

Sakatah Lake State Park Management Plan



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

March 2008

Minnesota Department of Natural Resources
500 Lafayette Road • St. Paul, MN • 55155-4037



**Department of Natural Resources Approval
of Management Plan for Sakatah Lake State Park**

Minnesota Statutes 86A.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 for 1963 established Sakatah Lake as part of Minnesota's Outdoor Recreation System (MS 85.012, Subd. 50).

The Minnesota Department of Natural Resources worked in partnership with Minnesota citizens and an interdisciplinary resource team to develop a management plan for Sakatah Lake State Park.

The management plan was approved by the Division of Parks and Recreation management team, and was approved through the DNR Regional Interdisciplinary Review Service (RIRS) during March 2008.

A handwritten signature in black ink, appearing to read "Mark Holsten".

Mark Holsten, Commissioner
Minnesota Department of Natural Resources

3/25/08

Date

Sakatah Lake State Park Management Plan



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

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

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The development of this plan was greatly assisted by the members of the Sakatah Lake State Park Citizen Advisory Committee, who donated many hours of their time to help analyze and discuss the current park issues, and make management recommendations.

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For more information on this management plan, please contact the DNR Division of Parks and Recreation at (651) 259-5600. This document is available in alternative formats upon request to individuals with disabilities.

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EXECUTIVE SUMMARY

This plan documents the work of a 12-month planning process and sets the general direction for the management of Sakatah Lake State Park for the next 20 years. Input from the community and state park users was solicited during open house events, from visitor comment forms, and during the public comment period on the draft plan. A Citizen Advisory Committee and a Technical Advisory Team also provided input focused on recommended actions for the management of natural and cultural resources and recreation. It is the responsibility of the DNR Division of Parks and Recreation to determine the appropriate 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.

The following is a summary of the major recommendations for the park management plan. A complete list of recommendations can be found within each section of the plan and a comprehensive list of all recommendations is included in Appendix A.

Natural Resource Management Recommendations

Land Cover and Rare Plants

- Sustain or improve the quality of the native plant communities in the park.
- Reconstruct and sustain native plant communities in undeveloped areas of the park.
- Sustain populations of threatened or special concern plant species documented to be in the park and other rare plant species that may be discovered.

Wildlife

- Sustain and perpetuate populations of the invertebrate and vertebrate species that are state-listed or otherwise considered rare.
- Manage white-tailed deer and other wildlife populations to control impacts on native vegetation.

Water Resources

- Regularly consult with DNR's Divisions of Waters, Fish and Wildlife, and Trails and Waterways on how common goals for improving the water quality of Upper and Lower Sakatah lakes can be achieved.
- Work with the Cannon River Watershed Partnership (CRWP), Minnesota Pollution Control Agency (MPCA), Le Sueur and Rice counties, and other interested partners to provide volunteers for CRWP's Citizen Monitoring Program.
- Use the state park as a gateway to the outdoors and the Department of Natural Resources by coordinating with interested groups to present programs focused on watershed management, water resources, and water quality.

Cultural Resource Management Recommendations

- Work with the Minnesota Historical Society to clearly determine if one of Alexander Faribault's trading posts existed within the park boundary.
- Protect all known cultural resources from vandalism and unintended impacts.
- Configure trails and other developments to avoid or limit impacts to cultural resources.
- Manage native plant communities and invasive species with appropriate methods to preserve the landscape around cultural resource sites.

Interpretive Services Recommendations

- Use the state park as a gateway to the outdoors and the Department of Natural Resources by incorporating the priorities, key messages and initiatives of other DNR divisions into State Parks' guided and self-guided services, where appropriate.
- Employ interpretive services staff based on statewide park system priorities and available funding.
- Develop an information/interpretive kiosk that describes and recommends park trails for hiking and observing wildlife and scenery.
- Develop self-guided interpretive services for one of the existing trails that would serve to educate visitors about the park's natural and cultural resources.
- Develop a park outdoor recreation program emphasizing instruction in activities such as cross-country skiing, bicycling, hiking, and snowshoeing.
- Develop a park education program, that teaches nature skills-building such as: fishing, hunting, birding, tree and wildflower identification, nature photography, painting and drawing nature, poetry, story telling and writing, song writing and music.
- Develop a volunteer program that trains and engages citizens to work on select resource management activities such as invasive species management, wildlife or native plant community monitoring, restoration and reconstruction.
- Develop a park education program that teaches watershed conservation and protection methods and techniques for enhancing clean water in the Sakatah lakes and Cannon River.

Recreational Use and Visitor Services Recommendations

Day Use

- Encourage visitors to sample the variety of experiences available within the park including nature study, fishing, wildlife viewing, trail use, paddling, and other activities.
- Build an enclosed picnic shelter south or southeast of the picnic area, on the site of the existing bathroom building or adjacent to the large parking lot near the fishing pier, respectively.

Overnight Use

- Install children's play equipment near the campground following Division of Parks and Recreation guidelines.
- Enhance some of the existing campsites through the addition of electrical service or higher electrical service, re-grade some sites to provide more comfortable tent pads and level parking spots, and redevelop some sites to allow for vehicle pull-through.
- Maintain or increase spacing between campsites, keeping electric and non-electric sites generally separate from one another.
- Add camper cabins where resources, existing day-use areas, and the viewshed will not be negatively impacted.
- Develop walk-in, cart-in and/or backpack sites in areas that are appropriate for their installation.

Trails

- Develop sustainable hiking and cross-country ski trails in prairie and savanna portions of the park, which do not negatively impact native communities or their restoration.
- Develop a spur trail from the Lower Group Camp to the Sakatah Singing Hills State Trail and/or Timber Doodle Trail for improved trail connectivity.
- Develop a trailhead for the Sakatah Singing Hills State Trail within the park that provides maps and trail information, and offers sufficient parking.

Park Boundary Recommendations

- Add and delete lands to the park statutory boundary as described in the management plan.
- Continue to pursue acquisition of private lands within the current park statutory boundary that support the Division of Parks and Recreation's mission to protect and perpetuate the diverse natural, scenic, and cultural resources for low impact use, education and enjoyment of park visitors.
- Consider acquisition of parcels outside of the park statutory boundary that meet boundary change criteria and are supported by the property owner.
- 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.
- Work with special interest groups and local and county units of government to develop education and stewardship opportunities to be implemented by surrounding land owners on their property to buffer, protect and enhance significant natural resources (e.g. Shoreland BMPs) and important viewsheds.
- Provide local units of government the opportunity to review boundary modification proposals.

Recommendations for Park Operations

- Review visitor use and staffing needs on a regular basis, using the Division of Park and Recreation's Operating Standards, to ensure consistency throughout the park system.
- Utilize volunteers and work programs to supplement and support park staff, where appropriate.

INTRODUCTION

Park Description and History

Sakatah Lake State Park is located on the border of Le Sueur and Rice Counties off State Highway 60, one mile east of the intersection of State Highway 13 and 60 in Waterville. Sakatah Lake is 14 miles west of Faribault, 29 miles east of Mankato, and just over 60 miles south of Minneapolis and St. Paul.



The park was established in 1963 by an act of the Minnesota Legislature, with a statutory boundary of 835 acres. The parklands include 3.5 miles of shoreline along Sakatah Lake. Divided into Upper and Lower Sakatah lakes, these waterways provide anglers with the opportunity to catch bullhead, perch, crappie, bluegill, bass, pike, and walleye.

The rolling topography of the park features rich, mixed hardwood forest and dry upland prairie. The Cannon River area formed the boundary between the “Big Woods” of the Minnesota and Mississippi River Valleys, and the southern oak barrens south of the park. Sakatah Lake, a natural widening of the Cannon River, provides visitors with opportunities for many forms of outdoor recreation and nature study including

hiking, biking, birding, fishing, and other activities.

Running through the park is the Sakatah Singing Hills State Trail, a 39-mile, multiple-use state trail that has been developed on an abandoned railroad grade. The trail provides a paved surface for bicyclists, hikers, skiers and snowmobilers. The park serves as a convenient base camp for those wishing to travel the state trail.

During early historic times, members of the Dakota Nation, Wahpekute (Wapacoote) tribe, inhabited the area that today is the park. These people lived by hunting, gathering and trapping. They named the place Sakatah, which translates to “the voices of children playing on a hill” or more succinctly, “singing hills.” Hence, the name for the state trail.

The Cannon and other area rivers served as an important Indian water route between south-central Minnesota and Wisconsin. The “Big Woods” made land travel difficult and a water route allowed larger loads. Numerous trading posts and Indian villages existed along the route. Several burial mounds were discovered in the late 1800s and can still be seen in the park. A village site is believed to have existed in the area of the point separating Upper Sakatah and Lower Sakatah lakes.

In 1862, Alexander Faribault established a trading post on the northeast shore of Cannon Lake, near present day Faribault. This is thought to be the first permanent Euro-American settlement in the area. He eventually established at least five other trading posts at various points along the Cannon River. One of these is likely to have been in the park, along Sakatah Lake.

Legislative History

Legislation specific to Sakatah Lake State Park

Chapter 85.012 State Parks – established the Minnesota Department of Natural Resources Division of Parks and Recreation and authorized existing park units.

Chapter 85 Subd. 50. - Sakatah Lake State Park, Le Sueur and Rice counties, is established.

1965 Chapter 810 - Section 9 Subd. 8: Statutory boundary expansion.

Subd. 50. Sakatah Lake State Park, Le Sueur and Rice counties.

