



Department of Energy
Office of Legacy Management

October 14, 2009

Mr. Timothy Fischer
U.S. Environmental Protection Agency
Region V-SRF-6J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Mr. Thomas A. Schneider
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402

Dear Mr. Fischer and Mr. Schneider:

SUBJECT: Transmittal of the September 2009 Fernald Preserve On-Site Disposal Facility Inspection Forms

The purpose of this letter is to transmit the completed forms for the September 2009 inspection of the On-Site Disposal Facility (OSDF) for your review. Photographs of the disposal facility and the surrounding area were taken to accompany the inspection and are included with this report. The inspection was conducted with participation from the Ohio Environmental Protection Agency (OEPA), Civil and Environmental Consultants (CEC), and the S.M. Stoller Corporation.

The inspection process is described in the 2009 Fernald Preserve Comprehensive Legacy Management and Institutional Controls Plan (LMICP). The 2009 LMICP sets forth a revised inspection process. A field walk-down across the entire OSDF cap will be conducted in the spring and fall. Quarterly inspections of the other OSDF features will continue. The September 2009 inspection included an east/west transect walk of cell caps 1, 7 and 8, the toe of the entire OSDF, the drainages and fence line. Individuals recorded their findings on the Fernald Preserve OSDF Walk-down Inspection Form and indicated the locations of those findings on an accompanying map. A consolidated form and map is included with this report. Many of the items identified have been corrected. Items identified that require maintenance are entered and tracked via the attached Fernald Preserve Maintenance and Repair Action Items form.

Pursuant to Volume II of the LMICP, herbaceous cover data was collected for Cell Cap 4, 5, 6 and 7. For each cell cap, 12 one-meter square quadrats were randomly located using a three by

2597 B 3/4 Road, Grand Junction, CO 81503	<input type="checkbox"/>	3600 Collins Ferry Road, Morgantown, WV 26505
1000 Independence Ave., S.W., Washington, DC 20585	<input type="checkbox"/>	11025 Dover St., Suite 1000, Westminster, CO 80021
10995 Hamilton-Cleves Highway, Harrison, OH 45030	<input type="checkbox"/>	955 Mound Road, Miamisburg, OH 45342
232 Energy Way, N. Las Vegas, NV 89030	<input type="checkbox"/>	

REPLY TO: Harrison Office

four grid. The attached figure shows the grid and quadrat locations. Field surveys were conducted between July 21 and August 8, 2009. Total cover and species richness data were collected for each quadrat. From this information, total cover, native species composition and relative frequency of native species were calculated. The table below summarizes the findings. The enclosed tables present cap-specific species lists.

Cell Cap	Total Cover	Native Species Composition	Relative Frequency of Native Species
4	77%	53%	63%
5	85%	68%	75%
6	79%	52%	64%
7	82%	46%	55%

The results demonstrate continued establishment of native vegetation across the OSDF. For 2009, total cover was estimated using new cover class categories. A "1 to 10" scale was used instead of "1 to 6". This new approach is consistent with OEPA wetland monitoring protocol, and allows for increased precision for estimating total cover. While the calculated percentages are less than the 90% total cover goal, this is more an artifact of implementing the new cover classes rather than a lack of herbaceous cover. Field observations indicate that cell caps 4 through 7 mostly have an adequate amount of herbaceous cover. The attached photos support this observation.

Native species composition is also primarily meeting LMICP goals. The number of native species was above 50% for three of the four cells surveyed. While Cell 7 had less than 50% native species, the relative frequency of native species was greater than 50%. The reduced native composition may be partially attributed to the fact that Cell 7 was mowed and baled several months earlier. Nevertheless, seeded grasses and forbs were present in all cells, and seeded native grasses had the highest relative frequency across quadrats. The attached tables provide cell-specific species information.

The next OSDF Cell cap inspection is scheduled for December 2009 and will include an inspection of the entire OSDF cap, the drainages, the fence line and any items of special interest or concern.

If you have any questions or require additional information, please call me at (513) 648-3148.

Sincerely,



Jane Powell
Fernald Site Manager
DOE-LM-20.1

Enclosure

Mr. Timothy Fischer
Mr. Thomas Schneider
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cc w/enclosure:

T. Pauling, DOE-LM (electronic)
M. Cullerton, Tetra Tech.
M. Murphy, USEPA-V, A-18J
T. Schneider, OEPA (three copies of enclosure)
M. Shupe, HSI GeoTrans
Project Record File FER030.1(A) (thru W. Sumner)
Administrative Records (thru W. Sumner)

cc w/o enclosure:

J. Homer, Stoller
F. Johnston, Stoller
L. McHenry, Stoller

On-Site Disposal Facility Inspection Report September 2009



U.S. DEPARTMENT OF
ENERGY

Legacy
Management



East Face Cell 1



West Face Cell 1

(No Photo Available)

North Face Cell 1



North Drainage (looking west)



6319D-5705

East Face Cell 2



6319D-5682

West Face Cell 2



6319D-5704

East Face Cell 3



6319D-5683

West Face Cell 3



East Face Cell 4



West Face Cell 4



East Face Cell 5



West Face Cell 5



East Face Cell 6



West Face Cell 6



East Face Cell 7



West Face Cell 7



6319D-5697

East Face Cell 8



6319D-5692

West Face Cell 8



6319D-5695

South Face Cell 8



6319D-5696

South Drainage (looking west)



6319D-5699

East Drainage Cell 7 (looking south)



6319D-5703

East Drainage Cell 4 (looking south)



East Drainage Cell 1 (looking south)



West Inner Drainage Cell 7 (looking south)



6319D-5685

West Inner Drainage Cell 4 (looking south)



6319D-5680

West Inner Drainage Cell 1 (looking south)



6319D-5679

West Outer Drainage Cell 1 (looking south)



6319D-5693

West Outer Drainage Cell 8 (looking south)



West Outer Drainage Cell 8 (looking north)

