Central Midwest Sedge Meadow

Site Characteristics: Stands occur on nearly level floodplains, often in bands surrounding channels or in basins, in wet meadows, and sometimes shallow water. Soils are poorly drained silty and clay loams formed in alluvium. Soils are most commonly mineral with large amounts of organic matter or, more rarely, with thick accumulations of partially decomposed sedges. Stands are flooded for much of the growing season, but may dry out in late summer. Hydrology varies from seasonally to almost semi-permanently flooded.

Vegetation Characteristics: The vegetation cover is quite dense and may be patchy. This community is dominated by rhizomatous, perennial graminoids that are 0.5-1.5 m tall. The graminoid stratum is characterized by sedges providing 40-90% cover. The Central Midwest Sedge Meadow community may be characterized by a nearly monotypic cover of 40-90% Woolly Sedge. Other typical sedge species include Crested Oval Sedge, Field Oval Sedge, Common Fox Sedge, Awl-fruited Oval Sedge, and Brown Fox Sedge. Other emergent graminoid cover is minor (0-20% cover) frequently including Spikerush species, Inland Rush, Torry's Rush and Dark Green Bulrush. Rice Cut-grass may be common where the stand borders a marsh. Forbs are common (0-40% cover) and may be conspicuous. Among the more common are Indian Hemp, Panicled Aster, Water Horehound, Winged Loosestrife, and Blue Vervain. This type may grade into freshwater marsh types, making separation difficult in the field.

Range:

Conservation Status: Not Yet Ranked

Management Considerations: The Central Midwest Sedge Meadow appears to be a fairly stable community due to the dominant species' rhizomatous roots. With season-long grazing, Woolly Sedge decreases in abundance, shifting dominance towards Kentucky Bluegrass. Reed Canarygrass may invade this community to the point of excluding many of the native species.

CENTRAL MIDWEST SEDGE MEADOW						
SCIENTIFIC NAME	COMMON NAME	STRATA	FUNCTIONAL GROUP	IA CofC	SEEDS PER LB	STATE STATUS
Anemone canadensis	Canada anemone	Herbaceous Layer	P-FORB	2	128000	
Apocynum cannabinum	Indian hemp	Herbaceous Layer	P-FORB	1	500000	
Calamagrostis stricta	Northern reed grass	Herbaceous Layer	P-GRASS, COOL SEASON	7	2302499	
Carex buxbaumii	Dark-scaled sedge	Herbaceous Layer	P-SEDGE, COOL SEASON	8		
Carex cristatella	Crested oval sedge	Herbaceous Layer, Dominant	P-SEDGE, COOL SEASON	5	928000	
Carex molesta	Field oval sedge	Herbaceous Layer, Dominant	P-SEDGE, COOL SEASON	2	400000	
Carex pellita	Wooly sedge	Herbaceous Layer, Dominant	P-SEDGE, COOL SEASON	4	448000	
Carex sartwellii	Running marsh sedge	Herbaceous Layer	P-SEDGE, COOL SEASON	7	1014748	
Carex stipata	Common fox sedge	Herbaceous Layer, Dominant	P-SEDGE, COOL SEASON	5	544000	
Carex stricta	Common tussock sedge	Herbaceous Layer	P-SEDGE, COOL SEASON	6	848000	
Carex tribuloides	Awl-fruited oval sedge	Herbaceous Layer, Dominant	P-SEDGE, COOL SEASON	3	1920000	
Carex vulpinoidea	Brown fox sedge	Herbaceous Layer, Dominant	P-SEDGE, COOL SEASON	3	1600000	
Eleocharis compressa	Flatstem spikerush	Herbaceous Layer	P-SEDGE, COOL SEASON	7	900000	
Eleocharis spp.	Spikerush	Herbaceous Layer	SEDGE, COOL SEASON			
Juncus arcticus littoralis	Bog rush	Herbaceous Layer	P-SEDGE, COOL SEASON	6	3000000	
Juncus interior	Inland rush	Herbaceous Layer	P-SEDGE, COOL SEASON	2	44800000	
Juncus torreyi	Torrey's rush	Herbaceous Layer	P-SEDGE, COOL SEASON	3	25600000	
Leersia oryzoides	Rice cut-grass	Herbaceous Layer	P-GRASS, COOL SEASON	2	544000	
Lycopus americanus	Water horehound	Herbaceous Layer	P-FORB	4	2080000	
Lythrum alatum	Winged loosestrife	Herbaceous Layer	P-FORB	3	48000000	
Mentha arvensis	Wild mint	Herbaceous Layer	P-FORB	4	4800000	
Polygonum amphibium emersum	Water smartweed	Herbaceous Layer	P-FORB	3	125000	
Prunella vulgaris lanceolata	Self heal	Herbaceous Layer	P-FORB	0	668000	
Schoenoplectus acutus	Hard-stemmed bulrush	Herbaceous Layer	P-SEDGE, COOL SEASON	4	206400	
Schoenoplectus americanus/pungens	Threesquare	Herbaceous Layer	P-SEDGE, COOL SEASON	7	192000	
Scirpus atrovirens	Dark green bulrush	Herbaceous Layer	P-SEDGE, COOL SEASON	1	7360000	
Scirpus pallidus	Pale bulrush	Herbaceous Layer	P-SEDGE, COOL SEASON	10		

