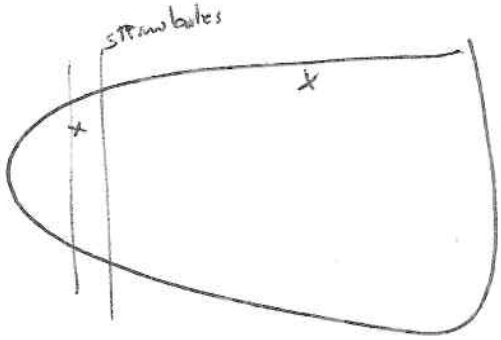
CIAR1 - <1%

Comments:

New SAEX1 doing well

Water Flowing

X = TARA1



Completed By: Jody Neds — Date 7/27/09

Print Sign

Wetland Noxious Weed Survey Form

Observer JKN Date 8/28/09

Location B3 Pond Wetland

Noxious Weed Species Present:

CIARI

VETHI

TARAI

XASTI

Total Cover = < 1%

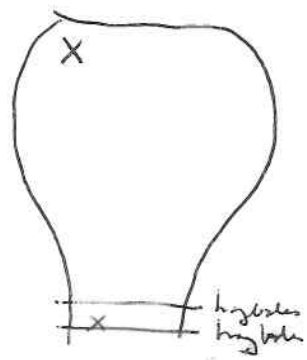
Comments:

B3 is Flowing

Wetland area looks great this year.

Control TARAI

X = TARAI



Completed By: Jody K Nu (Print) JK Nu (Sign) Date 8/28/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/27/09

Applicant/Owner: DOE State: CO Sampling Point: B371 Wetland – A

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 8%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:

above average precip in 2009

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: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: wetland)			
1254 1. SCVA1	25		
1255 2. JUBA1	40		
1256 3. JUTO1	<1		
1257 4. AGSM1	5		
5.			
6.			
7.			
8.			
9.			
10.			
	____ = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		
% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 ____ No ____

Remarks:

MGH 1/3/10

SOIL

Sampling Point: B371 Wetland - A

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-2"

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 8/27/09
Observer(s) JKN
Location ID B371 Wetland - A

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.

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

8/27/09

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

Suggestions for management:

Other comments:

Completed by:_____Date_____

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/27/09

Applicant/Owner: DOE State: Co Sampling Point: B371 Hillside-B

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Concave Slope (%): 6% 8/27/09

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip in 2009

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: ____)				
1.				
2.				
3.				
4.				
5.				
		____ = Total Cover		
Herb Stratum (Plot size: Wetland)				
1258 1.	AGSTI	10		
1259 2.	JUTO1	60		
1260 3.	ECCRI	1		
1261 4.	PLMAI	1		
1262 5.	AGSMI	5 ~~10~~ 8/27/09		
1263 6.	AGCAI	10 5		
1264 7.	JUBAI	1		
1265 8.	SCVAI	10		
9.				
10.				
		____ = Total Cover		
Woody Vine Stratum (Plot size: ____)				
1.				
2.				
		____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 ____ No ____

Remarks:

MGH 1/3/10

B371 Hillside - B

SOIL

Sampling Point: ~~FC2 Hill~~ 8/27/09

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/27/09
Observer(s) JKN
Location ID ~~8/27/09~~ B371 Hillside - B

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.

This area may only exist due to the above average precip received in 2009. Have to see if present in future years.

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

Yes - at the moment - see note above

Woody Plant Counts

Species	Stem Count	Height			Width		
		1	2	3	1	2	3

8/27/09

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

Suggestions for management:

Control weeds if needed.

Other comments:

Never noticed this area before. Watch in future years.

Completed by: Judy K Nelson Date 8/27/09

Wetland Noxious Weed Survey Form

Observer Jody Nels
Location B371 Wetland

Date 6/25/09

Noxious Weed Species Present:

none

Comments:

area looks good,

Completed By: Jody Nels Print Jody Nels Sign

Date 6/25/09

Wetland Noxious Weed Survey Form

Observer Jody Nels
Location B371 Hillside Wetland

Date 7/27/09

Noxious Weed Species Present:

None

Comments:

Area saturated. Looks good.

Completed By: Jody K Nels (Print) Jody K Nels (Sign)

Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN Date 8/27/09

Location B371 Wetlands

Noxious Weed Species Present:

none

Comments:

Completed By: Jody K Nelson (Print) J. J. K Nelson (Sign) Date 8/25/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/1/09

Applicant/Owner: DOE State: CO Sampling Point: B4 Pond - A

Investigator(s): Lady K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): pond bottom/edge Local relief (concave, convex, none): concave Slope (%): 1°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip for 2009

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)			
1467	1. POBEI	<1		
1468	2. SAEXI	2		
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
1469	1. SCUAI	<1		
1470	2. ECCRI	<1		
1471	3. POPE2	<1		
1472	4. Chenopod sp. CHGLI	<1		
1473	5. TYANI	20		
1474	6. VETHI	<1		
1475	7. ELMAI	10		
1476	8. BAVUI	<1		
1477	9. AGCAI	<1		
1478	10. VEBRI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: B4 Pond - A

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- X 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-3"

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

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

Wetland Hydrology Present? Yes X No ___

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

See earlier summer water level data

Remarks:

B4 not flowing today

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

Date 9/1/09
Sampling Point B4 Pond - A

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
1479	11	MEARI	<1		
1480	12	BRINI	<1		
1481	13	MEOFI	<1		
1482	14	KOSCI	<1		
1483	15	LEMII	1		
1484	16	VEANI	<1		
1485	17	POMOI	<1		
1486	18	CIARI	<1		
1487	19	RATRI	<1		
1488	20	SOARI	<1		
1489	21	SEVII	<1		
1490	22	GRSQI	<1		
1491	23	ASSPI	<1		
1492	24	LEFAI	<1		
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

✓

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 9/1/09
Observer(s) JKW
Location ID B4 Pond - A

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.

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEX1	19	4'	2.5'	4'	2'	1'	2'
SAAm1	2	2'	2'		6"	1.5'	
PODE1	too numerous	6"	4"	2"	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:

SAEXI are doing well for 1st yr.

Completed by: Jody K Nelson Date 9/1/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/11/09
Applicant/Owner: DOE State: Co Sampling Point: B4 Pond-B
Investigator(s): Jody K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): channel Local relief (concave, convex, none): Concave Slope (%): 2°
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:
above average precip in 2009

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)			
1493 1. SYOCI	<1		
1494 2. PODEI	<1		
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: wetland)			
1495 1. BAVUI	<1		
1496 2. VEANI	<1		
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		
% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): _____ (A)
Total Number of Dominant Species Across All Strata: _____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ 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 _____ No _____

Remarks:

1/3/10

SOIL

Sampling Point: B4 Pond - B

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 %	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)
- 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:

not done

mitigation area

– under erosion not now

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- X 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-1"

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

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

Wetland Hydrology Present? Yes X No ___

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

See earlier summer water level data

Remarks:

only upper area w/ water & saturated

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 9/1/09
Observer(s) JKN
Location ID B4 Pond - B

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 - right now too dry - but thick permanent TRM erosion mat is covering area too

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

They should be - the stream was flowing much of the summer.

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3
SYOL	1	2.5'			1'		
PODE	5	2"	2"	1"	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 still mostly bare today

Completed by: Jody K Nelson Date 9/1/09

Wetland Noxious Weed Survey Form

Observer Jody Nels Date 6/10/09
Location B-4 Pond

Noxious Weed Species Present:

CIARI - <1% Couple of plants

Comments/Notes:

Planted SAEXI / SAAMI doing well

Jody K Nels — Print Name
Signature
6/10/09 — Date

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 7/27/09
Location B-4 Pond

Noxious Weed Species Present:

CIARI - <1%

Comments:

New SAEXI doing well.

Water Flowing.

Completed By: Jody Nelson Jody Nelson Date 7/27/09
Print Sign

Wetland Noxious Weed Survey Form

Observer JKN

Location By Pond Wetland

Date 8/28/09

Noxious Weed Species Present:

CIARI

VETHI

Total Cover = < 1%

Comments:

Area coming in very nice for 1st yr.

No water flowing today

Completed By: Jody K Nels — Print

Sign [signature]

Date 8/28/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/31/09
Applicant/Owner: DOE State: CO Sampling Point: B771N
Investigator(s): Judy K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 4°
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip – 2009

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)			
48	1. PODEI	1		
	2.			
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
49	1. TYLAI	1		
50	2. JUTOI	1		
51	3. HOJUI	65 8/31/09		
52	4. POMOI	<1		
53	5. POLAI ~~POPEZ~~	<1		
54	6. ECCRI	5		
55	7. AGSMI	<1		
56	8. SOARI	<1		
57	9. HEANI	<1		
58	10. AMARI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: 8771 N

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ 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)

- X 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)
- ___ 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 ___ Depth (inches): ___

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

Wetland Hydrology Present? Yes X No ___

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

See early summer water level data

Remarks:

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

Date	8/31/09
Sampling Point	B771 N

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
59	11	FEPRI	<1		
60	12	MEOFI	<1		
61	13	PLLAI	<1		
62	14	LASEI	<1		
63	15	BRINI	<1		
64	16	COARI	<1		
65	17	POCOI	<1		
66	18	AGCAI	1		
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/3-/09

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 8/31/09
Observer(s) JKN
Location ID B771 N

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.

no

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

yes - most of the time

Woody Plant Counts

		Height			Width		
Species	**Stem Count**	**1**	**2**	**3**	**1**	**2**	**3**
PoDEI	7	4'	3'	3'	3'	8"	1.5'

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: Jody K Nelson Date 8/31/09

Wetland Noxious Weed Survey Form

Observer Joy Nelson Date 6/25/09
Location B781 N wetland

Noxious Weed Species Present:

none

Comments:

area very wet + lots of veg this yr.

S - 2"

Completed By: Joy Knelson (Print) (Sign) Date 6/25/09

Wetland Noxious Weed Survey Form

Observer Jody Nels—
Location B771 N Wetland

Date 7/27/09

Noxious Weed Species Present:

CIARI - <1%

Comments:

Area wet / saturated.

Completed By: Jody K Nels Print Sign JKNels Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN Date 8/28/09

Location B771 North Wetland

Noxious Weed Species Present:

<1 AR1

Total Cover = < 1%

Comments:

Wetland looks good this yr.

Completed By: Jody K [illegible] [illegible] K [illegible] Date 8/28/09

Print Sign

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/31/09

Applicant/Owner: DOE State: Co Sampling Point: B771 - NW

Investigator(s): Jody K Nels- Section, Township, Range: _____

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 10°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____ No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____ No ____	
Wetland Hydrology Present?	Yes ____ No ____	

Remarks:
above average precip this yr.

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: ____)			
	1.			
	2.			
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
38	1. ECCR1	45		
39	2. SCVA1	1		
40	3. TYLA1	1		
41	4. HOJU1	25 ~~30~~ 8/31/09		
42	5. BUDA1	<1		
43	6. AGCA1	1		
44	7. AGSM1	1		
45	8. JUBA1	1		
46	9. JUTO1	<1		
47	10. POCO1	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: B771NW

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 %	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)
- 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:

Not done

Mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ 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)
- X 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)
- ___ 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 ___ Depth (inches): ___

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

Wetland Hydrology Present? Yes X No ___

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

See early summer water level data

Remarks:

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/31/09
Observer(s) JKN
Location ID B771 NW

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.

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 1	Height 2	Height 3	Width 1	Width 2	Width 3

8/31/09

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

MGH
12/30/09

Suggestions for management:

Control weeds as needed.

Other comments:

Area is larger than past years.

Completed by: Jody K Nelson Date 8/31/09

Wetland Noxious Weed Survey Form

Observer Jody Nels— Date 6/25/09

Location 771 NW Wetland

Noxious Weed Species Present:

none

Comments:

5 + 1" 'Flowing

Completed By: Jody K Nels— [signature] Date 6/25/09

Print Sign

Wetland Noxious Weed Survey Form

Observer — Jack Nels —

Location B771 NW

Date 7/27/09

Noxious Weed Species Present:

None

Comments:

Area still very wet ½-1" deep.

Area looking very good this year. Has expanded!

Completed By: — Jack Nels — (Print) (Sign) Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN

Location B771 NW Hillside Wetland

Date 8/28/09

Noxious Weed Species Present:

None

Comments:

Completed By: Jodi K Nelson (Print) JK Nelson (Sign) Date 8/28/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/31/09

Applicant/Owner: DOE State: CO Sampling Point: B881

Investigator(s): Jody K Nels Section, Township, Range: _____

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Concave Slope (%): 5°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:

above average precip this yr.

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)			
9 1.	SAAMI	<1		
10 2.	ELANI	<1		
3.				
4.				
5.				
		= Total Cover		
	Herb Stratum (Plot size: wetland)			
11 1.	TYLAI	35		
12 2.	HOJUI	20		
13 3.	ECCRI	<1		
14 4.	KOSCI	<1		
15 5.	SPCRI	<1		
16 6.	PACAI	<1		
17 7.	JUTOI	2		
18 8.	DACAI	<1		
19 9.	POMOI	1		
20 10.	BRINI	<1		
		= Total Cover		
	Woody Vine Stratum (Plot size: ____)			
1.				
2.				
		= Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: B881

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-2"

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date	8/31/09
Sampling Point	B881

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
21	11	AGSMI	<1		
22	12	SPMEI	<1		
23	13	GRSQI	<1		
24	14	SCVAI	30		
25	15	SCPUI	1		
26	16	AGCAI	<1		
27	17	ASSPI	<1		
28	18	FEPRI	<1		
29	19	MUASI	<1		
30	20	JUBAI	<1		
31	21	BUDAI	<1		
32	22	SCPAI	<1		
33	23	PLMAI	<1		
34	24	CANEI	<1		
35	25	CIARI	<1		
36	26	ELMAI	~~8/31/09~~ 1		
37	27	SPPEI	<1		
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGT 12/30/09

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 8/31/09
Observer(s) JKW
Location ID B881

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.

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
SAAM1	1	3.5'			10"		
ELAN1	2	5'	2'		3'	1'	

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

Suggestions for management:

Control weeds as needed.

Control ELANI.

Other comments:

Water BACAI. Overall, area looking good this yr.

Completed by: Jody K Nelson Date 8/31/07

Wetland Noxious Weed Survey Form

Observer Jody Nels- Date 6/25/09
Location B881 Wetland

Noxious Weed Species Present:

CIARI - 1%

Comments:

S + 2-3"

Completed By: Jody Kl[illegible] Date 6/25/09
Print Sign

Wetland Noxious Weed Survey Form

Observer Jody Nels-

Location B881 Wetland

Date 7/27/09

Noxious Weed Species Present:

CIAR1 - <1%

Comments:

Area looks good.

Some DACA1 on east end.

Completed By: JKN Print JKN Sign Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKW

Location B881 wetland

Date 8/28/09

Noxious Weed Species Present:

CIAR1

ELAN1

Total Cover = <1%

Comments:

Watch DACA1

Control ELAN1. Respray sprouts that were cut off last Fall.

Completed By: Jody K Nels — Print

JKW — Sign

Date 8/28/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/31/09

Applicant/Owner: DOE State: CO Sampling Point: Bowman's Pond

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Concave Slope (%): 6°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:

above average precip – 2009

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)			
67	1. SAEXI	2		
68	2. TARAI	1		
69	3. PODEI	<1		
	4.			
	5.			
		= Total Cover		
	Herb Stratum (Plot size: Wetland)			
70	1. JUTO I	40		
71	2. AGSMI	<1		
72	3. PLMAI	<1		
73	4. HOJUI	12 ~~15~~ 8/31/09		
74	5. TYLAI	12 ~~15~~		
75	6. SCPUI	2		
76	7. LASEI	<1		
77	8. AGCAI	8/31/09 ~~2~~ 4		
78	9. SCVAI	<1		
79	10. ASHEI	<1		
		= Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		= Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: Bowman's Pond

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- X 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-1"

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

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

Wetland Hydrology Present? Yes X No ___

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

See early summer water level data

Remarks:

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

Date	8/31/09
Sampling Point	Bowman's Pond

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
80	11	CIINI	<1		
81	12	ELCAI	1		
82	13	POCOI	<1		
83	14	ELMAI	<1		
84	15	GRSQI	<1		
85	16	ECCRI	<1		
86	17	AGINI	<1		
87	18	CIARI	<1		
88	19	POPE2	<1		
89	20	SCPAI	<1		
90	21	SPMEI	<1		
91	22	PACAI	<1		
92	23	PAVII	<1		
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MBH 12/30/09

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 8/31/09
Observer(s) JKN
Location ID Bowman Pond

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.

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**
SAEXI	7	6'	3'	4'	4'	1'	5'
TARAI	12	3'	3'	3'	6"	1'	1.5'
PODEI	1	2'			1.5'		

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

Suggestions for management:

Control weeds as needed.

Control TARAI

Other comments:

Area looks good this yr.

Completed by: [illegible] [illegible] Date 8/31/09

Wetland Noxious Weed Survey Form

Observer Jody Nels— Date 6/25/09

Location B771 - Bowman Pond Wetland

Noxious Weed Species Present:

TARAI - <1%

CIINI - <1%

CIARI - <1%

Comments:

Area very wet + lots of veg this yr

S + 2"

Completed By: Jody Nels— [signature] Date 6/25/09

Print Sign

Wetland Noxious Weed Survey Form

Observer Jody Nels— Date 7/27/09

Location Bowman Pond

Noxious Weed Species Present:

TARAI- Several - general area 7/27/09 1%

Comments:

Area saturated + w/ standing water 1-3" deep.

Wetland expanding this year!

ELANI up hill from wetland.

Completed By: Jody K Nels Date 7/27/09

Print Sign

Wetland Noxious Weed Survey Form

Observer JKN

Date 8/28/09

Location Bowman's Pond Wetland

Noxious Weed Species Present:

CIINI

TARAI

Total Cover = <1%

Comments:

Control TARAI in wetland + surrounding area.

Completed By: Jack Nelson (Print) JKN (Sign)

Date 8/28/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/27/09

Applicant/Owner: DOE State: CO Sampling Point: C1 Pond-A

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): hillslope on shore Local relief (concave, convex, none): none Slope (%): 15°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:

above average precip received this yr.

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)			
1266	1. SAEXI	70 ~~80~~ 8/27/09		
1267	2. PODEI	1		
1268	3. SYOCI	4		
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetlands)			
1269	1. XASTI	3		
1270	2. ELMAI	3		
1271	3. AMARI	2		
1272	4. CEDII	<1		
1273	5. ECCRI	<1		
1274	6. BRJAI	<1		
1275	7. RUCRI	<1		
1276	8. AGCAI	1		
1277	9. CIARI	25		
1278	10. TYLAI	25		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: G1 Pond - A

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 %	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)
- 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:

not done

mitigation area

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ 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 ___ Depth (inches): _____

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

Wetland Hydrology Present? Yes ___ No ___

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

See earlier summer water level data

Remarks:

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

Date 8/27/09
Sampling Point C-1 Pond - A

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
1279	11	VETHI	<1		
1280	12	CYOFI	<1		
	13				
	14				
	15				
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/27/09
Observer(s) JKN
Location ID C-1 Pond - A

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.

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEXI	too numerous	9'	9'	8'	6'	5'	5'
PODEI	1	11'			5'		
SYOCI	too numerous	3'	4'	3'	1'	1.5'	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:

SAEXI doing very well. Have filled in along shoreline.

PODEI is growing very well.

Completed by: [illegible] Date 8/27/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/27/09

Applicant/Owner: DOE State: CO Sampling Point: C1 Pond - B

Investigator(s): Jody K. Nelson Section, Township, Range: _____

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

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks: above average precip this yr.