FERNALD PRESERVE OSDF WALKDOWN INSPECTION FORM

Date: September 10, 2009

Inspector: Stoller, OEPA, Jim Fleck

No.	Cell/Area	Location (use map whenever possible)	GPS?	Type of Finding (see)						Description	Photo? (file No.)	Followup		
				Erosion	Settlement	Vegetation	Bioinvasion	Drainage	Other			Corrected	Maint. Required	Cont. Observation
SB1	1		No			X			Woody vegetation	No	X			
SB2	1		No			X			Woody vegetation	No	X			
SB3	1		No			X			Woody vegetation	No	X			
SB4	2/3		No			X			Woody vegetation	No	X			
SB5	3/4		No			X			Woody vegetation	No	X			
SB6	4		No			X			Patch of willows	No		X		
SB7	5/6		No			X			Woody vegetation	No	X			
SB8	8		No			X			Thistle patch	No	X			
BL1	1		No			X			Canada thistle	No	X			
BL2	7/8		No			X			Canada thistle	No	X			
BL3	7/8		No			X			Canada thistle	No	X			
BL4	8		No			X			Canada thistle	No	X			
BL5	8		No			X			No flag? Clover and Canada wildrye only.	No			X	
BL6	East drain		No			X	X	X	Standing water, cattails, wood vegetation	No		X	X	
JH1	3	East rip rap drain	No			X			Canada thistle - not flagged	No		X		
JH2	3/4	East rip rap drain	No			X			Black willow, several locations, not flagged	No		X		
JH3	5	East rip rap drain	No			X			Cottonwood	No		X		
JH4	8	Southwest corner 6:1	No			X			Canada thistle - no flag	No	X			
JH5	8	South face 6:1	No			X			Canada thistle - no flag	No	X			
JH6	8	Southeast benchmark	No					X	Survey marker damaged	yes 6887-D1195		X		
JH7	4	West inner drainage	No			X			Elm species	No		X		
DB1	7/8		No			X			Thistle	No	X			
DB2	7/8		No			X			Thistle	No	X			
KV1	1		No			X			Woody vegetation	No	X			
KV2	4	Border of 4 and 5	No			X			Johnson grass	No	X			
KV3	1		No			X			Thistle	No	X			
KV4	1	North side	No			X			Woody vegetation in north rip rap	No		X		
KV5	5	Valve house	No			X			Cottonwood	No	X			
KV6		telephone pole?	No			X			Mulberry?	No		X		
KB1	3	east side of east gravel road	No			X			Cottonwood	No		X		
KB2	5	East drain	No			X			Maple tree	No		X		
AD1	2	East drain	No			X			Cottonwood	No		X		
AD2	5	east toe	No						Woody vegetation	No		X		
JF1	West perimeter	West of cell 1	No			X			Thistle	No	X			
JF2	West perimeter	Southwest of VH- 3	No			X			Thistle	No	X			
JF3	West perimeter	Approximately 30 feet north of VH- 4	No				X		Groundhog hole noted on previous inspection (JF15). Not found - must have been repaired	No	X			
JF4	West perimeter	Fence between VH- 4 and 5	No					X	Cut fence is repaired (previous inspection JF21)	No	X			
JF5	West perimeter	Mound west of VH-6	No				X		Groundhog hole noted on previous inspection (JF20). No recent activity	No			X	
JF6	West perimeter	GIS structure outlet ditch between cells 6 and 7	No					X	ITLS was cut when the ditch from the GIS pipe outlet to the perimeter fence was reworked in 2008. There needs to be additional measures to restrict the possibility of future use of the ITLS.	No		X	X	
JF7	West perimeter	Cells 7 and 8 west of ditch	No			X			Thistle	No	X			
JF8	West perimeter	West of VH-8	No			X			Thistle	No	X			
JF9	southwest perimeter	West of SW corner of OSDF	No			X			Thistle	No	X			
JF10	South perimeter	Three culvert pipes south of cell 8	No				X		West and middle pipes contain 4 inches of sediment (1 inch on east pipe), contains vegetation (cattails), and gravel has washed out from around pipe creating partial blockage.	No		X	X	
JF11	East perimeter	North half of cell 7 east of ditch	No			X			Cottonwood middle of cell 7 to north end of cell 7	No		X		
JF12	East perimeter	cell 5	No			X			Woody vegetation east end of riprap	No		X		
JF13	East perimeter	North end cell 5 at fence	No			X			Woody vegetation at fence	No		X		
JF14	West perimeter		No	X					Erosion greater than one foot. Grass is growing in erosion rill stopping progression of erosion. Be careful if repaired - buried pipe! (previous inspetion JF19)	No			X	
JF15	East perimeter	Fence posts along east side of OSDF	No	X					Erosion is occurring around the concrete of several perimeter fence posts. Even with the erosion, the posts remain solid. Continued monitoring is necessary (previous inspection JF24)	No			X	
JF16	East perimeter	Cell 2 ditch	No			X			Woody vegetation (flagged locations A-D). East end of cattails.	No		X	X	
JF17	East perimeter	Cells 1 and 2 east of ditch	No			X			Woody vegetaion from JF-17A (located east of Cell 2) north to the NE corner (continue to JF-17B flag north of the perimeter road). Includes previous inspection numbers JF10 and JF11, as well as JF2 and JF3 from the March 2009 inspection.	No		X		

FERNALD PRESERVE OSDF WALKDOWN INSPECTION FORM

Date: September 10, 2009

Inspector: Stoller, OEPA, Jim Fleck

No.	Cell/Area	Location (use map whenever possible)	GPS?	Type of Finding (see)						Description	Photo? (file No.)	Followup		
				Erosion	Settlement	Vegetation	Bioinvasion	Drainage	Other			Corrected	Maint. Required	Cont. Observation
JF18	North perimeter	Along fence east of north gate to fence corner NE of OSDF	No			X				Thistle (previous inspection JF9)	No		X	
JF19	North perimeter	7 fence posts east of north gate	No			X				Woody vegetation	No		X	
JF20	North perimeter	North drainage ditch	No			X				Sporadic, small (1-3 ft.), woody vegetation (Cottonwood and willow) throughout the north drainage ditch from midpoint of OSDF to west end of ditch (previous inspection JF8).	No			X
JF21	South perimeter	Grassy area south and west of drainage channel	No						X	Debris noted on drawing as JF6a and JF6b (from March 2009 inspection) was removed during the June 2009 inspection.	No	X		

Additional Notes

1. There is a lot of matting at the toe of cell 7 on the east side. (DB)
2. Patches of thistle throughout cell 7 - unmarked. (DB) - *has been addressed*
3. Bare spot at southwest corner of cell 8 - riaght at the doe - did not mark. (DB)
4. Old flag on cell 1 - erosion? (KV)
5. Johnson grass on cell 1 - east near top of 6:1 (KV) - *has been addressed*
6. Thistle and Johnson grass around valve houses on west side (LM) - *has been addressed*
7. Teasel in drainage on west side (LM) - *has been addressed*
8. Piece of matting setting by road south of valve house 8 (LM)



