Cherokee Marsh - North Unit Conservation Park
Habitat Management Plan

DRAFT

Site information

Address: 6098 N. Sherman Ave.

Acreage: 916 acres. This includes contiguous parcels located southeast of the Yahara River in the City of Madison, the Town of Burke, and the Town of Westport, as well as two non-contiguous parcels located within the City of Madison northwest of the Yahara River.

Site summary: Acquired in 1964, Cherokee Marsh – North Unit (North Cherokee Marsh) was designated a conservation park in 1971 when the Parks Division first created the Conservation Park program. Prior to that, agriculture was the predominant land use on the uplands and in more accessible portions of the wetlands, which had been drained considerably. Major restoration to date has included filling ditches to restore hydrology to wetlands, converting old fields to tallgrass prairie, removing invasive woody species from overgrown oak woodlands, and efforts to stabilize the edge of the riverine marsh from erosion. The park offers 2.6 miles of trails and boardwalks, and is a major destination for local residents and environmental education groups.

Adjacent lands: Adjacent natural areas and areas of ecological significance include the Cherokee Marsh State Fishery Area and Yahara Heights County Park. Cherokee Marsh State Natural Area encompasses approximately 230 acres of the conservation park, as well as other adjacent lands owned by Dane County and Wisconsin DNR.

Conservation values

Numerous sources have studied and written about the resources of and threats to Cherokee Marsh on scales ranging from the entire watershed to single management units within the conservation park, and from various perspectives such as hydrology, ecology, botany and public policy. The focus of this management plan is the restoration and visitor use of the natural areas within the conservation park.

The dominant natural features of Cherokee Marsh - North Unit (hereafter referred to as North Cherokee Marsh) include the expansive wetland complexes, glacial drumlins, and uplands dominated by oak woodland and tallgrass prairie. Several remnant plant communities occur in each of these habitats, and work has focused on protecting and expanding these high quality areas. Work in the riverine marsh and most of the upland areas has focused on invasive species removal, re-establishment of native plant communities, and prescribed burning, while the focus in the less accessible wetland complex to the east has been on restoring hydrology. The sheer size of this natural area is important for wildlife, as is the diversity of habitats.

An inventory of plants and animals was conducted in 1969-1973, and updated in 1978. (Threlfall, et al. 1978) State-listed plant and animal species documented include:

Scientific name	Common Name	State status
Ammodramus henslowii	Henslow's Sparrow	Threatened
Melanerpes erythrocephalus	Red-headed Woodpecker	Special concern
Thamnophis butleri	Butler's garter snake	Special concern
Cypripedium candidum	White lady's slipper	Threatened
Napaea dioica	Glade mallow	Special concern

Madison Parks' Land Management Plan (2017) outlines the main habitat types found in the City's conservation parks. These general types can be further classified into "Recognized Natural Communities" described by the Wisconsin Natural Heritage Inventory (2018). This helps us to provide more technical and specific restoration targets based on the nuances of each park. The main habitat types that occur at

North Cherokee Marsh are below, with the appropriate corresponding NHI-recognized natural communities listed under each one.

Oak savanna / Oak woodland (Madison Parks)
- Oak Opening (NHI)
- Oak Woodland (NHI)

Tallgrass prairie (Madison Parks)
- Mesic Prairie (NHI)
- Wet-Mesic Prairie
- Wet Prairie (NHI)

Deciduous Forest (Madison Parks)
- Southern Dry Forest (NHI)
- Southern Dry-Mesic Forest (NHI)

Sedge Meadow (Madison Parks)
- Southern Sedge Meadow (NHI)
- Shrub-Carr (NHI)*

Emergent marsh (Madison Parks)
- Emergent Aquatic (NHI)

Please refer to Threlfall, et al. (1978) for additional detail regarding the plant species and habitat types at North Cherokee Marsh.

* Madison Parks' Land Management Plan does not specifically address Shrub-Carr due to the very small amount of this habitat that occurs in the conservation parks. It is included under Sedge Meadow here because of its association with that habitat in Cherokee Marsh.

