

GREENLEAF LAKE STATE RECREATION AREA MANAGEMENT PLAN



**Minnesota Department of Natural Resources
Division of Parks and Trails**

January 2011

**Department of Natural Resources Approval
Of Management Plan for Greenleaf Lake State Recreation Area**

Minnesota Statutes 86A sec. 09, Subdivision 1, requires that a master plan be prepared for units of Minnesota's outdoor recreation system, including state parks and state recreation areas. The Laws of Minnesota 2007 (chpt 57, art1, sec 167) established Greenleaf Lake State Recreation Area as part of Minnesota's Outdoor Recreation System (MS 85.013, subd 20a).

The Minnesota Department of Natural Resources (DNR) worked in partnership with Minnesota citizens and an interdisciplinary resource team to develop a management plan for Greenleaf Lake State Recreation Area in 2007-2010.

The management plan was approved by the Division of Parks and Trails management team, and has been approved through the DNR's Regional Interdisciplinary Review Service during December 2010.

Mark Holsten

Mark Holsten, Commissioner
Minnesota Department of Natural Resources

1-3-10 10:00 AM

Date

Greenleaf Lake State Recreation Area Management Plan



State of Minnesota Department of Natural Resources Division of Parks and Trails

This management plan has been prepared as required by 2003 Minnesota Laws Chapter 86A.09, Subdivision 1.

The following DNR staff participated in the operations and management plan process:

New Ulm Region 4 Office

Cathi Fouchi, Regional Planner; Mark Matuska, Regional Director	DNR Regional Operations
Steve Kirch, Regional Manager; Craig Mitchell, Regional Manager;	DNR Parks and Trails
Mike Salmon, Strategic Program Manager; Ed Brekke-Kramer,	
Resource Management Specialist	
John Schladweiler, Regional Manager	DNR Ecological Resources
Jack Lauer, Regional Manager; Jacquelyn Bacigalupi, Asst. Reg. Mgr.	DNR Fisheries
Ken Varland, Regional Manager; Paul Hansen, Asst. Regional Manager	DNR Wildlife

Willmar Area Office

Cassandra Baysal, Specialist; Shane Delaney, Area Forester	DNR Forestry
LeRoy Dahlke, Area Supervisor	DNR Wildlife

Litchfield, MN

Cory Palmer, Conservation Officer	DNR Enforcement
-----------------------------------	-----------------

Hutchinson Area Office

Ethan Jenzen, Area Hydrologist	DNR Waters
Lee Sundmark, Area Supervisor	DNR Fisheries
Rob Collett, Area Hydrologist	DNR Waters

Spicer Area Office

Gregg Soupir, Area Supervisor	DNR Parks and Trails
-------------------------------	----------------------

Central Office, St Paul

Courtland Nelson, Director	DNR Parks and Trails
Stan Linnell, Strategic Management Section Manager	
Jade Templin, Principal Planner	

Copyright 2011 State of Minnesota, Department of Natural Resources

For more information on this management plan please contact the DNR Division of Parks and Trails at (651) 259-5600. This information is also available in an alternative format upon request by calling (651-296-6157 (Metro Area) or 888-MINNDNR (MN Toll Free). TTY: 651-296-5484 (Metro Area) or 800-657-3929 (toll free TTY).

Equal opportunity to participate in and benefit from programs of the Minnesota Department of Natural Resources is available to all individuals regardless of race, creed, color, religion, national origin, sex, marital status, status with regard to public assistance, age, sexual orientation or disability. Discrimination inquiries should be sent to Minnesota DNR, 500 Lafayette Road, St. Paul, MN 55155; or the Equal Opportunity Office, Department of the Interior, Washington, DC 20240

TABLE OF CONTENTS

INTRODUCTION	1
Description of Greenleaf Lake State Recreation Area	1
Legislative History	2
Role of Greenleaf Lake State Recreation Area in the State Park System	2
MISSION AND VISION STATEMENTS	3
STATE RECREATION AREA OPERATIONS AND MANAGEMENT	5
Purpose	5
Description	5
Operations – Staff	5
Near Term Actions – Operations and Maintenance	6
Near Term Actions – Resource Development	6
Near Term Actions – Recreation Opportunities	6
Long Range Plan	7
RESOURCE MANAGEMENT GUIDANCE	9
Resource Management Goals	9
Unit Manager	9
Natural and Cultural Features	9
Purpose	10
Land Acquisition	11
Habitat Management	12
Facility Development	12
PLANNING AND MANAGEMENT MODIFICATION PROCESS	13
Planning Process	13
Plan Amendments and Process	14
EXECUTIVE SUMMARY	15
Plan Recommendations	15
BIBLIOGRAPHY	20
ACKNOWLEDGEMENTS	21

LIST OF FIGURES & MAPS

Figure 1. Location of Greenleaf Lake SRA	1
Figure 2. Minnesota City Population and Distance From SRA	2
Map 1. Greenleaf Lake SRA Existing and Proposed Facilities	8

INTRODUCTION

Description of Greenleaf Lake State Recreation Area

Greenleaf Lake State Recreation Area (SRA) was established as a result of a grassroots effort to protect natural shoreland and productive wildlife habitat from development. Increasing population is resulting in rapid development of lakeshore throughout central Minnesota. Local outdoor enthusiasts and landowners recognized the value of conserving this area for future generations to enjoy while diversifying the local economy.

Greenleaf Lake SRA provides a variety of outdoor recreation opportunities and natural shoreline. Typical day use activities will be hiking, fishing, hunting, mountain biking, wildlife observation, cross country skiing, snowshoeing and picnicking. As facilities are developed, camping, youth skill-building and educational development will be balanced with resource management and other complimentary activities.

Greenleaf Lake SRA statutory boundary includes 1,230 acres of gently rolling woodlands, grasslands and wetlands situated in Meeker County between the towns of Litchfield and Hutchinson (Figure 1). Greenleaf Lake, its surrounding high quality woodlands and productive grass and wetlands, are the focal points of the 258 acres currently in state ownership. The SRA includes or adjoins 3.1 miles of undeveloped shoreline on Greenleaf Lake and 5.7 miles of undeveloped shoreline on Sioux Lake, on the north side of the unit.

Except for signed high use areas (such as camping and picnicking areas), this SRA will be open to hunting during designated seasons, offering a broader combination of recreational activities than is typical in most current SRAs and state parks. As state ownership increases beyond the current statutory boundaries, additional recreational activities will be considered.

Development of a day use picnic area, hiking trails, a small campground that meets diverse user needs, a camper cabin complex, and duck hunting/wildlife viewing blinds for individuals with physical disabilities are priorities for the SRA. A secondary priority is a building that could be used to interpret the significant historic, recreation, natural resource, and geological themes of the SRA, as well as serving as a classroom for skill-building types of education for youth and families. Youth groups focusing on outdoor skills and environmental education, birders, hikers, cross country skiers, geo-cachers, campers, anglers, hunters, canoeists and families on day outings will all benefit from the availability of these facilities and resources.