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Legend

- Building
- Fernald Preserve Boundary
- Fence
- OSDF Final Cover Outline
- Road-Paved
- Road-gravel



**Fernald Preserve
 OSDF (On-Site Disposal Facility)
 September 2009 Inspection Findings
 requiring maintenance or follow-up**

**FERNALD PRESERVE MAINTENANCE AND REPAIR ACTION ITEMS
OCTOBER 2009 UPDATE**

No.	Location	GPS?	Maintenance item identified	Date identified	Origin of Finding	Inspection Finding No.	Resolution	Date of resolution	Comments
86	SP-7	no	Area rutted, sparse vegetation, rock	3/13/2008	March 2008 quarterly field walkdown	8	Evaluate condition as part of Natural Resource Trustee walkdowns		Will be addressed as part of NRT walkdown path forward
117	Silo rail "Y" - Solid Waste Landfill	no	Erosion into basin	3/13/2008	March 2008 quarterly field walkdown	39	Evaluate condition as part of Natural Resource Trustee walkdowns		Will be addressed as part of NRT walkdown path forward
119	Owens Pond - Solid Waste Landfill	no	Erosion into basin	3/13/2008	March 2008 quarterly field walkdown	41	Evaluate condition as part of Natural Resource Trustee walkdowns		Will be addressed as part of NRT walkdown path forward
233	Deer fence off south access road	No	Deer fence corner wire down	6/5/2008	June 2008 quarterly field walkdown	7			
240	North of former AFP	No	Eroding bank	6/5/2008	June 2008 quarterly field walkdown	14	Evaluate condition as part of Natural Resource Trustee walkdowns		Will be addressed as part of NRT walkdown path forward
244	Southern Waste Units	No	Erosion down old road (N/S)	6/5/2008	June 2008 quarterly field walkdown	18	Evaluate condition as part of Natural Resource Trustee walkdowns		Will be addressed as part of Sycamore Trail construction
355	EP	No	Rebar	6/5/2008	June 2008 quarterly OSDF walkdown	JF24			Unable to remove by hand - needs to be dug out
356	EP	No	Erosion at fence post.	6/5/2008	June 2008 quarterly OSDF walkdown	JF25			
413	West perimeter	No	Rutting behind Valve House No. 8.	9/2/2008	September 2008 quarterly OSDF walkdown	JF14			
455	East fenceline	No	Honeysuckle	9/3/2008	September 2008 quarterly field walkdown	36			
456	East fenceline	No	Tree tube set next to FP sign	9/3/2008	September 2008 quarterly field walkdown	37			
503	Eco Park trail	No	Loose railroad tie on trail to east overlook. Step partially removed and rebar exposed.	9/2/2008	Weekly trail inspection	na			
508	Biowetland/SF Wetland	No	Minor erosion at southwest locations on berm	11/17/2008	Casual observation	na			
530	South of A6PI Wetland	No	Deer cages down	12/3/2008	December 2008 quarterly field walkdown	21			
531	Weapons to Wetland trail	No	Rilling on east side of trail	11/24/2008	Weekly trail inspection	NA			
532	Weapons to Wetland trail - connector to Shingle Oak	No	Low place in trail - water standing	12/1/2008	Weekly trail inspection	NA			
534	Eco-park	No	Two steps need to be replaced...see #503 above	12/1/2008	Weekly trail inspection	NA			
535	Lodge Pond Trail - south leg by aesthetic barrier	No	Ruts need repaired	12/8/2008	Weekly trail inspection	NA			
575	BB Box 001 - East boundary	Yes	Some rot in upright holder board. Needs linseed oiled	11/5/2008	Annual wildlife box inspection	NA			

No.	Location	GPS?	Maintenance item identified	Date identified	Origin of Finding	Inspection Finding No.	Resolution	Date of resolution	Comments
576	BB Box 005 - East boundary	Yes	Locking mechanism loose	11/5/2008	Annual wildlife box inspection	NA			
577	Wood Duck Box 016 - East boundary	Yes	Broken bolt	11/5/2008	Annual wildlife box inspection	NA			
578	BB Box 017 - East boundary	Yes	New latch and ladder repair needed	11/5/2009	Annual wildlife box inspection	NA			
579	BB Box 018 - East boundary	Yes	Needs new latch	11/5/2009	Annual wildlife box inspection	NA			
580	BB Box 019 - East boundary	Yes	general replacement	11/5/2009	Annual wildlife box inspection	NA			
581	BB Box 020 - East boundary	Yes	general replacement	11/5/2009	Annual wildlife box inspection	NA			
582	BB Box 023 - East boundary	Yes	Needs new latch	11/5/2009	Annual wildlife box inspection	NA			
583	Kestrel Box 027 - East boundary	Yes	Add shavings	11/5/2009	Annual wildlife box inspection	NA			
584	Kestrel Box 028 - East boundary	Yes	Add shavings	11/5/2009	Annual wildlife box inspection	NA			
585	Kestrel Box 029 - East boundary	Yes	Add shavings	11/5/2009	Annual wildlife box inspection	NA			
586	BB Box 060 - Former Production Area	Yes	Replace predator board	12/29/2008	Annual wildlife box inspection	NA			
587	BB Box 067 - Waste Pits Area	Yes	Replace post supporting box	12/30/2008	Annual wildlife box inspection	NA			
588	BB Box 105 - Paddys Run	Yes	Coming off of pole	12/31/2008	Annual wildlife box inspection	NA			
589	BB Box 109 - Paddys Run	Yes	Door hinge needs repair	1/2/2009	Annual wildlife box inspection	NA			
590	BB Box 111 - Paddys Run	Yes	Needs new latch	1/2/2009	Annual wildlife box inspection	NA			
591	Butterfly Box 114 - Paddys Run	Yes	Needs oiled	1/2/2009	Annual wildlife box inspection	NA			Put bark in box
593	Weapons to Wetland trail - connector to Shingle Oak	No	Erosion of trail surface in 2 locations. Water running across trail.	12/22/2008	Weekly trail inspection	NA	See finding No. 532	5/8/2009	See finding No. 532
594	Weapons to Wetland trail - North/south section of trail	No	Erosion along side of trail - water running over trail is cutting rill.	12/22/2008	Weekly trail inspection	NA			
595	Eco Park - adjacent to east deck	No	2 steps need to be replaced	12/22/2008	Weekly trail inspection	NA			
613	Waste pits - west	No	Bird box down	3/3/2009	March 2009 quarterly field walkdown	11			