Ecological threats

Fire suppression – Although fire management has increased in recent years, a legacy of fire exclusion has resulted in woody succession in the woodlands and sedge meadows.

Altered hydrology – An extensive system of artificial drainage ditches have altered hydrology in the wetlands, as has the Tenney Park dam and subsequent management of lake levels.

Invasive species – Major non-native species include reed canary grass, buckthorn and honeysuckle. Garlic mustard, wild parsnip and hybrid cattail are also present in significant numbers.

White-tailed deer – Low hunting pressure and relatively low natural mortality are evident from consistent annual harvest numbers.

Conservation goals

Map native plant community types, especially sedge meadow and shrub carr.
Map invasive plant populations.
Update/verify species lists.
Restore and maintain sedge meadows.
Restore existing oak woodlands throughout park.
Maintain regular fire regime in oak woodland, tallgrass prairie, and sedge meadow.
Conserve invertebrate diversity, especially in prairie habitat.

Management considerations

Madison Parks' vision is "to provide the ideal system of parks, natural resources and recreational opportunities which will enhance the quality of life for everyone." In pursuit of this, we strive to balance

ecological management needs with the needs of the community. Although managed primarily to sustain the natural communities that occur there, the City's conservation parks exist within a rich landscape context, and that management should consider and complement the needs of the surrounding community. Ecological management at North Cherokee Marsh should pay specific attention to the following:

Prairie-dependent insects and grassland nesting birds – Proper fire regime (frequency and rotation) is critical to maintaining diverse populations of prairie-dependent insects, and habitat for grassland-nesting birds such as Henslow's Sparrows.

Red-headed Woodpecker populations - Red-Headed Woodpeckers (RHWO) have been observed in the park and are known to breed in the 5th Addition Woods Unit. Efforts to restore additional oak woodland / oak savanna habitat in the park will likely result in increased numbers of this species. Management activities will follow Madison Parks' internal Snag Protection Policy, which incorporates a snag inventory to monitor this habitat feature. The snag inventory shall be conducted every five years.

Friends of Cherokee Marsh

Established in 2007, the Friends of Cherokee Marsh have become integral to the management of North Cherokee Marsh. They lead several tours and volunteer workdays each year to promote the Park and support Parks staff in ecological management and restoration. Volunteers document approximately 200 hours of labor annually, with about half of that occurring in North Cherokee Marsh. Parks' Conservation Supervisor meets with the group monthly, and maintains frequent correspondence with their board president. They are an invaluable resource for monitoring native wildlife and invasive plants throughout the park, and regularly work on pulling garlic mustard and Japanese hedge parsley, girdling aspen clones, and controlling *Phragmites* with very targeted herbicide treatments. They have worked for years semi-independently and across ownerships in the State Natural Area, and also coordinate closely with Parks staff in the western end of the park.

Management history

Major restoration to date has included filling ditches to restore hydrology to wetlands, converting old fields to tallgrass prairie, removing invasive woody species from overgrown oak woodlands, and efforts to stabilize the edge of the riverine marsh from erosion.

Management units

While the park has many artificial boundaries such as roads, trails and ditches, much of it can be clearly divided by habitat type. Approximately 416 acres of the park are managed intensively by Parks staff. That is, greater amounts of resources are spent per acre, as in the case of an area that is cleared, seeded and burned with follow-up invasive species control. Encompassing the upland portions of the park and more easily accessible wetlands, the following units have been and will continue to be the focus of more intensive restoration efforts during the next five years:

Riverine Marsh Unit (62 ac) Bounded by the Yahara River to the west and wooded uplands to the east, this unit is dominated by sedge meadow and shrub-carr with some small pockets of emergent marsh.

Woodlands Unit (55 ac) Oak woodland and southern dry forest on the ridge parallel to the river and on a glacial drumlin in the NW portion of the park. Canopy cover ranges from 50% to 100% depending on location in several subunits.