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)			
1281 1. SAEXI	75		
1282 2. POANI	10		
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: wetland)			
1283 1. CIARI	25		
1284 2. TYLAI	<1		
1285 3. JUDUI	<1		
1286 4. CENII	<1		
1287 5. BRINI	10		
6.			
7.			
8.			
9.			
10.			
	____ = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		
% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 ____ No ____

Remarks:

MBH 1/3/10

SOIL

Sampling Point: Cl Pond - B

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 %	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)
- 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:

not done

mitigation area

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ 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 ___ 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 earlier summer water level data

Remarks:

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/27/09
Observer(s) JKN
Location ID GI Pond - B

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.

high banks on channel — stream limit growth

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

yes - at least along the stream

Woody Plant Counts

		Height			Width		
Species	**Stem Count**	**1**	**2**	**3**	**1**	**2**	**3**
SAEXI	Too numerous	8'	8'	6'	5'	4'	3'
POANI	"	10'	7'	7'	3'	2'	2'

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

Suggestions for management:

Control weeds as needed. Spray area.

Other comments:

SAEXI have grown in very well along stream.

Completed by: Jody K Nelson Date 8/27/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 1/21/10
Applicant/Owner: DOE State: _____ Sampling Point: G1 Pond - C
Investigator(s): Joy K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): pond Local relief (concave, convex, none): Concave Slope (%): 0
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:

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: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: wetland)			
1732 1. TYLAI	15		
1733 2. SCVAI	5		
1734 3. TYANI	45		
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		
% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ 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 _____ No _____

Remarks:

1/25/10

SOIL

Sampling Point: C-1 Pond - C

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ 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 ___ No ___ Depth (inches): _____

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 1/21/10
Observer(s) Jody K-Nelson
Location ID C-1 Pond - C

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 1	Height 2	Height 3	Width 1	Width 2	Width 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: JKW Date 1/21/10

Wetland Noxious Weed Survey Form

Observer Jody Nels Date 6/25/09
Location C-1 Pond

Noxious Weed Species Present:

CIARI - 1%
VEBLI - <1%
BRTEI - <1%

Comments/Notes:

Jody K Nels
Print Name

Signature

6/25/09
Date

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 7/29/09
Location C-1 Pond Wetland

Noxious Weed Species Present:

CIARI - 2
CEDII - 1
CIINI - 1
XASTI - 1

Comments:

Could spray CIARI along pond edge + on old dam face.

Completed By: Jody K Nelson [signature] Date 7/29/09
Print Sign

Wetland Noxious Weed Survey Form

Observer JKN

Location C1 Pond Wetlands

Date 8/27/09

Noxious Weed Species Present:

CIARI VETHI

CEDII

XASTI

CYOFI

Total Cover = 35%

Comments:

Spray weeds.

Completed By: JoyKNL JKNL Date 8/27/09

Print Sign

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 2/31/09

Applicant/Owner: DOE State: CO Sampling Point: G2 Pond

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): base of hill - pond edge Local relief (concave, convex, none): none Slope (%): 2°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____ No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____ No ____	
Wetland Hydrology Present?	Yes ____ No ____	

Remarks:

above average precip. this yr.

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)			
1	1. SAAMI	~~<1~~ 2 8/31/09		
2	2. SAEXI	<1		
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
3	1. HOJUI	1		
4	2. PLMAI	<1		
5	3. XASTI	15		
6	4. TYLAI	40		
7	5. KOSCI	<1		
8	6. CIARI	<1		
	7.			
	8.			
	9.			
	10.			
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 ____ No ____

Remarks:

12/3-09

MGH ✓

SOIL

Sampling Point: E-2 Pond

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 %	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)
- 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:

Not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-2'

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

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

Wetland Hydrology Present? Yes X No ___

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

See early Summer water level data

Remarks:

Saturation & surface water on nearest to pond edge - most of area is dry now since water levels have dropped from earlier - yr.

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 8/31/09
Observer(s) JKN
Location ID C-2 Pond

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.

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
SAEX1	3	5'	5'	3'	2'	2'	6"
SAAM1	4	1'	5'	5'	6"	2'	2'

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 filling in w/ TYLA1.

Outside of SAAM1 around much of pond margin is full of CIAR1. Will have to see if can spray w/ out affecting the SAAM1 & SAEX1.

Completed by: Jody K Nels — [signature] Date 8/31/09

Wetland Noxious Weed Survey Form

Observer Jody Nels- Date 6/25/09
Location C-2 Pond

Noxious Weed Species Present:

CIARI - <10%

Comments/Notes:

Area filling in w/ TYLAI - like rest of pond edge.

Jody K Nels- | [signature] | 6/25/09
Print Name | Signature | Date

Wetland Noxious Weed Survey Form

Observer Jody Nels— Date 7/27/09
Location C-2 Pond Wetland edge.

Noxious Weed Species Present:

CIARI - <1%

XASTI - 2%

Comments:

TYLAI Filling in opening along row of SAAMI.
Deer + elk use area to get down to water's edge now.

Completed By: Jody K Nels Date 7/27/09
Print Sign

Wetland Noxious Weed Survey Form

Observer JKN

Location C-2 Pond Wetland

Date 8/28/09

Noxious Weed Species Present:

XASTI

Total Cover = 5%

Comments:

Completed By: Jody K Nelson Print Sign JKN Date 8/28/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/27/09

Applicant/Owner: DOE State: CO Sampling Point: East Shooting Range

Investigator(s): Jody Knelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Channel-Shoreline Local relief (concave, convex, none): Concave Slope (%): 2°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip. This yr.

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)			
1288	1. SAEX	20		
1289	2. SAAM1	25		
1290	3. PODE1	2		
1291	4. AMFR1	4		
	5.			
			= Total Cover	
	Herb Stratum (Plot size: wetland)			
1292	1. CANE1	2		
1293	2. CIAR1	5		
1294	3. ANGE1	<1		
1295	4. JUBA1	<1		
1296	5. AGST1	10		
1297	6. SCPA1	2		
1298	7. CAPR1	2		
1299	8. PAVI1	<1		
1300	9. BRIN1	2		
1301	10. J 8/27/09 ~~AGCA1~~ AGRE1	3		
			= Total Cover	
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
			= Total Cover	
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: E. Shooting Range

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 %	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)
- 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:

not done

mitigation area

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)
- X 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)
- ___ 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 ___ 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 earlier summer water level data

Remarks:

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

Date 8/27/09
Sampling Point East Shooting Range

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
1302	11	GRSQ1	<1		
1303	12	NECA1	<1		
1304	13	ELCA1	<1		
1305	14	AMPS1	<1		
	15				
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 8/27/09
Observer(s) JKN
Location ID East Shooting Range

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.

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
PODEI	1	5'			3'		
SAEXI	Too numerous	7'	8'	7'	3'	4'	3'
SAAMI	9						
AMFRI	2	2'	3'		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: [illegible] Date 8/27/09

Wetland Noxious Weed Survey Form

Observer [illegible] Date 6/25/09
Location East Shoreline Range Wetland

Noxious Weed Species Present:

CIARI - 2%

Comments/Notes:

Area filling in very well this year.

[illegible] [illegible] 6/25/09
Print Name Signature Date

Wetland Noxious Weed Survey Form

Observer Jody Nels

Location East Shooting Range Wetland

Date 7/27/09

Noxious Weed Species Present:

CIARI - 2%

Comments:

Area has filled in nicely.

Stream bottom moist - not flowing.

SAAMI, SAEXI, + PODEI doing well + filling in area.

Completed By: Jody Nels (Print) Jody Nels (Sign) Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN

Location East Shooting Range

Date 8/27/09

Noxious Weed Species Present:

CIARI

Comments:

Control weeds as needed.

Completed By: Jody K Nel (Print) JK Nel (Sign)

Date 8/27/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/1/09

Applicant/Owner: DOE State: Co Sampling Point: East Trenches

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 15°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____
Hydric Soil Present?	Yes ____	No ____
Wetland Hydrology Present?	Yes ____	No ____

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

Remarks:

above average precip this yr.

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)			
1497	1. SYOCI	9/1/09		
1498	2. ROARI	<1		
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: Wetland)			
1499	1. TYLAI	40		
1500	2. SCPAI	15		
1501	3. JUBAI	25		
1502	4. CIARI	1		
1503	5. AMPSI	<1		
1504	6. RUCRI	<1		
1505	7. EPCII	<1		
1506	8. OEVII	<1		
1507	9. GLLEI	<1		
1508	10. FEPRI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: East Trenches

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- X 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-1"

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

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

Wetland Hydrology Present? Yes X No ___

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

treatment system flow data available

Remarks:

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

Date 9/1/09
Sampling Point East Trench

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
1509	11	JUTO1	<1		
1510	12	ASFA1	<1		
	13				
	14				
	15				
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 9/3/10

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 9/1/09
Observer(s) JKN
Location ID East Trench

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.

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
SYOC1	too numerous	10"	1.5'	1'	8"	1'	6"
ROAR1	1	10"			6"		

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 looks very good.

Completed by: Doug K Nelson Date 9/1/09

Wetland Noxious Weed Survey Form

Observer Jody Nels Date 6/10/09
Location East Trenches Wetland

Noxious Weed Species Present:

CIARI - <1%
CYOFI - <1%

Comments/Notes:

Area looking good.

Jody K Nels — Print Name
[signature] — Signature
6/10/09 — Date

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 7/13/09

Location East Trenches Wetland

Noxious Weed Species Present:

CIARI - <1%

CYOFI - <1%

Comments:

Completed By: Jody K Nelson Date 7/13/09

Print Sign

Wetland Noxious Weed Survey Form

Observer JKN

Location East Trenches Wetland

Date 8/28/09

Noxious Weed Species Present:

CIARI

Total Cover = <1%

Comments:

Completed By: Jon K Nelson (Print) Jon K Nelson (Sign) Date 8/28/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/25/09

Applicant/Owner: DOE State: CO Sampling Point: FC1 - road crossing

Investigator(s): Jody K Nels- Section, Township, Range: _____

Landform (hillslope, terrace, etc.): channel Local relief (concave, convex, none): concave channel Slope (%): 1%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks: above average precip received this yr.

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: ____)			
496	1. AMFRI	8		
497	2. SAEXI	45		
	3.			
	4.			
	5.			
		= Total Cover		
	Herb Stratum (Plot size: wetland)			
498	1. HOLOI	<1		
499	2. AGSTI	<1		
500	3. PHPRI	<1		
501	4. AGCAI	3		
502	5. POMOI	1		
503	6. ECCRI	<1		
504	7. VEANI	<1		
505	8. AGSCI	1		
506	9. ~~SOART~~ 8/25/09	—		
507	10. CIARI	2		
		= Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		= Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FC1 - Road Crossing

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 %	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)
- 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:

not done

Mitigation wetland

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ 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 ___ 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:

earlier observation in summer showed flowing water + saturated soil

Remarks:

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

Date 8/25/09
Sampling Point FC1 Toad crossing

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
507	11	RUCRI	<1		
508	12	ELCAI	1		
509	13	VEBLI	<1		
510	14	BAORI	<1		
511	15	VEBRI	<1		
512	16	TYLAI	<1		
513	17	PAVII	3		
514	18	ANGEI	<1		
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

✓

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/25/09
Observer(s) JKN
Location ID FC1 - road crossing

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.

Riprap channel bottom inhibits herabaceous growth. But SAEXI + AMFRI filling in

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

yes - most of time - was very wet earlier in summer.

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEXI	Too numerous	8'	7'	7'	4'	5'	4'
AMFRI	"	1'	2'	1'	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.

Seed more wetland + shrub sp.

Other comments:

Area starting to fill in again w/ shrubs since culvert was installed. Should look better in couple of years.

Completed by: [illegible] Date 8/25/09

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 6/24/09
Location FCI road crossing wetland

Noxious Weed Species Present:

SoARI - <1%
CIARI - 4%

Comments/Notes:

Jody K Nelson
Print Name

[signature]
Signature

6/24/09
Date

Wetland Noxious Weed Survey Form

Observer Jody Neds — Date 7/27/09

Location FCI road crossing

Noxious Weed Species Present:

CIARI - <1%

VEBLI - <1%

Comments:

Completed By: Jody K Neds — [signature] Date 7/27/09

Print Sign

Wetland Noxious Weed Survey Form

Observer JKN

Location FCI Road Crossing

Date 8/25/09

Noxious Weed Species Present:

CIARI
VEBEI

Total Cover = ~2%

Comments:

Spray or control weeds as needed.

Completed By: Jody K Nels — Print

JKN — Sign

Date 8/25/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jeffer Sampling Date: 8/25/09
Applicant/Owner: DOE State: CO Sampling Point: FC1-A
Investigator(s): Jody K Nels Section, Township, Range: _____
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Concave rills Slope (%): 5%
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip. this yr.

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: ____)			
	1.			
	2.			
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
515	1. CANEI	5		
516	2. PAVII	20		
517	3. AGCAI	10		
518	4. POCOI	<1		
519	5. MEALI	<1		
520	6. AGSCI	<1		
521	7. SONUI	<1		
522	8. ANGEI	<1		
523	9. CIARI	<1		
524	10. FEOVI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FC1-A

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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ 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)

- X Surface Soil Cracks (B6)
- X 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)
- ___ 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 8/29/07 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 earlier observation this summer.

Remarks:

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

Date 8/25/09
Sampling Point FCI - A

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
525	11	INEOFI	<1		
526	12	SCVAI	<1		
527	13	ELMAI	<1		
	14				
	15				
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/31/09

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/25/09
Observer(s) JKN
Location ID FC1-A

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 - not a super wet area.

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

Barely - but there are hydric sp. present

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3

8/25/09

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

Suggestions for management:

Control weeds as needed. Perhaps reseed w/ wetland sp.

Other comments:

Area slowly developing.

Completed by: Jody K Nelson Date 8/25/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/25/09
Applicant/Owner: DOE State: CO Sampling Point: FC1-B
Investigator(s): by K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): bottom area Local relief (concave, convex, none): Concave Feature Slope (%): 1%
Subregion (LRR): ~~bottom area~~ 8/25/09 G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:
above average precip. This yr.

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)			
528	1. ELANI	<1		
529	2. PODEI	1		
	3.			
	4.			
	5.			
		_____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
530	1. CANEI	1		
531	2. PAVII	20		
532	3. ELCAI	1		
533	4. CIARI	1		
534	5. SIPEI	<1		
535	6. AGCAI	3		
536	7. SCVAI	2		
537	8. JUTOI	30		
538	9. TYLAI	<1		
539	10. MEOFI	<1		
		_____ = Total Cover		
	Woody Vine Stratum (Plot size: _____)			
	1.			
	2.			
		_____ = Total Cover		
	% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ 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 _____ No _____

Remarks:

SOIL

Sampling Point: FC1-B

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ 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)

- X 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)
- ___ 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 ___ Depth (inches): _____

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

Wetland Hydrology Present? Yes X No ___

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

See early summer observations

Remarks:

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

Date 8/25/09
Sampling Point FC1 - B

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
540	11	POCO1	1		
541	12	AGSM1	1		
542	13	CEDI1	<1		
543	14	POMO1	<1		
544	15	AMAR1	<1		
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/31/09

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/25/09
Observer(s) JKN
Location ID FC1 - B

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.

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
PODEI	27	2'	2'	2'	10"	6"	6"
ELANI	1	1'			1'		

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

~~27~~ 30 elk just ran by on east side of FC1
bulls, cows, + young of yr.

Suggestions for management:

Control weeds as needed.

Other comments:

Area is filling in.

Completed by: Jody K Nelson Date 8/25/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/25/09

Applicant/Owner: DOE State: Co Sampling Point: FC1-C

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): bottom area Local relief (concave, convex, none): Flat/concave Slope (%): 1%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip. This yr.

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)			
545	1. PODE1	<1		
546	2. SAEX1	<1		
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
547	1. PAVI1	8		
548	2. JUTO1	10		
549	3. AGCA1	1		
550	4. AGSC1	<1		
551	5. JUBA1	22		
552	6. SCVA1	23		
553	7. ELCA1	JB 8/25/09 X 1		
554	8. MEOFI	<1		
555	9. SCPU1	1		
556	10. TYLA1	5		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FC1-C

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)
- 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:

not done

mitigation area

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)

- X 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-~~2~~ 1" 8/21/01

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

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

Wetland Hydrology Present? Yes X No ___

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

See earlier summer water level data

Remarks:

there are seeps in this area.

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

Date 8/25/09
Sampling Point FC1-C

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
557	11	ANGEI	<1		
558	12	POMOI	<1		
559	13	CANEI	1		
560	14	AGSTI	<1		
561	15	CIARI	<1		
562	16	AMARI	<1		
563	17	MEALI	<1		
564	18	CEDII	<1		
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGT 12/31/09

✓

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/25/09
Observer(s) JKN
Location ID FC1-C

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.

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**
PODE1	14	2'	1'	1'	6"	4"	4"
SAEX1	2	4'	2'		1.5'	1'	

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

Suggestions for management:

Control weeds as needed. Perhaps seed additional wetland species.

Other comments:

Area is looking good this yr. Wetland sp. are spreading.

Completed by: Jody K Nels— [signature] Date 8/29/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/25/09

Applicant/Owner: DOE State: CO Sampling Point: FC1-D

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): bottom area Local relief (concave, convex, none): concave / flat Slope (%): 1%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average moisture received this yr.

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)			
565	1. PODEI	1		
566	2. SAEXI	<1		
567	3. PRVII	<1		
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
568	1. CANEI	5		
569	2. ANEI	<1		
570	3. SCVAI	23		
571	4. JUBAI	25		
572	5. PAVII	3		
573	6. JUTOI	4		
574	7. TYLAI	15		
575	8. AGSCI	2		
576	9. AGCAI	1		
577	10. SPPEI	2		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FC1-D

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 %	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)
- 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:

not done

Mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ 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)

- X 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-1"

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

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

Wetland Hydrology Present? Yes X No ___

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

See earlier summer water-level data

Remarks:

have seen seeps flowing in upper area previously

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

Date 8/25/09
Sampling Point FC1 - D

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
578	11	AGSTI	<1		
579	12	SCPUI	<1		
580	13	AMARI	<1		
581	14	FEPRI	<1		
582	15	POMOI	1		
583	16	CIARI	<1		
584	17	ANSCI	<1		
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

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Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/25/09
Observer(s) JKN
Location ID FC1-D

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.

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
PODE1	Too numerous	2'	2'	1'	6"	6"	3"
SAEX1	1	3'			6"		
PRVI1	3	2'	1.5'	1.5'	1'	10"	10"

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

Suggestions for management:

Control weeds as needed. Spread additional wetland seed.

Other comments:

Area filling in well.

Completed by: Jody K Nelson Date 8/25/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/25/09
Applicant/Owner: DOE State: Co Sampling Point: FC1-E
Investigator(s): Jody K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): bottom area Local relief (concave, convex, none): concave/flat Slope (%): 1%
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip received this yr.

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)			
585	1. SAAMI	<1		
586	2. PODEI	<1		
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
587	1. SCVAI	10		
588	2. PAUII	35		
589	3. CANEI	15		
590	4. MEOFI	<1		
591	5. AGCAI	<1		
592	6. SCPUI	<1		
593	7. JUBAI	<1		
594	8. JUTOI	2		
595	9. ELCAI	<1		
596	10. MEALI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FCL-E

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ 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)

- X 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes X No ___

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

See earlier summer water level data

Remarks:

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

Date	8/25/09
Sampling Point	FC1 - E

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
597	11	ANGEI	<1		
598	12	AGSTI	<1		
599	13	GRSQI	<1		
600	14	POCOI	<1		
601	15	CIARI	<1		
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/31/09

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 8/25/09
Observer(s) JKN
Location ID FCI-E

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.

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
PODE1	9	2'	2'	1'	6"	6"	4"
SAAM1	1	2'			6"		

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

Suggestions for management:

Control weed as needed. Reseed more wetland sp.

Other comments:

Area filling in nicely.

Completed by: J K Nelson J K N Date 8/25/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/25/09
Applicant/Owner: DOE State: Co Sampling Point: FC1-F
Investigator(s): Jody K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): bottom area Local relief (concave, convex, none): few rills & channels Slope (%): 1%
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip. this yr.