HIST: 1963 c 790 art 5 s 1 subd 1(6); 1965 c 810 s 9 subd 8; 1965 c 901 s 77 subd 4; 1969 c 524 s 2; 1991 c 275 s 1 subd 4

Sakatah Singing Hills State Trail Description

The Sakatah Singing Hills State Trail is a 39-mile multiple use trail from Mankato to Faribault that has been developed on an abandoned railroad grade. It was authorized by the Minnesota Legislature in 1971 (Laws of Minnesota, 1971, Chapter 859, Section 6, Subdivision 8). Access to this popular trail is provided in a number of locations, including Sakatah Lake State Park, which also provides a separate bicycling campground. The trail has been developed for bicycling, hiking, in-line skating, horseback riding, skiing, and snowmobiling. The trail begins at Lime Valley Road near Mankato and ends east of Interstate 35 at Faribault. In Waterville, trail users follow a signed route on city streets.

The Sakatah Singing Hills State Trail provides a paved treadway over its entire length as well as a separate, shorter section that is designated for horseback riding and cross-country skiing. The horseback riding and cross-country skiing section, on the western end of the trail, is approximately two miles long and begins at Lime Valley Road. Though horse riders may not prefer paved surfaces, they are allowed on the remainder of the trail as well.

Legislation specific to Sakatah Singing Hills State Trail

1971 85.015 State trails.

Subd. 8. Sakatah Singing Hills Trail, Blue Earth, Le Sueur, and Rice Counties.

- (a) The trail shall originate in Mankato, Blue Earth County, and shall extend in a northeasterly direction on or along the railroad right-of-way into Rice County.
- (b) The trail shall be developed primarily for riding and hiking. Motorized vehicles, except snowmobiles, are prohibited from the trail.

Mission and Vision Statements

The following mission and vision statements provide a perspective on the role of the Department of Natural Resources, the Division of Parks and Recreation and finally the role that Sakatah Lake State Park will fulfill within the park system for the next 20 years.

Department of Natural Resources Mission

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.

Division of Parks and Recreation Mission

We will work with people to provide a state park system, which preserves and manages Minnesota's natural, scenic and cultural resources for present and future generations while providing appropriate recreational and educational opportunities.

Sakatah Lake State Park Mission

Sakatah Lake State Park will protect and enhance the diverse landscapes, natural and cultural resources and recreational opportunities found within the park for the use, education and enjoyment of present and future generations.

Sakatah Lake State Park Vision

Over the next 20 years, Sakatah Lake State Park will exemplify the best in natural resource and recreation management to ensure that the park continues to serve as an outstanding unit within the Minnesota State Park System.

We will work with the people of Minnesota to ensure that Sakatah Lake State Park is managed to meet the needs of current and future generations guided by the following principles:

- Manage and enhance the natural, cultural and scenic resources.
- Perpetuate populations of listed or special status plant and animal species and any other species of concern which may be discovered in the future.
- Control exotic and/or invasive species in an ecologically sensitive manner.
- Continue to actively seek and adopt innovative, effective and efficient management practices.
- Preserve and enhance significant vistas within the park.
- Preserve the opportunity for park visitors to experience a sense of wildness, quiet and solitude.
- Provide access to park resources for people of varying abilities.
- Provide unique, rewarding and diverse educational opportunities to ensure that visitors will understand, value and enjoy the diversity of landscapes, natural features, cultural heritage and recreational opportunities found in the park.
- Develop educational and interpretive features to create a sense of stewardship among visitors.
- Develop partnerships and cooperative strategies for enhancing resource management, educational opportunities and tourism in the Southern Minnesota Lakes Region.
- Provide high quality public service.

Planning Process

The Sakatah Lake State Park planning process began in the spring of 2007. Two planning teams were established to provide input into the process: the Citizens Advisory Committee and the Technical Advisory Team.

Sakatah Lake Citizens Advisory Committee (CAC)

The Citizens Advisory Committee provided public input throughout the planning process. This group was made up of local citizens, and representatives from nearby recreational and educational groups. The members represent a variety of perspectives and interests that are intended to serve as a representation of the diversity of park users and supporters. The committee met four times during the summer and fall of 2007 to analyze current issues related to natural and cultural resource management, recreational needs, interpretive programming and the park boundary. Collectively the committee provided a valuable perspective and recommendations on the development of management goals, objectives, and strategies for the future use and management of this park over the next 20 years.

Technical Advisory Team (TAT)

In addition to the citizen committee, an intra-agency team met to assist in gathering data and technical expertise in the development of the revised management plan. This group consisted of individuals from various divisions within the Minnesota Department of Natural Resources including Trails and Waterways, Fish and Wildlife, Lands and Minerals, Ecological Services, Forestry, Waters, and Enforcement.

The Sakatah Lake State Park Management Plan is the result of the partnership efforts of these two planning teams and information gathered at additional public meetings and open houses. A draft of the management plan was made available for a 30-day public review beginning February 5, 2008. During the public review period, a public open house was held to provide citizens with the opportunity to review the plan and have questions answered and any concerns addressed. Copies of the draft plan were also distributed to individuals who had expressed an interest in the planning effort.

Following the public review, public comments were taken into consideration and the draft management plan was revised and then submitted for review by the Division of Parks and Recreation Director and staff. The Sakatah Lake State Park Management Plan was approved by the Commissioner of Natural Resources on March 25, 2008.

Copies of the [Sakatah Lake State Park Management Plan \(2008\)](#) and a planning process file which documents the planning effort are available at the Sakatah Lake State Park office as well as at the MDNR Southern Region Headquarters in New Ulm and MDNR Central Office in St Paul. The management plan is also available on Minnesota Department of Natural Resources Division of Parks and Recreation web page. www.dnr.state.mn.us

REGIONAL ANALYSIS

This section of the plan describes both the ecological and socioeconomic regions in which Sakatah Lake State Park is situated, and the primary relationships between the park and these regions. The ecological region is discussed in terms of the Minnesota Ecological Classification System (ECS). The socioeconomic region is described in terms of a regional population analysis and a description of regional recreation and tourism opportunities. Throughout this chapter, the plan will reference a 50-mile radius from the park. This distance was chosen to represent an area roughly within a one-hour drive of the park.

Regional Landscape Description

Minnesota's Ecological Classification System (ECS) is part of a national classification system that separates and describes units of different landscapes. The approach stresses the interrelationships and resulting interactions among components of the ecosystem including climate, geology, geomorphology, parent materials, soil, vegetation, hydrology and historical land use. The ECS is a management tool that: (1) describes the extent and content of various ecosystems; (2) improves resource managers' abilities to predict how landscapes will change over time; (3) improves a managers' ability to manage all natural resources on a sustainable basis and (4) allows managers to communicate more effectively with one another.

Subsections

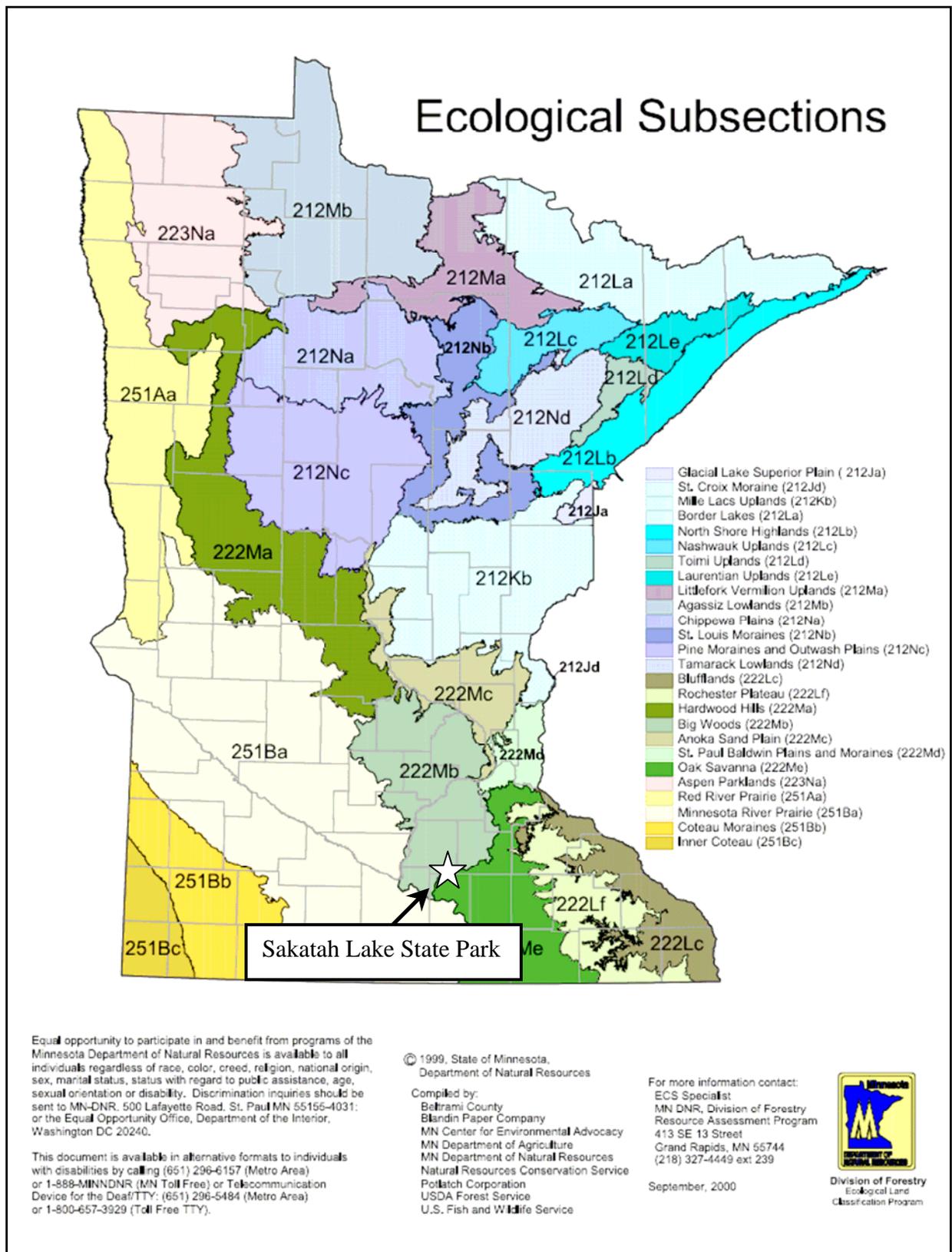
Subsections are units within the provinces that are defined using glacial deposition processes, surface bedrock formations, local climate, topographic relief and the distribution of plants, especially trees. Minnesota has 25 subsections.