Central Prairies Unit (82 ac) Located between the Woodland Unit and the main wetland complex, this unit consists mostly of former agricultural fields restored to prairie, although some remnant prairie does occur in the northern 1/3 of this unit. Small areas of oak opening habitat are interspersed.

Cherry Island/ Frog Pond Unit (21 ac) A complex of upland oak woodland, sedge meadow wetland and a pond. The understory of the oak woodland is degraded and dominated by buckthorn.

Central Meadows Unit (104 ac) Dominated by good quality sedge meadow with shrub-carr and small pockets of emergent marsh. Reed canary grass and woody succession are major threats in portions of this unit. Management was recently expanded throughout the majority of this unit with a prescribed burn that included sedge meadow that had not burned under Parks' management.

South Hill Unit (28 ac) Located on the north end of a glacial moraine, this unit features a prairie restoration and low quality dry-mesic forest.

Lu's Pond / Lu's Woods unit (19 ac) Oak woodland and oak savanna located in a transition zone between upland prairie and a pond with emergent marsh. Also the focus of canopy opening efforts in 2014-2015, this unit has reverted somewhat to an overabundance of brush and is still dominated by reed canary grass in the understory of the wooded portion.

5th Addition Woods (15 ac) Degraded oak woodland and oak savanna that has been the focus of major restoration in recent years. With the vegetative structure re-established in 2014-2015, work is now focused on controlling invasive herbaceous species and re-establishing native forbs and graminoids. Red-headed Woodpeckers nest here.

South Addition (30 ac) The most recently acquired parcel. The majority of this unit (22 ac) is currently used for row crops. The remainder consists of degraded wet forest and oak woodland, with a strip of old field bordering the main wetland complex.

The remaining 500 acres of the park are divided into the following units, which have received only extensive management or are not managed at all by Parks staff. Extensive management means that fewer resources are spent per acre, as in the case of a ditch plug that restores hydrology to a large area.

Yahara River Parcels (10 ac) Not actively managed. Wooded parcels located across the Yahara River from the rest of the park.

South Wetland Unit (185 ac) Several ditches have been filled to restore hydrology. A few small pockets of sedge meadow occur within monocultures of reed canary grass and hybrid cattail.

North Wetland Unit (74 ac) Not actively managed. Features good quality sedge meadow, but also large infestations of reed canary grass, hybrid cattail and *Phragmites*.

SNA Unit (232 ac) Currently managed by Friends of Cherokee Marsh with support from the DNR Natural Areas Program.

Prescriptions/Options

This Habitat Management Plan is consistent with Madison Parks' Land Management Plan. This Habitat Management Plan has 5-year lifespan, and should be reviewed yearly. It can be revised whenever new information is discovered. If no changes have been made, it should be updated in its 5th year.

Options for three levels of management are presented in this plan: maintenance only, moderate restoration, and increased restoration. The "maintenance only" option is NOT recommended, as it restricts ecological management to areas recently treated. In reality, this is not sutainable within the context of existing adjacent invasive species populations and dispersal corridors. The "moderate restoration" option is approximately the level at which we currently operate. The "increased restoration" option has been supported periodically in the past with additional funding from larger Capital Improvement Projects. Once a site has been restored and a healthy, diverse, native plant community has

become established, it can be maintained with much fewer resources. Internal ecological threats will have been minimized, and regular burning and occasional control of new populations of invasive species will be sufficient to sustain the natural area. Only then will the “maintenance only” option be successful.

Prescriptions are presented below for each of the major management units described above. Please note that some of these units are further divided into sub-units based on habitat quality or age of restoration. Sub-units are listed in Appendix B. Staff will develop annual work plans and apply the prescriptions below to sub-units as applicable.

Management Level 1 (maintenance only)

- Follow-up effort to control invasive species only on acres previously treated within last 3 years.
- Mow prairies and woodlands to control brush.
- Burn prairie units on a 5-year return interval. Invertebrate diversity will be conserved through refuges created by increased mowing.
- Burn currently managed woodland units on 6-year return interval.