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)			
602	1. PODEI	<1		
603	2. SAEXI	6		
604	3. AMFRI	1		
605	4. PRAMI	<1		
606	5. PRVII	<1		
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
607	1. SPPEI	<1		
608	2. PAVII	15		
609	3. CANEI	12		
610	4. ANSCI	<1		
611	5. AGCAI	<1		
612	6. MEOFI	<1		
613	7. BUDAI	<1		
614	8. MEALI	<1		
615	9. SPCRI	<1		
616	10. POCOI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FC1-F

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 %	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)
- 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:

not done

Mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- X Sediment Deposits (B2)
- X 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)

- X 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-2"

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

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

Wetland Hydrology Present? Yes X No ___

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

See earlier summer observation data

Remarks:

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

Date 8/25/09
Sampling Point FC1-F

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
1731	6	SAAMI	<1		
	7				
	8				
	9				
	10				

_____ = Total Cover

Herb Stratum

		Scientific Name	Absolute % Cover	Dominant Species?	Indicator Status
617	11	JUBAI	40		
618	12	SCVAI	8		
619	13	ELCAI	1		
620	14	AGSCI	2		
621	15	GRSQI	<1		
622	16	JUTOI	<1		
623	17	TYLAI	4		
624	18	CIARI	<1		
625	19	ANGEI	<1		
626	20	SCPAI	<1		
627	21	ASPOI	<1		
628	22	RUCRI	<1		
629	23	HEANI	<1		
630	24	JULOI	<1		
631	25	XASTI	<1		
632	26	POMOI	~~[illegible]~~ 8/25/09		
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/31/09

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 8/25/09
Observer(s) JKN
Location ID FC1 - F

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.

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
PODE1	too numerous	1'			8"		
SAEX1	"	2'	1.5'	3'	1.5'	1'	1'
AmFR	"	3'	2'	2'	4'	2'	3'
PRAm1	10	1'	1'	1.5'	1'	1'	10"
PRV11	10	1'	1'	1'	10"	1'	10"
SAAM1	3	2'	1'	2	2'	1'	6"

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 looking great. Filling in w/ wetland sp. at many areas w/in wetland.

Completed by: Jody K Neds — K Neds Date 8/25/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/25/09

Applicant/Owner: DOE State: CO Sampling Point: FC1-G

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): channel Local relief (concave, convex, none): concave channel Slope (%): 1%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip. this yr

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)			
633 1.	SAEXI	15		
634 2.	PODEI	<1		
635 3.	PRVII	<1		
636 4.	SAAMI	<1		
637 5.	AMFRI	<1		
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
638 1.	JUTOI	8		
639 2.	AGSCI	1		
640 3.	SCVAI	45		
641 4.	JUBAI	10		
642 5.	CANEI	1		
643 6.	ELMAI	2		
644 7.	ASHEI	<1		
645 8.	PAVII	1		
646 9.	SCPUI	1		
647 10.	TYLAI	2		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
1.				
2.				
		____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FC1-G

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 %	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)
- 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:

not done

wetland mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-2"

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

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

Wetland Hydrology Present? Yes X No ___

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

See earlier summer water flow data

Remarks:

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

Date 8/25/09
Sampling Point FC1 - G

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	
648	11	JUNOI	<1			Star like inflorescence
649	12	ASPOI	<1			
650	13	ANGEI	<1			
651	14	HOJUI	<1			
652	15	JUDUI	<1			
653	16	AGCAI	<1			
654	17	BOCUI	<1			
655	18	OEVII	<1			
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					
	32					
	33					
	34					
	35					

_____ = Total Cover

MBH 12/31/09

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/25/09
Observer(s) JKN
Location ID FC1-G

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.

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**
SAEXI	Too numerous	4'	3'	3'	2'	1'	1'
PODEI	"	1.5'	1'	2'	6"	6"	6"
PRUII	9	2'	2'	2'	8"	8"	6"
SAAMI	1	1.5'			6"		
AMFRI	2	6"	2"		6"	4"	

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

Suggestions for management:

Control weeds as needed. Reseed edges w/ wetland seed mix

Other comments:

Area has filled in very well this yr. Looks great.

Completed by: Jody K Nelson Date 8/25/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/25/09
Applicant/Owner: DOE State: CO Sampling Point: FC1-H
Investigator(s): Jody K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): channel Local relief (concave, convex, none): concave channel Slope (%): 1%
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip this yr.

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)			
656	1. SAEXI	15		
657	2. AMFRI	8		
658	3. PODEI	20		
	4.			
	5.			
		= Total Cover		
	Herb Stratum (Plot size: wetland)			
659	1. SCVAI	<1		
660	2. TYLAI	<1		
661	3. JUTOI	<1		
662	4. AMARI	<1		
663	5. JUBAI	3		
664	6. CANEI	1		
665	7. AGCAI	10		
666	8. ELCAI	<1		
667	9. ANGEI	<1		
668	10. BRJAI	<1		
		= Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		= Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FC1-H

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- X Sediment Deposits (B2)
- X 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)

- X 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-1"

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

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

Wetland Hydrology Present? Yes X No ___

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

See earlier summer water level data

Remarks:

Upper area w/ surface water + saturation - lower area is dry.

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

Date 8/25/09
Sampling Point FC1- H

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
669	11	AGSC1	2		
670	12	CIAR1	<1		
671	13	MEOF1	<1		
672	14	ELMA1	<1		
673	15	ASPO1	<1		
674	16	POCO1	<1		
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/31/09

✓

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/25/09
Observer(s) JKN
Location ID FCI-H

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 - lack of water - some location

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

yes / no - upper area is saturated + water in channel - lower area dry.

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEXI	too numerous	2'	2'	2'	6"	4"	4"
AMFRI	↓	1'	10"	1'	3'	1.5'	2'
PODEI							

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

Suggestions for management:

Control weeds as needed. Maybe add some wetland seed.

Other comments:

Shrubs / sapling looking very good this year. May get a shrubland area here yet.

Completed by: Jody K Nelson Date 8/25/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/25/09

Applicant/Owner: DOE State: CO Sampling Point: FCI-I

Investigator(s): Joy Kneds — Section, Township, Range: _____

Landform (hillslope, terrace, etc.): channel/bottom area Local relief (concave, convex, none): channel/concave Slope (%): _____

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:
above average precip this yr.

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)			
675 1. PODEI	1		
676 2. SAEXI	25		
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: wetland)			
677 1. JUTOI	15		
678 2. ECCRI	2		
679 3. AGCAI	5		
680 4. JUBAI	<1		
681 5. LEFAI	5		
682 6. TYLAI	<1		
683 7. HOJUI	<1		
684 8. J 8/25/09 ~~SEVII~~ ELCAI	<1		
685 9. POMOI	<1		
686 10. AGSMI	<1		
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		
% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ 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 _____ No _____

Remarks:

SOIL

Sampling Point: FC1-I

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 %	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)
- 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:

not done

wetland mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- X Water Marks (B1)
- X 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)

- X Surface Soil Cracks (B6)
- X 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)
- ___ 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 ___ 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 earlier summer water level data

Remarks:

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

Date 8/25/09
Sampling Point FC1-I

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
687	11	ELMAI	<1		
688	12	GRSQ1	<1		
689	13	POPE2	<1		
690	14	PORA1	<1		
691	15	AGST1	<1		
692	16	SCVA1	1		
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/31/09

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/25/09
Observer(s) JKN
Location ID FC1-I

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 - water not always present

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

yes - this year anyway - established better this year than past 3 yrs. maybe now they will continue to grow + establish.

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3
J 8/25/09 ~~SAEX1~~	~~Too numerous~~	~~2.5'~~	~~3'~~	~~2.5~~	~~3'~~	~~1'~~	~~2'~~
PODE1	12	2.5'	3'	2.5'	3'	1'	2'
SAEX1	Too numerous	3'	4'	3'	3'	3'	2'

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 come in very well this year. SAEX1 have filled in very well. Lots of harbacum wetland species below SAEX1 patch.

Completed by: Jody K Nelson Date 8/25/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 7/25/09
Applicant/Owner: DOE State: Co Sampling Point: FC1-J
Investigator(s): Sady K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): channel Local relief (concave, convex, none): Concave Slope (%): 2%
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks: above average precip. This yr.

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)			
693	1. SAEXI	55		
694	2. AMFRI	<1		
695	3. PODEI	<1		
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
696	1. TYLAI	20		
697	2. TYANI	2		
698	3. SCVAI	10		
699	4. AGCAI <1	~~3~~ 8/25/09		
700	5. ECCRI	1		
701	6. AGSCI	3		
702	7. ASPOI	<1		
703	8. JUTOI	<1		
704	9. SPPEI	<1		
705	10. POMOI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FC1-J

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0 - 8"

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date 8/25/09
Sampling Point FC1 - J

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
706	11	AGSTI	<1		
707	12	OEVII	<1		
708	13	GRSQI	<1		
709	14	PRVUI	<1		
710	15	POCOI	<1		
711	16	JUBAI	<1		
712	17	CANEI	<1		
713	18	ARCAI	<1		
714	19	VETHI	<1		
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/31/09

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/25/09
Observer(s) JKW
Location ID FC1-J

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.

Only big issue is riprap in bottom of channel. But w/ lots of water the plants grow in it anyway.

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
PoDE1	3	2'	4'	1'	6"	4'	4"
AmFR1	Too numerous	6"	8"	6"	6"	6"	6"
SAEX1	Too numerous	7'	9'	4'	8'	12'	4'

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

✓

Suggestions for management:

Control weeds as needed. Seed wetland/upland seed mix in riprap areas to change over to veg. from riprap.

Other comments:

SAEX1 have filled in across bottom of channel.

Completed by: Jody K Neds — J K N Date 8/25/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/25/09
Applicant/Owner: DOE State: CO Sampling Point: FC1-K
Investigator(s): Jody K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): channel Local relief (concave, convex, none): Concave channel Slope (%): 1%
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks: above average precip. this yr.

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)			
715	1. SAEXI	2		
716	2. PODEI	<1		
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
717	1. ALTRI	<1		
718	2. SCVAI	21		
719	3. TYLAI	23		
720	4. AGCAI	1		
721	5. TYANI	<1		
722	6. JUTOI	<1		
723	7. ELMAI	1		
724	8. (in open water areas) CEDEI	40		
725	9. JUBAI	1		
726	10. POMOI	1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FC1-K

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 %	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)
- 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:

not done

Mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- X Drift Deposits (B3) 8/25/09
- X 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-15"

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date 8/25/09
Sampling Point FC1- K

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
727	11	GRSQ	<1		
728	12	CIARI	<1		
729	13	HOJU1	<1		
730	14	AGSTI	<1		
731	15	OEVI1	<1		
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MBH 12/31/09

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 8/25/09
Observer(s) JKN
Location ID FC1-K

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.

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
PODEI	1	1.5			1'		
SAEXI	~15	5'	5'	6'	2'	7'	2'

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 looks good. Continues to fill in.

Completed by: Jody K [illegible] Date 8/25/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/25/09

Applicant/Owner: DOE State: CO Sampling Point: FCI-L

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): base of hillslope/drainage Local relief (concave, convex, none): concave Slope (%): 2%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip for year.

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)			
732	1. PODEI	<1		
733	2. TARAI	<1		
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
734	1. JUBAI	10		
735	2. SCVAI	8		
736	3. JUTOI	1		
737	4. ARSMI	2		
738	5. PAVII	<1		
739	6. AGCAI	5		
740	7. ELCAI	3		
741	8. SCPUI	<1		
742	9. ELMAI	<1		
743	10. ELCRI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FC1-L

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- X Water Marks (B1)
- X 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)

- X 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)
- ___ 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 ___ 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 earlier summer water level data

Remarks:

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

Date	8/25/09
Sampling Point	FC1-L

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
744	11	POMOI	<1		
745	12	HOJUI	<1		
746	13	CANEI	<1		
747	14	DISPI	<1		
	15				
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/31/09

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/25/09
Observer(s) JKN
Location ID FC1-L

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.

wetland veg is still sparse. Mainly due to lack of water.

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

Barely - this was a good year & the area has expanded & filled in compared to last yr. It may take several more yrs to really develop.

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3
PODEI	1	1'			3"		
TARAI	2	1.5'	1.5		3"	6"	

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

Suggestions for management:

Control weed if needed. Area was sprayed this spring.

Other comments:

Completed by: Jody K [illegible] K [illegible] Date 8/25/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/25/09

Applicant/Owner: DOE State: CO Sampling Point: FC1-M

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): bottom area Local relief (concave, convex, none): Flat / concave channel Slope (%): 2%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks: above average precip. this yr.

VEGETATION – Use scientific names of plants.

		Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)				
1.				
2.				
3.				
4.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)				
1.				
2.				
3.				
4.				
5.				
		_____ = Total Cover		
Herb Stratum (Plot size: wetland)				
748 1.	Pomo1	5		
749 2.	ECCR1	2		
750 3.	AGSC1	7		
751 4.	SCVA1	9		
752 5.	JUTO1	4		
753 6.	AGST1	3		
754 7.	AGCA1	3		
755 8.	TYLA1	1		
756 9.	HOJU1	<1		
757 10.	FEPR1	<1		
		_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)				
1.				
2.				
		_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ 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 _____ No _____

Remarks: Area is east channel in bottom of new area – FC1.

SOIL

Sampling Point: FC1-m

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 %	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)
- 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:

not done

Mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- X Water Marks (B1)
- X Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- X 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)

- X 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)
- ___ 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 ___ 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 earlier summer water level data

Remarks:

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

Date 8/25/09
Sampling Point FC1-m

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
758	11	ELCAI	1		
759	12	PHPRI	2		
760	13	RUCRI	<1		
761	14	JUBAI	<1		
762	15	SPMEI	<1		
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGK 12/31/09

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/25/09
Observer(s) JKN
Location ID FCI- m

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.

not yet

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

yes - at least this yr w/ all the precip we have received.

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3

8/25/09

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 come up very good this yr. w/ all the extra precip we received.

Completed by: Jody K [illegible] Date 8/25/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/26/09

Applicant/Owner: DOE State: CO Sampling Point: FC1-N

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): bottom area Local relief (concave, convex, none): concave/flat Slope (%): 2%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____ No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____ No ____	
Wetland Hydrology Present?	Yes ____ No ____	

Remarks:

above average precip this yr.

VEGETATION – Use scientific names of plants.

	Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
	1.			
	2.			
	3.			
	4.			
		____ = Total Cover		
763	Sapling/Shrub Stratum (Plot size: Wetland)			
	1. SAEX1	1		
	2.			
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: Wetland)			
764	1. JUTO1	3		
765	2. AGST1	5		
766	3. AGCA1	1		
767	4. AGSC1	2		
768	5. ELCA1	<1		
769	6. SCVA1	<1		
770	7. ELMA1	<1		
771	8. POMO1	1		
772	9. UNKN ~~Eragrostis sp.?~~ J8/26/09	~~3~~ 1		
~~773~~	10.			
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 ____ No ____

Remarks:

MGH 12/31/09

SOIL

Sampling Point: FC1-N

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 %	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)
- ___ 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:

not done

Margot Allen

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- X 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0 - 1"

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

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

Wetland Hydrology Present? Yes X No ___

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

See earlier summer water level data

Remarks:

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/26/09
Observer(s) JKN
Location ID FC1-N

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.

no - This was 1st real season w/ water so veg is just getting started

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEXI	19	3'	2'	2	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 starting to come up. SAEXI starting to establish & spread

Completed by: Jody K Nelson Date 8/26/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/26/09
Applicant/Owner: DOE State: Co Sampling Point: FC1-0
Investigator(s): Jody K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Concave Slope (%): 3%
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip. received this yr.

VEGETATION – Use scientific names of plants.

	Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
	1.			
	2.			
	3.			
	4.			
		____ = Total Cover		
773	Sapling/Shrub Stratum (Plot size: wetland)			
	1. TARAI	1		
	2.			
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
774	1. JUBAI	2		
775	2. SCVAI	4		
776	3. AGCAI	2		
777	4. JUTOI	2		
778	5. ELCAI	<1		
779	6. HOJUI	<1		
780	7. AGSCI	<1		
781	8. POCOI	1		
	9.			
	10.			
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

MGH 12/31/09

SOIL

Sampling Point: FC1-D

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 %	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)
- 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:

Not done

Mitigation area

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)

- X Surface Soil Cracks (B6)
- X 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)
- ___ 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 ___ Depth (inches): _____

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

Wetland Hydrology Present? Yes X No ~~X~~ 8/26/09

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

~~See earlier summer water level data~~ no data available

Remarks:

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/26/09
Observer(s) JKN
Location ID FC1-0

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 - may not be wet enough. Veg still very sparse.

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

~~Barely~~ Barely. Not enough flow into area

Woody Plant Counts

		Height			Width		
Species	**Stem Count**	**1**	**2**	**3**	**1**	**2**	**3**
TARA1	1	1.5'			1' ~~6"~~ 8/26/09		

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

Suggestions for management:

Control weeds as needed. Spray TARAI.

Other comments:

Area may fill in over time.

Completed by: Jody K Nelson Date 8/26/09

Wetland Noxious Weed Survey Form

Observer [illegible] Date 6/24/09
Location FCI Wetlands

Noxious Weed Species Present:

CIAR1 - <1%
SOAR1 - <1%

Comments/Notes:

Most of FCI bottom in wetland areas are still saturated + have standing/flowing water

[illegible]
Print Name

[illegible]
Signature

6/24/09
Date

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 7/27/09
Location FCI Wetlands

Noxious Weed Species Present:

CIARI-LIN.

Comments:

Water flowing through most of wetland - W + E sides
Area looking good this year.

Completed By: Jody K Nelson Print Jody K Nelson Sign Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN

Location FCI Wetland

Date 8/25/09

Noxious Weed Species Present:

CIARI

CEDII

XASTI

TARAI

Total Cover = < 1%

Comments:

Spray TARAI. Control others as needed.

Completed By: Jody K Neels — Print

Sign

Date 8/29/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/27/09

Applicant/Owner: DOE State: CO Sampling Point: FC2 Hillside-A

Investigator(s): [illegible] Section, Township, Range: _____

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 3°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip in 2009

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)			
1203	1. SAEXI	10		
1204	2. PODEI	<1		
	3.			
	4.			
	5.			
			= Total Cover	
	Herb Stratum (Plot size: wetland)			
1205	1. SPPEI	1		
1206	2. ELMAI	3		
1207	3. SCVAI	40		
1208	4. JUBAI	1		
1209	5. TYLAI	30		
1210	6. AGCAI	2		
1211	7. TYANI	2		
1212	8. POMOI	1		
1213	9. JUTOI	1		
1214	10. RUMEI	<1		
			= Total Cover	
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
			= Total Cover	

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FC2 Hillside A

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0 - 2"

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date 8/27/09
Sampling Point FC2 Hillside - A

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
1215	11	SOARI	<1		
1216	12	BRJAI	<1		
1217	13	OEVII	1		
1218	14	NECAI	<1		
1219	15	VETHI	<1		
1220	16	ASSPI	<1		
1221	17	SPCRI	<1		
1222	18	AGINI	<1		
1223	19	LASEI	<1		
1224	20	GRSQI	<1		
1225	21	PLMAI	<1		
1226	22	SPMEI	<1		
1227	23	PACAI	<1		
1228	24	CANEI	<1		
1229	25	VEBLI	<1		
1230	26	PAVII	<1		
1231	27	AGSMI	1		
1232	28	CIARI	<1		
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGA 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/27/09
Observer(s) JKN
Location ID FC2 Hillside - A

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.

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEXI	too numerous	7'	6'	5'	3'	2'	2'
POAEI	8/27/09 ~~3~~ 4	3'	3.5	3.5	1'	8"	1.5'

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 looks great this year. Has expanded also.