No.	Location	GPS?	Maintenance item identified	Date identified	Origin of Finding	Inspection Finding No.	Resolution	Date of resolution	Comments
620	North east of Visitors Center	No	Erosion	3/3/2009	March 2009 quarterly field walkdown	18	Evaluate condition as part of Natural Resource Trustee walkdowns		Will be addressed as part of Hickory Trail construction
633	Waste pits - north west	No	Cages are down	3/3/2009	March 2009 quarterly field walkdown	31			
638	North of Visitors Center	No	Erosion into drainage (same as 18?)	3/3/2009	March 2009 quarterly field walkdown	36			See Finding No. 620 above
646	Waste pits	No	Erosion matting rolls	3/3/2009	March 2009 quarterly field walkdown	44			
650	Waste pits - east	No	A lot of trash blown around	3/3/2009	March 2009 quarterly field walkdown	48			
667	Waste pits	No	Trash	3/3/2009	March 2009 quarterly field walkdown	65	Evaluate condition as part of Natural Resource Trustee walkdowns	5/8/2009	
687	Roads and parking areas	No	Paint is wearing in some areas	3/16/2009	March 2009 point-specific IC inspection	NA			
689	OSDF Cell 8 - Road	No	Debris	3/12/2009	March 2009 quarterly OSDF inspection	HS5			
694	East face cell 8 near top	No	Rock greater than 4-inches	3/12/2009	March 2009 quarterly OSDF inspection	JH1			
696	North end of east side	No	Woody vegetation (4' tall cottonwood)	3/12/2009	March 2009 quarterly OSDF inspection	JF2			
697	East side of ditch, north end	No	Woody vegetation spaced 10 - 30 feet apart. More prevalent east of cells 1 and 2. Former cottowood grove east of cells 7 and 8 may need re-treated.	3/12/2009	March 2009 quarterly OSDF inspection	JF3			
699	Grassy area south of cell 8	No	Debris at JF6A GT Debris - plastic 6 feet southwest , clay tile 6 feet southwest GT 3 feet southwest at JF6B	3/12/2009	March 2009 quarterly OSDF inspection	JF6			
708	Fence posts along east side of OSDF	No	Erosion is occurring around the concrete of several perimeter fence posts. Even with the erosion, the posts remain solid. Continued monitoring is necessary.	3/12/2009	March 2009 quarterly OSDF inspection	JF16			
709	South laydown area	No	UV and wind damaged plastic tarp covering the straw is falling apart and creating debris around perimeter of gravel laydown area.	3/12/2009	March 2009 quarterly OSDF inspection	JF17			
712	stand of trees across from Access V4	No	Poison hemlock needs mowed/trimmed	6/2/2009	Casual observation	NA			
715	FPVC	No	replace dead trees - Ironwood, redbud	5/28/2009	Casual observation	NA			
721	North edge of Visitors Center parking lot	No	Erosion	6/9/2009	June 2009 quarterly field walkdown	1			
723	West of former silos location	No	Thistle	6/9/2009	June 2009 quarterly field walkdown	4			
728	North side of SWU slope	No	Concrete debris	6/9/2009	June 2009 quarterly field walkdown	15			
737	West of former silos location, down the bank to Paddys Run	No	Thistle	6/9/2009	June 2009 quarterly field walkdown	29			