Annual Budget Estimate:

Task	Annual cost
Invasive species treatments (spring / herbaceous)	$6,800
Contract for invasive species control	$10,000
Mow trails, maintain parking lot	$3,700
Trail maintenance (gravel, water bars, etc.)	$3,000
Brush mowing	$4,000
Invasive species treatments (fall)	$4,000
Wildlife population control	$3,000
Burns (two per year)	$8,000
Install native seed mix	$1,000
totals	**$43,500**

Specific Management Unit Prescriptions:

Timeline	Unit(s)	Task
Spring 2018	various	Rx burn (cross-reference Rx burn database)
Spring 2018	Woodland	Spray or hand pull garlic mustard
Spring 2018	5th Addition Woods	Contract for herbaceous weed control
Summer 2018	Central Prairies	Spray crown vetch, bird's foot trefoil in 5th Addition Prairies
Summer 2018	Central Prairies	Mow wild parsnip in Sherman West Prairie
Summer 2018	South Wetland	Complete ditch fill project
Summer 2018	Woodland	Mow *Rubus*
Fall 2018	Woodland	Cut/treat invasive woody species, thin canopy
Winter 2019	all	Conduct deer reduction
Spring 2019	various	Rx burn (cross-reference Rx burn database)
Spring 2019	various	Install native seed mix
Spring 2019	Woodland	Spray or hand pull garlic mustard
Summer 2019	Central Prairies	Spray crown vetch, bird's foot trefoil in 5th Addition Prairies
Summer 2019	Central Prairies	Mow wild parsnip in Sherman West Prairie
Summer 2019	Woodland	Mow *Rubus*
Fall 2019	Woodland	Cut/treat invasive woody species
Winter 2020	all	Conduct deer reduction
Spring 2020	various	Rx burn (cross-reference Rx burn database)
Spring 2020	Woodland	Spray or hand pull garlic mustard
Summer 2020	Central Prairies	Scout for wild parsnip, crown vetch and bird's-foot trefoil
Summer 2020	Woodland	Mow *Rubus*
Fall 2020	Central Prairies	Mow brush
Winter 2021	all	Conduct deer reduction

Timeline	Unit(s)	Task
Spring 2021	various	Rx burn (cross-reference Rx burn database)
Spring 2021	Woodland	Spray or hand pull garlic mustard
Summer 2021	Central Prairies	Scout for wild parsnip, crown vetch and bird's-foot trefoil
Summer 2021	Woodland Central Prairies 5th Addition Woods	Selected brush mowing
Winter 2022	all	Conduct deer reduction
Spring 2022	various	Rx burn (cross-reference Rx burn database)
Spring 2022 Summer 2022	Woodland Central Prairies	Follow-up and maintenance-level herbaceous weed control
Summer 2022	Woodland Central Prairies	Selected brush mowing

Possible Burn Schedule – average one to two burns per year:

year	1	2	3	4	5	6	7	8	9	10
River Marsh North and South	X					X				
Caretaker Woods / Bathroom Units		X						X		
Boathouse Woods / Hibernaculum Woods			X						X	
5th Addition Woods				X						X
5th Addition / Weather Station Prairies / Sherman West	X					X				
Sherman East / Parking Lot Prairie / Central Meadows / South Hill		X					X			
Harry Hill			X					X		

Management Level 2 (moderate restoration)

- Follow-up effort to control invasive species on acres previously treated, plus add minimum 5 acres per year to treatment areas. We currently rely on both contracts and staff time to complete this work in all treatment areas. This cost will eventually decrease then plateau, as all management units come under active management and initial restoration is completed, moving the treatment areas from a "restoration phase" to a "maintenance phase".
- Install native seed mixes to increase diversity and augment or re-establish native plant community.
- Burn tallgrass prairie and sedge meadow units on 2-3 year return interval. (Allow 2 growing seasons between burns.) Burn no more than ½ of prairie habitat in one season to conserve invertebrate diversity.
- Burn woodland units on 4-year return interval. (Allow 3 growing seasons between burns.)
- Mow brush as needed in prairies and woodlands to supplement prescribed burns.