Completed by: Jody K [illegible] Date 8/27/07

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/27/09

Applicant/Owner: DOE ~~Jody K Nelson~~ JKN 8/27/09 State: Co Sampling Point: FC2 Hillside B

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): hillside Local relief (concave, convex, none): Concave Slope (%): 3°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip this year

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)			
1233	1. SAEXI	<1		
1234	2. PODEI	<1		
	3.			
	4.			
	5.			
		= Total Cover		
	Herb Stratum (Plot size: Wetland)			
1235	1. SCPUI	8		
1236	2. AGSMI	2		
1237	3. BRINI	1 ~~<1~~ JKN 8/27/09		
1238	4. PAVII	<1		
1239	5. HEANI	<1		
1240	6. LASEI	<1		
1241	7. ASSPI	<1		
1242	8. POMOI	15		
1243	9. TYLAI	<1		
1244	10. ELCRI	<1		
		= Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		= Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FC2 Hillside-B

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 %	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)
- 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:

not done

mitigation wetland

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ 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)

- X Surface Soil Cracks (B6)
- X 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)
- ___ 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 ___ Depth (inches): _____

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

Wetland Hydrology Present? Yes X No ___

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

See earlier summer water level data

Remarks:

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

Date 8/27/09
Sampling Point FC2 Hillside - B

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
1245	11	JUTO1	<1		
1246	12	AGCA1	2		
1247	13	JUBA1	10		
1248	14	SPPE1	<1		
1249	15	ELMA1	<1		
1250	16	AGST1	<1		
1251	17	POPE2	<1		
1252	18	SPME1	1		
1253	19	XAST1	<1		
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/27/09
Observer(s) JKN
Location ID FC2 Hillside - B

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.

Only if we get some dry years

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

yes - at least in wetter years - but since closure this area has slowly been developing. Its looking very good this year

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEXI	5	1'	1.5'	2'	2"	8"	1.5'
PODEI	7	10"	1.5'	3.5'	2"	8"	1.5'

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

Suggestions for management:

Control weeds as needed. Seed more wetland seed.

Other comments:

Area starting to fill in w/ wetland sp.

Not too bad this year - for a drier area.

Completed by: Jody K [illegible] Jeff K [illegible] Date 8/27/09

Wetland Noxious Weed Survey Form

Observer Jody Nels— Date 6/25/09

Location FCZ Hillside Wetland

Noxious Weed Species Present:

CIARI - <1%

VETHI - <1%

Comments:

area looks good & is expanding.

Completed By: Jody K Nels Date 6/25/09

Print Sign

Wetland Noxious Weed Survey Form

Observer Jody Nels — Date 7/27/09

Location FCQ Hillside wetland

Noxious Weed Species Present:

CIARI - <1%

ELANI - <1%

Comments:

Area looks good.

Completed By: Jody Nels — Print Jody Nels — Sign Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN 8/27/09 **Date** 8/27/09

Location FC2 Hillside ~~A~~ 8/27/09

Noxious Weed Species Present:

CIARI

XASTI

Total Cover = < 1%

Comments:

Control weeds as needed.

Completed By: [signature] [signature] **Date** 8/27/09

Print Sign

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/31/09

Applicant/Owner: DOE State: CO Sampling Point: FC2-A

Investigator(s): Jody K Nels — Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Channel bottom Local relief (concave, convex, none): Concave Slope (%): 1°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip – 2009

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)			
145 1.	SAEXI	3		
146 2.	AMFRI	<1		
3.				
4.				
5.				
		= Total Cover		
	Herb Stratum (Plot size: wetland)			
147 1.	TYLAI	25		
148 2.	JUBAI	40		
149 3.	SPPEI	6		
150 4.	ELCAI	<1		
151 5.	SCVAI	42 8/31/09		
152 6.	ECCRI	<1		
153 7.	AOJUI	<1		
154 8.	J 8/31/09 ~~SCPA~~ SCPUI 8/31/09	26		
155 9.	AGSMI	3		
156 10.	AGINI	<1		
		= Total Cover		
	Woody Vine Stratum (Plot size: ____)			
1.				
2.				
		= Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FC2-A

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- X 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-6"

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date 8/31/09
Sampling Point FC2 Wetland - A

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
157	11	PAVII	<1		
158	12	CIARI	<1		
159	13	SIMEI	<1		
160	14	PLMAI	<1		
161	15	KOSCI	<1		
162	16	ELMAI	1		
163	17	HEANI	<1		
164	18	POMOI	<1		
165	19	XASTI	<1		
166	20	LASEI	<1		
167	21	AGSTI	<1		
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/30/09

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/31/09
Observer(s) JKN
Location ID FCZ Wetland - A

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.

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**
SAEXI	Too numerous	3.5'	3.5'	2'	1'	10"	1.5'
SAAMI	1	3'			1'		
ELANI	1	3'			4'		

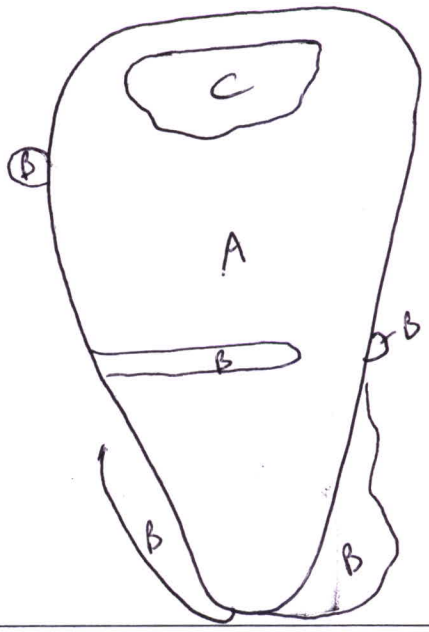
Noxious weed evaluation. See separate noxious weed evaluations conducted throughout the summer months (June – August).

Suggestions for management:

Control weeds as needed.

Other comments:

Area looking great this year.



Completed by: Jo J K Nels — J K Nels Date 8/31/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/31/09
Applicant/Owner: DOE State: Co Sampling Point: FC2-B
Investigator(s): Jody Nels— Section, Township, Range: _____
Landform (hillslope, terrace, etc.): margin of depressional wetland Local relief (concave, convex, none): gentle slope-non Slope (%): 2-4°
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip this yr.

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)			
168	1. SAEXI	55		
169	2. SAAMI	10		
170	3. PODEI	<1		
	4.			
	5.			
		= Total Cover		
	Herb Stratum (Plot size: wetland)			
171	1. JUBAI	2		
172	2. AGSMI	20		
173	3. LASEI	<1		
174	4. CIARI	10		
175	5. HEANI	<1		
176	6. SPPEI	<1		
177	7. ELCAI	1 <1 8/31/09		
178	8. MESAI	<1		
179	9. AGSTI	<1		
180	10. HOJUI	<1		
		= Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		= Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FC2-B

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ 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)
- X 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes X No ___

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

See Early Summer water level data

Remarks:

Some areas saturated now, others not.

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

Date	8/31/09
Sampling Point	FC2 - B

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
181	11	KOSCI	<1		
182	12	SPMEI	<1		
183	13	AGCAI	15		
184	14	TRDUI	<1		
~~18~~ 185	15	CEDI	1		
186	16	GRSQI	<1		
187	17	CANUI	<1		
188	18	PLMAI	<1		
189	19	MEOFI	<1		
190	20	SCPUI	<1		
191	21	POMOI	<1		
192	22	TYLAI	<1		
193	23	VETHI	<1		
194	24	BRINI	8/31/09 <1		
195	25	BUDAI	<1		
196	26	BOGRI	<1		
197	27	SPCRI	<1		
198	28	RUCRI	<1		
~~199~~	29	8/31/09 ~~ELCAI~~	~~<~~		
199	30	BRJAI	1		
200	31	OEVII	<1		
201	32	SOARI	<1		
202	33	JUTOI	<1		
	34				
	35				

_____ = Total Cover

MGH 12/30/09

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/31/09
Observer(s) JKW
Location ID FC2-B

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.

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**
SAEXI	Too numerous	7'	6'	8'	3'	3'	4'
SAAMI	"	6'	7'	11'	3'	4'	6'
PODEI	20	4'	2.5'	2.5'	2'	6"	6"

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

Suggestions for management:

Control weed - if possible - SAEXI patches

Other comments:

SAEXI are filling in along wetland margin.

8/31/09

Completed by: Jody K Nelson [signature] Date 8/31/09

Wetland Noxious Weed Survey Form

Observer [signature] Date 6/25/09
Location FC2 Wetland

Noxious Weed Species Present:

CIARI - <1%
CEDII - <1%

Comments:

area looks great!

S + 8-10"

Completed By: [signature] [signature] Date 6/25/09
Print Sign

Wetland Noxious Weed Survey Form

Observer Jody Nels-
Location FC2 Wetland

Date 7/27/09

Noxious Weed Species Present:

CIARI - <1%
CEDII - <1%

Comments:

Wetland looks great this year.

Completed By: Jody K Nels- (Print) JK Nels (Sign) Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN

Location FC2 Wetland

Date 8/28/09

Noxious Weed Species Present:

CIARI
VETHI

Total Cover = <1%

Comments:

Wetland looks great this yr.

Completed By: Jody K Nl (Print) JK Nl (Sign)

Date 8/28/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/31/09

Applicant/Owner: DOE State: CO Sampling Point: FC2/FC3 confluence - A

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): pond margin-hillslope Local relief (concave, convex, none): none Slope (%): 10°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:

above average precip. this yr.

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)			
110	1. SAEX	60		
111	2. ELAN1	4		
112	3. AMFR1	<1		
113	4. SAAM1	<1		
114	5. PODE1	<1		
		= Total Cover		
	Herb Stratum (Plot size: wetland)			
115	1. AGCA1	20		
116	2. CIAR1	<1		
117	3. ERST1	<1		
118	4. ELMA1	4		
119	5. TAOF1	<1		
120	6. PAVI1	<1		
121	7. PLLA1	<1		
122	8. AGSM1	15		
123	9. JUBA1	<1		
124	10. ECCR1	<1		
		= Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		= Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

FC21FC3

SOIL

Sampling Point: Confluence - A

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-12"

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

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

Wetland Hydrology Present? Yes X No ___

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

See earlier season data

Remarks:

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

Date 8/31/09
Sampling Point FC2/FC3 Confluence - A

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
1728	6	TARAI	<1		
	7				
	8				
	9				
	10				

_____ = Total Cover

Herb Stratum

		Scientific Name	Absolute % Cover	Dominant Species?	Indicator Status
125	11	HOJUI	<1		
126	12	MEARI	<1		
127	13	MEOFI	<1		
128	14	SCVAI	<1		
129	15	TYLAI	15		
130	16	MEALI	<1		
131	17	VERLI	<1		
132	18	LASEI	<1		
133	19	CHUII	<1		
134	20	ASPOI	<1		
135	21	BOCUI	<1		
136	22	AGSTI	<1		
137	23	VETHI	<1		
138	24	POGRI	<1		
139	25	FEPRI	<1		
140	26	KOSCI	<1		
141	27	BOGRI	<1		
	28	JS 8/31/09 ~~BOCUI~~	~~<1~~		
142	29	~~LJTOI~~	<1		
143	30	JS 8/31/09 ~~FA~~ SPPEI	~~<1~~ 1		
	31		JS 8/31/09		
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/30/09

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 8/31/09
Observer(s) JKW
Location ID FC2/FC3 Confluence - A

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.

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**
SAEX1	Too numerous	7'	6'	5'	3'	5'	4'
SAAm1	1	3'			2'		
ELAN1	6	7'	3'	5'	4'	2'	2'
PODE1	1	2'			4'		
AmFR1	Too numerous	1'	1'	10"	2'	2'	1.5'
TARA1	1	1'			4"		

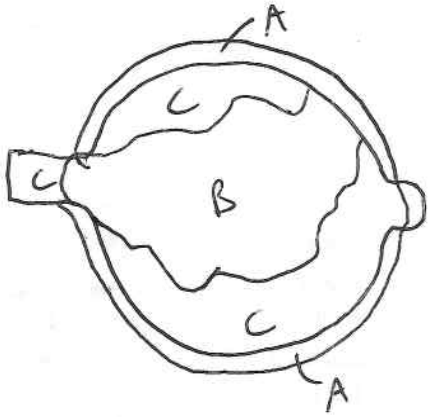
Noxious weed evaluation. See separate noxious weed evaluations conducted throughout the summer months (June – August).

Suggestions for management:

Control weeds as needed. Control TARAI & ELANI.

Other comments:

SAEX filling in along shoreline.



C = open water - no emergent vegetation

Completed by: [signature] [signature] Date 8/31/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/31/09

Applicant/Owner: ~~8/31/09 Jody K Nelson~~ DOE State: CO Sampling Point: FC2/FC3 Confluence - B

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): pond in channel bottom Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	Is the Sampled Area within a Wetland? Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks: above average precip. in 2009

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: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: wetland)			
144 1. TYLA1	95		
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		
% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ 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 _____ No _____

Remarks:

MGH 12/30/09

FC2/FC3

Sampling Point: Confluence - B

SOIL

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-36"

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 8/31/09
Observer(s) JKN
Location ID FC2/FC3 Confluence - B

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.

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**

8/31/09

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

Suggestions for management:

Control weeds if needed.

Other comments:

Cattails are slowly filling pond area in.

Completed by: Jody K Nelson Date 8/31/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jeffco Sampling Date: 8/31/09

Applicant/Owner: DOE State: CO Sampling Point: FC2/FC3 Confluence – C

Investigator(s): Judy K Nels Section, Township, Range: _____

Landform (hillslope, terrace, etc.): pond – open water Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:

above average precip this yr.

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: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	____ = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

Open water area in pond – no vegetation present

no qualitative ~~[illegible]~~ weighted evaluation form completed for this location.

SOIL

Sampling Point: FC2/FC3 confluence C

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-36"+

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

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

Wetland Hydrology Present? Yes X No ___

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

see earlier spring/summer data

Remarks:

Wetland Noxious Weed Survey Form

Observer Jody K Nelson Date 6/25/09
Location FC2/FC3 confluence

Noxious Weed Species Present:

ELAN1 - <1%
CIAR1 - <1%
VEBL1 - <1%

Comments:

Flowing

Completed By: Jody K Nelson (Print) Jody K Nelson (Sign) Date 6/25/09

Wetland Noxious Weed Survey Form

Observer Josh Nels — Date 7/27/09
Location FC2/FC3 Confluence

Noxious Weed Species Present:

ELANI - <1%
VETHI - <1%
CIARI - <1%

Comments:

Water not flowing

Area looks good. Lots of TYLAI in center of pond area. Slowly filling in completely.

Completed By: Josh Nels (Print) (Sign) Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN Date 8/28/09

Location FC2/FC3 Confluence

Noxious Weed Species Present:

ELANI

VETHI

CIARI

VEBLI Total Cover = <1%

Comments:

SAEXI filling in along edges.

Control ELANI.

Completed By: [signature] [signature] Date 8/28/09

Print Sign

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/1/09

Applicant/Owner: DOE State: CO Sampling Point: FC3 lower

Investigator(s): Jody K Nelson Section, Township, Range: _____

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

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip this year

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)			
1445	1. SAEXI	35		
1446	2. SAAMI	<1		
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
1447	1. TYLAI	45		
1448	2. BRJAI	<1		
1449	3. ABCAI	1		
1450	4. AGSMI	1		
1451	5. MUASI	<1		
1452	6. HOJUI	<1		
1453	7. POPRI	<1		
1454	8. JUBAI	1		
1455	9. POCOI	<1		
1456	10. ELMAI	2		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FC3 Lower

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-1"

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

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

Wetland Hydrology Present? Yes X No ___

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

See early summer water level data

Remarks:

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

Date 9/1/09
Sampling Point FC3 Lower

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
1457	11	CIARI	<1		
1458	12	POMOI	1		
1459	13	JUTOI	<1		
1460	14	VEBLI	<1		
1461	15	HEANI	<1		
1462	16	TYANI	25		
1463	17	KOSCI	<1		
1464	18	PACAI	<1		
1465	19	VETHI	<1		
1466	20	VEANI	<1		
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 9/1/09
Observer(s) JKN
Location ID ~~8/11/09~~ FC3 Lower

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.

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**
SAEX1	too numerous	8'	7'	7'	5'	3'	3'
SAAM1	1	5'			2.5'		

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

Suggestions for management:

Control weeds as needed.

Other comments:

Side slopes look good after being sprayed 2 yrs ago. Grass is filling in. Deer often walk along N edge of wetland on slope & create disturbance

Completed by: J. J K Nels — J K Nels Date 9/1/09

Wetland Noxious Weed Survey Form

Observer Jody Nels- Date 6/10/09
Location FC3 Lower Wetland

Noxious Weed Species Present:

BRTE1 - <1%
VEBL1 - <1%
VETH1 - <1%

Comments/Notes:

CIAR1 control got rid of all CIAR1. Didn't see any today. Could reseed + rake some seed on slopes - esp. N side where CIAR1 was present. Wetland looks great. Lots of SAEX1 along edges

Jody K Nels- Print Name

[signature] Signature

6/10/09 Date

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 7/27/09
Location FC3 Lower Wetland

Noxious Weed Species Present:

None.

Comments:

Water Flowing. 1-2" deep.

SAEXI doing great on edges.

Completed By: Date 7/27/09

Print Sign

Wetland Noxious Weed Survey Form

Observer JKN

Location FC3 Lower Wetland

Date 8/28/09

Noxious Weed Species Present:

VEBLI

VETHI

Total Cover = <1%

Comments:

Wetland looks great.

SAEXI Filling in nicely.

Completed By: [signature] Print [signature] Sign

Date 8/28/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/31/09

Applicant/Owner: DOE State: _____ Sampling Point: FC3 Upper

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): drainage bottom Local relief (concave, convex, none): concave Slope (%): 1%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	Is the Sampled Area within a Wetland? Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:

above average precip this yr.

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)			
93	1. SAEX	85		
94	2. AMFR	<1		
	3.			
	4.			
	5.			
		_____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
95	1. AGCA	10		
96	2. JUBA	<1		
97	3. ELCR	<1		
98	4. HOJU	<1		
99	5. AGSM	3		
100	6. CEDI	<1		
101	7. CIAR	1 <+ 8/31/09		
102	8. ELMA	2		
103	9. PLLA	<1		
104	10. RRIN	<1		
		_____ = Total Cover		
	Woody Vine Stratum (Plot size: _____)			
	1.			
	2.			
		_____ = Total Cover		
	% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ 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 _____ No _____

Remarks:

SOIL

Sampling Point: FC3 Upper

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ 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)
- X 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)
- ___ 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 ___ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): ___ only in open area - moist at right now

Wetland Hydrology Present? Yes X No ___

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

See earlier summer water level data

Remarks:

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

Date 8/31/09
Sampling Point FC3 Uppn

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
105	11	VESLI	<1		
106	12	VETHI	<1		
107	13	GRSQI	<1		
108	14	MEALI	<1		
109	15	AGINI	<1		
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/30/09

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 8/31/09
Observer(s) JKN
Location ID FC3 Upper

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.

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**
SAEXI	Too numerous	7'	7'	6'	4'	4	3'
AmFRI	1	1.5			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:

SAEXI has almost completely filled in the channel & now is creeping up the side slopes. Looks great.

Completed by: [illegible] [illegible] Date 8/31/09

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 6/25/09

Location FC3 Upper Wetland

Noxious Weed Species Present:

VETHI - <1%

CIARI - <1%

Comments:

5 - 6" water - flowing

Completed By: Jody Nelson Jody Nelson Date 6/25/09

Print Sign

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 7/27/09
Location FC3 Upper Wetland

Noxious Weed Species Present:

CIAR1 - <1%
VETH1 - <1%

Comments:

Bottom saturated.

Completed By: Jody Nelson Jody Nelson Date 7/27/09
Print Sign

Wetland Noxious Weed Survey Form

Observer JKN

Location FC3 Upper Wetland

Date 8/28/09

Noxious Weed Species Present:

CIAR1

VETH1

Total Cover = <1%

Comments:

SAEX1 almost solid in bottom. Starting to spread up sides.