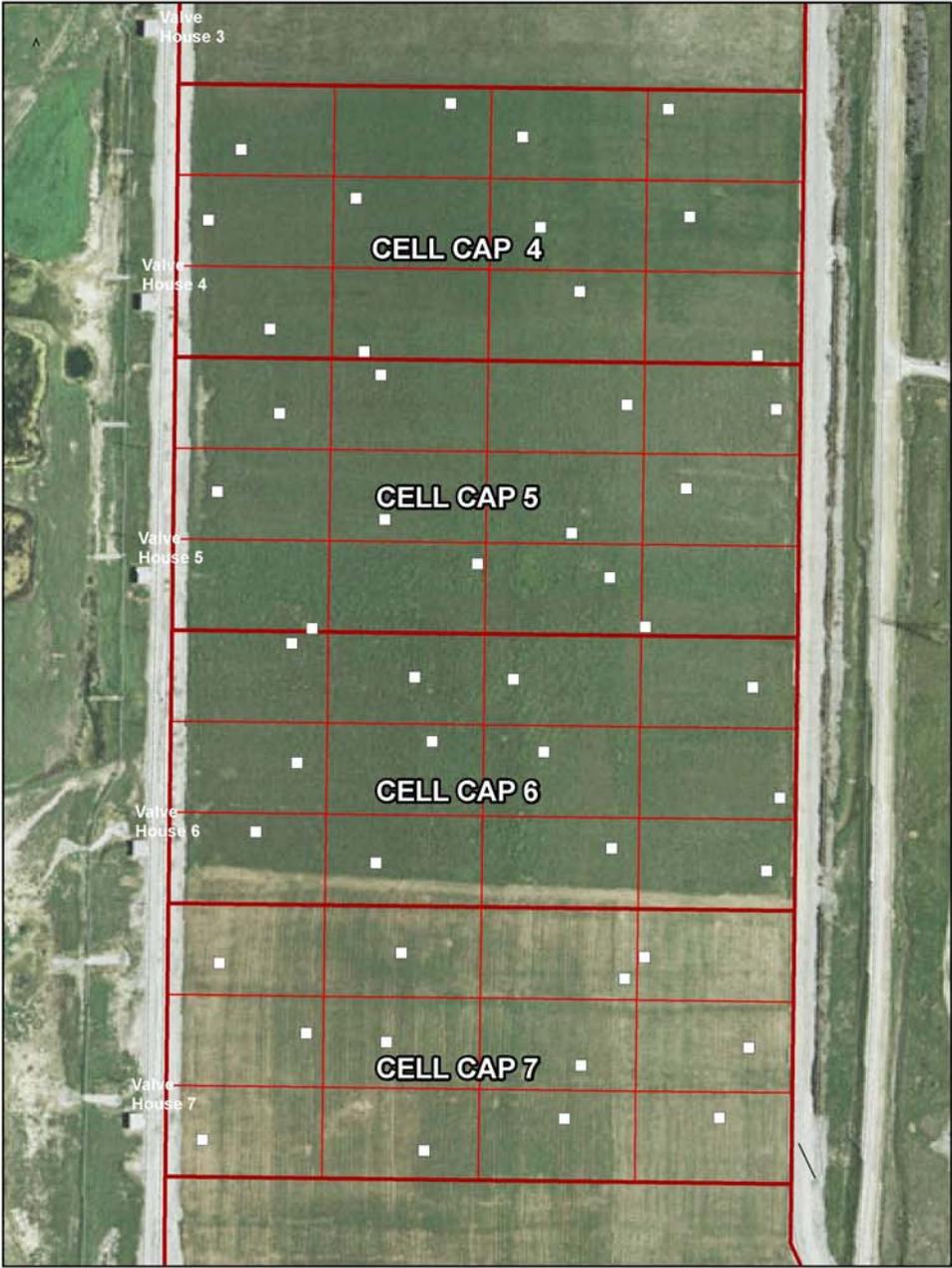
No.	Location	GPS?	Maintenance item identified	Date identified	Origin of Finding	Inspection Finding No.	Resolution	Date of resolution	Comments
738	Adjacent to east bank of Paddys Run at SWU	No	thistle	6/9/2009	June 2009 quarterly field walkdown	30			
739	Deer fence area	No	thistle	6/9/2009	June 2009 quarterly field walkdown	31			
741	South field	No	teasel	6/9/2009	June 2009 quarterly field walkdown	34			
742	South field	No	thistle	6/9/2009	June 2009 quarterly field walkdown	35			
743	West of Visitor Center parking	No	Erosion	6/9/2009	June 2009 quarterly field walkdown	36			
750	Southeast of SWU	No	Teasel	6/9/2009	June 2009 quarterly field walkdown	44			
751	Southeast of Dance hall	No	Teasel and thistle	6/9/2009	June 2009 quarterly field walkdown	45			
754	Basin south of Visitors Center	No	Erosion	6/9/2009	June 2009 quarterly field walkdown	48			
756	Old SWU access road	No	large erosion rill	6/9/2009	June 2009 quarterly field walkdown	53			
757	Former silos area	No	Wide erosion, partially vegetated	6/9/2009	June 2009 quarterly field walkdown	57			
758	Former silos area	No	Thistle	6/9/2009	June 2009 quarterly field walkdown	58			
760	East SWU	No	Erosion	6/9/2009	June 2009 quarterly field walkdown	61			
761	Active flyash, north of deerfence	No	Teasel and thistle	6/9/2009	June 2009 quarterly field walkdown	62			
764	Shingle Oak deer fence - woodlot	No	Deer fence down on west side	6/9/2009	June 2009 quarterly field walkdown	66			
765	Southwest corner west SWRB	No	Erosion	6/9/2009	June 2009 quarterly field walkdown	68			
766	SWU - east gravel road	No	Erosion	6/9/2009	June 2009 quarterly field walkdown	70			
769	Inside south pines deer fence	No	thistle	6/9/2009	June 2009 quarterly field walkdown	73			
770	Mound at south end of south pines deer fence	No	thistle	6/9/2009	June 2009 quarterly field walkdown	74			
771	North of active flyash	No	thistle	6/9/2009	June 2009 quarterly field walkdown	77			
772	North of active flyash	No	erosion	6/9/2009	June 2009 quarterly field walkdown	78			

No.	Location	GPS?	Maintenance item identified	Date identified	Origin of Finding	Inspection Finding No.	Resolution	Date of resolution	Comments
774	Interior Access VA	No	reflective tape coming off	6/4/2009	June 2009 point-specific IC inspection	NA			
775	Interior Access VI	No	reflective tape coming off	6/4/2009	June 2009 point-specific IC inspection	NA			
780	OSDF Cell 7, east toe of slope	No	animal burrow	6/2/2009	June 2009 quarterly OSDF inspection	DB5			
782	North pines east	No	Limb across deer fence	9/2/2009	September 2009 quarterly field walkdown	9			
783	North pines west deer fence	No	Teasel, Canada thistle	9/2/2009	September 2009 quarterly field walkdown	10			
784	North pines west deer fence	No	Canada thistle	9/2/2009	September 2009 quarterly field walkdown	11			
785	North pines southeast corner of deer fence	No	Deer fence down	9/2/2009	September 2009 quarterly field walkdown	12			
786	Northwest of OSDF	No	Canada thistle	9/2/2009	September 2009 quarterly field walkdown	13			
787	East access to North pines off of north access road	No	Rubber honeycomb matting in ground	9/2/2009	September 2009 quarterly field walkdown	21			
788	South side of east deer fence	No	Break in deer fence with well defined deer path	9/2/2009	September 2009 quarterly field walkdown	22			
789	North pines	No	Thistle near Cultural Resource sign	9/2/2009	September 2009 quarterly field walkdown	23			
790	North pines	No	Cultural Resource sign coming off post	9/2/2009	September 2009 quarterly field walkdown	24			
791	North end of triangle - North of OSDF	No	PVC pipe and garbage	9/2/2009	September 2009 quarterly field walkdown	27			
792	Pines along south access	No	Thistle	9/2/2009	September 2009 quarterly field walkdown	29			
793	East side of Lodge Pond basin	No	Concrete and fabric (<i>Item identified as concrete is NOT concrete</i>)	9/2/2009	September 2009 quarterly field walkdown	35			
794	North pines, east deer fence on mowed path	No	pipe (black)	9/2/2009	September 2009 quarterly field walkdown	36			
795	Pines along south access	No	thistle	9/2/2009	September 2009 quarterly field walkdown	37			
796	East side of Lodge Pond trail	No	thistle	9/2/2009	September 2009 quarterly field walkdown	38			
797	North side of gravel road along north side of production area and south of north pines.	No	thistle	9/2/2009	September 2009 quarterly field walkdown	40			
798	East perimeter fence	No	Perimeter signs down	9/2/2009	September 2009 quarterly field walkdown	43			