Sakatah Lake is part of the Oak Savanna Subsection, though it is located at the northern boundary of this subsection. Just to the north, across the Cannon River and Sakatah Lake, is the Big Woods Subsection.

The Oak Savanna Subsection consists primarily of gently rolling hills. Bur oak savanna was the primary vegetative community, but areas of tallgrass prairie and maple-basswood forest were also common. Bur oak savanna developed on rolling moraine ridges at the western edge of the subsection and in dissected ravines at the eastern edge. Tallgrass prairie was concentrated on level to gently rolling portions of the landscape, in the center of the subsection. Maple-basswood forest was restricted to the portions of the landscape with the greatest fire protection, either in steep, dissected ravines or where stream orientation reduced fire frequency or severity (Albert 1993).

Historically, fire and grazing were the most important disturbances in this subsection and maintained oak openings rather than forest. Wetlands and shallow lakes were much more common and provided critical habitat for a variety of wildlife. Today most of this subsection is farmed. Increasing intensity of agricultural production has led to further wetland deterioration and loss, impaired water quality issues, and sediment loading in streams.

Figure 1: Ecological Subsections



The Big Woods Subsection, just north of the park, consists primarily of gently to moderately rolling hills. Oak woodland and maple-basswood forest were the most common vegetative types on the irregular ridges of this subsection. Based on Public Land Survey notes, the order of dominance in the sugar maple-basswood forest was elm (27%), basswood (14%), sugar maple (12%), bur oak (10%), ironwood, northern red oak, and aspen (7%) (Grim, 1984).

Historically, windthrow was probably the most important disturbance in the Big Woods subsection. Today, this subsection is predominately agricultural; more than 75% is farmed, with an additional 5-10% in pasture. The remaining 10-15% of the subsection remains as either upland forest or wetland (Dept. of Soil Science, Univ. of Minnesota 1973, 1980b, 1981a).

Ninety-three species of Greatest Conservation Need (SGCN) are known or predicted to occur within the Oak Savanna Subsection. At least 12 species of wildlife found at Sakatah Lake State Park are on the list of SGCN, all of them birds. Five species have been documented within the park that are state or federally listed.

The classification of the Sakatah Lake State Park Land Cover encompasses approximately 835 acres (lands inside the statutory boundary). One hundred, fifty-four acres are classified as developed or use areas (such as administrative area, campground, recreational use areas, roads and trails). Just over twenty-eight acres within the statutory boundary remain in private ownership. The remaining 681 acres of the park are further divided into undeveloped areas such as old fields and native plant communities.

A native plant community is a “group of plants that interact with each other and with their environment in ways not greatly altered by modern human activity or by introduced organisms...Sometimes referred to as native habitats or natural communities, native plant communities are named for the characteristic plant species within them or for characteristic environmental features” (MN DNR, 2007). Examples at the class level include Southern Dry Mesic Forest, Southern Mesic Maple-Basswood Forest, Northern Cattail Marsh, and Southern Dry Prairie.

Table 1: Sakatah Lake State Park Land Cover Acreages

Total Park Area	835 acres - <i>note: 28.5 acres remain in private ownership</i>
Total developed/use area	154 acres - <i>18% of total park area</i>
Total undeveloped area	681 acres
Old fields, plantations, unclassified areas	241 acres - <i>29% of park</i>
Native plant communities	440 acres - <i>50% of park</i>
(*within the 440 acres of native plant communities)	105 acres - <i>have high-quality plant communities¹</i>

¹ High quality plant communities are defined here as having a current Element Occurrence (EO) rank of B/C or better. On a continuum of “A” through “D”, an “A” rank indicates an excellent quality natural community, while “D” indicates a poor quality natural community. A “B” rank is considered to be of good quality and a “C” rank is considered to be of moderate quality (MN DNR, 2004. *Minnesota Land Cover Classification System User Manual*. http://files.dnr.state.mn.us/assistance/nrplanning/community/mlccs/mlccs_manual_v5_4.pdf).

Regional Population Analysis

According to the Minnesota State Demographic Center, the state's population is projected to grow to 5,709,700 by 2015 and 6,446,300 by 2035. The Twin Cities suburbs and the Rochester and St. Cloud regions are all expected to see substantial growth over the next 30 years.

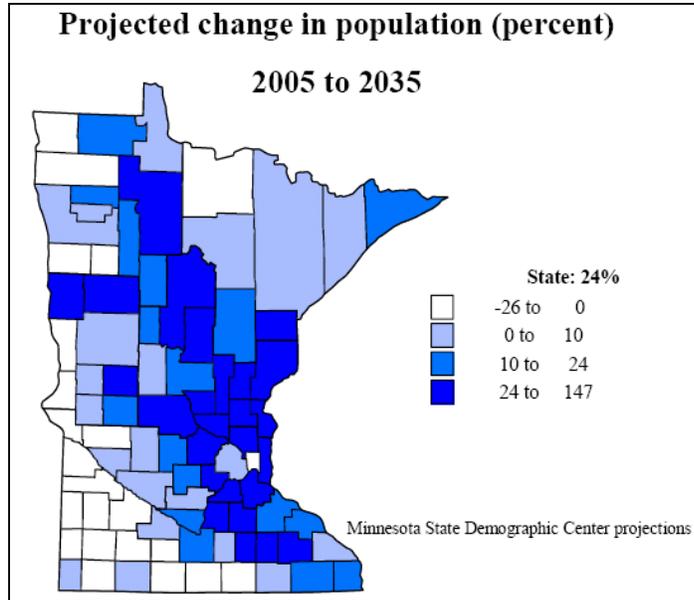


Figure 2: Projected Change in Minnesota Population, 2005-2035

Sakatah Lake State Park is located in the extreme southern portions of Le Sueur and Rice counties, just north of Waseca County. Though the Twin Cities Metropolitan Area is about an hour away, the park draws many of its visitors from there. Population growth in the metropolitan area will likely increase the pressures on the park's resources, facilities and staff as more people look for places to recreate and land surrounding the park is converted from a rural, farming landscape to a more urbanized landscape.

Le Sueur County, where the western portion and main use area of Sakatah Lake State Park lies, is more rural in nature than the Twin Cities and has a significantly smaller population. As of the 2000 census, Le Sueur County's population was 25,426 people while in

2005, the population was estimated to be 27,796. With continued growth, Le Sueur County expects to have 38,130 residents by 2035, an increase in population of 37.2% from the 2005 estimate.

Rice County, where the eastern portion of the park lies, is the largest of the three counties closest to the park. As of the 2000 census, Rice County's population was 56,665 while in 2005, the population was estimated to be 61,600. With continued growth, Rice County expects to have 84,620 residents by 2035, an increase in population of 37.4% from the 2005 estimate.

Waseca County, just south of Sakatah Lake State Park, is the smallest of the three counties closest to the park. As of the 2000 census, Waseca County's population was 19,526 while in 2005, the population was estimated to be 19,550. With continued growth, Waseca County expects to have 20,850 residents by 2035, an increase in population of 6.7% from the 2005 estimate.

Twenty-two other counties are within a 50-mile radius of Sakatah Lake State Park, including many counties in the Minneapolis-St. Paul-Bloomington Metropolitan Statistical Area (MSA). The counties within the 50-mile radius and MSA – having significantly higher populations than those outside of this boundary – include Carver, Dakota, Hennepin, Ramsey, Scott, and Washington.

Table 2: Population Estimates and Projections for Counties surrounding Sakatah Lake State Park

County	2000 Census	2005 Estimate	2035 Projection	% Change 2005-2035
Le Sueur	25,426	27,796	38,130	37.20%
Rice	56,665	61,600	84,620	37.40%
Waseca	19,526	19,550	20,850	6.70%

Minnesota Population Projections 2005-2035

<http://www.demography.state.mn.us/projections.html>

Impacts of an Aging Population on Recreation

Recreational activities change dramatically throughout an individual's life. Changes are due not only to changes in physical abilities, but also social, economic, and other factors as well. Older adults may take on new recreational interests especially after their children have grown or when they retire. Demographic changes will affect levels of participation in various recreational activities. "Baby Boomers" are approaching retirement age, but as compared with previous generations these individuals are generally more active and wealthy. Most park and recreational facilities will undoubtedly continue to undergo adjustments to accommodate an older recreational market.

The continued aging of the Baby Boom generation will produce an explosion in the number of people ages 55 to 69 during the coming decade. Over the longer term, the population over age 65 will more than double, from 623,200 in 2005 to 1,400,000 in 2035. By contrast, the population under age 65 will grow only 10 percent.

Le Sueur County is projected to have almost twice the number of citizens 65 years or older by 2035 as it did in 2005. The age change projections for the other counties adjacent to the park, including Rice County, show similar trends.

Table 3: Comparison of Population aged 65+ between 2005 and 2035

	2005 % of population 65+	2035 % of population 65+	2005 – 2035 % change in population 65+
Le Sueur County	12.1%	23.5%	194% increase
Minnesota	12.0%	21.7%	181% increase

Minnesota Population Projections 2005-2035

<http://www.demography.state.mn.us/projections.html>

Regional Land Use

According to the Southern Minnesota Initiative Foundation², the 20 counties that make up Southern Minnesota – including Le Sueur and Rice counties – are predominately agricultural. Seventy-four percent of the area is cultivated, 11.5% is forest, 8.6% is hay/pasture/grassland, 3.3% is urban and rural development, 1.8% is water, and less than 1% is made up by brushland, bog, and mining each.