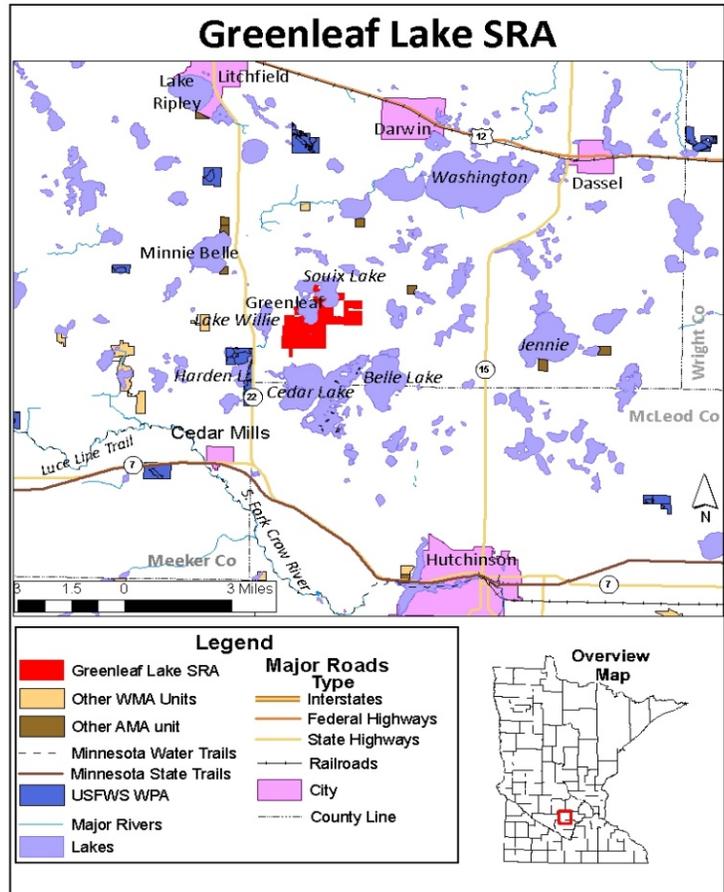
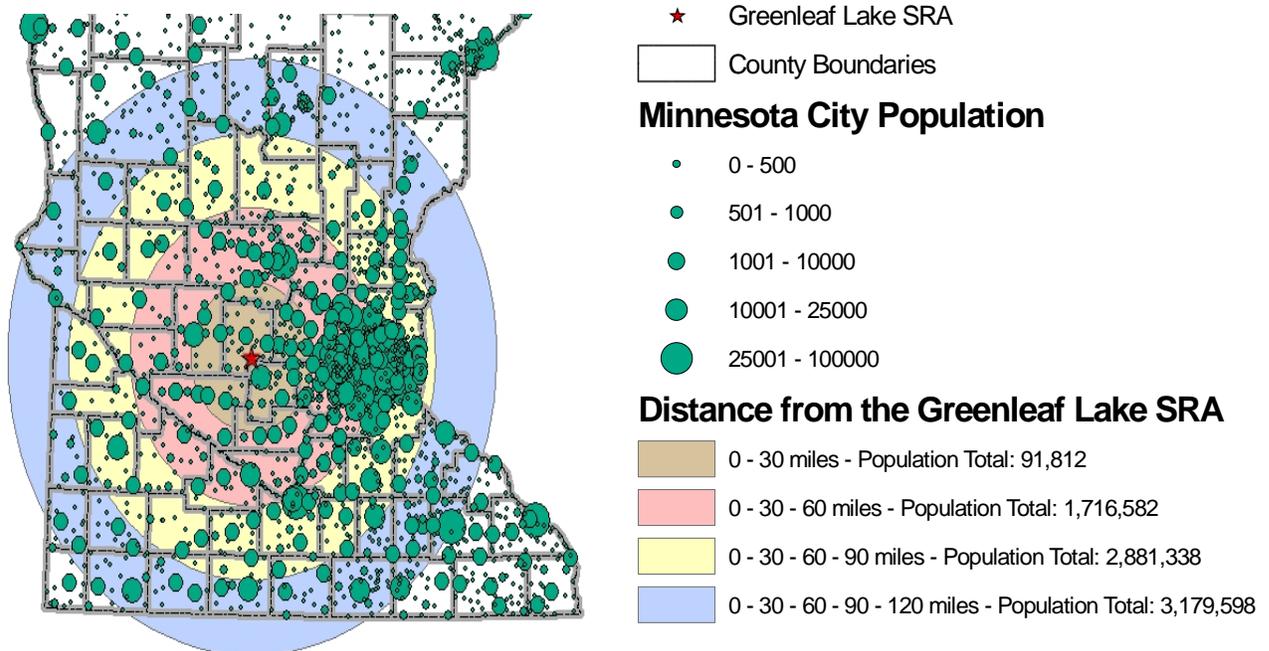


Figure 1. Location of Greenleaf Lake SRA

A large segment of the state's urban population is within an hour drive of this SRA (Figure 2.), which gives it a high potential for intense day use activities.

Figure 2. Minnesota City Population and Distance From SRA



Legislative History

The Laws of Minnesota 2004 (chpt. 262, art. 2, sec. 6) initially established Greenleaf Lake State Park in Meeker County and described the statutory boundary.

The Laws of Minnesota for 2005 (chpt 20, art. 1, subd. 21) allocated \$500,000 capitol bonding for Greenleaf Lake State Park land acquisition from willing sellers of private land within the statutory boundary.

The Laws of Minnesota for 2007 (chpt 57, art. 1, sec 167) re-designated Greenleaf Lake State Park as a State Recreation Area, changed the statutory boundary and allowed bonding funds previously designated to the state park to be used for the SRA. See Map 1, page 8 for statutory boundary.

The Laws of Minnesota for 2008 (chpt 179, sec 7 subd. 22 (b), 53) allocate \$2.4 million capitol bonding for Greenleaf Lake SRA for acquisition of land from willing sellers of private lands within state park and recreation area boundaries established by law.

Role of Greenleaf Lake State Recreation Area in the State Park System

The purpose of the Greenleaf Lake SRA is to provide a broad spectrum of outdoor recreation opportunities in a natural setting in ways that will permit development and management of specialized outdoor recreation and minimize conflict among users.

Mission and Vision Statements

The Mission Statement of the Minnesota Department of Natural Resources:

“The mission of the Minnesota Department of Natural Resources is to work with citizens to conserve and manage the state’s natural resources, to provide outdoor recreation opportunities, and to provide for commercial uses of natural resources in a way that creates a sustainable quality of life.”

About the DNR Mission Statement –

The Minnesota Department of Natural Resources works to integrate and sustain the interdependent values of a healthy environment, a sustainable economy, and livable communities. DNR’s integrated resource management strategy shares stewardship responsibility with citizens and partners to manage for multiple interests.

DNR protects the state’s natural heritage by conserving the diversity of natural lands, waters and fish and wildlife that provide the foundation for Minnesota’s recreational and natural resource-based economy (M.S. 84, M.S. 97A). DNR manages natural lands such as forests, wetlands, and native prairies; maintains healthy populations of fish and wildlife; and protects rare plant and animal communities throughout the state. DNR manages the state’s water resources, sustaining healthy waterways and ground water resources.