Iowa NRCS Plant Community Description

This community description is a compilation of the Community Association and it's over-riding Community Alliance description as provided by NatureServe (www.natureserve.org/explorer). Where necessary, community descriptions were adapted as recommended by Iowa plant community experts.

3/12/2009

CENTRAL MIDWEST SEDGE MEADOW							
SCIENTIFIC NAME COMMON NAME STRATA FUNCTIONAL GROUP IA SEEDS STATE CofC PER LB STATUS							
Symphyotrichum lanceolatum	Panicled aster	Herbaceous Layer	P-FORB	4	700000		
Verbena hastata	Blue vervain	Herbaceous Layer	P-FORB	3	1488000		

Iowa NRCS Plant Community Description

CENTRAL MIDWEST SEDGE MEADOW

		SEEDS	SEEDS		COST PER	COST PER	LBS PER		
SCIENTIFIC NAME	COMMON NAME	PER LB	PER FT ²	% OF MIX	LB	FT ²	ACRE	cc	FUNCTIONAL GROUP
Anemone canadensis	Canada anemone	128,000	0.25	0.6%		\$0.0000	0.09	2	P-FORB
Agalinis tenuifolia	Slender false foxglove	12,800,000	1.36	3.4%		\$0.0000	0.00	4	A-FORB, HEMIPARASITE
Calamagrostis canadensis	bluejoint	4,480,000	1.50	3.8%		\$0.0000	0.01	5	P-GRASS, COOL SEASON
Caltha palustris	Marsh marigold	416,000	0.40	1.0%		\$0.0000	0.04	8	P-FORB
Carex molesta	troublesome sedge	400,000	1.00	2.5%		\$0.0000	0.11	2	P-SEDGE, COOL SEASON
Carex pellita	woolly sedge	448000	0.25	0.6%		\$0.0000	0.02	4	P-SEDGE, COOL SEASON
Carex stipata	owlfruit sedge	544,000	1.50	3.8%		\$0.0000	0.12	5	P-SEDGE, COOL SEASON
	upright sedge	848,000	1.00	2.5%		\$0.0000	0.05	6	P-SEDGE, COOL SEASON
Carex tribuloides	blunt broom sedge	1,920,000	1.20	3.0%		\$0.0000	0.03	3	P-SEDGE, COOL SEASON
	fox sedge	1,600,000	1.50	3.8%		\$0.0000	0.04	3	P-SEDGE, COOL SEASON
	Partridge pea	43,200	1.00	2.5%		\$0.0000	1.01	1	A-FORB, LEGUME
	White turtlehead	1,472,000	1.36	3.4%		\$0.0000	0.04	8	P-FORB
ŏ	Water hemlock	192,000	0.40	1.0%		\$0.0000	0.09	7	B-FORB
	needle spikerush	1.120.000	1.05	2.6%		\$0.0000	0.04	3	P-SEDGE, COOL SEASON
	blunt spikerush	1600000	1.25	3.1%		\$0.0000	0.03		P-SEDGE, COOL SEASON
	Spotted Joe-pye-weed	1,520,000	1.36	3.4%		\$0.0000	0.04		P-FORB
•	Boneset	2,560,000	1.36	3.4%		\$0.0000	0.04		P-FORB
	Bottle gentian, closed gentian	4,480,000	1.36	3.4%		\$0.0000	0.02		P-FORB
	Sneezeweed	2,080,000	1.36	3.4%		\$0.0000	0.01		P-FORB
				-		-			
	Baltic rush	3,000,000	1.50	3.8%		\$0.0000	0.02		P-SEDGE, COOL SEASON