Annual Budget Estimate:

Task	**Annual cost**
Invasive species treatments (spring / herbaceous)	$6,800
Contracts for invasive species control	$34,000
Mow trails, maintain parking lot	$3,700
Trail maintenance (gravel, water bars, etc.)	$6,000
Brush mowing	$3,000
Invasive species treatments (fall / woody)	$6,000
Wildlife population control	$3,000
Burns (three per year)	$12,000
Install native seed mix	$5,000
totals	**$79,500**

Specific Management Unit Prescriptions:

Timeline	**Unit(s)**	**Task**
Spring 2018	various	Rx burn (cross-reference Rx burn database)
Spring 2018	Woodland	Spray or hand pull garlic mustard
Spring 2018	5th Addition Woods	Contract for herbaceous weed control
Summer 2018	Central Prairies	Spray crown vetch, bird's foot trefoil in 5th Addition Prairies
Summer 2018	Central Prairies	Mow wild parsnip in Sherman West Prairie
Summer 2018	South Wetland	Complete ditch fill project
Summer 2018	Woodland	Mow *Rubus*
Fall 2018	Woodland Lu's Woods	Cut/treat invasive woody species, thin canopy
Winter 2019	all	Conduct deer reduction
Spring 2019	various	Rx burn (cross-reference Rx burn database)
Spring 2019	various	Install native seed mix
Spring 2019	Woodland	Spray or hand pull garlic mustard
Summer 2019	Central Prairies	Spray crown vetch, bird's foot trefoil in 5th Addition Prairies
Summer 2019	Central Prairies	Mow wild parsnip in Sherman West Prairie
Summer 2019	Woodland Lu's Woods	Mow *Rubus*
Fall 2019	Woodland	Cut/treat invasive woody species, thin canopy

Timeline	Unit(s)	Task
Winter 2020	all	Conduct deer reduction
Winter 2020	Cherry Island	Invasive shrub removal
Spring 2020	various	Rx burn (cross-reference Rx burn database)
Spring 2020	Woodland Lu's Woods	Spray or hand pull garlic mustard
Spring 2020	Cherry Island	Contract for herbaceous weed control
Summer 2020	Central Prairies	Scout for wild parsnip, crown vetch and bird's-foot trefoil
Summer 2020	Woodland Lu's Woods	Mow *Rubus*
Fall 2020	Cherry Island	Thin canopy
Fall 2020	Central Prairies	Mow brush
Winter 2021	all	Conduct deer reduction
Spring 2021	various	Rx burn (cross-reference Rx burn database)
Spring 2021	Woodland Lu's Woods	Spray or hand pull garlic mustard
Spring 2021	Cherry Island	Follow-up herbaceous weed control
Summer 2021	Central Prairies	Scout for wild parsnip, crown vetch and bird's-foot trefoil
Summer 2021	Woodland Central Prairies 5th Addition Woods	Selected brush mowing
Winter 2022	all	Conduct deer reduction
Winter 2022	South Addition	Contract for invasive shrub removal
Spring 2022	various	Rx burn (cross-reference Rx burn database)
Spring 2022	South Addition	Contract for herbaceous weed control
Spring 2022 Summer 2022	Woodland Central Prairies Lu's Woods Cherry Island	Follow-up and maintenance-level herbaceous weed control
Summer 2022	Woodland Central Prairies Lu's Woods Cherry Island	Selected brush mowing

Possible Burn Schedule – average three burns per year:

Burn units with same letter can be combined or burned in a single day to reduce mobilization costs.