DNR provides access to enrich public outdoor recreational opportunities, such as hunting, fishing, wildlife-watching, camping, skiing, hiking, biking, motorized recreation, and conservation education through a state outdoor recreation system that includes parks, trails, wildlife management areas, scientific and natural areas, canoe and boating routes and other facilities (M.S. 86A).

DNR supports natural resource-based economies, managing state forest lands for multiple forest values (M.S. 89), ensuring the maximum long-term economic return from school trust lands (M.S. 127A), and providing other economic opportunities in a manner consistent with sound natural resource conservation and management principles.

The Vision Statement of the Division of Parks and Trails:

“Our vision is to create unforgettable park, trail, and water recreation experiences that inspire people to pass along the love for the outdoors to the next generation.”

The Mission Statement for Greenleaf Lake State Recreation Area:

“Work with Minnesota citizens to manage, protect and enhance Greenleaf Lake SRA resources for current and future generations while providing diverse recreational and educational opportunities.”

The Vision Statement for Greenleaf Lake State Recreation Area:

“We will continue to work with the people of Minnesota to ensure that Greenleaf Lake SRA is managed to meet the needs of current and future generations, while guided by the following principles and values:

- Maintain or enhance management of the SRA for a wide variety of outdoor recreation, including: hunting, which is not typically offered in state Parks and Trails areas; hiking and other trail activities; fishing; and camping while integrating other complimentary forms of recreation;
- Manage and enhance the natural, cultural, and scenic resources that contribute to the statewide significance of the SRA;

- Develop partnerships and cooperative strategies for enhancing recreational and natural resource management, interpretive and educational opportunities that focus on family and youth outdoor skill building and land stewardship ethics;
- Develop facilities with an intimate/natural feel to accommodate a diverse user group, while protecting sensitive natural resources from overuse.
- Consistently seek public involvement and input in decision-making.
- Work with others to provide connectivity with city (Hutchinson and Litchfield) and state/regional/county trails and parks to the northwest, south or southeast (Lake Koronis County Park Trail, Glacial Lake State Trail and Luce Line State Trail)."



OPERATIONS AND MANAGEMENT PLAN

UNIT - NAME:	REGION:	COUNTY:	EXISTING ACREAGE:	STATUTORY ACREAGE:
Greenleaf Lake SRA	4	Meeker	258	1230

TWP:	RNG:	SEC:	ADJACENT TO: (WATERBODY)	WATERBODY DOW NO.
118	30	20, 21, 28, 29, 30, 32	Greenleaf and Sioux Lakes	47-0062 47-0060

PURPOSE OF SRA:

The purpose of the Greenleaf Lake State Recreation Area (SRA) is to provide a broad spectrum of outdoor recreation opportunities in a natural setting in ways that will permit development and management of specialized outdoor recreation and minimize conflict among users. This SRA will provide a variety of recreational uses including, but not limited to mountain biking, hiking, camping, cross-country skiing, hunting, fishing, horseback riding, dog training, snowmobiling, and nature enjoyment. Activities facilitated on the SRA will be phased in over time. Activities meeting the use preferences of a higher percentage of Minnesotans, that require no on-site staff, low facility development or management, and which have lower impact mitigation costs will be implemented first. As facilities are developed and statutory boundaries are expanded, other types of recreational activities will be considered.

DESCRIPTION OF SRA:

Greenleaf Lake SRA was established as a result of a cooperative effort to protect natural shoreland and productive wildlife habitat from development. The area was established as a State Park in 2004 and was re-designated as a state recreation area in 2007. Designation as an SRA allows for a broader range of activities within the statutory boundaries. Greenleaf Lake SRA lies adjacent to and on the shorelines of Greenleaf and Sioux Lakes in Meeker County. It is located about 10 miles northwest of Hutchinson, and about 10 miles southeast of Litchfield. The SRA contains diverse natural habitats as well as restoration sites and provides unique recreational opportunities. Currently, about 1 mile of mowed trail exists in the wooded area of the SRA, with potential for expansion to create loops and accommodate a variety of user types. The SRA provides approximately 9 miles of undeveloped shoreline providing unique fishing, waterfowl hunting, and scenic experiences. There is a fishing pier on Greenleaf Lake outside of the SRA boundary. There are hunting opportunities for deer, turkey, pheasant and small game. There is an existing grant-in-aid snowmobile trail crossing the SRA. There are several sites suitable for establishing rustic and electric camping within the SRA.

OPERATIONS:

Staff

1. The Hutchinson Area Parks and Trails Supervisor will lead overall operations in collaboration with the Greenleaf Management Team (Area Wildlife Manager, Area Fisheries Manager, Eco/Waters Area Manager when applicable and other area discipline managers).
2. Existing DNR area staff will assist with management and operations as directed by the Management Team.
3. An eight month seasonal position, located in Hutchinson, will handle daily operations.
4. Local stakeholders will be encouraged to form a Friends of Greenleaf Lake SRA advocacy and volunteer organization.
5. Local sponsors or units of government will be invited to assist with the protection, development and maintenance of the SRA.
6. An SRA sponsor or host will be encouraged once camping facilities are developed.

NEAR TERM ACTIONS (2010 – 2015)

Operations and Maintenance:

1. Purchase and install a large wood routed sign for the entrance.
2. Install trail signs to assist users with use, route, length, and difficulty information.
3. Install signs to address permitted activities and season restrictions.
4. Area staff will maintain the existing infrastructure and trails from the public access parking area.
5. Manage the west field (Tract 1B site A) vegetation in a short grass mosaic to facilitate hiking and dog training opportunities.

Resource Development:

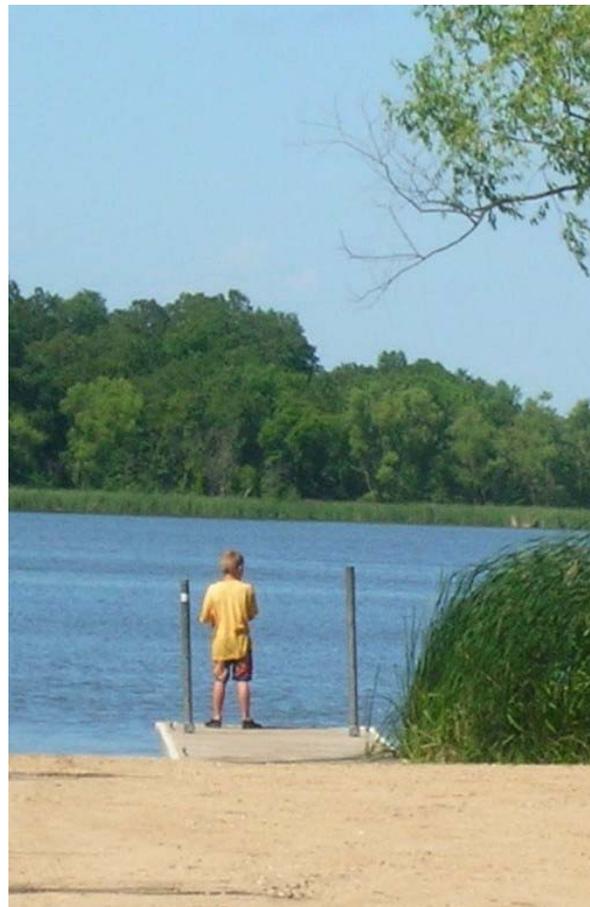
6. Restore agricultural fields to native vegetation.
7. Complete wetland restorations on sites identified as restorable that will result in wildlife and water quality benefits.
8. Maximize stocking of Greenleaf Lake with multiple game fish species for special events. Stock other species as warranted based on survey information and the optimized lake management plan.
9. Initiate feasibility and design for camping facilities to include electric, rustic and camper cabin sites.