	inland rush	44,800,000	1.25	3.1%		\$0.0000	0.00	2	P-SEDGE, COOL SEASON
,	Torrey's rush	25,600,000	1.25	3.1%		\$0.0000	0.00		P-SEDGE, COOL SEASON
	rice cutgrass	544,000	1.25	3.1%		\$0.0000	0.10		P-GRASS, COOL SEASON
, ,	Water horehound	2,080,000	1.36	3.4%		\$0.0000	0.03		P-FORB
	Winged loosestrife	48,000,000	1.36	3.4%		\$0.0000	0.00		P-FORB
	Wild mint	4,800,000	1.36	3.4%		\$0.0000	0.01		P-FORB
	Leafy satin grass	2,800,000	0.70	1.8%		\$0.0000	0.01	5	P-GRASS, WARM SEASON
Pedicularis lanceolata	Swamp lousewort	704,000	1.36	3.4%		\$0.0000	0.08	7	P-FORB, HEMIPARASITE
Polygonum pensylvanicum laevigatum	Pinkweed	208,000	0.50	1.3%		\$0.0000	0.10	0	A-FORB
Pycnanthemum virginianum	Common mountain mint	3,520,000	1.36	3.4%		\$0.0000	0.02	4	P-FORB
Rosa palustris	Swamp rose	25,600	0.05	0.1%		\$0.0000	0.09	7	SUB-SHRUB
Schoenoplectus acutus	hardstem bulrush	206,400	0.50	1.3%		\$0.0000	0.11	4	P-SEDGE, COOL SEASON
	River bulrush	68,800	0.12	0.3%		\$0.0000	0.08	5	P-SEDGE, COOL SEASON
	Soft-stemmed bulrush	496,000	1.06	2.7%		\$0.0000	0.09	3	P-SEDGE, COOL SEASON
	green bulrush	7,360,000	1.06	2.7%		\$0.0000	0.01	1	P-SEDGE, COOL SEASON
	woolgrass	27,200,000	1.06	2.7%		\$0.0000	0.00	4	P-SEDGE, COOL SEASON
	Panicled aster	700,000	0.90	2.3%		\$0.0000	0.06	4	P-FORB
	Purple meadow-rue	176,000	0.75	1.9%		\$0.0000	0.19	4	P-FORB
	Blue vervain	1,488,000	0.79	2.0%		\$0.0000	0.02	3	P-FORB
Verberia riastata	blue vervain	1,400,000	0.75	0.0%		#DIV/0!	#DIV/0!		I -I ONB
				0.0%		#DIV/0!	#DIV/0!		
				0.0%		#DIV/0!	#DIV/0!		
				0.0%		#DIV/0!	#DIV/0!		
				0.0%		#DIV/0!	#DIV/0!		
				0.0%		#DIV/0!	#DIV/0!		
				0.0%		#DIV/0!	#DIV/0!		
				0.0%		#DIV/0!	#DIV/0!		
				0.0%		#DIV/0!	#DIV/0!		
				0.0%		#DIV/0!	#DIV/0!		
				0.0%		#DIV/0!	#DIV/0!		
Graminoid Species	19	Vine	0	PLS	40.0	Cost/ft2	\$0.00	Floristic	25.9
Grammold Species	13	Species	J	Seeds/ft ²	40.0	COST/ITZ	φυ.υυ	Quality Index	20.5
Forbs & Sub-shrubs	20	Tree	0	PLS	2.9	Cost/acre	\$0	Mix	4.2
Fords & Sub-shrubs	ZU	Species	U	lbs/acre*	2.9	Cost/acre	φU	Conservatism	4.2
Shrub Species	0	Total	39			Cost/lb	\$0.00	Simpson's	86%
Siliub Species	U	Species	33				φυ.υυ	Evenness	00 /6
Forb & Sub-shrub Seed/ft ²	20.00	Graminoid Seed/ft ²	20.00	Shrub Seed/ft ²	0.00	Vine Seed/ft ²	0.00	Tree Seed/ft ²	0.00