year	1	2	3	4	5	6	7	8	9	10
River Marsh North	A				A			A		
River Marsh South			A				A			A
Caretaker Woods / Bathroom Units	A			A				A		
Boathouse Woods / Hibernaculum Woods			B			A				B
Lu's Woods/Lu's Pond	B			B		B			A	
5th Addition Woods		A			B				B	
5th Addition Prairies			A		B		A			A
Weather Station Prairie		A		A		C		A		
Sherman West			A			C			B	
Sherman East (Lu's Prairie)		B			B			B		
Parking lot prairie (E of parking lot)						B				C
Harry Hill	C		B					C		
Central Meadows	C			C		B			A	
South Hill		C		C			B		A	
Cherry Island / Frog pond complex			B					C		
South Addition Woods					C					
South Addition Prairie			C				C		C	

Management Level 3 (increased restoration)

- Follow-up effort to control invasive species on acres previously treated.
- Install native seed mixes to increase diversity and augment or re-establish native plant community.
- Burn tallgrass prairie and sedge meadow units on a 2-3 year return interval. (Allow 2 growing seasons between burns.) Burn no more than ⅓ of prairie habitat in one season.
- Burn woodland units on 4-year return interval. (Allow 3 growing seasons between burns.)
- Mow brush as needed in prairies and open oak woodlands to supplement prescribed burns.
- Map wetland habitat types and plant communities.
- Secure contracts to complete follow-up reed canary grass control and expand this work to an additional 10 acres.

Annual Budget Estimate:

Task	**Annual cost**
Invasive species treatments (spring / herbaceous)	$8,500
Contracts for invasive species control	$45,000
Mow trails, maintain parking lot	$3,700
Trail maintenance (gravel, water bars, etc.)	$6,000
Brush mowing	$3,000
Invasive species treatments (fall / woody)	$8,000
Wildlife population control	$3,000
Burns (four per year)	$16,000
Install native seed mix	$10,000
Monitoring	$10,000
totals	**$113,200**

Specific Management Unit Prescriptions:

Timeline	**Unit(s)**	**Task**
Spring 2018	various	Rx burn (cross-reference Rx burn database)
Spring 2018	Woodland	Spray or hand pull garlic mustard
Spring 2018	5th Addition Woods	Contract for herbaceous weed control
Summer 2018	Central Prairies	Spray crown vetch, bird's foot trefoil in 5th Addition Prairies
Summer 2018	Central Prairies	Mow wild parsnip in Sherman West Prairie
Summer 2018	South Wetland	Complete ditch fill project
Summer 2018	Woodland	Mow *Rubus*
Fall 2018	Woodland	Cut/treat invasive woody species, thin canopy
Winter 2019	all	Conduct deer reduction
Winter 2019	Lu's Woods	Contract for invasive shrub removal
Spring 2019	various	Rx burn (cross-reference Rx burn database)
Spring 2019	various	Install native seed mix
Spring 2019	Woodland	Spray or hand pull garlic mustard
Spring 2019	Lu's Woods	Contract for herbaceous weed control
Summer 2019	Central Prairies	Spray crown vetch, bird's foot trefoil in 5th Addition Prairies
Summer 2019	Central Prairies	Mow wild parsnip in Sherman West Prairie
Summer 2019	Woodland Lu's Woods	Mow *Rubus*
Fall 2019	Woodland	Cut/treat invasive woody species, thin canopy
Winter 2020	all	Conduct deer reduction