Much like the rest of southern Minnesota, Le Sueur and Rice counties are made up largely of agricultural lands though they have higher percentages of grassland, water, and urban/rural development than the other counties in the area. According to The Land Management Information Center, Le Sueur County is 69.3% cultivated, 10.8% grassland, 9.1% is forest, 3.6% is urban and rural development, and 4.8% is water. Rice County is 68.1% cultivated, 11.8% grassland, 10.4% forest, 4.8% urban and rural development, and 3.4% water.

In mid-2005, the Le Sueur County Planning Task Force began the process of drafting a set of Land Use Goals for the new County Land Use Plan³. A number of the goals reflect the agricultural focus of the area, as well as pointing to a desire to protect the area's natural resources. Among others, the goals include:

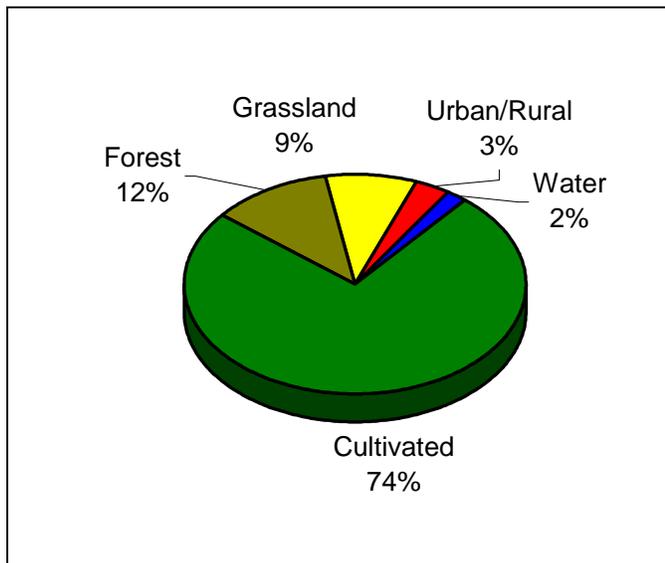


Figure 3: Land Use in Southern Minnesota

- Adopting and enforcing land use goals and policies that conserve and protect agriculture from incompatible development.
- Protecting the best of its agricultural land from being removed as a resource for long-term agricultural use.
- Adopting and enforcing land use goals and policies that conserve and restore its natural resources and bring protections to the ecological systems of the natural environment.
- Preserving shorelands on Natural Environment Lakes and Tributary Rivers as open space and wildlife areas.
- Undertaking actions to help protect groundwater as well as surface water features.
- Adopting and enforcing land use goals and policies that are efficient, make sense economically, and prevent the premature development of natural resource areas.

² From the Regional Community and Economic Trend Report, July 2005.

<http://www.smifoundation.org/RegionalReport.pdf>

³ From Draft Land Use Goals and Policies.

<http://www.co.le-sueur.mn.us/environmentalservices/GoalsAndPolicies.pdf>

Regional Recreation and Tourism Opportunities (within 50-mile radius)

Numerous recreation and tourism opportunities can be found in the Southern Minnesota Lakes Region and area around Sakatah Lake State Park. There are six Minnesota state parks in the area: Fort Snelling, Flandrau, Minneopa, Myre-Big Island, Nerstrand Big Woods, and Rice Lake. There is also one state recreation area in the vicinity in the form of Minnesota Valley SRA. Other public recreation areas include a number of Scientific and Natural Areas (SNAs), Wildlife Management Areas (WMAs), Aquatic Management Areas (AMAs), and county parks. There are also a handful of nature centers in the area.

Nearby SNAs include Chamberlain Woods (Le Sueur), Hythecker Prairie (Dodge), Prairie Creek Woods (Rice), Townsend Woods (Le Sueur), and Whitney Island (Rice). WMAs near Sakatah Lake include Cannon River (Rice), Dove Lake (Le Sueur), Murphy (Le Sueur), Pawek (Waseca), Sakatah (Rice), and Seha (Le Sueur). AMAs in the vicinity include Sakatah (Rice) Cannon River (Rice), and Horseshoe Lake (Rice/Le Sueur). There are also a few county parks in the surrounding area including Shager, Ackman, Velzke, and King Mill parks in Rice County and Ray's Lake, Geldner Saw Mill, and Richter Woods parks in Le Sueur County. Individuals or groups looking for educational opportunities can visit the River Bend (Rice), Ney (Le Sueur), or Williams (Blue Earth) nature centers.

There are also an abundance of recreational state trails in the area - including the Sakatah Singing Hills State Trail, which runs through the park between Mankato and Faribault – as well as the Blazing Star, Douglas, and Mill Towns state trails. County and regional trails such as the Red Jacket, Minnesota River Valley, and the Cannon Valley Trail, along with other county and municipal connections, further fill out a regional trail network. The start of a Scenic Byway may be found about an hour away from Sakatah Lake State Park, as well. The Shooting Star Scenic Byway begins just east of Austin and follows State Highway 56 south and east past Lake Louise State Park, and onto US Highway 63 just north of the Minnesota-Iowa border. This Scenic Byway is also one of the state's first designated wildflower routes. The Minnesota Department of Transportation and Department of Natural Resources work together to manage wildflowers and native grasses along the route.

The Minnesota River Valley Birding Trail, to the west of Sakatah Lake State Park, is home to some of the best bird watching in the state. More than 200 different bird species are found in the Kasota and Bend of the River regions alone, just two of the 11 regions found along this birding trail. Also of interest to birders is the nearby Cannon River Wilderness Area, located four miles north of Faribault and extending along the Cannon River toward Northfield. The wilderness area is managed by Rice County.

There are also numerous public water accesses for boaters that provide recreational and fishing opportunities along the Cannon River, Minnesota River, and throughout the Southern Minnesota Lakes Region. Not counting the public water access on Upper Sakatah Lake, there are 68 accesses alone in Le Sueur and Rice counties. In addition there are nine designated trout streams within the area, including Paul's Creek and Seven Mile Creek – both tributaries of the Minnesota River – and Spring Brook just southwest of Northfield near the Mill Towns State Trail.

Visitor Use Patterns

An estimated 90,897 people visited Sakatah Lake State Park in 2006. Overnight stays totaled 12,401. Sakatah Lake ranked 33rd in overall visitation and 27th in overnight visits within the state park system. The park generated approximately 4% of the Southern Region's total visitation. Most park visits occur in the summer months, but the availability of snowmobiling on the Sakatah Singing Hills State Trail and the park's five miles of cross-country ski trails attracted snowmobilers and skiers during the winter season.

With the exception of 2000 and 2005, visitation to Sakatah Lake State Park has been generally declining over the last decade. Overnight visitation has remained relatively consistent with camping facilities being near capacity for most of the summer during weekends. Although the park has relatively strong levels of attendance compared with other parks, opportunities exist to increase day use and overnight use visitation both during weekdays and the shoulder seasons.

Table 4: Ten Year Comparison of Attendance at Sakatah Lake State Park

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Attendance (in 1,000's)	120.6	115.2	114.3	156.2	118.4	111.1	108.0	96.3	98.0	90.9

Table 5: Ten Year Comparison of Overnight Visitation at Sakatah Lake State Park

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Overnight Visitors (in 1,000s)	13.6	12.5	10.9	13.1	10.3	10.6	12.8	13.1	13.9	12.4

Overnight Recreation Opportunities

There are 62 campgrounds located within a 50-mile radius of Sakatah Lake State Park, mostly managed by municipalities and private entities. Of all the campsites available, there are more than three times as many sites with electricity than without. Remote walk-in, canoe-in, and backpack campsites are also available in the area, in both state and county parks.

Table 6: Camping opportunities within 50-mile radius of Sakatah Lake State Park

Managing Agency	# campgrounds	Drive-in w/out elec	Drive-in w/ elec	Walk-in /canoe-in/bkpk	Group Camps (# of people)	Horse Camping (# of people)	Camper Cabins
State Parks/Rec Areas	9	249	115	33	11 (352)	1 (50)	2
Counties	8	88	241	4	0	0	0
Municipal	24	24	27	0	0	0	0
Private	21	285	1,562	0	0	0	44
Total	62	646	1,945	37	11 (352)	1 (50)	46

Trail Opportunities

Given the widely disparate nature of information on regional, county, and municipal trail networks, it is extremely difficult to quantify the number of trail miles in these categories. Instead, the analysis here focuses on trail opportunities in state parks and on state trails, where clearly presented, updated information is available.

Hiking

There are about 170 miles of trails within a 50-mile radius of Sakatah Lake State Park. The locations with the most hiking miles available include the Minnesota Valley State Recreation Area (51.5 mi), the Sakatah Singing Hills State Trail (39 mi), Myre-Big Island State Park (24.75 mi), and Nerstrand Big Woods State Park (14 mi).

Bicycling (Paved Trail)

An extensive network of state, regional and local biking trails exist near Sakatah Lake State Park. Within 50 miles of the park, there are over 80 miles of trail. The Sakatah Singing Hills State Trail makes up the greatest portion of this mileage, accounting for 39 miles between Mankato and Faribault. The Douglas State Trail – between Pine Island and Rochester – has 13 miles available for bicycle enthusiasts as well. Regional trails also contribute to the network: the Minnesota River, Red Jacket, and South Route trails can be found in and around Mankato, while the Straight River and River Bend trails can be found in Faribault.



The Sakatah Singing Hills State Trail is one of the many amenities that draw visitors to the park.

Photo courtesy of MN DNR.

Off-Road/Mountain Biking

There are about 51 miles of off-road or mountain biking trails within a 50-mile radius of Sakatah Lake State Park. Most of these opportunities are located on natural surfaces adjacent to paved state trails in the Minnesota Valley SRA. Myre-Big Island State Park offers 7 miles of trails as well. No designated mountain bike trails exist within Sakatah Lake State Park.