CENTRAL MIDWEST SEDGE MEADOW

If cell is in red criteria not met. If cell is in orange recommendation not met.					
Percent of Mix	Exceeded the 20% of mix maximum for seeds/ft2				
Number of Graminoid Species	Minimum of 10 graminoid species not met				
Number of Forbs & Sub-shrubs	Minimum of 20 forb and sub-shrub species not met				
Total Number of Species	Minimum of 30 species not met				
PLS Seeds/ft2	Minimum of 40 seeds/ft ² not met				
Graminoid Seed/ft ²	Minimum 20 seeds/ft ² of graminoids not met				
Forb & Sub-shrub Seed/ft ²	Minimum 20 seeds/ft ² of forbs and sub-shrubs not met				
Floristic Quality Index (FQI)	Floristic quality index is below the required 20.0 minimum.				
Mix Conservatism (CC)	Coefficient of Conservatism is below the required 3.0 minimum.				
Simpson's Evenness	Evenness (balance) of the mix is below the recommended 70%				
Conservatism Guilds:					
	Does not fall within the recommended range of 15-33%				
Mid-Successional	Does not fall within the recommended range of 45-65%				
Late Successional	Does not fall within the recommended range of 15-33%				

Evenness Calculation	
Sum of Squares	0.03
Simpson's Evenness:	0.86

Conservatism Guilds	Species	Seed/ft ² % mix
EARLY SUCCESSIONAL (0-3)	15	39.4%
MID SUCCESSIONAL (4-7)	21	52.8%
LATE SUCCESSIONAL (8-10)	3	7.8%
	39	100.0%

Functional Group	Seed/ft ² % mix	Species
A-FORB	7.2%	3
A-GRASS, COOL SEASON	0.0%	0
A-GRASS, WARM SEASON	0.0%	0
A-SEDGE, COOL SEASON	0.0%	0
A-SEDGE, WARM SEASON	0.0%	0
B-FORB	1.0%	1
FERN	0.0%	0
HEMIPARASITE	6.8%	2
H-VINE	0.0%	0
LEGUME	2.5%	1
PARASITIC	0.0%	0
P-FORB	41.7%	15
P-GRASS, COOL SEASON	6.9%	2
P-GRASS, WARM SEASON	1.8%	1
P-SEDGE, COOL SEASON	41.4%	16
P-SEDGE, WARM SEASON	0.0%	0
SHRUB	0.0%	0
SUB-SHRUB	0.1%	1
TREE	0.0%	0
W-VINE	0.0%	0
Number of Functional Groups	9	

Seeding Plan

			Page 1 of 2	2
Name			Date	
Prepared by			Tract No.	
			Field No.	
Type of Seeding:	Central Midwest Sedge Meadow	Acres	Contract No.	