Completed By: Jody K Nelson (Print) JK Nelson (Sign) Date 8/28/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/27/09
Applicant/Owner: DOE State: Co Sampling Point: FC4 Hillside-A
Investigator(s): Jody K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): hillslope + base Local relief (concave, convex, none): Concave Slope (%): 8°
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip in 2009.

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: ____)			
	1.			
	2.			
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
1157	1. SPPEI	12		
1158	2. JUBAI	55		
1159	3. SCPUI	4		
1160	4. BRINI	<1		
1161	5. AGCAI	<1		
1162	6. CACAI	<1		
1163	7. POMOI	<1		
1164	8. TYLAI	10		
1165	9. CANEI	<1		
1166	10. J 8/27/09 ~~DISPI~~ MUASI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FC4 Hillside A

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ 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)
- ___ 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 ___ Depth (inches): ___

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date 8/27/09
Sampling Point FC4 Hillside -A

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	~~PACAT~~ JS 8/27/09			
1167	12	CIAR1	<1		
1168	13	JUTO1 JS 8/27/09	53		
1169	14	SPCR1	<1		
1170	15	FEPR1	<1		
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/31/10

✓

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/27/09
Observer(s) JKN
Location ID FC4 Hillside - A

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.

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

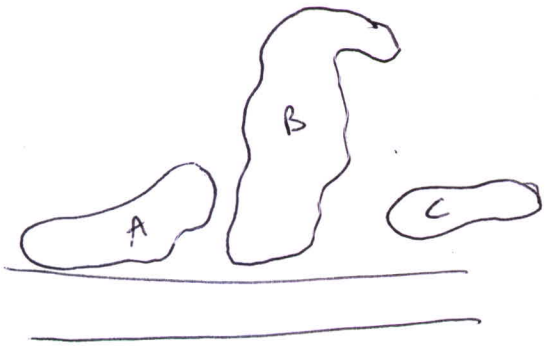
8/27/09

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: [illegible] Date 8/27/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/27/09

Applicant/Owner: DOE State: CO Sampling Point: FC4Hillside-B

Investigator(s): Judy K Nels— Section, Township, Range: _____

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Concave / none Slope (%): 12°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip for 2009

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: ____)			
1171	1. ELANI	<1		
	2.			
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
1172	1. SPPEI	33		
1173	2. POPRI	<1		
1174	3. HOJUI	<1		
1175	4. AGSTI	15		
1176	5. CIARI	<1		
1177	6. BRINI	8		
1178	7. SPCRI	<1		
1179	8. JURAI	17		
1180	9. MUASI	8		
1181	10. HEANI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FCY Hillside - B

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 %	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)
- 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:

not done

Mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- X 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-1"

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

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

Wetland Hydrology Present? Yes X No ___

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

See earlier summer water level data

Remarks:

lower area of wetland dry now

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

Date 8/27/09
Sampling Point FC4 Hillside - B

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
1182	11	JUTOI	1		
1183	12	SCPUI	2		
1184	13	CACAI	<1		
1185	14	CIINI	<1		
1186	15	FEPRI	<1		
1187	16	LOCOI	<1		
1188	17	TYLAI	15		
1189	18	ELMAI	2		
1190	19	OEVII	<1		
1191	20	ASSPI	<1		
1192	21	RUCRI	<1		
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGrt 1/3/10

✓

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/27/09
Observer(s) JKW
Location ID FC4 Hillside - B

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.

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
ELAN1	1	5'			10"		

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

Suggestions for management:

Control weeds as needed.

Spray or cut ELANI.

Other comments:

Area looks great. SPPEI is entire lower hillslope now.

Area is larger than last yr.

Completed by: Jody K [illegible] [illegible] K [illegible] Date 8/27/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/27/09

Applicant/Owner: DOE State: CO Sampling Point: FCY Hillside – C

Investigator(s): Jody K Nels– Section, Township, Range: _____

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 15°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip – 2009

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: ____)			
	1.			
	2.			
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: Wetland)			
1193	1. SPPEI	45		
1194	2. AGSTI	1		
1195	3. HEANI	<1		
1196	4. BRINI	10		
1197	5. HOJUI	<1		
1198	6. JUTOI	<1		
1199	7. JUBAI	30		
1200	8. SCPUI	5		
1201	9. CACAI	2		
1202	10. CIARI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 ____ No ____

Remarks:

MGH 1/3/10

SOIL

Sampling Point: FCY Hillside C

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 %	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)
- 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:

not done

mitigate wetland

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)

- X 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)
- ___ 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 ___ 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 earlier summer water level data

Remarks:

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/27/09
Observer(s) JKN
Location ID FC4 Hillside - C

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.

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 1	Height 2	Height 3	Width 1	Width 2	Width 3

8/27/09

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

Suggestions for management:

Control weeds as needed

Other comments:

SPPEI looks great this yr.

Completed by: Jody K[illegible] J K[illegible] Date 8/27/09

Wetland Noxious Weed Survey Form

Observer [illegible]
Location FC4 Hillside Wetland

Date 6/25/09

Noxious Weed Species Present:

CIARI - <1%
SOARI - <1%

Comments:

S + 1-3"

Completed By: [illegible] [illegible]
Print Sign

Date 6/25/09

Wetland Noxious Weed Survey Form

Observer Jody Nelson

Location FC4 Hillside Wetland

Date 7/27/09

Noxious Weed Species Present:

CIARI - 1%

Comments:

SPPEI looks great. Filling in nicely.

Completed By: Jody K Nelson (Print) (Sign) Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN

Location FC4 - Hillside

Date 8/27/09 ~~FC4 - Hillside~~

Noxious Weed Species Present:

CIARI

CIINI

Total Cover = <1%

Comments:

Completed By: [illegible] Print [illegible] Sign Date 8/27/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/27/09
Applicant/Owner: DOE State: CO Sampling Point: FC4-A
Investigator(s): Jody Knotts Section, Township, Range: _____
Landform (hillslope, terrace, etc.): valley bottom Local relief (concave, convex, none): concave Slope (%): 1%
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks: above average precip in 2009

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)			
1063	1. SAEXI	<1		
1064	2. SAAMI	<1		
1065	3. ELANI	<1		
1066	4. TARAI	<1		
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: Wetland)			
1067	1. POMOI	4		
1068	2. MUASI	<1		
1069	3. PAVII	<1		
1070	4. JURAI	25		
1071	5. JUTOI	5		
1072	6. TYLAI	52		
1073	7. PLMAI	<1		
1074	8. SPPEI	10		
1075	9. BRVAI	<1		
1076	10. DACAI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks: Base of South hillside pushing into wetland. Wattles at base of hill are being over run + TYLAI + getting pushed over.

SOIL

Sampling Point: FC4-A

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0 - 12"

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date	8/27/09
Sampling Point	FC4-A

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
1077	11	HEANI	<1		
1078	12	ECCRI	<1		
1079	13	ELMAI	1		
1080	14	HOJUI	<1		
1081	15	KOSCI	<1		
1082	16	BRINI	<1		
1083	17	FEPRI	<1		
1084	18	PACAI	<1		
1085	19	AGINI	<1		
1086	20	AGSTI	<1		
1087	21	JUDUI	<1		
1088	22	SPMEI	<1		
1089	23	AGCAI	<1		
1090	24	AMARI	<1		
1091	25	ELCAI	<1		
1092	26	LASEI	<1		
1093	27	POPRI	<1		
1094	28	FEOVI	<1		
1095	29	MEOFI	<1		
1096	30	MEALI	<1		
1097	31	TYANI	<1		
1098	32	CEDEI	<1		
1099	33	MEARI	<1		
1100	34	GRSQI	<1		
1101	35	CIARI	<1		

_____ = Total Cover

✓

ELCAI

CEDII

ERIGERON sp - same as at Mound

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

Date 8/27/09
Sampling Point FC4-A

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
		8/27/09			
11	already have	~~ELCA1~~	<1		
12		CEN1	<1		
13	Erigeron sp.	ERST1	<1		
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					

1102
1103

_____ = Total Cover

MGH 1/3/10

✓

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/27/09
Observer(s) JKN
Location ID FC4 - A

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.

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**
SAEXI	too numerous	3.5'	2'	3'	6"	2'	2'
SAAm	"	2'	3'	2.5	1.5'	1.5'	2.5
ELANI	1	5'			3'		
TARAI	1	2'			4"		

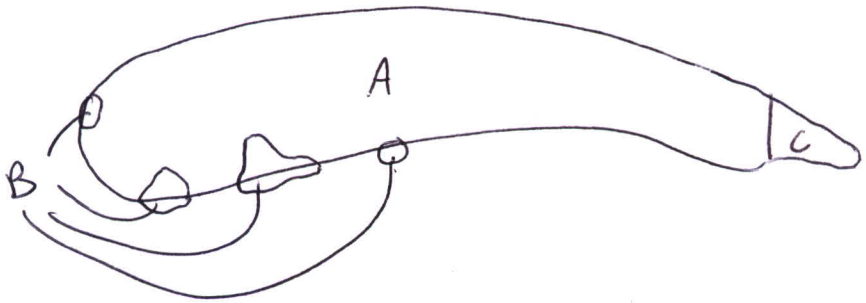
Noxious weed evaluation. See separate noxious weed evaluations conducted throughout the summer months (June – August).

Suggestions for management:

Control weeds as needed. Cut / spray TARAI

Other comments:

Looks great. 991 hillside on S of wetland is pushing into wetland again.



Completed by: Jody K [illegible] K [illegible] Date 8/22/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/27/09

Applicant/Owner: DOE State: CO Sampling Point: FC4-B

Investigator(s): Jody Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): base of slope Local relief (concave, convex, none): Concave Slope (%): 0-5°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:

above average precip this year.

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)			
1104	1. SAEXI	65		
1105	2. SAAMI	1		
1106	3. PODEI	<1		
1107	4. ELAN	<1		
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
1108	1. BOCUI	<1		
1109	2. BOGRI	<1		
1110	3. XASTI	<1		
1111	4. CIARI	1		
1112	5. AGCAI	3		
1113	6. SPCRI	<1		
1114	7. TYLAI	4		
1115	8. POMOI	2		
1116	9. PLMAI	4		
1117	10. RUCRI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FC4-B

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-2" in plows

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

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

Wetland Hydrology Present? Yes X No ___

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

See earlier Summer water-level data

Remarks:

Some areas w/ water + saturation – other area are going up slope from edge of wetland

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

Date 8/27/09
Sampling Point FCH-B

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
1118	11	HEANI	<1		
1119	12	ECCRI	3		
1120	13	JUBAI	4		
1121	14	JUTOI	2		
1122	15	SPPEI	<1		
1123	16	AMARI	<1		
1124	17	ELCAI	<1		
1125	18	AGINI	<1		
1126	19	VETHI	<1		
1127	20	MEOFI	<1		
1128	21	POCOI	<1		
1129	22	VEBRI	<1		
1130	23	EUSEI	<1		
1131	24	LASEI	<1		
1132	25	SIALI	<1		
1133	26	KOSCI	2		
1134	27	BRINI	<1		
1135	28	PACAI	1		
1136	29	APCAI	<1		
1137	30	GRSQI	<1		
1138	31	AGSTI	<1		
1139	32	DACAI	<1		
1140	33	EQARI	<1		
1141	34	COARI	<1		
~~1142~~	35				

_____ = Total Cover

MGH 1/3/10

✓

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/27/09
Observer(s) JKN
Location ID FC4-B

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.

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**
SAEXI	too numerous	5'	7'	6'	2'	7'	5'
SAAMI	5	2'	8'	7'	6"	5'	6'
ELANI	6	6'	5'	3'	8'	6'	2'
PODEI	4	4'	1.5	2'	3'	2'	6'~~to~~" JK 8/27/09

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

Suggestions for management:

Control weeds as needed. Cut + spray ELANI.

Other comments:

SAEXI have really grown up + filled in at these location along edge of wetland.

Completed by: [illegible] [illegible] Date 8/27/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/27/09

Applicant/Owner: DOE State: CO Sampling Point: FCH-C

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Channel (rip rap area) Local relief (concave, convex, none): concave / none Slope (%): 1%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA (rip rap area) NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip this yr.

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)			
1142	1. SAEXI	<1		
	2.			
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
1143	1. TYLAI	30		
1144	2. HOJUI	<1		
1145	3. CANEI	<1		
1146	4. SCPUI	<1		
1147	5. TRMAI	<1		
1148	6. COCAI	1	✓ 8/27/09	
1149	7. KOSCI	<1		
1150	8. POMOI	1		
1151	9. JUTOI	<1		
1152	10. TYANI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

1/3/10

SOIL

Sampling Point: FC4-C

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 %	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)
- 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:

not done

Mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-12"+

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date 8/27/09
Sampling Point FC4-C

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
1153	11	JUBA1	<1		
1154	12	SCUA1	<1		
1155	13	AGSC1	<1		
1156	14	MUAS1	<1		
	15				
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

✓

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/27/09
Observer(s) JKW
Location ID FC4 - C

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.

no
Area is in riprap

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEXI	1	3'			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:

Area is slowly filling in w/ different species.

Completed by: [illegible] [illegible] Date 8/27/09

Wetland Noxious Weed Survey Form

Observer Jody Nels— Date 6/25/09

Location FC4 Wetland

Noxious Weed Species Present:

ELANI - <1%

CIARI - <1%

Comments:

S + 6"

water flowing

Completed By: [signature] [signature] Date 6/25/09

Print Sign

Wetland Noxious Weed Survey Form

Observer Jody Nelson

Location FC4 Wetland

Date 7/27/09

Noxious Weed Species Present:

ELANI - <1%

CIARI - <1%

Comments:

DACAI along N edge of wetland (in center).

Woodhouse's toad near FC4 hillside wetland area.

Area looks good.

Area wet - upper area - drier lower down.

Completed By: Jody Nelson (Print) Jody Nelson (Sign) Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN Date 8/27/09
Location FC4 Wetland

Noxious Weed Species Present:

TARAI VETHI
CEDI
CIARI
XASTI Total Cover = <1%

Comments:

Watch DACAI on N side - edge of wetland.

Completed By: JKN JKN Date 8/27/09
Print Sign

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/24/09

Applicant/Owner: DOE State: CO Sampling Point: FC5 - East

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): channel Local relief (concave, convex, none): concave channel Slope (%): 1%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:

above average precip. received this yr.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: wetland)			
375 1. JUBAI	1		
376 2. HOJUI	55		
377 3. SPPEI	25		
378 4. LEFAI	<1		
379 5. ECCRI	1	✓ 8/24/09	
380 6. FEPRI	<1		
381 7. Pomoi	<1		
382 8. AGCAI	1	✓ 8/24/09	
383 9. PLMAI	<1		
384 10. POPE2	<1		
	____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	____ = Total Cover		
% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: FC5 - East

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 %	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)
- 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:

Not done

mitigation wetland

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ 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 ___ 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:

Previous observation showed area w/ standing water & saturated soil in 2009

Remarks:

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

Date 8/24/09
Sampling Point FC5 - East

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
385	11	AMARI	<1		
386	12	AGSMI	<1		
387	13	OEVII	<1		
388	14	KOSCI	<1		
389	15	AGSTI	<1		
390	16	PACAI	<1		
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MBH 12/31/09

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/24/09
Observer(s) JKN
Location ID FC5- East

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.

maybe - water very intermittent

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

sometimes water not always present

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 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:

Area looking good this yr. w/ all the precip received.

Completed by: Jody K [illegible] J K [illegible] Date 8/24/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/24/09

Applicant/Owner: DOE State: Co Sampling Point: FC5-West

Investigator(s): Judy Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Channel Local relief (concave, convex, none): Concave Channel Slope (%): 1%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:
above average precip. this year

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)			
391	1. SAEXI	<1		
392	2. TARAI	<1		
	3.			
	4.			
	5.			
		_____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
393	1. Pomol	30		
394	2. SCPUI	<1		
395	3. ELMAI	<1		
396	4. AGCAI	3		
397	5. HOJUI	25		
398	6. AGSMI	<1		
399	7. JUBAI	20		
400	8. SPPEI	20		
401	9. PLLAI	<1		
402	10. ECCRI	<1		
		_____ = Total Cover		
	Woody Vine Stratum (Plot size: _____)			
	1.			
	2.			
		_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 _____ No _____

Remarks:

SOIL

Sampling Point: FC5-West

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 %	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)
- 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:

not done

Mitigation wetland

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes X No ___

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

area was wet throughout based on early summer observations

Remarks:

approx 1/3 of area is saturated; remainder is dry today

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

Date 8/24/09
Sampling Point FC5 - West

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
403	11	FEPRI	<1		
404	12	SPMEI	<1		
405	13	KOSCI	<1		
406	14	BRTEI	<1		
407	15	POPRI	<1		
408	16	TYLAI	<1		
409	17	SCUAI	<1		
410	18	LEFAI	<1		
411	19	PAVII	<1		
412	20	JUTOI	<1		
413	21	AGSCI	<1		
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/31/09

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/24/09
Observer(s) JKN
Location ID FC5 - West

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.

no

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

yes - seem to be - lots of wetland sp. here

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEXI	3	4'	4'	4'	3'	1'	3'
TARAI	2	4'	2'		1.5'	1'	

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

Suggestions for management:

Spray TARAI. Control weeds as needed.

Other comments:

Bottom of ditch has filled in w/ wetland sp. this yr. Precip. has really helped wetland get started. Will see how it does in future yrs.

Completed by: Jody K [illegible] J K [illegible] Date 8/24/09

Wetland Noxious Weed Survey Form

Observer Jody Nels— Date 6/24/09
Location FC5 Wetlands

Noxious Weed Species Present:

BRTE1 - <1%

Comments/Notes:

Looking very good this year.

Jody K Nels— Print Name

[signature] Signature

6/24/09 Date

Wetland Noxious Weed Survey Form

Observer Jody Meds — Date 7/13/09

Location FCS wetland

Noxious Weed Species Present:

none observed

Comments:

Area looks great! Lots of H_2O this spring.

Completed By: Jody K Meds Date 7/13/09

Print Sign

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 8/24/09
Location FCS Wetlands

Noxious Weed Species Present:

TARAI

Total Cover: < 1%

Comments:

Spray TARAI. Control other weeds as needed.

Completed By: Jody Nelson Jody Nelson Date 8/24/09
Print Sign

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 1/21/10
Applicant/Owner: DOE State: _____ Sampling Point: G1 Pond - C
Investigator(s): Joy K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): pond Local relief (concave, convex, none): Concave Slope (%): 0
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:

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: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: wetland)			
1732 1. TYLAI	15		
1733 2. SCVAI	5		
1734 3. TYANI	45		
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		
% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ 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 _____ No _____

Remarks:

1/25/10

SOIL

Sampling Point: C-1 Pond - C

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ 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 ___ No ___ Depth (inches): _____

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date_____
Observer(s) Jody K Nelson
Location ID C-1 Pond - C

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

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:_____Date_____

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/26/09

Applicant/Owner: DoE State: CO Sampling Point: Mound-East

Investigator(s): Jody Knels Section, Township, Range: _____

Landform (hillslope, terrace, etc.): hillside Local relief (concave, convex, none): none Slope (%): 18°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip. received this yr.

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)			
985	1. SAEXI	7		
986	2. SAAMI	10		
987	3. SYOCI	<1		
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
988	1. FEPRI	<1		
989	2. AGCAI	1		
990	3. AGSTI	8		
991	4. TYLAI	80		
992	5. LASEI	<1		
993	6. CIARI	<1		
994	7. RUCRI	<1		
995	8. KOSCI	<1		
996	9. JUTOI	<1		
997	10. OEVII	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: Mound-East

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-1

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date 8/26/09
Sampling Point Mound - East

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
998	11	BOCUI	<1		
999	12	BOGRI	<1		
1000	13	AGSMI	<1		
1001	14	POMOI	1		
1002	15	PLMAI	<1		
1003	16	VEBLI	<1		
1004	17	HEANI	<1		
1005	18	PACAI	<1		
1006	19	SOARI	<1		
1007	20	VETHI	<1		
1008	21	ELMAI	3		
1009	22	DACAI	<1		
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/26/09
Observer(s) JKN
Location ID Mound - East

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.