Recreation Opportunities:

10. Allow multiple non-motorized uses (hiking, horseback riding, cross country skiing, mountain biking) on the existing trail, applying designation in a way to reduce user conflicts or damage to the trail system.
11. Expand the mowed trail system to include loop opportunities along the upland edge of the woods, along or near the lakeshore where wetlands can be avoided and in restored agricultural areas (see Map 1 on page 8).
12. Continue archery hunting opportunities.
13. Collaborate with partners to set up special deer, turkey, waterfowl, and pheasant hunting opportunities for physically challenged hunters.
14. Install a new ADA accessible fishing pier or retrofit existing pier to accommodate physically challenged visitors (see proposed piers on Map 1 page 8).
15. Establish mentored hunts and angling events for youth and senior groups.
16. Develop a seasonal day-use area with picnic tables, garbage cans, and a toilet.
17. Collaborate with Meeker County trails to optimize the Grant-in-Aid snowmobile trail location within SRA. Add a connection to Sioux Lake.
18. Install a geo-caching site with information about the coordinates on the SRA webpage.
19. Allow off-leash dog training activities in the west field once permanent vegetation is established.
20. Ensure that local users and other interested stakeholders are provided the opportunity for input on the management and allowable activities at the SRA.

LONG-RANGE PLAN (2010 – 2030):

1. Expand the land base and increase recreational opportunities through acquisition of additional properties within the statutory boundary and near the SRA.
2. Develop informational signs and kiosks focused on the natural environment, recreational opportunities, lake information, and historical and cultural information.
3. Hike-in camping sites can serve as an interim to campground development. Approximately 4 rustic, hike in camping sites with canoe access could be located adjacent to Sioux Lake on the east portion of the SRA (Tract 1C site A, Map 1 page 8). Camping facilities should also include toilet facilities and a self-registration and information kiosk.
4. Install a parking area in the eastern portion of the SRA after wetlands are restored and as more land is acquired.
5. Install additional piers and shorefishing opportunities as additional land is acquired and developed along accessible fishing areas. To date, two locations have been identified: adjacent to a proposed campground area (Tract 1A site C, Map 1 page 8) and along the southern shoreline of Greenleaf Lake (Tract 1B site C, Map 1 page 8).
6. Pursue legislative approval for free fishing in the SRA and on the public access adjacent to Greenleaf Lake.
7. Develop ADA accessible deer, turkey, and waterfowl hunting sites on the SRA.
8. Build camping facilities as identified in the feasibility and design study.
9. Develop trails that connect the SRA to recreation opportunities outside the SRA boundaries such as the Luce Line and Glacial Lakes Trails, county park trails and other recreational units.



Map 1

Greenleaf Lake SRA Existing and Proposed Facilities



Tract 1B/Site A

Tract 1A/Site C

Tract 1C/Site A

Tract 1B/Site C

Legend

- Water Access
- Fishing Piers
- Parking Lot
- Proposed Fishing Piers
- GIA Snowmobile Trail
- Proposed Walking Trail
- Walking Trail
- Proposed Management Tracts
- State Ownership
- Statutory Boundary



Resource Management Guidance

Natural and Cultural resources are at the heart of the Minnesota State Recreation system and play a key role in the vision of the Minnesota Department of Natural Resources Division of Parks and Trails:

“Our vision is to create unforgettable park, trail, and water recreation experiences that inspire people to pass along the love for the outdoors to the next generation.”

Based on this wide-reaching vision, a series of goals have been developed to help guide resource management activities throughout the state recreation system.

Resource Management Goals

The DNR Division of Parks and Trails Resource Management Program has the following resource management goals:

- Protect, perpetuate, and restore natural and cultural resources in division-managed units
- Promote understanding and awareness of natural and cultural resources with visitors and the public to support division resource management efforts
- Coordinate and collaborate with other divisions and department efforts to achieve natural and cultural resource goals
- Cooperate with outside groups, other state agencies, and other units of government on natural and cultural resource efforts to achieve division and department goals.
- Address impacts of climate change on the division's natural resource responsibilities

The following information and guidance is developed by consolidating several Geographic Information Systems (GIS) data layers and other databases along with input from DNR multi-disciplinary staff.

Nearby Public Land: (2.5 mile radius) Lake Harden Waterfowl Production Area (WPA), Provencher Wildlife Management Area (WMA)

Unit Manager

DNR Divisions of Parks and Trails, Fisheries, Wildlife

Contact: DNR Divisions of Parks and Trails, Hutchinson 320-234-2550

<u>SRA Land Type(s):</u>	<u>Acres</u>
Acquired (Purchase)	258
Total Managed	258
Project Proposal	1,230

Federal Aid (Acquisition): No

Natural and Cultural Features

Natural Heritage Features

Bald Eagle-MN SPC, American White Pelican-MN SPC, Forster's Tern-MN SPC, Rock Elm –MN REG UNC and American Ginseng-MN SPC

Source: DNR's Natural Heritage & Nongame Research Program 2008.

Note: MN_SPC-Species of Special Concern in Minnesota

REG_UNC-Species is Regionally Uncommon

Cultural Heritage Features

No Native American traditional use areas have been searched for or identified within the SRA, although there has been a request by a local landowner to assess a mound site within the SRA boundaries. Cultural features need to be checked more thoroughly. One cultural site has been documented just south of the SRA between Cedar and Belle Lakes, according to DNR GIS data.

Bob Munter and the Dassel Area Historical Society (DAHS) photographed artifacts from private collections that provide documentation of sites that occurred 5 miles northeast of Greenleaf Lake on Lake Stella and thirteen miles northeast on Big Long Lake. Copies of this information can be found at the DAHS office and on a DVD that DNR Parks – New Ulm obtained. Artifact time periods ranged from 6000 to 300 years before present.

Source: State Historic Preservation Office (SHPO) - Minnesota Historical Society

Easements & Leases

Currently, the Division of Parks and Trails has 86 acres leased out for farming until arrangements to seed sites to a native prairie mix are completed. A power line right-of-way is located in T 118N R30 W NE ¼ Sec 29. Formal tile agreements need to be documented. A GIA Snowmobile Trail grant agreement exists with Meeker County Trails for maintenance of snowmobile trail crossing south and eastern portions of SRA statutory boundary. As of October 2010, the snowmobile trail occurs in one tract of state owned land in T 118 N, R 30 W, SW ¼ Sec 21. An access easement to private property also originates in this tract along the west edge.