Timeline	Unit(s)	Task
Winter 2020	Cherry Island	Contract for invasive shrub removal
Spring 2020	various	Rx burn (cross-reference Rx burn database)
Spring 2020	Woodland Lu's Woods	Spray or hand pull garlic mustard
Spring 2020	Cherry Island	Contract for herbaceous weed control
Spring 2020	Lu's Woods	Contract for follow-up herbaceous weed control
Summer 2020	Central Prairies	Scout for wild parsnip, crown vetch and bird's-foot trefoil
Summer 2020	Woodland Lu's Woods	Mow *Rubus*
Summer 2020 Fall 2020	Riverine Marsh Central Meadows	Map sedge meadow and shrub-carr communities, and reed canary grass populations
Fall 2020	Cherry Island	Thin canopy
Fall 2020	Central Prairies	Mow brush
Winter 2021	all	Conduct deer reduction
Spring 2021	various	Rx burn (cross-reference Rx burn database)
Spring 2021	Woodland Lu's Woods	Spray or hand pull garlic mustard
Spring 2021	Cherry Island	Contract for follow-up herbaceous weed control
Summer 2021	Central Prairies	Scout for wild parsnip, crown vetch and bird's-foot trefoil
Summer 2021	Woodland Central Prairies 5th Addition Woods	Selected brush mowing
Fall 2021	Riverine Marsh Central Meadows	Rx burn to prep for RCG treatment
Winter 2022	all	Conduct deer reduction
Winter 2022	South Addition	Contract for invasive shrub removal
Spring 2022	various	Rx burn (cross-reference Rx burn database)
Spring 2022	Riverine Marsh Central Meadows	Contract for reed canary grass control
Spring 2022	South Addition	Contract for herbaceous weed control
Spring 2022 Summer 2022	Woodland Central Prairies Lu's Woods Cherry Island	Follow-up and maintenance-level herbaceous weed control
Summer 2022	Woodland Central Prairies Lu's Woods Cherry Island	Selected brush mowing

Possible Burn Schedule – average four burns per year:

Burn units with same letter can be combined or burned in a single day to reduce mobilization costs.

year	1	2	3	4	5	6	7	8	9	10
River Marsh North	A				A			A		
River Marsh South			A				A			A
Caretaker Woods / Bathroom Units	A			A				A		
Boathouse Woods / Hibernaculum Woods			B			A				B
Lu's Woods/Lu's Pond	B			B		B			A	
5th Addition Woods		A			B				B	
5th Addition Prairies			A		B		A			C
Weather Station Prairie	C			A		C		A		
Sherman West			A			C			B	
Sherman East (Lu's Prairie)		B			C			B		
Parking lot prairie (E of parking lot)			C			B				D
Harry Hill	D			C				C		
Central Meadows	D		C			B			A	
South Hill		C		D			B		A	
Cherry Island / Frog pond complex		D			D			C		
South Addition Woods			D		E			D		
South Addition Prairie				E		D			C	

Monitoring and Evaluation

Measuring results is critical to determining success. Basic, periodic monitoring can easily be performed by staff or volunteers. A few key metrics that should be used at North Cherokee Marsh include plant and animal diversity, abundance of invasive species, and fire frequency. Species richness can be tracked through volunteers and staff verifying and updating species lists. Plant diversity can be calculated from sampling data, as can the floristic quality index, from which managers can infer general community health. For certain animal species, total numbers or breeding success can be measured.

Staff and volunteers can map invasive plant communities with GIS to show changes in total cover, and an analysis of fire needs can be performed by comparing maps of prescribed burns completed.

A systematic monitoring program is a goal of our Conservation Park program.

Citations

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Appendices

A. Management Unit Maps
B. Management Sub-Units
C. Habitat Type Map (forthcoming)
D. Invasive Species Populations Map (forthcoming)

Appendix A.1 Management Unit Map

Appendix A.2 Management Unit Map - Detail

Appendix B. Management Sub-Units

Management unit	Sub-units	Total acreage
Riverine Marsh	River Marsh North	62
	River Marsh South	
Woodlands	Caretaker Woods / Bathroom Units	55
	Boathouse Woods / Hibernaculum Woods	
Lu's Woods / Lu's Pond	-	19
5th Addition Woods	-	15
Central Prairies	5th Addition Prairies	82
	Weather Station Prairie	
	Sherman West	
	Sherman East (Lu's Prairie)	
	Parking lot prairie (E of parking lot)	
	Harry Hill	
Central Meadows	Central Meadows	104
South Hill	-	28
Frog Pond / Cherry Island complex	-	21
South Addition	South Addition Woods	30
	South Addition Prairie	
Total intensive		**416**

Southern wetland	-	184
North wetland	-	74
SNA	-	232
Yahara River parcels	-	10
Total extensive		**500**
Grand total		**916**