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAAMI	Too numerous	10'	12	8'	5'	8'	4'
SAEXI	"	4'	4'	5'	2'	2'	2'
SYOCI	1	1'			3"		

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

Suggestions for management:

Control weeds as needed. Watch DACAI.

Other comments:

Area looks very good.

Completed by: Jody K[illegible] J K[illegible] Date 8/26/09

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 6/25/09
Location Mound East Wetland

Noxious Weed Species Present:

CIARI - <1%
VETHI - <1%
VEBLI - <1%

Comments:

Water present - S + 1" - water depth
= saturated

Completed By: Jody K Nelson (Print) Jody K Nelson (Sign) Date 6/25/09

Wetland Noxious Weed Survey Form

Observer Jody Nelson

Location Mound East Wetland

Date 7/27/09

Noxious Weed Species Present:

CIARI - 1%

VETHI - <1%

VEBLI - <1%

Comments:

DACAI present lower edge.

Saturated + Flowing.

Area looks good.

Completed By: Jody K Nelson (Print) Jody K Nelson (Sign) Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN Date 8/26/09

Location Mound Wetlands - East

Noxious Weed Species Present:

SOARI
VEBLI
VETHI
CIARI

Comments:

Watch DACAI.

Completed By: [illegible] [illegible] Date 8/26/09

Print Sign

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/26/09
Applicant/Owner: DOE State: Co Sampling Point: Mound SW
Investigator(s): Jody K Nels— Section, Township, Range: _____
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 5°
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip this yr.

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)			
1041	1. PODEI	<1		
1042	2. SAEXI	7		
1043	3. SAAMI	1		
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
1044	1. AGSTI	1		
1045	2. JUTOI	10		
1046	3. ELMAI	35		
1047	4. AGSMI	2		
1048	5. AGCAI	5		
1049	6. CIARI	2		
1050	7. TYLAI	1		
1051	8. EUSEI	<1		
1052	9. PLMAI	<1		
1053	10. AGSCI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: M and SW

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes X No ___

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

See earlier summer water level data

Remarks:

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

Date 8/26/09
Sampling Point Mound - SW

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
1054	11	JUBAI	<1		
1055	12	ECCRI	<1		
	13				
	14				
	15				
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/26/09
Observer(s) JKN
Location ID Mound SW

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.

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAAM1	5	3.5'	2'	2'	1.5'	1'	7"
PODE1	2	4'	6'		8"	3'	
SAEX1	14	5'	3'	2'	3'	2'	6"

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

Suggestions for management:

Control weeds as needed.

Spray or mow CIARI

Other comments:

Area Looks good.

Completed by: Jody K Nels— [signature] Date 8/26/09

Wetland Noxious Weed Survey Form

Observer Jody Nels — Date 6/25/09

Location Mound SW Wetland

Noxious Weed Species Present:

CIARI - 2%

Comments:

TARAI - E of wetland

S + <1"

Completed By: [signature] [signature] Date 6/25/09

Print Sign

Wetland Noxious Weed Survey Form

Observer Jody Nels-
Location Mound SW Wetland

Date 7/27/09

Noxious Weed Species Present:

CIARI - 2%

Comments:

Completed By: Jodi Nels- (Print) (Sign)

Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN Date 8/26/09

Location Mound SW Wetland

Noxious Weed Species Present:

CIARI

Total Cover = ~2%

Comments:

Completed By: J. K. [illegible] J. K. [illegible] Date 8/26/09

Print Sign

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jeffer Sampling Date: 8/26/09
Applicant/Owner: DOE State: CO Sampling Point: Mound Well
Investigator(s): Jody K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Slight concave Slope (%): 5°
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:
above average precip in 2009

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: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: wetland)			
1056 1. TYLA1	40		
1057 2. ECCR1	<1		
1058 3. AGCA1	25		
1059 4. HEAN1	<1		
1060 5. AGSM1	2		
1061 6. LASE1	<1		
1062 7. MEOF1	<1		
8.			
9.			
10.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		
% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ 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 _____ No _____

Remarks:

1/3/10

SOIL

Sampling Point: Mound-well

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 %	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)
- 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:

not done

mitigation area

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ 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 ___ Depth (inches): _____

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

Wetland Hydrology Present? Yes X No ~~X~~ 8/26/09

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

See earlier summer water level data

Remarks:

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/26/09
Observer(s) JKN
Location ID Mound Well

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.

perhaps not wet enough in most yrs to be a wetland

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

probably not

Woody Plant Counts

Species	Stem Count	Height			Width		
		1	2	3	1	2	3

8/26/09

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: Jody K Nelson JK Nelson Date 8/26/09

Wetland Noxious Weed Survey Form

Observer [illegible]
Location Mound Well Wetland

Date 6/25/09

Noxious Weed Species Present:

None

Comments:

S

Completed By: [illegible] [illegible] Date 6/25/09
Print Sign

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 7/27/09

Location Mound Lake Wetland

Noxious Weed Species Present:

None.

Comments:

Area dry.

Completed By: Jody Nelson Jody Nelson Date 7/27/09

Print Sign

Wetland Noxious Weed Survey Form

Observer JKN Date 8/26/09

Location Mound Well Wetland

Noxious Weed Species Present:

None

Comments:

Completed By: JK Nel JK Nel Date 8/26/09

Print Sign

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/26/09
Applicant/Owner: DOE State: Co Sampling Point: Mound West
Investigator(s): Jody K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): hillside Local relief (concave, convex, none): none Slope (%): ~~15%~~ 18° 8/26/09
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip. this yr.

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)			
1010	1. SAAM1	70		
1011	2. SAEX1 8/24/09	~~40~~ 15		
1012	3. Salix sp. SAL1	<1		
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
1013	1. PLMA1	1		
1014	2. TYLA1	12		
1015	3. HOJU1	<1		
1016	4. POCO1	<1		
1017	5. AGCA1	10		
1018	6. AGST1	5		
1019	7. SCPU1	30		
1020	8. ELMA1	1		
1021	9. JUTO1	3		
1022	10. DACA1	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: Mound-West

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ 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)
- ___ 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 ___ Depth (inches): _____

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

Wetland Hydrology Present? Yes X No ___

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

See earlier summer water level data

Remarks:

Saturated in eastern part, dry on western area

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

Date 8/26/09
Sampling Point Mound - West

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
1023	11	FEPRI	<1		
1024	12	JUBAI	3		
1025	13	AGSMI	20		
1026	14	Erigeron sp. ERSTI	<1		
1027	15	OEVII	<1		
1028	16	VETHI	<1		
1029	17	BOCUI	<1		
1030	18	BOGRI	<1		
1031	19	IMEOFI	<1		
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGT 1/3/10

✓

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 8/26/09
Observer(s) JKN
Location ID Mound West

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.

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAAM1 ~~SAEX1~~ 8/26/09	Too numerous	10'	9'	11'	4'	8'	8'
SAEX1 ~~SAAM1~~	"	7'	7'	6'	5'	5'	4'
Willow sp.	1	9'			8'		

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

Suggestions for management:

Control weeds as needed.

Watch DACA1 in area.

Other comments:

Area looks good this yr.

Completed by: Jody K Nelson [signature] Date 8/26/09

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 6/25/09

Location Mound West Wetland

Noxious Weed Species Present:

VETHI - <1%

CIARI - <1%

Comments:

Area wet - S

Completed By: Jody K Nelson Jody K Nelson Date 6/25/09

Print Sign

Wetland Noxious Weed Survey Form

Observer Jody Nelson

Location Mound West Wetland

Date 7/27/09

Noxious Weed Species Present:

VETHI - <1%

Comments:

DACAI along bottom edge.

Area looks good.

Area saturated in places.

Completed By: Jody K Nelson (Print) Jody K Nelson (Sign) Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN

Location Mound West Wetland

Date 8/26/09

Noxious Weed Species Present:

VETHI

Total Cover = <1%

Comments:

Watch DACAI in area

Completed By: Jody K Nu (Print) [signature] (Sign) Date 8/26/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/26/09
Applicant/Owner: DOE State: CO Sampling Point: Mound-WW
Investigator(s): Jody K Nels Section, Township, Range: _____
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 18°
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip – 2009

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)			
1032 1. SAAMI	8		
1033 2. SAEXI	4		
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: wetland)			
1034 1. SCPUI	70		
1035 2. AGSMI	10		
1036 3. AGCAI	<1		
1037 4. BOGRI	<1		
1038 5. MEDFI	<1		
1039 6. BOCUI	<1		
1040 7. BRINI	<1		
8.			
9.			
10.			
	____ = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		
% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

MGH 1/3/10

SOIL

Sampling Point: Mound W-W

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 %	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)
- 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:

not done

mitigation area

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ 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 ___ Depth (inches): ___

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

Wetland Hydrology Present? Yes X No ~~X~~ 8/26/09

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

See earlier summer water level data

Remarks:

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/26/09
Observer(s) JKN
Location ID Mound WW

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.

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**
SAAM1	2	4'	4'		3'	2'	
SAEX1	1	4'			2'		

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

Suggestions for management:

Control weeds if needed.

Other comments:

Looks good

Completed by: Jody K Nelson Date 8/26/09

Wetland Noxious Weed Survey Form

Observer Jody Nels — Date 6/25/09

Location Mound W-W Wetland

Noxious Weed Species Present:

none

Comments:

Area looks good. - S

Completed By: [signature] Print [signature] Sign Date 6/25/09

Wetland Noxious Weed Survey Form

Observer Jody Nels— Date 7/27/09

Location Mound W-W Wetland

Noxious Weed Species Present:

None

Comments:

DACA1 downhill + west of wetland - along FC4 channel - N side.

Completed By: Jody Kn Print Sign JKN Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN

Location Mound W-W Wetland

Date 8/26/09

Noxious Weed Species Present:

none

Comments:

Area looks good.

Completed By: JodKN JKN Date 8/26/09

Print Sign

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/24/09

Applicant/Owner: DOE State: CO Sampling Point: OLF - A

Investigator(s): Judy K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): Concave Slope (%): 15%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: NA

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks: above average precipitation this year

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)			
203	1. SAAMI	15		
204	2. SAEXI	10		
205	3. PODEI	<1		
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
206	1. HOJUI	25		
207	2. POCOI	15		
208	3. JUTOI	18		
209	4. POPRI	1		
210	5. TYLAI	35		
211	6. ELCRI	1		
212	7. AGCAI	1		
	8.			
	9.			
	10.			
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 ____ No ____

Remarks:

MBH 12/30/09

SOIL

Sampling Point: OLF-A

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 %	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)
- 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:

not done

Mitigation wetland

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-1"

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/24/09
Observer(s) JKN
Location ID OLF-A

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.

no - area looks good

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**
SAEXI	16	5'	4'	3'	3'	4'	6"
SAAMI	32	3'	4'	3'	2'	1'	1'
PODEI	1	2'			6"		

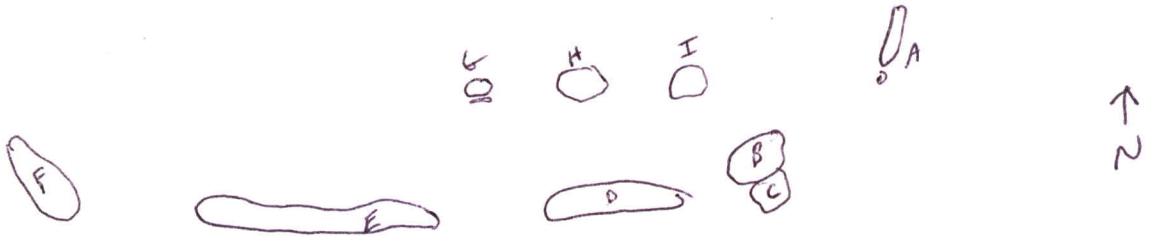
Noxious weed evaluation. See separate noxious weed evaluations conducted throughout the summer months (June – August).

Suggestions for management:

Watch for weeds. Control as needed.

Other comments:

Area looking very good this year.



Completed by: [signature] [signature] Date 8/27/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/24/09

Applicant/Owner: DOE State: CO Sampling Point: OLF-B

Investigator(s): Jody K Nels— Section, Township, Range: _____

Landform (hillslope, terrace, etc.): base of slope Local relief (concave, convex, none): Concave Slope (%): 3%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: NA

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks: Wetter than normal spring / summer

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)			
213	1. ELANI	<1		
214	2. PODEI	<1		
215	3. SAEXI	5		
216	4. SAAMI	<1		
	5.			
		= Total Cover		
	Herb Stratum (Plot size: wetland)			
217	1. SCVAI	55		
218	2. POMOI	1		
219	3. JUBAI	3		
220	4. PLLAI	4		
221	5. SPPEI	5		
222	6. ASHEI	<1		
223	7. SCPUI	2		
224	8. JUTOI	2		
225	9. AGSTI	<1		
226	10. TYLAI	4		
		= Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		= Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: OLF-B

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)
- 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:

not done

mitigation wetland

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-6"

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date 8/24/09
Sampling Point OLF - B

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
227	11	HOJUI	1		
228	12	JULOI	<1		
229	13	AGSCI	2		
230	14	ELMAI	2		
231	15	JUPAI	<1		
232	16	AMAR	<1		
233	17	LASEI	<1		
234	18	BOCUI	<1		
235	19	AGSMI	<1		
236	20	MEARI	<1		
237	21	CIARI	<1		
238	22	CANEI	1		
239	23	JUBUI	<1		
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/30/09

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/24/09
Observer(s) JKN
Location ID OLF-B

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.

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**
PODEI	10	1'	3'	2'	6"	1'	6"
SAEXI	Too numerous to count	3'	4'	4'	2'	2'	2'
SAAMI	4	1'	2'	1.5'	3"	1'	1'
ELANI	1	4'			2'		

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

Suggestions for management:

Watch for weeds. Control as needed.

Other comments:

Area looks very good this year.

Completed by: [illegible] [illegible] Date 8/24/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/27/09

Applicant/Owner: DOE State: CO Sampling Point: OLF-C

Investigator(s): Jody Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): base of hillslope along stream Local relief (concave, convex, none): gentle slope Slope (%): 2%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks: above average precipitation this year.

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)			
240	1. SYOCI	7		
241	2. SAEXI	2		
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: ____)			
242	1. TYLAI	20		
243	2. JUBAI	55		
244	3. PLLAI	<1		
245	4. BOGRI	<1		
246	5. EPCII	5		
247	6. FEPRI	<1		
248	7. AGSMI	<1		
249	8. VEBLI	<1		
250	9. CIARI	<1		
251	10. RUCRI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: OLF-C

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-1"

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date 8/24/09
Sampling Point OLF - C

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
252	11	HOJU1	<1		
253	12	ELMA1	<1		
254	13	CIIN1	<1		
255	14	OPMA	<1		
256	15	GEMA1	<1		
257	16	VETH1	<1		
258	17	PAVI1	<1		
259	18	LASE1	<1		
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/30/09

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/24/09
Observer(s) JKN
Location ID OLF-C

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.

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**
SYOCI	too numerous	3'	2'	3'	6"	6"	6"
SAEXI	20	7'	7'	5'	3'	3'	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:

Area looks good this year.

Completed by: Jody K Neels Date 8/27/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: ~~OLF~~ 8/24/09

Applicant/Owner: DOE State: CO Sampling Point: OLF-D

Investigator(s): Jon K Nels— Section, Township, Range: _____

Landform (hillslope, terrace, etc.): base of slope Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks: above average precipitation this year

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: ____)			
260	1. SAEXI	95		
261	2. SYOCI	<1		
	3.			
	4.			
	5.			
		= Total Cover		
	Herb Stratum (Plot size: ____)			
262	1. COCAI	<1		
263	2. CENII	<1		
264	3. MEOFI	<1		
265	4. SEVII	<1		
266	5. AGCAI	1		
267	6. LASEI	<1		
268	7. ABSMI	<1		
269	8. BUDAI	<1		
270	9. BOCUI	<1		
271	10. FEPRI	<1		
		= Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		= Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 ____ No ____

Remarks: Area is part of stream trace. All SAEXI along stream + out into mitigation area. Solid canopy of SAEXI.

SOIL

Sampling Point: OLF-D

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 %	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)
- 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:

not done

mitigation area

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ 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 ___ 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:

Previous observation in spring showed area wet

Remarks:

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

Date	8/24/09
Sampling Point	OLF - D

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
272	11	POCO1	<1		
273	12	GRSQ1	<1		
274	13	VETH1	<1		
275	14	OEVI1	<1		
276	15	JUBA1	<1		
277	16	AMAR	<1		
278	17	VERL1	<1		
279	18	HYPE1	<1		
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MBH 12/30/09

✓

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/24/09
Observer(s) JKN
Location ID OLF - D

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.

not for SAEXI. Understory is not wetland species. Typical for shubland areas along streams at site.

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

yes - at least for SAEXI

Woody Plant Counts

		Height			Width		
Species	**Stem Count**	**1**	**2**	**3**	**1**	**2**	**3**
SAEXI	Too numerous	8'	8'	8'	2'	2'	2'
SYOC1	~~Cannot see most~~ 1 8/24/09	2'			1'		
Solid canopy of SAEXI							

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

Suggestions for management:

Control weeds as appropriate.

Other comments:

SAEXI has grown + filled in to form solid canopy.

Completed by: Jody K Nelson JKN Date 8/24/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/24/09

Applicant/Owner: DOE State: CO Sampling Point: OLF - E

Investigator(s): Jody K Nels— Section, Township, Range: _____

Landform (hillslope, terrace, etc.): stream terrace Local relief (concave, convex, none): Flat Slope (%): 1%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____
Hydric Soil Present?	Yes ____	No ____
Wetland Hydrology Present?	Yes ____	No ____

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

Remarks:

above average precipitation received this year

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)			
280	1. SAEXI	90		
281	2. PODEI	1		
282	3. PRVII	<1		
283	4. SAAMI	1		
284	5. AMFRI	<1		
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
285	1. VETHI	<1		
286	2. AGSMI	<1		
~~287~~ 287	3. BRJAI	<1		
288	4. AGCAI	<1		
289	5. EQARI	<1		
290	6. BUDAI	<1		
291	7. COCAI	<1		
292	8. MEOFI	<1		
293	9. AMARI	<1		
294	10. LASEI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: OLF-E

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 %	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)
- 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:

Not done

mitigation area

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ 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 ___ 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:

early in growing season observation should water present & area saturated.

Remarks:

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

Date 8/24/09
Sampling Point OLF - E

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
1729	6	ELANI	<1		
1730	7	SYOCI	<1		
	8				
	9				
	10				

_____ = Total Cover

Herb Stratum

		Scientific Name	Absolute % Cover	Dominant Species?	Indicator Status
295	11	ALMII	<1		
296	12	CEDII	<1		
297	13	GLLEI	<1		
298	14	CANUI	<1		
299	15	CIARI	<1		
300	16	NECAI	<1		
301	17	RUIDI	<1		
302	18	SOCAI	<1		
303	19	MEALI	<1		
304	20	GEMAI	<1		
305	21	DACAI	<1		
306	22	BOCUI	<1		
307	23	BOGRI	<1		
308	24	SOARI	<1		
309	25	PAVII	<1		
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH
12/30/09

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/24/09
Observer(s) JKN
Location ID OLF - E

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.

no - not for SAEXI
yes - for understory

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

yes - for SAEXI

Woody Plant Counts

		Height			Width		
Species	**Stem Count**	**1**	**2**	**3**	**1**	**2**	**3**
AMFRI	Too numerous	5'	5'	4	4'	4'	3'
SAEXI	"	9'	8'	8'	4'	3'	3'
SAAM	3	10'	10'	7'	8'	8'	5'
PODEI	5	10'	10'	7'	6'	6'	3'
PRVII	1	3'			6"		
ELANI	1	4'			3'		
SYOLI	too numerous	2'	2'	1'	18"	18"	6"

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

Suggestions for management:

Control weeds as needed.