Ecological Classification System Description

Big Woods Subsection

Description

The Greenleaf Lake SRA contains a mixture of deciduous forest, wetlands, croplands and grassland located along undeveloped shoreline on Greenleaf and Sioux Lakes in the western Deciduous Hardwoods Subsection in Minnesota. A majority of the upland areas that are in deciduous forest have been grazed in the past but some are unique old growth hardwoods. The forested island in Sioux Lake and the forest on the peninsula between the two lakes are unique because they are dominated by large (24-32"dbh) Rock and American elm along with large basswood, green ash, bur and red oak. This is one of the few places in Minnesota where this type of forest community can be found. Livestock grazing has been removed from this area in recent history.

Some of the wetlands remain relatively untouched while others have been drained or affected by drainage. The original native prairie and some woods were cleared to develop cropland. The area has rolling topography that varies from nearly level to 12% slopes. The area contains loam and clay soils that formed in glacial till on the uplands. The cleared lands are currently being farmed or are enrolled in the CRP program.

Watershed

The Greenleaf Lake SRA's watershed flows into Greenleaf and Sioux Lakes. Greenleaf Lake outlets into Lake Willie, which outlets into Harden and Hoff Lakes, which outlets into the South Fork of the Crow River. The South Fork of the Crow River eventually flows into the Mississippi River. The SRA occurs in an upper catchment basin of the South Fork of the Crow River.

Special Project Area (Special project areas that the Greenleaf Lake SRA is associated with)

Cedar Lake Working Land Initiative (WLI) Area and the Region 4 Greenleaf Lake Focus Area led by Ken Varland, Regional Wildlife Supervisor, encompass part or all of the Greenleaf Lake SRA boundaries. The SRA falls in a Ducks Unlimited Living Lakes designated area.

Purpose

Greenleaf Lake SRA was established under the authority of Minnesota Statute 86A.05 Subdivision 3 of the Outdoor Recreation system of 2007 which states that: A state recreation area shall be established to

provide a broad selection of outdoor recreation opportunities in a natural setting which may be used by large numbers of people. State recreation areas shall be administered by the commissioner of natural resources in a manner which is consistent with the purposes of this subdivision primarily to provide as broad a selection of opportunities for outdoor recreation as is consistent with maintaining a pleasing natural environment. Scenic, historic, scientific, scarce, or disappearing resources within the state recreation areas shall be recommended for authorization as historic sites or designated scientific and natural areas pursuant to section 86A.08 to preserve and protect them. Physical development shall enhance and promote the use and enjoyment of the natural recreational resources of the area.

The purpose of the Greenleaf Lake SRA is to provide a broad spectrum of outdoor recreation opportunities in a natural setting in ways that will permit development and management of specialized outdoor recreation and minimize conflict among users. This SRA will provide a variety of recreational uses including, but not limited to hiking, camping, skiing, hunting, fishing, horseback riding, dog training, snowmobiling and nature enjoyment. Activities facilitated on the SRA will be phased in over time. Activities meeting the use preferences of a higher percentage of Minnesotans, that require no on-site staff, low facility development or management, and which have lower impact mitigation costs will be implemented first. As facilities are developed and statutory boundaries are expanded, other types of recreational activities will be considered.

Access

The Greenleaf Lake SRA is located in Meeker County and is 9 miles southeast of Litchfield, Minnesota and 10 miles northwest of Hutchinson, Minnesota. It is accessible from County Road 18 as well as gravel township roads. Currently, the primary parking area is located at the Greenleaf Lake Public Water Access. Motorized vehicles are prohibited by rule on the SRA at this time. This includes off-highway vehicles (OHVs) and all-terrain vehicles (ATVs). Snowmobiles are permitted on a Grant-in-Aid trail that crosses a portion of the proposed SRA.

Special Regulations or Comments

Currently SRA lands are closed to public hunting except by Minnesota Rule.

Land Acquisition

The DNR Division of Parks and Trails has acquired 258 acres (see Map1 page 8). These tracts contain approximately 1.1 miles of undeveloped shoreline on Greenleaf Lake and 0.9 mile undeveloped shoreline on Sioux Lake. It also contains a woodland tract on the southwest side of Greenleaf Lake that is dominated by large open grown bur oak. Basswood, green ash, hackberry, bitternut hickory and red oak are also found in the over story. The sub-canopy contains ironwood, elm, hickory, red oak, black cherry, green ash and basswood. The forest between Greenleaf and Sioux Lakes is dominated by large rock and American elm with 24-32" dbh (diameter at breast height or 4.5'). Basswood, green ash, red oak, hackberry and bitternut hickory are also present with individuals of each species over 20" dbh. Ironwood, black cherry, aspen and bur oak are also present but to a lesser extent. Rock elm as a dominant tree in the over story is rare in this area. These woodland tracts are unique in that they were historically protected from fire and were marginally affected by or logged as a result of Dutch elm disease in the 1970's.

The remaining Parks and Trails ownership contains a few wetlands and cropland with approximately 42 acres that was formerly in CRP. There is an access easement across the northeast property between the two lakes that provides access to private property on the northern peninsula.

Future acquisitions should focus on obtaining the remaining parcels in the Greenleaf SRA as they become available. Additional high priority tracts are those that would be suitable for WMA's or AMA's and would improve water quality of the lakes, provide habitat and additional recreational opportunities, and are located in and around Sioux and Cedar Lakes.

Habitat Management

The natural resources in the Greenleaf Lake SRA will be managed to provide a diversity of habitat for a wide variety of game and non-game wildlife species. The habitat will be managed to help improve the water quality in the lakes and wetlands. Landscape management goals will be to maintain the unique forested communities and existing wetlands as well as to restore prairie grasslands and wetlands on current agricultural sites. Future planning for SRA recreational development activities will attempt to minimize impacts to these resources while maximizing recreational opportunities.

The different forest communities in the SRA will be managed according to their unique features. The two northern sites will be evaluated for the highest DNR level of management to maintain the unique features of large Rock and American elm along with the other large trees, the understory and the forb plant community. In the southern forest communities in the SRA, maintenance of the large oak trees will be a priority along with maintaining the overall diversity of the forest community. Efforts will be made to minimize the encroachment by exotic species such as buckthorn and garlic mustard. Consideration will be given to the idea of expanding the woodland community into some of the existing cropland to reduce the impacts of forest fragmentation.

Native grasslands will be restored in existing cropland/grassland areas. Native grassland restoration efforts will utilize local genotype native prairie grasses and forbs as time and resources permit. Prescribed burning, haying or grazing will be used as deemed appropriate to maintain disturbance dependent prairie species, reduce exotic competitors and reduce fine dead fuels to stimulate plant vigor and seed production. Prescribed burning and selective cutting will also be used to minimize the encroachment of invasive tree species in the upland prairie areas. The overall effort will be to maintain vigorous native plant communities that will provide water quality benefits; nesting, brood rearing, loafing and escape cover for grassland songbirds, pheasants, turkeys and upland nesting waterfowl as well as a variety of other wildlife species.

Emergent wetlands will be managed to provide breeding and migration habitat for wetland dependent species. A priority will be to maintain and improve existing wetlands and to restore drained or altered wetlands at least to historical high water levels, to the extent possible. These efforts are expected to provide a diverse wetland/grassland complex that will benefit a wide variety of wildlife species and provide numerous types of recreational opportunities.