Seeding Mix Summary

Graminoids	Scientific Name	Common Name	Seeds/Ft2	PLS Lbs / Acre	Total PLS lb
1	Calamagrostis canadensis	bluejoint	1.50	0.015	0.000
2	Carex molesta	troublesome sedge	1.00	0.109	0.000
3	Carex pellita	woolly sedge	0.25	0.024	0.000
4	Carex stipata	owlfruit sedge	1.50	0.120	0.000
5	Carex stricta	upright sedge	1.00	0.051	0.000
6	Carex tribuloides	blunt broom sedge	1.20	0.027	0.000
7	Carex vulpinoidea	fox sedge	1.50	0.041	0.000
8	Eleocharis acicularis	needle spikerush	1.05	0.041	0.000
9	Eleocharis obtusa	blunt spikerush	1.25	0.034	0.000
10	Juncus arcticus ssp. littoralis	Baltic rush	1.50	0.022	0.000
11	Juncus interior	inland rush	1.25	0.001	0.000
12	Juncus torreyi	Torrey's rush	1.25	0.002	0.000
13	Leersia oryzoides	rice cutgrass	1.25	0.100	0.000
14	Muhlenbergia mexicana	Leafy satin grass	0.70	0.011	0.000
15	Schoenoplectus acutus	hardstem bulrush	0.50	0.106	0.000
16	Schoenoplectus fluviatilis	River bulrush	0.12	0.076	0.000
17	Schoenoplectus tabernaemontan	Soft-stemmed bulrush	1.06	0.093	0.000
18	Scirpus atrovirens	green bulrush	1.06	0.006	0.000
19	Scirpus cyperinus	woolgrass	1.06	0.002	0.000
20	. ,,	ŭ			0.000
21					0.000
		SUBTOTAL GRAMINOIDS	20.00	0.88	0.000
				PLS Lbs /	Total PLS

				PLS Lbs /	Total PLS
Forbs/Legumes	Scientific Name	Common Name	Seeds/Ft2	Acre	lb
1	Anemone canadensis	Canada anemone	0.25	0.085	0.000
2	Agalinis tenuifolia	Slender false foxglove	1.36	0.005	0.000
3	Caltha palustris	Marsh marigold	0.40	0.042	0.000
4	Chamaecrista fasciculata	Partridge pea	1.00	1.008	0.000
5	Chelone glabra	White turtlehead	1.36	0.040	0.000
6	Cicuta maculata	Water hemlock	0.40	0.091	0.000
7	Eupatorium maculatum	Spotted Joe-pye-weec	1.36	0.039	0.000
8	Eupatorium perfoliatum	Boneset	1.36	0.023	0.000
9	Gentiana andrewsi	Bottle gentian, closed gentiar	1.36	0.013	0.000
10	Helenium autumnale	Sneezeweec	1.36	0.028	0.000
11	Lycopus americanus	Water horehound	1.36	0.028	0.000
12	Lythrum alatum	Winged loosestrife	1.36	0.001	0.000
13	Mentha arvensis	Wild mint	1.36	0.012	0.000
14	Pedicularis lanceolata	Swamp lousewort	1.36	0.084	0.000
15	Polygonum pensylvanicum laevigatum	Pinkweed	0.50	0.105	0.000
16	Pycnanthemum virginianum	Common mountain mint	1.36	0.017	0.000
17	Rosa palustris	Swamp rose	0.05	0.085	0.000
18	SYMPHYOTRICHUM LANCEOLATUM	Panicled aster	0.90	0.056	0.000
19	Thalictrum dasycarpum	Purple meadow-rue	0.75	0.186	0.000
20	Verbena hastata	Blue vervain	0.79	0.023	0.000
21					0.000
22					0.000
23					0.000
24					0.000
25					0.000
26					0.000
27					0.000
28					0.000
29					0.000
30					0.000
		SUBTOTAL FORBS	20.00	1.97	0.000

TOTAL

40.00

2.853

0.000

SEEDING MIX FLORISITIC QUALITY VALUES

Average Coeffecient of Conservatism	4.2
Floristic Quality Index	25.9

Fertilizer & Lime	General Soil Test	Total Needed lbs
Lime (ECCE) (Actual Lime)	2000	0
Nitrogen	30	0
Phosphate (P205)	30	0
Potash (K20)	40	0

Additional Seeding Criteria: Spring seeding dates are between April 15th to July 1st.		Do not apply fertilizer. Frost seeding dates Feb. 1st - March 15th. Dormant Seeding dates are between November 15th to freeze up.	
Seeding was completed by	(Date)	according to the above requirements.	
(Producer's Signature)		<u> </u>	(Date)
Field Office		Certified by	(NRCS Representative)

When seeding is completed, return seeding plan to the Natural Resources Conservation Services.

For state cost-share projects, attach receipts for seed, fertilizer, lime and mulch.

For Federal cost-share, return receipts to Farm Service Agency.