Equestrian

Currently there are 82 miles of equestrian trails within 50 miles of the park. Despite the asphalt surface, horseback riding is allowed on the Sakatah Singing Hills (39 mi) and Douglas (13 mi) state trails, as well as in the Minnesota Valley State Recreation Area (30 mi). Though some portions of the Minnesota Valley trail system are paved, most of it has a natural surface.

Canoe/Kayak Routes

Portions of six designated canoe routes and a total of ten different segments may be found within a 50-mile radius of Sakatah Lake. They include the Cannon (82 mi), Straight (33 mi), Minnesota (two segments; 111 mi and 84 mi), Watonwan (34 mi), Cottonwood (65 mi), and Zumbro (four segments; 74 mi, 84 mi, 87 mi, and 93 mi). DNR maps provide descriptions of public access points, campsites, rest areas, navigational features and river miles along these routes.

Off-Highway Vehicle Riding

The Tri-County ATV Park between Faribault and Dundas, managed by the DNR, is a 25-acre facility containing a scramble area, a trail shelter/picnic area, and classroom. It is generally open all year.

Cross-Country Skiing

There are close to 60 miles of cross-country ski trails within 50 miles of Sakatah Lake State Park. The locations with the most cross-country ski trails available include the Douglas State Trail (13 mi), Flandrau State Park (8 mi), Myre-Big Island State Park (8 mi), and Nerstrand Big Woods State Park (7 mi).

Snowmobile

While few state parks in the area offer snowmobile trails, the Sakatah Singing Hills, Minnesota Valley, and Douglas state trails offer over 80 miles for winter cruising. Of the state parks that offer snowmobiling, Myre-Big Island (7 mi) connects to Freeborn County trails and Rice Lake (3 mi) connects to the Grant-in-Aid (GIA) trail that runs past the park. There is also an extensive GIA trail network in the area, running north and south of Waterville and from either end of the Sakatah Singing Hills Trail.

Table 7: Trail opportunities within 50-mile radius of Sakatah Lake State Park

Managing Agency	Hiking (miles)	Equestrian (miles)	Cross Country Ski (miles, groomed)	Biking (miles, paved)	Biking (miles, road/mtn) off-	Snowmobile (miles)
State Parks	108	30	35	5	7	15
State Trails	61	52	25	72	44	82
Total	169	82	60	77	51	97

Revenue Generation and Economic Impact

Sakatah Lake State Park generated \$130,510.79 in revenue during 2006. Revenue was collected for camping, park annual and daily permits, facility and equipment rentals, nature store sales, firewood and other items. Forty-eight percent of the revenue came from camping fees and 26% came from annual and daily permit sales, while the remaining 26% was spread fairly evenly among the remaining categories.

Sakatah Lake State Park has a positive impact on the local economy⁴. Visitors contributed to the state and local economies during trips to the park in 2006. Surveys of overnight visitors to the state park system determined that day visitors spend \$24.75 per person per day and overnight visitors spend \$21.86 per person per day. These expenses include groceries, gasoline, and other items bought expressly for this trip as well as money spent at restaurants, shops and other places for non-state park lodging during the trip. These spending estimates do not include government payments – i.e. state park permits, camping reservation fees, fishing licenses, etc.

Table 8: Economic Impact of Visitors to Sakatah Lake State Park, 2006

	# of Visitors 2006	Average Spending/Day	Subtotals
Day	78,496	\$24.75	\$ 1,942,776.00
Overnight	12,401	\$21.86	\$ 271,085.86
Total Economic Impact =			\$ 2,213,861.86



Camber Cabin at Sakatah Lake State Park.
Photo Courtesy of MN DNR.

⁴ Minnesota Department of Natural Resources, Office of Management and Budget Services (August, 2002) *Contributions of the Minnesota State Park System to State and Regional Economies*



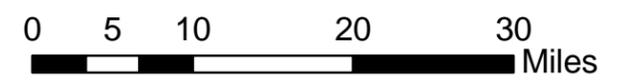
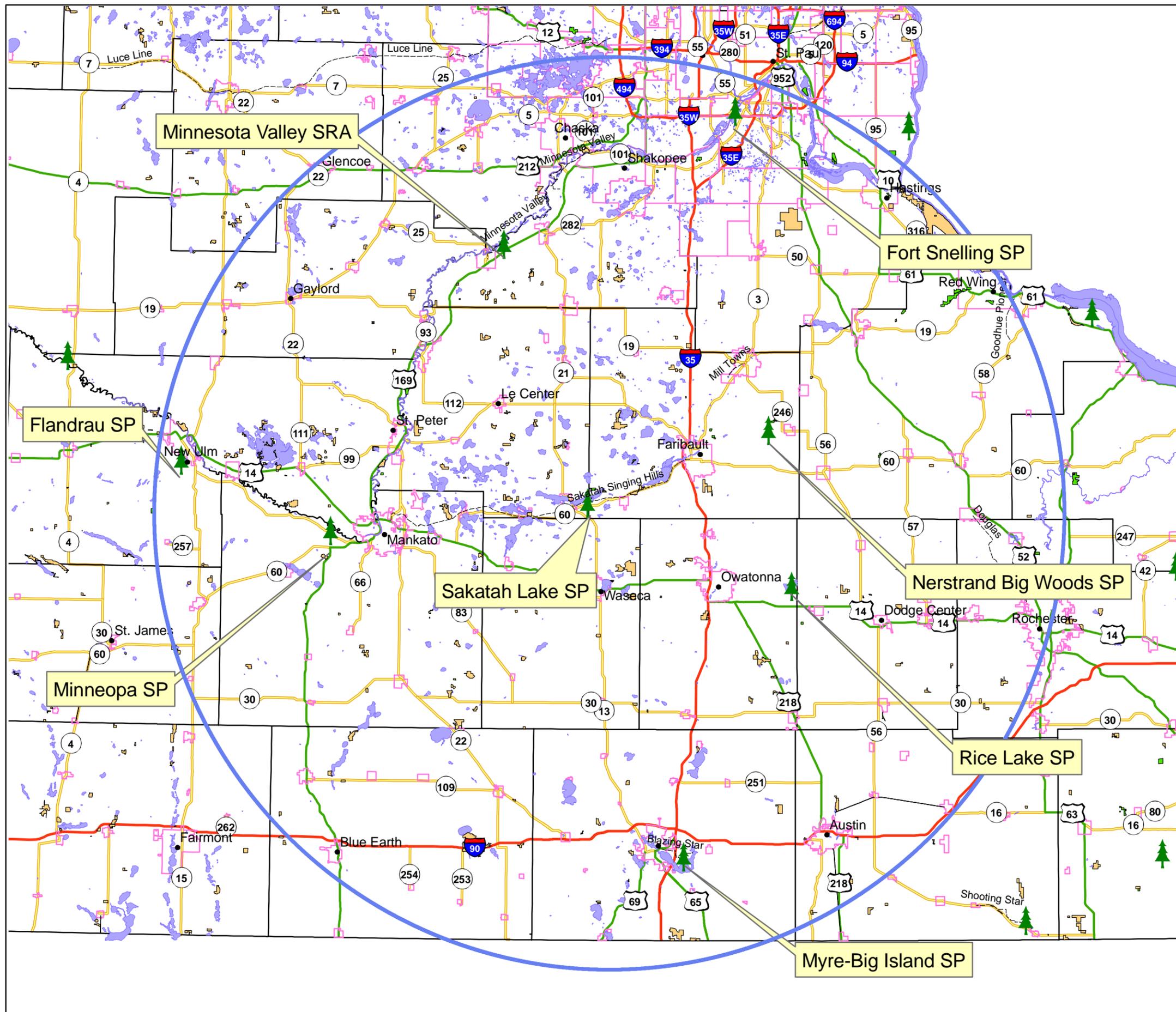
Lower Sakatah Lake and dock from the Lower Group Camp.
Photo courtesy of MN DNR.

Sakatah Lake State Park

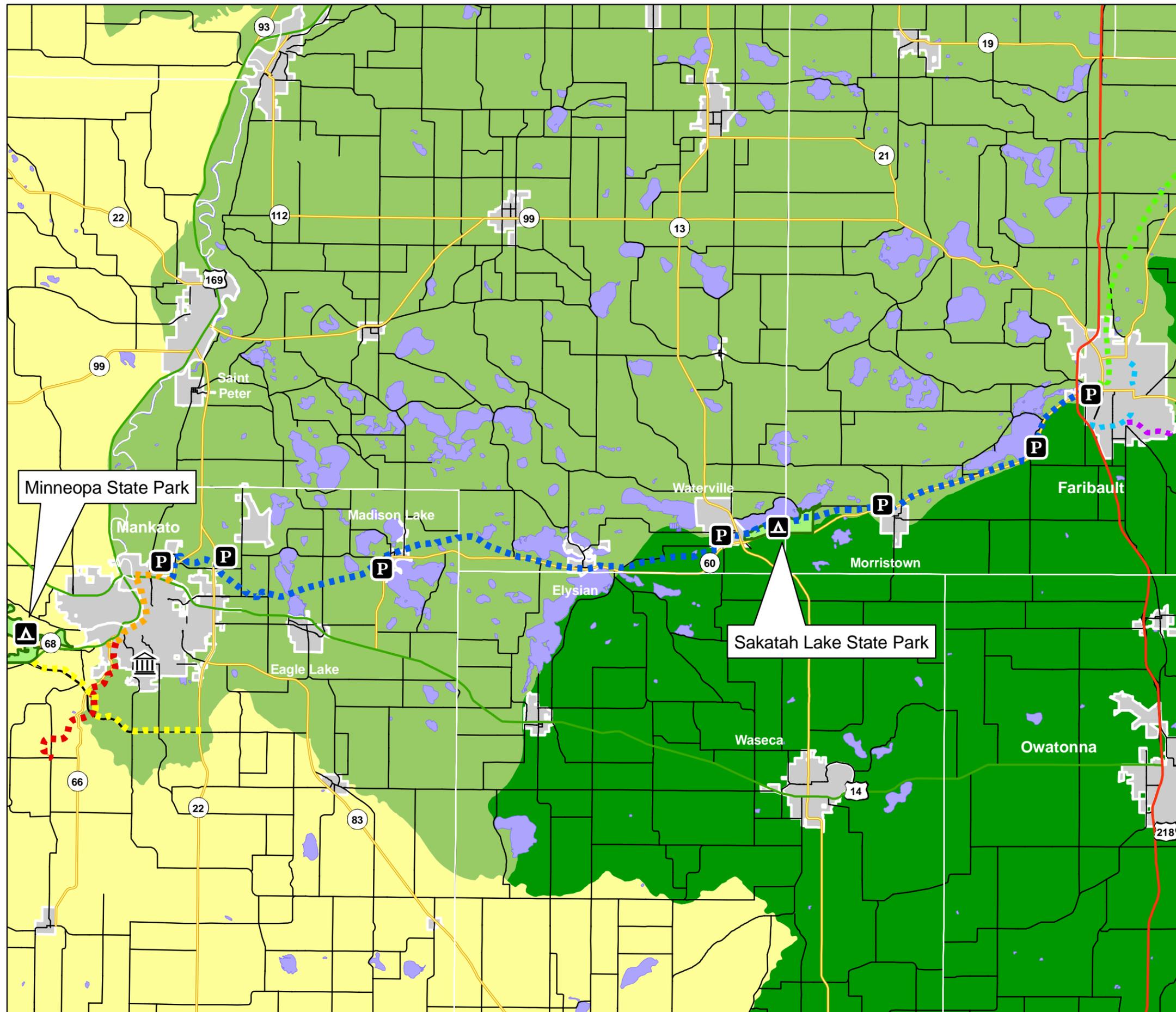
Map 1: 50-Mile Radius for Recreation Opportunities