The existing cropland area owned by the DNR Division of Parks and Trails will be the first sites where grassland and wetland restoration efforts will occur. These sites will continue to be leased for farming purposes until it is determined where wetlands can be restored and when prairie seed sources become available to seed the cropland. A similar process will occur as new lands are acquired in the SRA.

Periodic evaluation by agency personnel and input from the public will be necessary to stay aware of invasive exotic species so that appropriate measures can be taken to control potential problems. Invasive species control grants will be applied for to assist with resources needed to control invasive species.

Facility Development

The tracts that DNR Division of Parks and Trails own have been posted with SRA signs. Boundary maintenance is an ongoing activity and reposting of lines and corners will occur as needed. New tracts will be posted following acquisition. As new lands are acquired an effort will be made to document approximate locations of existing tile lines to facilitate wetland restorations. All wells found on future acquisitions will be sealed.

Initial facility development will include parking areas as appropriate and needed. Future plans for trail development and other facilities will be determined as more lands are acquired.

Planning and Management Modification Process

Planning Process

According to Minnesota Statute 86A.09, Subdivision 1, a management plan is required for units of Minnesota's outdoor recreation system, including state parks and state recreation areas. The Minnesota Department of Natural Resources' Division of Parks and Trails uses a strategic planning framework when developing a state recreation area management plan.

Through implementation of the key principles of strategic unit planning, three committees were formed to provide input and recommendations for the SRA Management Plan. These three committees met regularly to discuss issues and develop recommendations for consideration by the DNR Region 4 project steering committee and Division of Parks and Trails Management Team.

A Citizen's Advisory Committee (CAC) was formed to lend local expertise to the planning project. This council was asked to act as a conduit with other groups it interacts with, relate the significant local history of the area, determine local recreational needs and benefits sought, and provide creative ideas during the planning process.

A Technical Advisory Team (TAT) was comprised of MN DNR professionals who provided interdisciplinary resource management technical assistance and recommendations to the strategic unit planning process in their areas of expertise.

A third group was formed to be a Financial Advisory Committee (FAC). This group consisted of DNR disciplines, USFWS, and non-profit conservation and sportsman groups that have significant funds available for land acquisition and development. The group provided input on what types of recreational activities they would like included in the SRA and helped identify alternative funding options for the SRA.

An open house was held to introduce the SRA concept to citizens and to solicit recommendations from the public. An iterative process was used to refine recommendations with TAT, CAC, FAC and the Project Steering Committee. Once the revised list of recommendations was generated, the draft plan was written and submitted to these groups for review. A 30-day public review period was initiated with a public open house to review plans with the larger public. Concurrent with the public review, a departmental review was initiated. Upon approval by the public and DNR divisions, a letter and the management plan were sent to the Commissioner of the DNR for a signature of approval.

All meeting minutes and documents are available from DNR Division of Parks and Trails Planning Section at the St. Paul Central Office.

DNR Division of Parks and Trail's management plans document a partnership-based planning process and recommended actions resulting from that process. These comprehensive plans recognize that all aspects of SRA management are interrelated, and that management recommendations should also be interrelated. Over time, however, conditions can change and affect certain plan recommendations, or even an entire plan. Plans need to acknowledge the potential for changing conditions, and be flexible enough to allow for modifications as needed.

There are two types of plan modifications: plan revisions and plan amendments. Minor plan revisions concern less controversial issues and can generally be made within the DNR as plan modifications. Larger issues that represent changes in management direction or involve other aspects of the Department or other state agencies would be addressed as plan amendments. The DNR Director of Division of Parks and Trails and the Region 4 Regional Director will make the decision of whether a plan amendment or revision is appropriate.

To maintain consistency between plans and processes, the DNR Division of Parks and Trails planning section will review all revisions and amendments. Requests for planning assistance should be directed to the DNR Division of Parks and Trails Planning Manager in the Central Office, St. Paul.

Plan Amendments and Process

Plan Amendment Criteria

The criteria below will be used to determine whether a proposed change warrants a plan amendment:

The proposed change:

- Alters Greenleaf Lake State Recreation Area's mission, vision, goals, specific management objectives, or proposed development plans outlined in the plan;
- Is controversial between elected officials and boards, park user groups, the public, adjacent landowners, other DNR divisions or state agencies; or
- Directly affects other state agencies (e.g., Minnesota Historical Society).

Plan Amendment Process

The plan amendment process has a series of steps.

1. Review the proposed change at the SRA and regional level. Determine which stakeholders potentially have a major concern and how those concerns should be addressed. If the major concerns are within the DNR, the issue should be resolved within the Division or between the Divisions involved, with input from the public. The proposed change is then reviewed by the affected DNR Division Directors, Regional Director and Regional Management Team. The proposed change will then be reviewed through the DNR Regional Interdisciplinary Review Service (RIRS)
2. If the proposed change involves other state agencies, the issue should be resolved by appropriate DNR field staff and approved by the DNR Regional Director and affected Divisional Directors – with input from the public – and reviewed by RIRS.
3. If the proposed change is potentially controversial among elected boards, park user groups, adjacent landowners or the public, a publicized open house will be held.
4. All plan amendments should be reviewed, documented, and distributed by the DNR Division of Parks and Trails planning staff.

Plan Revisions

If a plan change is recommended that does not meet the amendment criteria above, and generally follows the intent of the Greenleaf Lake State Recreation Area management plan (through mission, vision, goals, and objectives), DNR has the discretion to modify the plan without a major planning process.

Revisions Related to Physical Development Constraints and Resource Protection

Detailed engineering and design work may not allow the development to be completed exactly as it is outlined in the plan. A relatively minor modification, such as moving a proposed building site to accommodate various physical concerns, is common. Plans should outline a general direction and document the general “areas” for development rather than specific locations. For the most part, plans are conceptual, not detail-oriented. Prior to development, proposed development sites are examined for the presence of protected Minnesota Natural Heritage Program elements and historical/archeological artifacts. If any are found, the planned project may have to be revised to accommodate the protection of these resources.

Program Revisions

The resource management and interpretive services plan sections should be updated periodically as needed. The DNR Division of Parks and Trail's Resource Management and Interpretive staff will determine when an update is needed and coordinate the revision with the Greenleaf Lake State Recreation Area planning section. Program sections should be rewritten in a format consistent with the plan as originally approved by the DNR. To retain consistency, DNR Division of Parks and Trails planning staff will be involved in the revision review, editing and distribution.

EXECUTIVE SUMMARY

This plan documents the results of a 12-month planning process and sets the general direction for development and management of Greenleaf Lake State Recreation Area (SRA) for the next 5 – 20 years.

Input from the local community and other outdoor recreationists was solicited during open house events, from comment forms and emails submitted by interested individuals (some representing recreation interest groups) and during the public comment period on the draft plan. A Citizen Advisory Committee (CAC), a Technical Advisory Team, and a Financial Advisory Committee also provided input on recommended actions for the management of natural and cultural resources and recreation.

It is the responsibility of the DNR Division of Parks and Trails and other DNR discipline managers with land managing authority in the SRA to determine priorities and actions needed to implement these recommendations. Specific management and operational details may change over time as new information becomes available or technologies or budgets change.