No.	Location	GPS?	Maintenance item identified	Date identified	Origin of Finding	Inspection Finding No.	Resolution	Date of resolution	Comments
799	East side of Lodge Pond	No	T-posts in rows - not sure of purpose.	9/2/2009	September 2009 quarterly field walkdown	44			
800	North pines	No	Teasel	9/2/2009	September 2009 quarterly field walkdown	45			
801	North pines east deer fence	No	Teasel	9/2/2009	September 2009 quarterly field walkdown	46			
802	North pines east deer fence	No	Teasel and thistle	9/2/2009	September 2009 quarterly field walkdown	47			
803	A1PI wetland	No	Honeysuckle	9/2/2009	September 2009 quarterly field walkdown	50			
804	A1PI wetland	No	Honeysuckle	9/2/2009	September 2009 quarterly field walkdown	52			
805	A1PI wetland	No	Honeysuckle	9/2/2009	September 2009 quarterly field walkdown	53			
806	A1PI wetland - basin 4	No	Honeysuckle	9/2/2009	September 2009 quarterly field walkdown	54			
807	Summer gate south of A1PI	No	Honeysuckle	9/2/2009	September 2009 quarterly field walkdown	55			
808	North A1PI	No	Honeysuckle and teasel	9/2/2009	September 2009 quarterly field walkdown	57			
809	A1PI wetland - basin 2	No	Honeysuckle	9/2/2009	September 2009 quarterly field walkdown	59			
810	Norht and south Summe gates	No	Honeysuckle	9/2/2009	September 2009 quarterly field walkdown	60			
811	East perimeter	No	Honeysuckle	9/2/2009	September 2009 quarterly field walkdown	61			
812	Forest Demo Project	No	Evidence of vehicle passing around gate	8/28/2009	September 2009 point-specific IC inspection	na			
813	Paddys Run Road and East Perimeter	No	Could not find signs	8/28/2009	September 2009 point-specific IC inspection	na			
814	CAWWT fence	No	old T-posts need to be removed	8/28/2009	September 2009 point-specific IC inspection	na			
815	DO building	No	bagged plant plug containers outside building	8/28/2009	September 2009 point-specific IC inspection	na			
816	North side of Visitors Center	No	Relocate two vines prior to construction work	9/21/2009	Casual observation	na			
817	Access V3	No	Move back/widen gate	10/1/2009	Casual observation	na			
818	Access V3A	No	Move back/widen gate	10/1/2009	Casual observation	na			

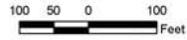
No.	Location	GPS?	Maintenance item identified	Date identified	Origin of Finding	Inspection Finding No.	Resolution	Date of resolution	Comments
819	Access V4	No	Move back/widen gate	10/1/2009	Casual observation	na			
820	Access V6	No	Fill in ditch to allow for vehicle use	10/1/2009	Casual observation	na			
821	Access V7	No	Remove culvert and abandon access	10/1/2009	Casual observation	na			
822	OSDF Cell 4	No	Patch of willows	9/10/2009	September 2009 OSDF Inspection	SB6			
823	OSDF east drain	No	Standing water, cattails, wood vegetation	9/10/2009	September 2009 OSDF Inspection	BL6			
824	OSDF Cell 3 east drainage	No	Canada thistle - not flagged	9/10/2009	September 2009 OSDF Inspection	JH1			
825	OSDF Cell 3/4 east drainage	No	Black willow, several locations, not flagged	9/10/2009	September 2009 OSDF Inspection	JH2			
826	OSDF Cell 5 east drainage	No	Cottonwood	9/10/2009	September 2009 OSDF Inspection	JH3			
827	OSDF Southeast benchmark	No	Survey marker damaged	9/10/2009	September 2009 OSDF Inspection	JH6			
828	OSDF Cell 4 west inner drainage	No	Elm species	9/10/2009	September 2009 OSDF Inspection	JH7			
829	OSDF Cell 1	No	Woody vegetation in north rip rap	9/10/2009	September 2009 OSDF Inspection	KV4			
830	OSDF Cell 3 east side of east gravel road	No	Mulberry	9/10/2009	September 2009 OSDF Inspection	KV6			
831	OSDF Cell 3 east drain	No	Cottonwood	9/10/2009	September 2009 OSDF Inspection	KB1			
832	OSDF Cell 5 east drain	No	Maple tree	9/10/2009	September 2009 OSDF Inspection	KB2			
833	OSDF Cell 2 east toe	No	Cottonwood	9/10/2009	September 2009 OSDF Inspection	AD1			
834	OSDF Cell 5	No	Woody vegetation	9/10/2009	September 2009 OSDF Inspection	AD2			
835	GIS structure outlet ditch between cells 6 and 7	No	Pipes contain 4 inches of sediment, vegetation (cattails), and gravel has washed out from around pipe creating partial blockage.	9/10/2009	September 2009 OSDF Inspection	JF6			
836	East perimeter	No	Cottonwood middle of cell 7 to north end of cell 7	9/10/2009	September 2009 OSDF Inspection	JF11			
837	East perimeter	No	Woody vegetation east end of riprap	9/10/2009	September 2009 OSDF Inspection	JF12			
838	East perimeter	No	Woody vegetation at fence	9/10/2009	September 2009 OSDF Inspection	JF13			

No.	Location	GPS?	Maintenance item identified	Date identified	Origin of Finding	Inspection Finding No.	Resolution	Date of resolution	Comments
839	East perimeter	No	Woody vegetation (flagged locations A-D). East end of cattails.	9/10/2009	September 2009 OSDF Inspection	JF16			
840	East perimeter	No	Woody vegetaion from JF-17A (located east of Cell 2) north to the NE corner (continue to JF-17B flag north of the perimeter road).	9/10/2009	September 2009 OSDF Inspection	JF17			
841	North perimeter	No	Thistle (previous inspection JF9)	9/10/2009	September 2009 OSDF Inspection	JF18			
842	North perimeter	No	Woody vegetation	9/10/2009	September 2009 OSDF Inspection	JF19			



Legend

- Sample Location
- Sample Grid



OSDF Cell Cap 4 through 7 Herbaceous Monitoring Locations for 2009

Implementation monitoring 2008
20-Jul-09

total frequency = 4.50

Herbaceous Cover Data Summary
Cell 4

Native Spp.: 10
Non-Native Spp.: 9
Percent Native: 53%

(non native species are in bold)