Legend

-  State Parks and Rec Areas
-  Wildlife Management Areas
-  Scientific and Natural Areas
-  Lakes and Rivers
-  Municipal Boundaries
-  County Seats
-  DNR Administered State Trails
-  County Boundary
-  Interstates
-  Federal Trunk Highways
-  State Trunk Highways



MN Department of Natural Resources
Division of Parks and Recreation



Sakatah Lake State Park Map 2: State and Regional Trail Network

Legend

State and Regional Trails

- ■ ■ ■ Sakatah Singing Hills State Trail
- ■ ■ ■ Minnesota River Trail
- ■ ■ ■ Red Jacket Trail
- ■ ■ ■ South Route Trail
- ■ ■ ■ River Bend Trail
- ■ ■ ■ Straight River Trail
- ■ ■ ■ Proposed Mill Towns Trail

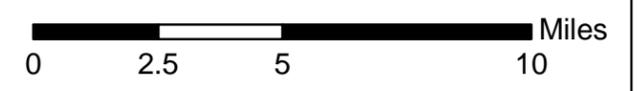
- State Park
- Lake, Pond, Stream, River
- Municipal Boundaries
- Wetlands

Ecological Subsections

- Minnesota River Prairie
- Big Woods
- Oak Savanna

Major Roads

- Interstates
- Federal Trunk Highways
- State Trunk Highways
- County Roads



MN Department of Natural Resources
Division of Parks and Recreation



NATURAL RESOURCES

Natural resources are at the heart of the Minnesota State Park system and as such, they play a key role in the mission of the Minnesota Department of Natural Resources Division of Parks and Recreation:

We will work with the people of Minnesota to provide a state park system which preserves and manages Minnesota's natural, scenic and cultural resources for present and future generations while providing appropriate recreational and educational opportunities.

Stemming from this wide-reaching mission, a series of goals have been developed to help guide resource management activities throughout the state park system.

Resource Management Goals

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

1. Protect and perpetuate natural and cultural resources within the state park system.
2. Minimize damage to the natural and cultural resources of the state park system while providing appropriate recreational and educational activities.
3. Restore natural communities and ecosystems in the state park system.
4. Promote understanding and awareness of the natural and cultural resources within the state park system to enable their management and protection.
5. Participate in landscape-level planning activities relative to the protection of the natural and cultural resources of the state park system.

Guided by State Statute

The Division of Parks and Recreation plays an important role in the preservation and interpretation of Minnesota's natural resources, and that role is clearly defined in state statute. According to Minnesota Statutes 86A.05, Subdivision 2c:

State parks shall be administered by the commissioner of natural resources in a manner which is consistent with the purposes of this subdivision to preserve, perpetuate, and interpret natural features that existed in the area of the park prior to settlement and other significant natural, scenic, scientific, or historic features that are present. Management shall seek to maintain a balance among the plant and animal life of the park and to re-establish desirable plants and animals that were formerly indigenous to the park area but are now missing.

Programs to interpret the natural features of the park shall be provided. Outdoor recreation activities to utilize the natural features of the park that can be

accommodated without material disturbance of the natural features of the park or the introduction of undue artificiality into the natural scene may be permitted.

Park use shall be primarily for aesthetic, cultural, and educational purposes, and shall not be designed to accommodate all forms or unlimited volumes of recreational use. Physical development shall be limited to those facilities necessary to complement the natural features and the values being preserved.

Introduction

Sakatah Lake State Park staff has been actively working to protect, manage and restore the health and quality of the natural resources within the park since the last management plan was written in 1983.

The following information provides an overview of the current status of Sakatah Lake State Park's natural resources, the desired future conditions for the park and the management recommendations to be used as a guide for protection and restoration during the next 20 years.

Climate

The Oak Savanna Subsection has a continental-type climate that is characterized by winter temperatures cold enough to support snow each year and relatively low precipitation overall, occurring mostly in summer.

Although total precipitation is important, its distribution during the growing season is even more significant. For the most part, native vegetation grows for seven months (April to October) and row crops grow for five months (May through September). The average growing season length ranges from 146 to 156 days. During the period between May and September, approximately two-thirds of the annual precipitation occurs. The average annual precipitation for Sakatah Lake State Park is 34.7 inches and the average annual snowfall is 55.3 inches.

Minnesota's climate plays an important role in the state economy. In conjunction with the almost 12,000 lakes over ten acres in size, the climate produces an almost ideal environment for a wide variety of recreational pursuits. The summer season (May - August), with its warm days and cool nights, attracts summer vacationers. Recreational activity in the autumn season (September - November) ranges from camping and hunting to watching the change of the summer leaves and the annual migration of birds. In the winter season (December - March), the state usually receives sufficient snowfalls and low temperatures that maintain conditions for skiing, snowmobiling, and skating.

Geology and Topography

Sakatah Lake State Park is characterized by of forested rolling hills, undulating dry prairie, and relatively level river terraces. The land features of Sakatah Lake State Park were formed as a result of glacial activity some 14,000 years ago. The park sits on an altamont moraine that was formed by the Des Moines lobe of the Wisconsin glaciation during the last glacial period.

Specifically, the park is made up of higher relief stagnant ice moraine sediments⁵. In many areas of the park, examples of moraine deposits are evident. In some places these deposits are up to 400 feet deep. Along the Cannon River Valley, glacial ice blocks left by receding glaciers formed depressions that filled with water creating lakes such as Sakatah and Tetonka to the west.

Glacial drift is generally less than 100 feet thick within the subsection, with maximum thickness of about 200 feet. Ordovician and Devonian dolomite (some limestone, sandstone, and shale) is locally exposed, especially in the dissected stream valleys at the eastern edge of the Oak Savanna Subsection. The landforms left by glaciation and erosion over time have played a significant role in development of the soils and vegetation found within the park.

Soils

There are a variety of soil types in Sakatah Lake State Park, all of which are the result of glacial activity depositing till over bedrock.

The western two-thirds of the park is dominated by Lester soils interspersed with deposits of nearly level Webster and Glencoe soils. All of these soil types have moderate limitations for recreational developments such as campgrounds and picnic areas.

The campground and service area are located on Lester soils, which have slight development limitations. More steeply sloped Lester soils, such as the area between the lakeshore and the Sakatah Singing Hills State Trail, have moderate to severe limitations for most recreational development. However trails can be developed within the requirements of these soil limitations. Soil deposits in the eastern third of the park are more varied and mixed.

Hydrology

Surface Water

Though commonly referred to as a lake, the park's namesake water bodies are really a widening of the Cannon River. As such, Upper and Lower Sakatah lakes are also part of the Cannon River and a larger complex of lakes associated with the most recent glaciations.

Upper and Lower Sakatah lakes together total about 1,222 acres in size and have approximately 13 miles of shoreline. The lakes have mean depths of 7 and 5 feet respectively.

Lower Sakatah Lake outlets to the east at Schmidtke's Dam, below which the more defined channel of the Cannon River continues again. This water control structure accounts for higher and less variable water levels than in historic times. Deeper, less variable water levels and low water quality have led to the loss of emergent and submergent native vegetation quantity and diversity in the lakes.

⁵ This till sediment was deposited directly underneath the glacier without later reworking by meltwater. The arbitrary melting of ice and deposition of material created a hummocky, undulating, and/or hilly landscape characteristic of a stagnant ice moraine. The topography is also characterized by circular flat-topped hills, or plateaus.

At least 15 wetlands exist within the park. These range from wet meadows and semi-permanently flooded basins to emergent marshes and shrub dominated shoreline communities. Other than the Cannon River on north side of the park, no permanent rivers or streams exist within the park. There are several intermittent streams and drainage ditches.

The lake water in this predominately agricultural landscape is regularly affected by excess nutrients, leading to a “greening” or eutrophication of the lakes in the summertime. According to the 2006-2015 Le Sueur County Water Management Plan, Upper Sakatah is one of three lakes in the county classified as Impaired Water⁶. Upper Sakatah, Volney and Tetonka were designated from assessment projects either through the Clean Water Partnership (CWP) Program or the Minnesota Lake Assessment Program (MLAP).