Other comments:

SAEXI has filled in very good this spring to north.

Completed by: [illegible] [illegible] Date 8/24/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/24/09
Applicant/Owner: DOE State: CO Sampling Point: OLF-F
Investigator(s): Jody Knots Section, Township, Range: _____
Landform (hillslope, terrace, etc.): slope-channel Local relief (concave, convex, none): concave Slope (%): 5%
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip this yr.

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: ____)			
310	1. SAEXI	22		
311	2. SAAMI	23		
	3.			
	4.			
	5.			
		= Total Cover		
	Herb Stratum (Plot size: ____)			
312	1. AGCAI	25		
313	2. TYLAI	10		
314	3. JUDUI	10		
315	4. VEANI	30		
316	5. EPCII	<1		
317	6. AGSTI	5		
318	7. JUTOI	<1		
319	8. VEBLI	<1		
320	9. AGSMI	<1		
321	10. SCPUI	1	FACW	
		= Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		= Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: OLF-F

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 %	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)
- 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:

not done

mitigation area

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-1"

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date 8/24/09
Sampling Point OLF-F

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
322	11	INEOFI	<1		
323	12	PLLAI	<1		
324	13	AMARI	<1		
325	14	SCVAI	<1		
326	15	ECCRI	<1		
327	16	HOJUI	<1		
328	17	PAVII	<1		
329	18	PHPRI	<1		
330	19	POCOI	<1		
331	20	ELMAI	15		
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/31/09

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/24/09
Observer(s) JKN
Location ID OLF-F

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.

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**
SAEXI	Too numerous	5'	5'	5'	2'	2'	2'
SAAMI	"	5'	5'	4'	3'	4'	2'

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 looks good.

Completed by: [illegible] [illegible] Date 8/24/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 3/24/09
Applicant/Owner: DOE State: CO Sampling Point: OLF-G
Investigator(s): Joy K Nels— Section, Township, Range: _____
Landform (hillslope, terrace, etc.): hillslope on OLF Local relief (concave, convex, none): concave Slope (%): 18%
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip. This yr.

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: ____)			
332	1. SAEX	<1		
333	2. SAAM1	3		
	3.			
	4.			
	5.			
		= Total Cover		
	Herb Stratum (Plot size: ____)			
334	1. TYLA1	25		
335	2. PACA1	<1		
336	3. AGCA1	30		
337	4. AGSM1	<1		
338	5. ELMA1	15		
339	6. MEOF1	<1		
340	7. EPCI1	<1		
341	8. ~~JUTO1~~	12		
342	9. AGST	<1		
	10.			
		= Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		= Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

MBH 12/31/09 ✓

SOIL

Sampling Point: OLF-G

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 %	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)
- 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:

Not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ 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)
- ___ 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 ___ Depth (inches): ___

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/24/09
Observer(s) JKN
Location ID OLF-G

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.

no

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

yes - at least this yr.

Woody Plant Counts

		Height			Width		
Species	**Stem Count**	**1**	**2**	**3**	**1**	**2**	**3**
SAEXI	5	3'	2.5'	4'	1.5'	6"	1'
SAAMI	17	2'	2'	2'	1'	2'	2'

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 developed this yr. w/ all the water we have received. See what happens over time.

Completed by: [illegible] [illegible] Date 8/24/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jeffco Sampling Date: 8/24/09
Applicant/Owner: DOE State: CO Sampling Point: OLF-H
Investigator(s): Jody K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Slight concave Slope (%): 15%
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip. this yr.

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: ____)			
343	1. SAAM1	~~#1~~ 8/24/09		
344	2. SAEX1	<1		
	3.			
	4.			
	5.			
		= Total Cover		
	Herb Stratum (Plot size: ____)			
345	1. JUTO1	40		
346	2. AGSTI	2		
347	3. AGCA1	20		
348	4. AGSM1	<1		
349	5. JURA1	2		
350	6. TYLA1	<1		
351	7. ELMA1	10		
352	8. POPE2	<1		
353	9. HEAN1	1		
354	10. BUDA1	<1		
		= Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		= Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: OLF-H

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-2

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date 8/24/09
Sampling Point OLF - H

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
355	11	ELCRI	<1		
356	12	AMARI	<1		
357	13	HOJUI	<1		
	14				
	15				
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 12/31/09

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/24/09
Observer(s) JKN
Location ID OLF-H

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.

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**
SAEXI	1	3'			6"		
SAAMI	8	3'	4'	2'	2'	3'	1'

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

Suggestions for management:

Control weed as needed.

Other comments:

Area looking very good. Has come up this year. Don't recall seeing it before.

Completed by: [illegible] [illegible] Date 8/24/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/24/09

Applicant/Owner: DOE State: CO Sampling Point: OLF-I

Investigator(s): Jody K Nels- Section, Township, Range: _____

Landform (hillslope, terrace, etc.): hillslope on OLF Local relief (concave, convex, none): flat slope Slope (%): 15%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:

above average precip. This yr.

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)	8/24/09		
358	1. SAAMI	6		
359	2. SAEXI	1		
	3.			
	4.			
	5.			
		= Total Cover		
	Herb Stratum (Plot size: wetland)			
360	1. TYLAI	15		
361	2. HOJUI	<1		
362	3. JOTOI	30		
363	4. AGCAI	30		
364	5. PLLAI	<1		
365	6. LASEI	<1		
366	7. AGSMI	<1		
367	8. AMARI	<1		
368	9. ECCRI	3		
369	10. ELMAI	7		
		= Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		= Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: OLF-I

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-1

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date 8/24/09
Sampling Point OLF - I

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
370	11	HEANI	<1		
371	12	MURAI	<1		
372	13	BRJAI	<1		
373	14	MEOFI	<1		
374	15	FEPRI	<1		
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGA 12/31/09

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/24/09
Observer(s) JKN
Location ID OLF - I

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.

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**
SAEX1	17	4'	3'	3'	6"	6"	6"
SAAM1	Too numerous	3'	3'	3'	2'	2'	2'

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 looking good. Extra water this yr. has shifted area to more wetland species.

Completed by: [illegible] [illegible] Date 8/24/09

Wetland Noxious Weed Survey Form

Observer Jay Nels — Date 6/25/09
Location OLF Wetlands

Noxious Weed Species Present:

CIARI - <1% BRTEI - <1%
VETHI - <1% ELANI - <1%
HYPEI - <1%

Comments/Notes:

Areas look good.

Jay Nels — Print Name Signature 6/25/09 Date

Wetland Noxious Weed Survey Form

Observer Jody Nels Date 7/28/09
Location OLF Wetlands

Noxious Weed Species Present:

CIARI - <1%
VETHI - <1%
ELANI - <1%
HYPEI - <1%

Comments:

Completed By: Jody K Nels Date 7/28/09
Print Sign

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 8/24/09
Location OLF

Noxious Weed Species Present:

CIARI CEDII
CIINI CANUI
VEBLI SOARI
VETHI

Total Cover = < 1%

Comments:

Control weeds as needed.

Completed By: Jody K Nelson Jody K Nelson Date 8/24/09
Print Sign

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/26/09
Applicant/Owner: DOE State: CO Sampling Point: PLF-A
Investigator(s): Joey Knels Section, Township, Range: _____
Landform (hillslope, terrace, etc.): channel Local relief (concave, convex, none): concave Slope (%): 1%
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip received this yr

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)			
782	1. SAAMI	10		
783	2. SAEXI	1		
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
784	1. TYLAI	10		
785	2. JUTOI	20		
786	3. JUDUI	2		
787	4. PAVII	52		
788	5. HOJUI	8		
789	6. ELCRI	1		
790	7. OEVII	<1		
791	8. PLLAI	<1		
792	9. ARLUI	<1		
793	10. ELMAI	2		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: PLF-A

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 %	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)
- 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:

not done

mitigation wetland

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)

- X 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)
- ___ 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 ___ Depth (inches): _____

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

Wetland Hydrology Present? Yes ___ No ___

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

See earlier summer wetland water level observation

Remarks:

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

Date	8/26/09
Sampling Point	PLF-A

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
794	11	AMARI	<1		
795	12	FEPRI	<1		
796	13	ANGEI	<1		
797	14	AGSTI	<1		
798 ~~798~~	15	SONUI	<1		
799	16	JUBUI	<1		
800	17	POCOI	8/26/09 ~~A~~ 1		
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/7/10

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 8/26/09
Observer(s) JKN
Location ID PLF-A

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**
SAEXI	4	3'	3.5'	4'	1'	2'	2'
SAAMI	21	4'	3'	3'	3'	2'	1'
PODEI	1	4'			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:

Area looks great this yr.

Completed by: [illegible] Date 8/26/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/26/09

Applicant/Owner: DOE State: Co Sampling Point: PLF-B

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): channel Local relief (concave, convex, none): concave Slope (%): 1%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	Is the Sampled Area within a Wetland? Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:
above avage precip this year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: wetland)			
801 1. SAEXI	<1		
802 2. SAAMI	<1		
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: wetland)			
803 1. ELMAI	<1		
804 2. ECCRI	3		
805 3. JUTOI	15		
806 4. AGCAI	1		
807 5. JUDUI	3		
808 6. HOJUI	1		
809 7. POCOI	2		
810 8. PAVII	2		
811 9. AMARI	<1		
812 10. BRINI	<1		
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		
% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ 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 _____ No _____

Remarks:

SOIL

Sampling Point: PLF-B

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 %	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)
- 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:

not done

mitigation area

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)

- X Surface Soil Cracks (B6)
- X 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)
- ___ 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 ___ 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 earlier summer water level data

Remarks:

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

Date 8/26/09
Sampling Point PLF-B

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	~~AGSC1~~ 8/26/09	—		
813	12	HEANI	<1		
814	13	FEPRI	<1		
815	14	JUBUI	5		
816	15	SPCRI	5		
817	16	TYLAI	<1		
818	17	PACAI	<1		
819	18	DAGLI	<1		
820	19	BUDAI	<1		
821	20	SPNEI	<1		
822	21	SCVAI	<1		
823	22	COARI	<1		
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGA 1/7/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/26/09
Observer(s) JKN
Location ID PLF-B

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.

Yes - may not be wet enough in most years to get wetland species to establish

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

Barely - wet yr. This year has gotten many wetland species going

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEX1	8/26/09 17	2'	2'	2'	1'	1'	3'
SAAM1	1	1'			6"		

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: Jody K Nelson Date 8/26/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/26/09
Applicant/Owner: DOE State: CO Sampling Point: PLF-C
Investigator(s): Jody K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): channel Local relief (concave, convex, none): concave Slope (%): 1%
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip this yr.

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)			
824	1. SAAMI	45		
825	2. SAEXI	7		
826	3. SAIRI	<1		
827	4. crack willow ~~SAFR~~ UNKN	<1		
828	5. PODEI	<1		
		= Total Cover		
	Herb Stratum (Plot size: wetland)			
829	1. TYLAI	1		
830	2. JUTOI	40		
831	3. ANGEI	10		
832	4. SPPEI	<1		
833	5. POCOI	<1		
834	6. SONUI 8/26/09	<+3		
835	7. PAVII	<1		
836	8. PACAI	<1		
837	9. AMARI	<1		
838	10. JUBUI	8		
		= Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		= Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: PLF-C

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 %	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)
- 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:

Not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)

- X 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-1

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

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

Wetland Hydrology Present? Yes X No ___

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

See earlier summer water level data

Remarks:

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

Date 8/26/09
Sampling Point PLF - C

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
839	11	SCVA1	<1		
840	12	ASPO1	<1		
841	13	HOJU1	<1		
842	14	GRSQ1	<1		
843	15	ELMA1	<1		
844	16	FEPR1	<1		
845	17	JUBU1	<1		
846	18	BUDA1	2		
847	19	JUBA1	<1		
848	20	ECCR	<1		
849	21	PLLA1	<1		
850	22	AGCA1	<1		
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/26/09
Observer(s) JKN
Location ID PLF-C

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**
SAEXI	too numerous	5'	8'	6'	3'	3'	7'
SAAMI	"	6'	5'	5'	7'	7'	5'
SAIRI	1	5'			6'		
Crack willow?	2	3'	3'		3'	2'	
PODEI	1	5'			1'	8/26/07	

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 looks great this year.

SAAM1 + SAEX1 are getting large + spreading.

Completed by: Jody K Nelson [signature] Date 8/26/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/26/09

Applicant/Owner: DOE State: CO Sampling Point: PLF-D

Investigator(s): Jody K Nels— Section, Township, Range: _____

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Concave / Plane Slope (%): 8%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	Is the Sampled Area within a Wetland? Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:
above average precip this yr.

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)			
851	1. SAAMI	<1		
	2.			
	3.			
	4.			
	5.			
		_____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
852	1. TYLAI	1		
853	2. JUTOI	45		
854	3. ANGEI	1		
855	4. JUDUI	<1		
856	5. CANEI	3		
857	6. AGCAI	1		
858	7. ANSCI	<1		
859	8. ANGEI	2		
860	9. JUBAI	8		
861	10. EPCII	<1		
		_____ = Total Cover		
	Woody Vine Stratum (Plot size: _____)			
	1.			
	2.			
		_____ = Total Cover		
	% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ 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 _____ No _____

Remarks:

SOIL

Sampling Point: PLF-D

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ 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)
- ___ 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 ___ Depth (inches): ___

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

Wetland Hydrology Present? Yes X No ___

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

See earlier recorded water level data

Remarks:

area under heavy duty erosion mat

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

Date 8/26/09
Sampling Point PLF - D

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
862	11	HOJUI	20		
863	12	FEPRI	<1		
864	13	PAVII	5		
865	14	COCAI	<1		
866	15	POCOI	<1		
867	16	SCVAI	<1		
868	17	SOARI	<1		
869	18	BRJAI	<1		
870	19	SPPEI	<1		
871	20	ELCAI	<1		
872	21	AMPSI	<1		
873	22	IOMOI	1		
874	23	ASPOI	<1		
875	24	HEANI	<1		
876	25	AGSMI	2		
877	26	ECCRI	<1		
878	27	BUDAI	<1		
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/26/09
Observer(s) JKN
Location ID ~~8~~ PLF-D

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 - most of time is wet - end of season is typically dry

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAAMI	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:

Completed by: [illegible] [illegible] Date 8/26/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/26/09

Applicant/Owner: DOE State: CO Sampling Point: PLF-E

Investigator(s): Jody K Reds Section, Township, Range: _____

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): some concave depression Slope (%): 15%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip received this yr

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: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		

	Herb Stratum (Plot size: wetland)	Absolute % Cover	Dominant Species?	Indicator Status
879	1. JUBAI	8		
880	2. TYLAI	53		
881	3. PACAI	<1		
882	4. EUSEI	<1		
883	5. CIARI	<1		
884	6. SOARI	<1		
885	7. JUDUI	<1		
886	8. HYPEI	<1		
887	9. SOCAI	<1		
888	10. JUTOI	1		
		____ = Total Cover		

Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

MBH 1/3/10

SOIL

Sampling Point: PLF-E

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 %	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)
- 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:

not done

Mitigation wetland area

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ 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)
- ___ 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 ___ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes X No ~~X~~ (8/26/09) Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

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

See earlier water level data

Remarks:

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/26/09
Observer(s) JKN
Location ID PLF-E

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 1	Height 2	Height 3	Width 1	Width 2	Width 3

8/26/09

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: [illegible] [illegible] Date 8/26/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/26/09
Applicant/Owner: DOE State: CO Sampling Point: PLF - F
Investigator(s): Jody K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave (slight) Slope (%): 8%
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip this year

VEGETATION – Use scientific names of plants.

	Tree Stratum (Plot size: wetland)	Absolute % Cover	Dominant Species?	Indicator Status
889	1. SAAMI	50		
	2.			
	3.			
	4.			
		____ = Total Cover		
	Sapling/Shrub Stratum (Plot size: Wetland)			
890	1. ELANI	2		
891	2. SAEXI	35		
892	3. SYOCI	15		
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: Wetland)			
893	1. HOJUI	<1		
894	2. TYLAI	45		
895	3. POCOI	1		
896	4. POPRI	1		
897	5. ECCRI	3		
898	6. BRJAI	<1		
899	7. VETHI	<1		
900	8. SPPEI	<1		
901	9. OEVII	<1		
902	10. VEBLI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: _____)			
	1.			
	2.			
		____ = Total Cover		
	% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): ____ (A)
Total Number of Dominant Species Across All Strata: ____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ 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 ____ No ____

Remarks:

SOIL

Sampling Point: PLF-F

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 %	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)
- 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:

not done

mitigation wetland

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ 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 ___ 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 earlier summer water level data

Remarks:

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

Date 8/26/09
Sampling Point PLF-~~1~~ F
8/26/09

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
903	11	Cirsium sp. CROCI	4		
904	12	AGCAI	3		
905	13	SORII	<1		
906	14	ASFAI	<1		
907	15	LASEI	<1		
908	16	AGsmI	<1		
909	17	HEANI	<1		
910	18	SKVAI	<1		
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 8/26/09
Observer(s) JKN
Location ID PLF - F

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 apparently although it is dry now

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAAMI	1	20'			30'		
SAEXI	Too numerous	5'	5'	5'	1'	2'	3'
SYOCI	"	1'	2'	1'	8"	10"	8"
ELANI	1	6'			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:

Area looks pretty good this yr.

Completed by: Jody K Nelson Date 8/26/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/26/09
Applicant/Owner: DOE State: Co Sampling Point: PLF-G
Investigator(s): Jody K Nelson Section, Township, Range: _____
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 10
Subregion (LRR): G Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: ~~NA~~ 8/26/09 NA NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:
above average precip this yr.

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)			
911	1. SAEXI	50		
912	2. ELANI	7		
917	3. PODEI	2		
	4.			
	5.			
		_____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
914	1. CIARI	5		
915	2. BOCUI	<1		
916	3. AGCAI	15		
917	4. CEDII	1		
918	5. SOMII	<1		
919	6. AGSMI	8		
920	7. CANUI	<1		
921	8. ASFLI	<1		
922	9. ELCAI	15		
923	10. ONMOI	<1		
		_____ = Total Cover		
	Woody Vine Stratum (Plot size: _____)			
	1.			
	2.			
		_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): _____ (A)
Total Number of Dominant Species Across All Strata: _____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ 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 _____ No _____

Remarks:

SOIL

Sampling Point: PLF-G

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 %	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)
- 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:

not done

mitigation area

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ 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 ___ Depth (inches): ___

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

Wetland Hydrology Present? Yes ___ No X

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

See earlier water level observation

Remarks:

Area is probably subirrigated – perched water table or something

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

Date	8/26/09
Sampling Point	PLF-G

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
924	11	GEMA1	<1		
925	12	ASSP1	<1		
926	13	AGRE1	12		
927	14	PLLA1	<1		
928	15	AMPS1	<1		
929	16	STVI1	<1		
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/26/09
Observer(s) JKN
Location ID ~~8~~ PLF-G
8/26/09

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.

yes

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

maybe not - no surface expression - appear all subirrigated

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEXI	Too numerous	6'	4'	3'	4'	3'	2'
ELANI	"	3'	3'	4'	3'	2'	2'
PODEI	15	3'	3'	3'	2.5	3'	3'

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

Suggestions for management:

Control weeds as needed. Control ELAN1 – cut + sprayed some last Fall, but still lots here.

Other comments:

SAEX1 has grown well this yr.

Completed by: Jody K Nelson Date 8/26/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/26/09

Applicant/Owner: DOE State: CO Sampling Point: PLF-H

Investigator(s): Jody K Nels — Section, Township, Range: _____

Landform (hillslope, terrace, etc.): channel - bottom area Local relief (concave, convex, none): concave Slope (%): 2%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip this yr.