Prior to the planning process that produced this document, community, interest group, and DNR planning that occurred from 2002 – 2004 resulted in designation of Greenleaf Lake State Park. In 2006 and 2007, meetings were convened with a broad-based group to build a coalition supporting the Greenleaf Lake State Park area as an anchor for a larger recreation-oriented complex. In order to provide a broader array of recreational opportunities, the area was re-designated as a State Recreation Area (SRA). Support for diverse types of recreation in this SRA is currently widespread and enthusiastic. In order to capitalize on opportunities to expand recreation choices in this area and region, it is imperative that DNR support continues through strong community outreach by DNR Parks and Trails and other division personnel. In 2009, partnerships were forged to begin creating the Cedar/ Belle Lakes Working Lands Initiative. This 28 square mile target area also includes Greenleaf Lake SRA.

The long-term vision for Greenleaf Lake SRA management and outreach efforts is focused on youth and family outdoor recreation opportunity / skill building and hunting opportunities for individuals with physical disabilities. Themes of emphasis will include diverse recreation opportunities, natural resource stewardship and land ethics. Greenleaf Lake SRA will be a destination for outdoor enthusiasts who enjoy or participate in a wide variety of recreational activities, including hunting and mountain biking. It will be a place where families and individuals will go to enjoy recreation on high quality natural shorelands around lakes with good water quality and abundant wildlife. Outdoor recreation activities focused on initially will include those documented as activities that larger numbers of Minnesotans participate in, or those that require little or no capital investment by the DNR beyond the land base. These include fishing, camping, hiking, hunting, picnicking, nature observation and education, boating, bicycling, cross-country skiing and snowshoeing. A phased approach will be used to add allowed activities in the SRA. Those activities requiring less facility and management investments will be initiated first (such as shore fishing and hiking). As the number of acres owned by the DNR increases and/or budgets allow, additional activities will be considered.

The following is a list of SRA management plan recommendations developed during technical and citizen input process.

Recreational Use and Visitor Services Recommendations

Day Use

- Increase youth hunting and other outdoor recreation opportunities.
- Increase handicap-hunting opportunities.
- Develop additional shore fishing and wildlife observation opportunities.
- Partner with geo-cache volunteers to develop land and/or water geo-cache routes.
- Provide visitors access to high use areas from a centrally located parking lot to reduce the need to drive and the development of impervious surfaces within the SRA.

- Designate special high-use zones (no hunting) and zones for hunting within the SRA.
- Develop a picnic area with covered shelter and open play space.

Overnight Use

- Develop appropriately sized camping facilities for different user types (modern, semi-modern, camper cabin, rustic), their needs, and the amount of land in state ownership. Consider hike/canoe-in rustic camping as an interim to campground development.
- Develop a camper cabin complex as demand and funding allow. Consider using the existing cabin as rental lodging until additional camper cabins are installed.
- Consider extending the overnight camping season beyond the Memorial Day to Labor Day weekend timeframe, or some other means of ensuring access to the SRA and facilities to take advantage of spring and fall hunter camping. Some year-round camper cabin rental could result in use by ice fishing, snow shoeing and cross country skiing visitors.
- Consider the development of other appropriate overnight facilities such as a primitive group camp.

Trails

- Identify and address potential resource impacts and conflict issues on existing and potential SRA trails for various types of users. Designate trail uses after this is completed.
- Establish some loop trails for uses as resource assessments indicate, including hiking, biking, and cross-country skiing, mountain biking and horse-back riding.
- Develop signage that provides information on the length and difficulty of trails.
- Develop a short canoe route.
- As agricultural fields are re-established with native vegetation, develop trails in these portions of the SRA.
- Develop trails that connect the SRA to recreation opportunities outside the SRA boundaries such as the Luce Line and Glacial Lakes Trails, county parks and other nearby public natural areas.
- Participate in planning for regional pedestrian, bike, ATV, snowmobile and equestrian trail systems.

Contact Station/SRA Office

- Design and develop an energy efficient contact station that blends in with the landscape to meet the SRA user needs (such as a warming hut and small meeting/interpretive space) as funding allows.
- Installing an information kiosk or plaza at a centrally located parking lot should be considered as a preliminary step towards a contact station.

Natural Resource Management Recommendations

Land Cover and Rare Plants

- Sustain or improve the quality of the native plant communities in the SRA at current or better quality, including southern Dry-Mesic Oak (Maple) Woodland, southern Dry Prairie, Northern Mixed Cattail Marsh, Southern Basin Wet Meadow/Carr, and others.
- Restore the quality of the remaining native plant communities in the SRA to at least a moderate quality ranking and then sustain them at that level or above.
- Reconstruct native plant communities in undeveloped, non-native areas of the SRA to a moderate quality ranking level and then sustain them at that level.
- Sustain populations of threatened or special concern plant species documented to be in the SRA and other rare plant species that may be discovered.
- Avoid developments that compromise or destroy remnant native plant communities or rare natural features.
- Evaluate the island community for the highest DNR level of management and protection.

Wildlife

- Sustain and perpetuate populations of the invertebrate and vertebrate species that are state-listed or otherwise considered rare. Species may be added as additional inventories are completed.
- Conduct inventories of amphibians, reptiles, small mammals, birds and selected invertebrates.
- Manage white-tailed deer, turkey and other game species populations to control undesirable impacts to native vegetation.
- Partner with outside groups for wildlife management resources.

Water Resources

- Regularly consult with DNR Divisions of Waters, Fish and Wildlife, Trails and Waterways, Forestry and Ecological Resources on how common goals for improving the water quality of Greenleaf Lake and Sioux Lakes can be achieved.
- Continue to implement Shoreland Best Management Practices (BMPs) at the SRA.
- Partner with DNR Fisheries to inform nearby landowners of Shoreland BMPs and encourage them to implement them.
- Work with the Crow River Watershed Partnership (CRWP), Minnesota Pollution Control Agency (MPCA), Meeker County, and other interested partners to recruit volunteers for a Lake Monitoring Program.
- Coordinate with interested groups and organizations to present programs focused on watershed management, water resources, and water quality.
- Consider a native shoreland planting demonstration and associated interpretive signage in a high-visibility location.
- Reduce the nutrient and sediment loads to Sioux and Greenleaf Lakes

Cultural Resource Management Recommendations

- Document and interpret a cultural history of the Ellsworth Township area.
- Protect all known cultural resources.
- Evaluate appropriate development and configure trails to avoid or limit impacts to cultural resources.
- Conduct mitigation in cases where impacts cannot be avoided in order to preserve the artifacts and information.
- Manage native plant communities and invasive species with appropriate methods to preserve the landscape around these cultural resource sites.
- Facilitate the documentation of private artifact collections (with cooperative landowners) that were collected within the statutory boundary.

Interpretive Services Recommendations

Development of most interpretive services will follow facilities development. Early interpretive efforts aimed at day use activities could include:

- Amend the Minnesota State Park System Interpretive Services Plan (1995) to include interpretive planning for Greenleaf Lake SRA
- Develop an information/interpretive kiosk that describes and recommend SRA trails for hiking, observing wildlife and scenery, sites for shore fishing and areas open to hunting and trapping.
- Develop self-guided interpretive services for one of the existing trails that would serve to educate visitors about the SRA's natural and cultural resources.
- Partner with local historical groups in developing self-guided interpretive services about local historical markers and places/events of historical interest that SRA visitors can use.
- Engage and train volunteers to interpret selected resource management activities such as invasive species management, wildlife or native plant community monitoring, restoration and reconstruction.