	Species	Common Name	Type	CC	Number of quadrats present	Frequency (species/quadrat)	Relative Frequency	
1	<i>Andropogon gerardii</i>	big blue stem	grass	5	1	0.08	2%	
1	<i>Asclepias tuberosa</i>	butterfly weed	forb	4	5	0.42	9%	
1	<i>Aster pilosus</i>	heath aster	forb	1	1	0.08	2%	
1	<i>Bouteloua curtipendula</i>	side-oats grama	grass	8	6	0.50	11%	
1	<i>Conzya canadensis</i>	horseweed	forb	0	2	0.17	4%	
1	<i>Elymus canadensis</i>	Canada wild rye	grass	6	12	1.00	22%	
1	<i>Helioopsis helianthoides</i>	false (oxeye) sunflower	forb	5	2	0.17	4%	
1	<i>Monarda fistulosa</i>	bergamot	forb	3	1	0.08	2%	
1	<i>Panicum virgatum</i>	switchgrass	grass	4	3	0.25	6%	
1	<i>Verbena urticifolia</i>	white vervain	forb	3	1	0.08	2%	
1	<i>Cirsium arvense</i>	Canada thistle	forb	0	1	0.08	2%	
1	<i>Convolvulus arvensis</i>	field bindweed	forb	0	3	0.25	6%	
1	<i>Daucus carota</i>	Queen Anne's lace	forb	0	5	0.42	9%	
1	<i>Medicago lupulina</i>	black medick	forb	0	2	0.17	4%	
1	<i>Phleum pratense</i>	Timothy	grass	0	1	0.08	2%	
1	<i>Solanum carolinense</i>	horse nettle	forb	0	1	0.08	2%	
1	<i>Trifolium repens</i>	white clover	forb	0	2	0.17	4%	
1	<i>Trifolium sp.</i>	clover sp.	forb	0	3	0.25	6%	
1	<i>Trifolium sp.</i>	clover sp.	forb	0	2	0.17	4%	
					Native Species:	34	2.83	63%
					Non-Native Species:	20	1.67	37%

Mean CC: 2.05
Total Spp.: 19
FQAI: 8.95

CC = Coefficient of Conservatism

Quadrat	Cover Class	Midpoint
1	8 (50-75%)	63%
2	9 (75-95%)	85%
3	8 (50-75%)	63%
4	9 (75-95%)	85%
5	8 (50-75%)	63%
6	9 (75-95%)	85%
7	9 (75-95%)	85%
8	8 (50-75%)	63%
9	10 (95-99%)	97%
10	9 (75-95%)	85%
11	8 (50-75%)	63%
12	9 (75-95%)	85%

Average Cover = 77%

1	<i>unknown polygonum</i>		forb	2		
1	<i>unknown forb</i>		forb	2		

Implementation monitoring 2009
21-Jul-09

total frequency = 5.08

Herbaceous Cover Data Summary
Cell 5

Native Spp.: 15
Non-Native Spp.: 8
Percent Native: 68%

(non native species are in bold)

	Species	Common Name	Type	CC	Number of quadrats present	Frequency (species/quadrat)	Relative Frequency
1	<i>Ambrosia artemisiifolia</i>	common ragweed	forb	0	3	0.25	5%
1	<i>Andropogon gerardii</i>	big bluestem	grass	5	3	0.25	5%
1	<i>Asclepias tuberosa</i>	butterflyweed	forb	4	1	0.08	2%
1	<i>Aster pilosus</i>	heath aster	forb	1	3	0.25	5%
1	<i>Aster sp.</i>	aster sp.	forb	na	2	0.17	3%
1	<i>Bouteloua curtipendula</i>	side-oats grama	grass	8	4	0.33	7%
1	<i>Calystegia sepium</i>	hedge bindweed	forb	1	1	0.08	2%
1	<i>Cassia fasciculata</i>	partridge pea	forb	3	3	0.25	5%
1	<i>Elymus canadensis</i>	Canada wild rye	grass	6	12	1.00	20%
1	<i>Helianthus helianthoides</i>	false (oxeye) sunflower	forb	5	2	0.17	3%
1	<i>Mondara fistulosa</i>	bergamont	forb	3	1	0.08	2%
1	<i>Panicum virgatum</i>	switch grass	grass	4	7	0.58	11%
1	<i>Ratibida pinnata</i>	grey-headed coneflower	forb	5	1	0.08	2%
1	<i>Solidago canadensis</i>	Canada goldenrod	forb	1	2	0.17	3%
1	<i>Verbena stricta</i>	blue vervain	forb	3	1	0.08	2%
1	<i>Cerastium vulgatum</i>	common chickweed	forb	0	1	0.08	2%
1	<i>Cirsium arvense</i>	Canada thistle	forb	0	1	0.08	2%
1	<i>Euphorbia maculata</i>	spotted spurge	forb	0	1	0.08	2%
1	<i>Medicago lupulina</i>	black medic	forb	0	1	0.08	2%
1	<i>Rumex crispis</i>	curly dock	forb	0	3	0.25	5%
1	<i>Solanum carolinense</i>	horse nettle	forb	0	1	0.08	2%
1	<i>Sonchus arvense</i>	sow thistle	forb	0	4	0.33	7%
1	<i>Trifolium pratense</i>	red clover	forb	0	3	0.25	5%
Native Species:					46	3.83	75%
Non-Native Species:					15	1.25	25%

Mean CC: 2.33
Total Spp.: 22
FQAI: 10.94

CC = Coefficient of Conservatism

Quadrat	Cover Class	Midpoint
1	9 (75-95%)	85%
2	9 (75-95%)	85%
3	9 (75-95%)	85%
4	9 (75-95%)	85%
5	9 (75-95%)	85%
6	10 (95-99%)	97%
7	9 (75-95%)	85%
8	10 (95-99%)	97%
9	9 (75-95%)	85%
10	8 (50-75%)	63%
11	9 (75-95%)	85%
12	9 (75-95%)	85%
Average Cover =		85%

1	<i>unknown forb 1</i>	unknown flower	forb	3		
	<i>unknown grass</i>		grass	1		

Herbaceous Cover Data Summary
Cell 6

Native Spp.: 11
Non-Native Spp.: 10
Percent Native: 52%

(non native species are in bold)