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)			
930	1. SAEXI	2		
931	2. SAAMI	<1		
932	3. SYOCI	<1		
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
933	1. POMOI	<1		
934	2. TYLAI	85		
935	3. MEARI	<1		
936	4. LYAMI	<1		
937	5. SCVAI	<1		
938	6. JUTOI	4		
939	7. ELCAI	<1		
940	8. SCPAI	<1		
941	9. BRJAI	<1		
942	10. JUBAI	6		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: PLF-H

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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- X 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-3"

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

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

Wetland Hydrology Present? Yes X No ___

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

groundwater treatment system feeds wetland continuously

Remarks:

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

Date 8/26/09
Sampling Point PLF - H

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
943	11	HOWI	<1		
944	12	ASUI	<1		
945	13	EUSEI	<1		
946	14	OEVI	<1		
947	15	ELMAI	<1		
948	16	PLMAI	<1		
949	17	CANEI	<1		
950	18	PAVI	<1		
951	19	ECCRI	<1		
952	20	ANGEI	<1		
953	21	CIARI	<1		
954	22	VETHI	<1		
955	23	AGSMI	<1		
956	24	EPCI	<1		
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

✓

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 8/26/09
Observer(s) JKN
Location ID PLF - H

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 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEXI	too numerous	4'	5'	3'	1.5	3'	1'
SAAMI	2	1.5'	4'		6"	3'	
SYOCT	2	1.5'	1'		1'	1'	

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

Suggestions for management:

Control weed if needed.

Other comments:

Area looks very good.

Completed by: Jody K [illegible] Date 8/26/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/26/09

Applicant/Owner: DOE State: CO Sampling Point: PLF-I

Investigator(s): Jody K Nels— Section, Township, Range: _____

Landform (hillslope, terrace, etc.): pond edge Local relief (concave, convex, none): slope Slope (%): 0-10%

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____
Hydric Soil Present?	Yes ____	No ____
Wetland Hydrology Present?	Yes ____	No ____

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

Remarks: above average precip this yr.

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)			
957	1. SAEXI	30		
958	2. SAAMI	<1		
959	3. PODEI	<1		
960	4. ELANI	<1		
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
961	1. TYLAI	60		
962	2. SCVAI	13		
963	3. PAVII	<1		
964	4. JUTOI	2		
965	5. POMOI	2		
966	6. ELMAI	1		
967	7. AGSMI	1		
968	8. PLMAI	<1		
969	9. JUBAI	1		
970	10. MEARI	3		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 ____ No ____

Remarks: Lots of brown & green leopard frogs along pond edge / Muskrats have killed most of the TYLAI along the pond edge.

SOIL

Sampling Point: PLF-I

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- X 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-3'

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date 8/26/09
Sampling Point PLF - I

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
971	11	EUSE1	<1		
972	12	OEVI1	<1		
973	13	EUMA1	<1		
974	14	VETH1	<1		
975	15	CYOF1	<1		
976	16	HYPE1	<1		
977	17	ELCA1	<1		
978	18	PLLA1	<1		
979	19	XAST1	<1		
980	20	HEAN1	<1		
981	21	SPPE1	<1		
982	22	PACA1	<1		
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/31/10

Wetland Qualitative Revegetation Evaluation Form

Form #_____

Date 8/26/09
Observer(s) JKN
Location ID PLF-I

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 - SAEXI becoming solid along N + S pond edges

Woody Plant Counts

Species	Stem Count	Height 1	Height 2	Height 3	Width 1	Width 2	Width 3
SAEXI	too numerous	7'	5'	6'	3'	2'	3'
SAAMI	2	1'	1.5'		8"	1'	
PODEI	2	1'	1'	~~4'~~ JKN 8/26/09	4"	4"	

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

Suggestions for management:

Control weeds as needed.

Note: muskrats have killed a lot of the TYLA1 in the pond. Have to keep an eye out for them. See how area looks next yr.

Other comments:

Overall looks good. SAEX1 filling out around pond edge.

Completed by: [illegible] Date 8/26/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 8/26/09

Applicant/Owner: DOE State: CO Sampling Point: PLF-1

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): pond area - bottom of valley Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip. this year.

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: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: wetland)			
983 1. ~~PONAI~~ PONAI	20		
984 2. CEDEI	30		
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	____ = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		
% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:
Pond - mostly open water

MGH 1/3/10

SOIL

Sampling Point: PLF-J

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (~~inches~~ feet): 0-5'

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Pond area beyond where TYLA1 grows.

No Qualitative Habitat Assessment Form completed for this location.

Wetland Noxious Weed Survey Form

Observer Jay Nels Date 6/24/09
Location PLF Wetlands

Noxious Weed Species Present:

VEBLI - <1%
ELANI - <1%
VETHI - <1%
CIARI - <1%
HYPEI - <1%

Comments/Notes:

Jay K Nels
Print Name

Signature

6/24/09
Date

Wetland Noxious Weed Survey Form

Observer Jody Nels Date 7/13/09
Location PLF Wetlands

Noxious Weed Species Present:

HYPE1 - <1%
CIAR1 - <1%
VETH1 - <1%
CYOF1 - <1%
CEDI1 - <1%

Comments/Notes:

Jody K Nels
Print Name

JK Nels
Signature

7/13/09
Date

Wetland Noxious Weed Survey Form

Observer JKN **Date** 8/26/09
Location PLF

Noxious Weed Species Present:

SOARI
CIARI
HYPEI
CYOFI

~~HYPEI~~
8/26/09

Comments:

Control weeds as needed.

Completed By: JKN **Date** 8/26/09
Print Sign

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/1/09 J1/28/10

Applicant/Owner: DOE State: CO Sampling Point: ~~Melvins Wing Wetland~~ Ridge Road Wetland

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): ridetop Local relief (concave, convex, none): concave Slope (%): 1°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____ No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____ No ____	
Wetland Hydrology Present?	Yes ____ No ____	

Remarks:

above average precip. this yr.

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: ____)			
	1.			
	2.			
	3.			
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
1306	1. HOJUI	65		
1307	2. ELCRI	15		
1308	3. POARI	<1		
1309	4. HEANI	<1		
1310	5. VETHI	<1		
1311	6. LASEI	<1		
1312	7. AGCAI	1		
1313	8. AMARI	<1		
1314	9. GRSQI	<1		
1315	10. EUSEI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 ____ No ____

Remarks:

1/28/10 Ridge Road

Sampling Point: ~~Melvin's Way~~ Wetland

SOIL

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)
- 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:

not done

mitigation area

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)

- X 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)
- ___ 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 ___ Depth (inches): _____

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

Wetland Hydrology Present? Yes X No ~~X~~ 9/1/09

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

See early summer water level data

Remarks:

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

Date ~~9/5~~ 9/1/09 9/1/09

Sampling Point Ridge Road ~~Mathews Way~~ Wetland 1128th

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
1316	11	AGSM1	2		
	12				
	13				
	14				
	15				
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 9/1/09
Observer(s) JKN
Location ID Ridge Road ~~Antoine Way~~ Wetland
J 1128110

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 - may not be enough water to sustain wetland

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

barely - only gets runoff water

Woody Plant Counts

		Height			Width		
Species	**Stem Count**	**1**	**2**	**3**	**1**	**2**	**3**

J 9/1/09

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

Suggestions for management:

Control weeds as needed.

Other comments:

Lots of HOSUI this yr.

Completed by: [illegible] Date 9/1/09

Wetland Noxious Weed Survey Form

Observer Jody Nels- Date 6/10/09

Location Ridge Road ~~Melvins Way~~ Wetland

2/3/10

Noxious Weed Species Present:

none right now

Comments/Notes:

Jody K Nels- | [signature] | 6/10/09

Print Name | Signature | Date

Wetland Noxious Weed Survey Form

Observer Jody Nelson

Location Ridge Road ~~Melvin Way~~ Wetland

2/12/10

Date 7/27/09

Noxious Weed Species Present:

none

Comments:

Area dry.

Completed By: Jody K Nelson Print

Sign

Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN

Date 8/28/09

Location Ridge Road ~~Mehrins Way~~ Wetland 2/3/10

Noxious Weed Species Present:

CEDU

Total Cover =< 1%

Comments:

Completed By: Jody K Nolan Print Sign JK Nolan Date 8/28/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/1/09

Applicant/Owner: DOE State: Co Sampling Point: SPPTS Discharge Gallery

Investigator(s): Judy K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 1°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:

above average precip this yr.

VEGETATION – Use scientific names of plants.

		Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)				
1.				
2.				
3.				
4.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)				
1.				
2.				
3.				
4.				
5.				
		_____ = Total Cover		
Herb Stratum (Plot size: Lowland)				
1375 1.	TYLAI	23		
1376 2.	CIARI	15		
1377 3.	NECAI	1		
1378 4.	LASEI	<1		
1379 5.	HOJUI	25		
1380 6.	BRINI	2		
1381 7.	POMOI	13		
1382 8.	HEANI	<1		
1383 9.	SCVAI	<1		
1384 10.	JUBAI	<1		
		_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)				
1.				
2.				
		_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ 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 _____ No _____

Remarks:

SOIL

Sampling Point: SIPTS Discharge Gallery

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-4"

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date 9/1/09
Sampling Point SPPTS Discharge Gully

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

1385

	Scientific Name	Absolute % Cover	Dominant Species?	Indicator Status
11	LECA1	<1		
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

_____ = Total Cover

MGH 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 9/1/09
Observer(s) JKN
Location ID SPPTS Discharge Gallery

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.

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**

9/1/09

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

Suggestions for management:

Control weeds in entire area.

Other comments:

Lots of CIARI this year in area.

Completed by: Jody K Nelson Date 9/1/09

Wetland Noxious Weed Survey Form

Observer Jody Nels Date 6/10/09
Location SPPTS Discharge Gully Wetland

Noxious Weed Species Present:

CIARI, - 3%

Comments/Notes:

Wetland area has shrunk considerably as result of water flowing to east. Old wet area have dried up.

Jody K Nels
Print Name

Signature

6/10/09
Date

Wetland Noxious Weed Survey Form

Observer Jody K Nels — Date 7/27/09

Location SPPTS Discharge Gallery

Noxious Weed Species Present:

CIARI - 30%

Comments:

Not much wetland left here.

Completed By: Jody K Nels (Print) Jody K Nels (Sign) Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN

Date 8/28/09

Location SPPTS Discharge Gallery

Noxious Weed Species Present:

CIARI

Total Cover = 40%

Comments:

Completed By: Jody K Nel (Print) JK Nel (Sign)

Date 8/28/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/1/09

Applicant/Owner: DOE State: CO Sampling Point: SPPTS Swamp Wetland

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 3°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:
above average precip in 2009

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: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: wetland)			
1386 1. TYLAI	<1		
1387 2. CIARI	60		
1388 3. BRINI	20		
1389 4. CYOFI	<1		
1390 5. HYPEI	3		
1391 6. BRJAI	1		
1392 7. RUCRI	<1		
8.			
9.			
10.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		
% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ 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 _____ No _____

Remarks:

MGH 1/30/10

SPPTS Sump Installation Wetland

SOIL

Sampling Point: _____

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 %	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)
- 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:

not done

mitigation area

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ 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 ___ Depth (inches): _____

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

Wetland Hydrology Present? Yes ___ No X

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

See early summer water level data

Remarks:

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 9/1/09
Observer(s) KW
Location ID SIPTS Sump Installation wetland

Photographs taken today? (Y) (N) taken earlier – also took one today

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 too dry to support wetland species

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

no

Woody Plant Counts

		Height			Width		
Species	**Stem Count**	**1**	**2**	**3**	**1**	**2**	**3**

9/1/09

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

Suggestions for management:

Control weeds.

Other comments:

Wetland does not exist any more.

Completed by: Jody K Nelson Date 9/1/09

Wetland Noxious Weed Survey Form

Observer Jody Nels — Date 6/10/09
Location SPPTS Sump Installation Wetland

Noxious Weed Species Present:

CIAR1 - 15%
HYPE1 - 7%

Comments/Notes:

Not much left of wetland.

Jody K Nels — Print Name

Signature

6/10/09 Date

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 7/27/09

Location SPPTS Sump Installation Wetland

Noxious Weed Species Present:

CYOFI - 10%

CIARI - 40%

Comments:

Not much wetland left here

Completed By: Jody Knell Jody Knell Date 7/27/09

Print Sign

Wetland Noxious Weed Survey Form

Observer JKN

Location SPPTS Sump Installation Wetland

Date 8/28/09

Noxious Weed Species Present:

CIARI

Total Cover = <1%

Comments:

Completed By: Jody K Nel Print

Sign JK Nel

Date 8/28/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/1/09

Applicant/Owner: DOE State: CO Sampling Point: SPPTS well

Investigator(s): Jody Nelson Section, Township, Range: _____

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

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	Is the Sampled Area within a Wetland? Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average precip. this year

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: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: wetland)			
1426 1. SPPEI	15		
1427 2. CACAI	1		
1428 3. CIARI	3		
1429 4. HOJUI	40		
1430 5. JUBAI	8		
1431 6. SCVAI	1		
1432 7. PLMAI	1		
1433 8. HEANI	3		
1434 9. AGCAI	4		
1435 10. SCPUI	1		
	____ = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		
% Bare Ground in Herb Stratum ____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SPPTS Well

Sampling Point: Wetland

SOIL

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ 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)

- X Surface Soil Cracks (B6)
- X Sparsely Vegetated Concave Surface (B8) → in places
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-1

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

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

Wetland Hydrology Present? Yes X No ___

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

See early summer water level data

Remarks:

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

Date 9/1/09
Sampling Point SPPTS Well

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
1436	11	TRMA1	<1		
1437	12	Chenopod sp. CHGL1	<1		
1438	13	AGSM1	10 ~~5~~ 9/1/09		
1439	14	SCPA1	<1		
1440	15	LASE1	<1		
1441	16	ELCA1	<1		
1442	17	AGCR1	<1		
1443	18	KOSC1	<1		
1444	19	POMO1	<1		
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGA 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 9/1/09
Observer(s) JKW
Location ID SPPTS Well Wetland

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.

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**

9/1/09

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 is looking good this year.
SPPEI has really increased its presence

Completed by: Jody K Anderson Date 9/1/09

Wetland Noxious Weed Survey Form

Observer Jody Nels Date 6/10/09
Location SPPTS Well Wetland

Noxious Weed Species Present:

CIARI, - <1%
SOARI, - 1 plant

Comments/Notes:

Wetland looks good - lots of water this year

Jody K Nels — [signature] 6/10/09
Print Name Signature Date

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 7/27/09
Location SPPTS Well wetland

Noxious Weed Species Present:

CIARI - 2%

Comments:

Area still very wet - standing water 1-2" deep.
Lots of SIPEI - flower this year.
Area doing well.

Completed By: Jody Nelson Jody Nelson Date 7/27/09
Print Sign

Wetland Noxious Weed Survey Form

Observer JKN

Location SPPTS Well Wetland

Date 8/28/09

Noxious Weed Species Present:

CIARI

Total Cover = 1%

Comments:

Wetland looking good This year. Lots of SPPE1.

Completed By: [signature] Print [signature] Sign

Date 8/28/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/1/09 & 9/11/09

Applicant/Owner: DOE State: CO Sampling Point: SW093-~~B~~ A

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): hillside Local relief (concave, convex, none): Concave/Convex Slope (%): 1-15°

Subregion (LRR): G Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:
above average precip this yr.

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: _____)			
1393	1. PODEI	<1		
1394	2. SAEXI	<1		
	3. ~~STOC~~ & 9/11/09			
	4.			
	5.			
		_____ = Total Cover		
	Herb Stratum (Plot size: Wetland)			
1395	1. TYLAI	30		
1396	2. SCVAI	1		
1397	3. ELMAI	20		
1398	4. BRJAI	<1		
1399	5. BRINI	<1		
1400	6. HOJUI	<1		
1401	7. HEANI	<1		
1402	8. ECCRI	<1		
1403	9. POCOI	<1		
1404	10. JUTOI	<1		
		_____ = Total Cover		
	Woody Vine Stratum (Plot size: _____)			
	1.			
	2.			
		_____ = Total Cover		
	% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 _____ No _____

Remarks:

SOIL

Sampling Point: SW 093 ~ A

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 %	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)
- 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:

not done

mitigation area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- X Drift Deposits (B3)
- X 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)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0- 3"

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Date 9/1/09
Sampling Point SW093-A

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
1405	11	PLMAI	<1		
1406	12	POPE2	<1		
1407	13	TYANI	30		
1408	14	LECAI	<1		
1409	15	PORAI	<1		
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGA 1/3/10 ✓

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 9/1/09
Observer(s) JKN
Location ID SW073 - A

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.

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**
POAE1	4	3'	8"	2'	6"	4"	1'
SAEX1	4	3'	3'	2'	6"	6"	4"

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: Jody K Nelson Date 9/1/09

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Rocky Flats City/County: Jefferson Sampling Date: 9/1/09

Applicant/Owner: DOE State: Co Sampling Point: SW093-B

Investigator(s): Jody K Nelson Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Channel Local relief (concave, convex, none): Concave Slope (%): ~~1~~ 0/0

Subregion (LRR): G Lat: _____ Long: _____ Datum: 9/1/09

Soil Map Unit Name: NA NWI classification: _____

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 ____	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ____
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:

above average precip in 2009

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)			
1410	1. SAEXI	65		
1411	2. POBEI	15		
1412	3. SYOCI	5		
	4.			
	5.			
		____ = Total Cover		
	Herb Stratum (Plot size: wetland)			
1413	1. CIARI	10		
1414	2. AMARI	2		
1415	3. CEDII	1		
1416	4. BRINI	40		
1417	5. AGCAI	10		
1418	6. NECAI	<1		
1419	7. AGSMI	5		
1420	8. ELCAI	<1		
1421	9. RACOI	<1		
1422	10. KOSCI	<1		
		____ = Total Cover		
	Woody Vine Stratum (Plot size: ____)			
	1.			
	2.			
		____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 ____ No ____

Remarks:

SOIL

Sampling Point: SW093-B

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 %	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)
- 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:

not done

mitigation area

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)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ 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 ___ Depth (inches): ___

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

Wetland Hydrology Present? Yes ___ No X

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

See earlier summer water level data.

Remarks:

area is on stream terrace

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

Date 9/1/09
Sampling Point SW093 - B

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
1423	11	AGCR1	<1		
1424	12	GLLE1	<1		
1425	13	ASSP1	<1		
	14				
	15				
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				

_____ = Total Cover

MGH 1/3/10

Wetland Qualitative Revegetation Evaluation Form Form #_____

Date 9/1/09
Observer(s) JKN
Location ID SW093-B

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.

no

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

yes - on stream terrace

Woody Plant Counts

		Height			Width		
Species	**Stem Count**	**1**	**2**	**3**	**1**	**2**	**3**
PODEI	too numerous	25'	20'	18'	12'	10'	8'
SAEXI	"	7'	9'	7'	5'	6'	5'
STOCI	"	2'	2'	2'	1'	2'	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:

Completed by: Jody K Nelson Date 9/11/09

Wetland Noxious Weed Survey Form

Observer Jody Nelson Date 6/10/09
Location SW093 Wetland Area

Noxious Weed Species Present:

VETHI - <1%
CIARI - <1%

Comments/Notes:

Looks good.

Jody K Nelson
Print Name

Signature

6/10/09
Date

Wetland Noxious Weed Survey Form

Observer Jody Nels— Date 7/27/09

Location 500093 Wetland

Noxious Weed Species Present:

CEDII - 1%

CIARI - 1%

Comments:

Area looking good. Water Flowing.

Completed By: J. K. Nels Print J. K. Nels Sign Date 7/27/09

Wetland Noxious Weed Survey Form

Observer JKN
Location SW093

Date 8/28/09

Noxious Weed Species Present:

CIAR1

Total Cover = 3%

Comments:

Area looks good this year.

Completed By: Jon Kirk (Print) Jon Kirk (Sign) Date 8/28/09