- Facilitate the collection of oral histories from older landowners in the area, particularly those with lands inside the statutory boundary, with emphasis on their land stewardship and land ethic.

After facilities and budgets are secured, the following services are recommended:

- Use the SRA as a gateway to the outdoors and the DNR by incorporating the priorities, key messages and initiatives of other DNR divisions into DNR Division of Parks and Trails guided and self-guided services, where appropriate.
- Develop a “first stop for SRA visitors” orientation, information and interpretive exhibits of the SRA and local area that are incorporated into the SRA office.
- Develop a series of temporary, on-site interpretive signs that tell the resource management stories in the SRA, such as prescribed burns, prairie reconstruction, savanna restoration and management, wildlife species re-introductions, and invasive/alien species management.
- Build a model energy efficient interpretive center (in conjunction with or separate from the contact station) that can be used for self-guided tours on energy efficiency techniques in new buildings.
- Develop SRA-specific tools that enable visitors of all ages to learn about the SRA’s flora, fauna and water resources including a Wildflower Kit, Discovery Kit and several Kids Nature Explorer Kits.
- Develop an SRA outdoor skill-building program emphasizing instruction in activities such as cross-country skiing, bicycling, hiking, canoeing, hunting, fishing and snowshoeing
- Develop an SRA education program that teaches nature skills-building such as: birding; tree and wildflower identification; nature photography; painting and drawing nature; poetry; storytelling and writing; song writing and music.
- Develop an SRA education program that teaches watershed conservation and protection methods and techniques for developing clean water in Greenleaf and Sioux Lake watersheds.
- Employ interpretive services staff based on SRA priorities and available funding.

SRA Boundary Recommendations

The following are general recommendations for potential acquisition and/or conservation:

- Continue to pursue acquisition of private lands from willing sellers within the SRA’s current statutory boundary. DNR divisions should work collaboratively to accelerate this process and increase acquisition funding possibilities.
- Parks and Trails will communicate with other divisions when lands outside the statutory boundary are identified as available for purchase and meet DNR land acquisition objectives in other divisions.
- Support the use of conservation tools like conservation easements and cooperative resource management projects in working with neighboring communities, special interest groups, county and regional units of government, and private property owners to protect and conserve viewsheds, native plant communities and terrestrial and aquatic wildlife habitat.
- Inform DNR private lands staff of opportunities to work with surrounding landowners to inform them of conservation measures they can implement on their property, especially if they have significant natural resources on their land or have the potential to impact viewsheds of the SRA.
- The DNR will consider lands suggested for inclusion in the SRA boundary as described in the management plan.
- Provide local units of government with ample opportunity to review proposals.

SRA Operations Recommendations

- Promote efforts to hire a SRA manager to accelerate development of recreational opportunities and restoration/management of native vegetation on newly acquired lands. As visitor use and facility development justify, increase staffing.
- Explore cooperative partnerships with other DNR divisions or local governments for management of SRA.
- Implement an educational effort with local residents and virtual visitors about SRA rules and expectations for visitor experience.
- Develop with partners an annual “Stewardship” Festival that could be initiated prior to facility development to help continue and build community support.



BIBLIOGRAPHY

Arends, Heather. Personal Communication. MN DNR Lands and Minerals, St. Paul, MN.

Frellich, Lee. Personal Communication. Center for Harwood Ecology, University of Minnesota.

Minnesota Department of Natural Resources. 2004. *Minnesota Land Cover Classification System User Manual*. MNDNR, St. Paul, MN. http://files.dnr.state.mn.us/assistance/nrplanning/community/mlccs/mlccs_manual_v5_4.pdf

Minnesota Department of Natural Resources. 2005. *Field Guide to the Native Plant Communities of Minnesota*. Ecological Land Classification Program, Minnesota County Biological Survey, and Natural Heritage and Nongame Research Program, MNDNR, St. Paul, MN.

Minnesota Department of Natural Resources. 2006. *Tomorrow's Habitat for the Wild and Rare: An Action Plan for Minnesota Wildlife*, Comprehensive Wildlife Conservation Strategy. Division of Ecological Services, MNDNR, St. Paul, MN. http://files.dnr.state.mn.us/assistance/nrplanning/bigpicture/cwcs/profiles/big_woods.pdf

Minnesota Department of Natural Resources. 2007. Strategic Plan: 2006-2001. Division of Parks and Trails, MNDNR, St. Paul, MN. http://files.dnr.state.mn.us/parks_recreation/sp_strategic_plan.pdf

Minnesota Department of Natural Resources. 2008. *Minnesota State Park System User Survey*. Office of Management and Budget Services. MNDNR, St. Paul, MN

Minnesota State Demographic Center. 2005. *Minnesota Population Projections 2005-2035*. Minnesota Department of Administration, St. Paul, MN. <http://www.demography.state.mn.us>

Munter, Robert. Personal Communication. Associate Professor & Laboratory Director, Retired. Department of Soil Science, University of Minnesota.

Additional on-line sources of information used in this plan include:

Explore Minnesota. Minnesota Office of Tourism. <http://www.exploreminnesota.com>

Minnesota Department of Natural Resources: Minnesota State Parks. http://www.dnr.state.mn.us/state_parks/index.html

McLeod County, Minnesota. <http://www.co.mcleod.mn.us/>

Meeker County, Minnesota. <http://www.co.meeker.mn.us/>

Meeker County Historical Society. Litchfield, MN. <http://www.garminnesota.org>

ACKNOWLEDGEMENTS

The individual names of the many citizens who have contributed to the development of this plan are too numerous to mention here. Suffice it to say that hundreds of individuals donated their own time and energy to this planning effort by either attending meetings or by offering written and verbal comments as the plan progressed. We thank all of these individuals for their dedication and for their willingness to sacrifice their own free time to contribute to this effort.

In addition, many resource management professionals from a variety of public agencies and non-profit organizations willingly contributed their time and expertise to this planning process. We also wish to thank these individuals for their efforts.

A special thank-you is extended to Naoko Meyer, Regional GIS Coordinator, Management Resources, Region 4 GIS Section, who produced the variety of maps and other illustrations for this planning document. We thank you for your patience and hard work.

Towards the end of the writing process for this plan, DNR began a restructuring process. The Division of Parks and Recreation merged with the Division of Trails and Waterways and was renamed the Division of Parks and Trails. At this time the exact ramifications, if any, of this change for the future management of Greenleaf Lake SRA are not clear. The plan will basically be left as it was written. If significant changes are required due to DNR restructuring these will follow the process for amending plans as outlined in the plan amendment section of this document. Throughout the document, references to the Division of Parks and Recreation can be thought of as the same as the Division of Parks and Trails.

Cover Photo: Courtesy of Mark Geyer – Looking north from CRP field towards Greenleaf Lake, Fall 2006.