According to the Minnesota Pollution Control Agency (MPCA), Sakatah Lake’s overall trophic status is hypereutrophic⁷. Hypereutrophic lakes tend to be shallow, warm and very nutrient-rich waters, and they typically have frequent and severe algal blooms.⁸ Lakes may be eutrophied by speeding up the rate of nutrient input, commonly by runoff of agricultural or residential fertilizers or occasionally through the introduction of human wastes via failing septic systems. Such changes can occur over periods of decades and are only reversible if human-caused nutrient loading can be controlled.

Poor water quality in lakes like Sakatah can have a number of unwanted consequences including the decline of game fish populations and subsequent fishing opportunities, and changes in submergent and emergent vegetation. In addition, the unpleasant odor and appearance that results from eutrophication reduces the aesthetic appeal of the lakes. During the revision of the Sakatah Lake State Park Management Plan, local residents and resource managers alike expressed an interest in improving water quality in Sakatah Lake. For more information on Water Resources, please see page 38.

Groundwater

The two primary wells in the park were drilled to their present depths in 1970 and draw water from the Jordan Formation. The well that serves the campground is 507 feet deep while the well in the picnic area is 455 feet deep.

According to the 2006-2015 Le Sueur County Water Management Plan, the availability of groundwater in the county is generally not a concern. Along with the sand and gravel aquifers in glacial deposits, there exist three major bedrock aquifer systems beneath the county

⁶ The Clean Water Act requires states to publish, every two years, an updated list of streams and lakes that are not meeting their designated uses because of excess pollutants. The list, known as the 303(d) list, is based on violations of water quality standards and is organized by river basin. (From the 2006-2015 Le Sueur County Water Management Plan, <http://www.co.le-sueur.mn.us/environmentalservices/LeSueurCountyWaterPlan.pdf>.)

⁷ Trophic status refers to the level of nutrients and plant growth within a lake or other natural system. (From Water on the Web. *Lake Ecology Primer: Trophic Status*. http://waterontheweb.org/under/lakeecology/16_trophicstatus.html)

⁸ Minnesota Pollution Control Agency. *Secchi Transparency Slide Show – Hypereutrophic Lake*. <http://www.pca.state.mn.us/water/secchi-slideshow-h.html>

including the St. Peter-Prairie du Chien, the Franconia-Ironton-Galesville, and the Mt. Simon-Hinckley.

Fisheries

Based on surveys conducted by the DNR's Ecological Resources Division and Fisheries Management Section, 26 species of fish from 10 different families have been identified in Sakatah Lake. The families with the most species represented include sunfish (5 species), minnows (5 spp.), bullhead and catfish (3 spp.), and perch (4 spp.).

Upper Sakatah Lake

A fishery survey was conducted for Upper Sakatah Lake in 2004 to assess the fish community and aquatic habitat⁹. It was reported that black bullhead were the most abundant species in both the gill net and trap net catches. Seven to eight-inch bullhead were abundant with some



Black bullhead (*Ameiurus melas*). Courtesy of MN DNR.

fish as large as 12 inches in length. Black bullhead abundance in the gill net catches showed a decline from 1994 to 1999 and then an increase in 2004 to values similar to 1994.

Walleye catch per gill net in 2004 was moderately low and declined from the 1994 and 1999 surveys when the catch was moderately high. Walleye ranged from 10 to 23 inches with most fish about 12 inches long. Most (80%) of the walleye were three years old from the 2001 class when walleye were stocked in the Cannon River lakes.

Yellow perch, freshwater drum, and white bass were all common in the gill net catches. Yellow perch were mostly around nine inches long. Few northern pike were caught in the gill nets; they were around 25 to 30 inches long. Bluegill and black crappie abundance was low, but they were generally large. Bluegill were mostly around seven inches with the largest over nine inches. Black crappies were up to 10 inches.

Aquatic vegetation was rare except in the bay west of Highway 13 and near where Whitewater Creek enters Upper Sakatah Lake. Water clarity in midsummer is often low, because of the growth of blue-green algae and wind intensity on this fairly shallow lake.

Lower Sakatah Lake

A fishery survey to assess the fish community and aquatic habitat was conducted during the summer of 2004 on Lower Sakatah Lake as well¹⁰. Located along the Cannon River corridor

⁹ Minnesota Department of Natural Resources, 2004. *Upper Sakatah Lake Information Report*. Fisheries Section, Division of Fish and Wildlife, Minnesota Department of Natural Resources. <http://www.dnr.state.mn.us/lakefind/showreport.html?downum=40000200>

¹⁰ Minnesota Department of Natural Resources, 2004. *Lower Sakatah Lake Information Report*. Fisheries Section, Division of Fish and Wildlife, Minnesota Department of Natural Resources. <http://www.dnr.state.mn.us/lakefind/showreport.html?downum=66004400>

just downstream of Upper Sakatah, Lower Sakatah is connected to its “sister lake” by a channel under County Highway 99.

As with Upper Sakatah, black bullhead were the most common species in the gill net catch, although the catch rate was within normal values compared to other similar lakes in Minnesota. Most black bullheads were around 8 inches with some fish up to 13 inches.

Yellow perch were caught in moderately high numbers. Most yellow perch were about 9 to 10 inches in length and were typically three years old. Catches of walleye, freshwater drum, and white bass were also moderately high. Nearly all the walleye were three years old, originating from the 2001 class when walleye were stocked in the Cannon River lakes. Walleye were mostly around 13 to 14 inches long. Overall, trap nets captured relatively few fish, although the catches of carp, freshwater drum, walleye, yellow perch, and bowfin were at moderately high values. Bluegill and black crappie catches were low. Catches of most species in both the gill and trap nets have been relatively consistent over the past three surveys.

Submerged aquatic vegetation was common in the shallow bays in the eastern portion of Lower Sakatah Lake. In some areas these bays also had significant areas of sedges, soft-stem bulrush, and arrowhead.

The area between Upper and Lower Sakatah known as the Narrows provides shore-fishing opportunities. Boat ramps are located in Sakatah Lake State Park on Upper Sakatah and in Waterville on the Cannon River.

Wildlife

The combination of open fields, upland forests, wetlands, open water and forest edge provides excellent habitat for many of southern Minnesota’s wildlife species. Deer, opossum, raccoon, mink, rabbit, and red fox are animals that have been reported in the park. Many bird varieties including songbirds, woodpeckers, hawks and owls can also be seen.



Red-headed woodpecker (*Melanerpes erythrocephalus*).
Photo courtesy of MN

Sakatah Lake State Park is located in the Oak Savanna Subsection of the Ecological Classification System (ECS). Oak savanna is one of Minnesota’s rarest wildlife habitats, providing habitat for Swainson’s hawks, red-headed woodpeckers, sandhill cranes, trumpeter swans, and wood turtles. Ninety-three of the 292 Species of Greatest Conservation Need identified for Minnesota, occur in the Oak Savanna Subsection.

The park’s existing plant communities provide habitat for many wildlife species including those species that are regionally uncommon, are of special concern, or are threatened. Twelve wildlife Species of Greatest Conservation Need (SGCN) have been found at Sakatah Lake State Park, all of which are bird species¹¹. Five rare species have been

¹¹ 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, Minnesota

documented in the park, which are state or federally listed or are considered regionally uncommon.

A number of natural resource inventories have been conducted in the park. These surveys have chronicled the natural communities, rare plants and land cover, as well as the mammals, reptiles, amphibians, birds, fish, Lepidoptera (e.g. butterflies, moths, and skippers), and lichens. For most surveys, the abundance and distribution in the park has been noted.

Resource specialists estimate that deer herds have been within population goals for at least ten years prior to this writing. The linear shape of the park, hunting pressure from private lands, and State Highway 60 help keep deer populations at levels where impacts to native vegetation are not severe. Aerial deer surveys and examining vegetative indicators will help make decisions on future deer hunts.

Several species of wildlife that were present historically have vanished from the park due to extinction, changes in vegetation, and encroachment and fragmentation of habitat. Bison, elk, passenger pigeons and prairie chickens are examples of wildlife that once lived in the park. Several species now documented in the park were not present prior to European settlement. Species such as the house sparrow and ring-necked pheasant were introduced to the area through human intervention. The MN DNR released wild turkeys in approximately six locations within a 25-mile radius of Sakatah Lake State Park in the late 1980s and early 1990s. Wild turkeys are seen regularly and are known to nest in the park.

Endangered, Threatened, and Special Concern Species

Fifteen species have been documented in the park which are state listed or are considered regionally uncommon by taxon experts, 12 of which are birds. One of these birds is the Loggerhead Shrike.



Loggerhead Shrike
(*Lanius ludovicianus*).
Photo courtesy of
Minnesota DNR.

The Loggerhead Shrike is one of the state threatened species. They were once found in grasslands throughout the state, except in the Arrowhead region of northeastern Minnesota¹². Surveys have found fewer than 30 nests in southern and western Minnesota, with a small concentration in Dakota, Rice and Goodhue counties. Population loss is likely due to several factors including the loss of grazed grassland habitats to farming and housing development, forest encroachment into grasslands, and increased use of pesticides.

Shrikes return to Minnesota in early spring. Males select territories in grasslands with a few scattered trees like red cedar, plum, or other small trees convenient for perching or nesting. Like other birds, shrikes often use vegetated fence lines as lookout posts.

Department of Natural Resources.

http://files.dnr.state.mn.us/assistance/nrplanning/bigpicture/cwcs/profiles/oak_savanna.pdf

¹² Minnesota Department of Natural Resources, 2000. *Minnesota Profile: Loggerhead Shrike (Lanius ludovicianus)*, Minnesota Conservation Volunteer. Division of Information and Education.