Species	Common Name	Type	CC	Number of quadrats present	Frequency (species/quadrat)	Relative Frequency	
1 <i>Ambrosia artemisiifolia</i>	common ragweed	forb	0	5	0.42	9%	
1 <i>Andropogon gerardii</i>	big bluestem	grass	5	2	0.17	4%	
1 <i>Aster pilosus</i>	heath aster	forb	1	6	0.50	11%	
1 <i>Cassia fasciculata</i>	partridge pea	forb	3	1	0.08	2%	
1 <i>Conyza canadensis</i>	horseweed	forb	0	1	0.08	2%	
1 <i>Echinacea purpurea</i>	purple coneflower	forb	6	2	0.17	4%	
1 <i>Elymus canadensis</i>	Canada wild rye	grass	6	12	1.00	21%	
1 <i>Heliopsis helianthus</i>	false (oxeyed) sunflower	forb	5	2	0.17	4%	
1 <i>Rudbeckia hirta</i>	black-eyed Susan	forb	1	2	0.17	4%	
1 <i>Solidago canadensis</i>	Canada goldenrod	forb	1	2	0.17	4%	
1 <i>Verbena stricta</i>	blue vervain	forb	3	1	0.08	2%	
1 <i>Chicorium intybus</i>	chickory	forb	0	1	0.08	2%	
1 <i>Daucus carota</i>	Queen Anne's lace	forb	0	3	0.25	5%	
1 <i>Dipsacus fullonum</i>	wild teasel	forb	0	1	0.08	2%	
1 <i>Erigeron annuus</i>	daisy fleabane	forb	0	2	0.17	4%	
1 <i>Medicago lupulina</i>	black medick	forb	0	1	0.08	2%	
1 <i>Rumex crispis</i>	curly dock	forb	0	2	0.17	4%	
1 <i>Solanum carolinense</i>	horse nettle	forb	0	2	0.17	4%	
1 <i>Sonchus arvensis</i>	sow thistle	forb	0	4	0.33	7%	
1 <i>Trifolium pratense</i>	red clover	forb	0	3	0.25	5%	
1 <i>Trifolium rutense</i>	white clover	forb	0	1	0.08	2%	
				Native Species:	36	3.00	64%
				Non-Native Species:	20	1.67	36%

Mean CC: 1.48
Total Spp.: 21
FQAI: 6.76

CC = Coefficient of Conservatism

Quadrat	Cover Class	Midpoint
1	9 (75-95%)	85%
2	9 (75-95%)	85%
3	9 (75-95%)	85%
4	9 (75-95%)	85%
5	7 (25-50%)	38%
6	9 (75-95%)	85%
7	9 (75-95%)	85%
8	9 (75-95%)	85%
9	9 (75-95%)	85%
10	8 (50-75%)	63%
11	9 (75-95%)	85%
12	9 (75-95%)	85%
Average Cover =		79%

1	<i>brome sp</i>	grass	2		
1	<i>Polygonum sp.</i>	forb	1		
	<i>euphorbia sp.</i>	forb	1		
1	<i>unknown forb 3</i>	forb	1		
	<i>clover sp.</i>	forb	1		

Herbaceous Cover Data Summary
Cell 7

Native Spp.: 16
Non-Native Spp.: 19
Percent Native: 46%

(non native species are in bold)

Species	Common Name	Type	CC	Number of quadrats present	Frequency (species/quadrat)	Relative Frequency
<i>Ambrosia artemisiifolia</i>	common ragweed	forb	0	8	0.67	8%
<i>Andropogon gerardii</i>	big bluestem	grass	5	3	0.25	3%
<i>Aster novae-angliae</i>	New England aster	forb	2	3	0.25	3%
<i>Aster pilosus</i>	heath aster	forb	1	5	0.42	5%
<i>Bouteloua curtipendula</i>	side-oats grama	grass	8	4	0.33	4%
<i>Cassia fasciculata</i>	partridge pea	forb	3	3	0.25	3%
<i>Conzya canadense</i>	horseweed	forb	0	3	0.25	3%
<i>Elymus canadensis</i>	Canada wildrye	grass	6	11	0.92	11%
<i>Heliopsis helianthoides</i>	false (oxeye) sunflower	forb	5	3	0.25	3%
<i>Panicum virgatum</i>	switch grass	grass	4	1	0.08	1%
<i>Ratibida pinnata</i>	greyheaded coneflower	forb	5	2	0.17	2%
<i>Rudbeckia hirta</i>	black eyed Susan	forb	1	4	0.33	4%
<i>Echinacea purpurea</i>	purple coneflower	forb	6	2	0.17	2%
<i>Sorghastrum nutans</i>	Indian grass	grass	5	3	0.25	3%
<i>Verbena hastata</i>	blue vervain	forb	5	1	0.08	1%
<i>Verbena Stricta</i>	hoary vervain	forb	3	1	0.08	1%
<i>Abutilon theophrasti</i>	velvet leaf	forb	0	1	0.08	1%
<i>Setaria sp.</i>	foxtail sp.	grass	0	1	0.08	1%
<i>Bromus japonicus</i>	Japanese brome	grass	0	1	0.08	1%
<i>Chenopodium album</i>	lambs quarters	forb	0	2	0.17	2%
<i>Cirsium arvense</i>	Canada thistle	forb	0	1	0.08	1%
<i>Convolvulus arvensis</i>	field bindweed	forb	0	1	0.08	1%
<i>Daucus carota</i>	Queen Anne's lace	forb	0	5	0.42	5%
<i>Echinochloa crusgalli</i>	barnyard grass	grass	0	2	0.17	2%
<i>Euphorbia maculata</i>	spotted spurge	forb	0	1	0.08	1%
<i>Lactuca canadensis</i>	wild lettuce	forb	0	2	0.17	2%
<i>Medicago lupulina</i>	black medick	forb	0	3	0.25	3%
<i>Plantago lanceolata</i>	English plantain	forb	0	1	0.08	1%
<i>Polygonum aviculare</i>	common knotweed	forb	0	2	0.17	2%
<i>Polygonum persicaria</i>	lady's thumb	forb	0	3	0.25	3%
<i>Sida spinosa</i>	prickly sida	forb	0	1	0.08	1%
<i>Sonchus arvensis</i>	sow thistle	forb	0	6	0.50	6%
<i>Trifolium dubium</i>	hop clover	forb	0	6	0.50	6%
<i>Trifolium pratense</i>	red clover	forb	0	7	0.58	7%
<i>Trifolium repens</i>	white clover	forb	0	1	0.08	1%
Native Species:				57	4.75	55%
Non-Native Species:				47	3.92	45%

CC = Coefficient of Conservatism

FQAI = Floristic Quality Assessment Index

Quadrat	Cover Class	Midpoint
1	9 (75-95%)	85%
2	9 (75-95%)	85%
3	9 (75-95%)	85%
4	9 (75-95%)	85%
5	9 (75-95%)	85%
6	10 (95-99%)	97%
7	8 (50-75%)	85%
8	9 (75-95%)	85%
9	7 (25-50%)	38%
10	9 (75-95%)	85%
11	9 (75-95%)	85%
12	9 (75-95%)	85%

Average Cover = 82%