<http://www.dnr.state.mn.us/volunteer/marapr00/loggerhead.html>

Table 9: State Listed or Regionally Uncommon Species Documented at Sakatah Lake State Park

Common Name	Scientific Name	Status
Acadian Flycatcher	<i>Empidonax vireescens</i>	MN_SPC
Bald Eagle	<i>Haliaeetus leucocephalus</i>	MN_SPC
Common Tern	<i>Sterna hirundo</i>	MN_THR
Franklin's Gull	<i>Larus pipixcan</i>	MN_SPC
Loggerhead Shrike	<i>Lanius ludovicianus</i>	MN_THR
Short-eared Owl	<i>Asio flammeus</i>	MN_SPC
Broad Marsh Skipper	<i>Poanes viator</i>	REG_UNC
Eastern Sedge Skipper	<i>Euphyes dion</i>	REG_UNC
American White Pelican	<i>Pelecanus erythrorhynchos</i>	MN_SPC
Cerulean Warbler	<i>Dendroica cerulea</i>	MN_SPC
Forster's Tern	<i>Sterna forsteri</i>	MN_SPC
Horned Grebe	<i>Podiceps auritus</i>	MN_THR
Red-shouldered Hawk	<i>Buteo lineatus</i>	MN_SPC
Trumpeter Swan	<i>Cygnus buccinator</i>	MN_THR
Great Lakes Sedge Skipper	<i>Euphyes conspicua</i>	REG_UNC

Note:

MN_SPC = Species of Special Concern in Minnesota

MN_THR = Species Threatened in Minnesota

REG_UNC = Species is Regionally Uncommon

Vegetation

Pre-Euro-American Vegetation

The plant communities at Sakatah Lake State Park are much different today than they were prior to Euro-American settlement. The landscape surrounding the park was a mosaic of prairies, savannas, oak woodlands, and wetlands that were largely influenced by fire, grazing and the mid-continent climate. Public land survey notes and historic aerial photos provide evidence that the Sakatah Lake State Park landscape was much more open historically.

Bur oak savanna was the primary vegetative community in the Oak Savanna Subsection, but areas of tallgrass prairie and maple-basswood forest were also common. Tallgrass prairie was concentrated on level to gently rolling portions of the landscape, while bur oak savanna developed on rolling moraine ridges and in dissected ravines. Maple-basswood forest was restricted to the portions of the landscape with the greatest fire protection. Historically, fire was the most important disturbance here and maintained oak openings rather than forest.

Even though humans have had an effect on the area in and around the park since European settlement, surveys completed by park staff and resource specialists rank 105 acres of the park's existing plant communities – 12% of the park overall – as being high quality¹³. Those

¹³ The quality of plant communities is based on Element Occurrence (EO) rankings from A to D. An “A” rank indicates excellent quality, “B” is good quality, “C” is moderate quality and “D” is poor quality. To assess quality, ecologists primarily consider the presence or absence of unnatural human-induced disturbances such as

high-quality plant communities are present due, in part, to their location within the landscape where the topography or hydrology protected them from human impacts, or are present as a result of significant restoration and management activities.

The native plant communities in the park are important because they are uncommon on the landscape, and offer a glimpse into what Minnesota looked like prior to Euro-American settlement. Among others, they include fire-dependent pin and bur oak woodland, southern terrace forest, southern mesic maple-basswood forest, northern mixed cattail marsh, northern bulrush-spikerush marsh, and southern dry prairie. Prairie reconstruction work, or returning old fields and other landscapes to the graminoid¹⁴-dominated ecosystems that existed there historically, is ongoing at Sakatah Lake State Park.

Current Land Cover

The development of extensive agricultural lands, the reduction of fire, and the extirpation of the large herbivores, bison, and elk have allowed more mesic forest communities to develop and expand. This succession can be seen in the open to semi-open canopies within the park, especially in the forest communities near the lakeshore and extending to the south ¼ to ½-mile. These oak forests are dominated by large red and bur oak trees that have open-grown structures. There are essentially no large sugar maples or other shade tolerant and fire intolerant species in the canopy in many areas of the park. The exceptions are in the most protected north slopes of the rolling terrain close to Upper Sakatah Lake. The understory and ground layer vegetation have changed to include forest species that are shade tolerant, including a thicket of sugar maple saplings.

Succession has largely filled in the gaps in the canopy within the park and has changed the composition of the natural communities. However, where prescribed fire and selective cutting have been used, a glimpse of the historic woodlands and savannas is evident. The park serves as an excellent example of savanna and woodland restoration in the state park system.

In addition, the park is considered to be a site of “High” biodiversity significance by the Minnesota County Biological Survey (MCBS). The park also contains two Native Plant Communities, according to MCBS: Oak Forest (Big Woods) Mesic Subtype and Dry Prairie (Southeast) Hill Subtype.

Sakatah Lake State Park’s statutory boundary encompasses approximately 835 acres. Because the landscape ranges from flat open fields, wetlands, rolling hills, steep slopes and ravines to a floodplain, a wide variety of plant communities are found within the park. Currently there is a mosaic of prairie, savanna, wetlands, hardwood forest, floodplain forest, and lake, stream and riverine habitats.

Disturbances such as fire, storms and flooding play an integral role in shaping and maintaining vegetative patterns and health of natural communities. Climate change may also play a role.

logging, plowing, overgrazing and development. From http://files.dnr.state.mn.us/assistance/nrplanning/community/mlccs/mlccs_manual_v5_4.pdf. Here, an EO rank of B/C or higher is considered high quality.

¹⁴ Graminoid refers to grasses and grass like plants, such as sedges and rushes. From <http://www.biology-online.org/>

The Division of Parks and Recreation uses fire as a tool for management of natural plant communities and to control invasive plant species. Prescribed burns have contributed to the progress that has been made in restoring native plant communities and controlling invasive species in the park.

Natural Plant Community Classification¹⁵ of Sakatah Lake State Park

Fire-Dependent Forest/ Woodland System

Southern Dry-Mesic Oak (Maple) Woodland (FDs37)

Dry-mesic hardwood forests on undulating sand flats, moraines, and river bluffs. Canopy has abundant northern pin oak and bur oak. Shrub layer is patchy to continuous with black cherry, red maple, chokecherry, American hazelnut, gray dogwood, prickly ash, etc. Historically, fires were common here.

Floodplain Forest System

Southern Terrace Forest (FFs59)

Wet-mesic deciduous forests on silty or sandy alluvium on level, occasionally flooded sites along small streams to large rivers in the southern half of Minnesota. Canopy often made up of American elm, green ash, hackberry, basswood, boxelder, silver maple, black ash, etc.

Mesic Hardwood Forest System

Southern Dry-Mesic Oak Forest (MHs37)

Dry-mesic hardwood forests occurring most often on thin, wind-deposited silt on crests and upper slopes. Canopy is often composed of northern red oak, white oak, basswood, and occasionally shagbark hickory.

Southern Mesic Oak-Basswood Forest (MHs38)

Mesic hardwood or occasionally hardwood-conifer forests. Found on wind-deposited silt on bedrock bluffs and on calcareous till on rolling till plains. Canopy typically dominated by basswood, northern red oak, and sugar maple. Sugar maple, ironwood, and prickly gooseberry are common in shrub layer.

Southern Mesic Maple-Basswood Forest (MHs39)

Rich mesic hardwood forests on loamy soils derived from calcareous till or wind-deposited silt over bedrock. Present on sites that have been historically protected from fires. Canopy is strongly dominated by sugar maple, with basswood, northern red oak, and sometimes red elm.

¹⁵ Minnesota Department of Natural Resources (2005). Field Guide to the Native Plant Communities of Minnesota: The Eastern Broadleaf Forest Province. Ecological Land Classification Program, Minnesota County Biological Survey, and Natural Heritage and Nongame Research Program. MNDNR St. Paul, MN.

Marsh System

Northern Mixed Cattail Marsh (MRn83)

Emergent marsh communities, typically dominated by cattails. Present on floating mats along shorelines in lakes, ponds, and river backwaters or rooted in mineral soil in shallow wetland basins. Associated species are highly variable.

Northern Bulrush-Spikerush Marsh (MRn93)

Emergent marsh communities, typically dominated by bulrushes or spikerushes. Present along lakeshores and stream borders. Typical associates may include arrowhead, water smartweed, and bur reeds.

Upland Prairie System

Southern Dry Prairie (UPs13)

Grass-dominated herbaceous communities on level to steeply sloping slopes with droughty soils. Little bluestem is generally the dominant grass, though other major mid-height grasses are side-oats grama, prairie dropseed, porcupine grass, and plains muhly.

Wet Meadow/Carr System

Southern Seepage Meadow/Carr (WMs83)

Open wetlands dominated by a dense cover of hummock-forming broad-leaved sedges or tall shrubs. Present in areas of groundwater seepage. Typically dominated by tussock sedge.

Southern Basin Wet Meadow/Carr (WMs92)

Open wetlands dominated by dense cover of broad-leaved sedges, usually slough sedge. Typically present in small, closed, shallow basins. Subjected to moderate inundation.

Natural Resource Management Actions & Recommendations

Sakatah Lake State Park is just over an hour's drive from downtown Minneapolis and St. Paul, the main components of a metropolitan area population that is projected to grow by over one million people by 2030. Suburban development is rapidly moving south into Dakota and Rice counties, and the nearby communities of Faribault and Mankato are growing as well. Habitat loss and degradation have been identified as the most important factors impacting SGCN in the Oak Savanna subsection, of which Sakatah Lake State Park is a part. Some of the challenges include improving the quality of native plant communities, sustaining populations of rare plant species, perpetuating populations of listed wildlife species, and helping to improve the quality of Sakatah Lake.

Priorities for Natural Resource Management

Inventory and Monitoring

- Conduct surveys for reptiles, amphibians, selected invertebrates and small mammals in the park.
- Periodically monitor native plant communities, particularly high quality areas, to insure that terrestrial invasive plants are not invading them or are otherwise being degraded (e.g. lack of fire in fire-dependent communities).
- Review and update the status of listed species where necessary.
- Map locations of terrestrial invasive plant infestations throughout the park.

Management of Invasive and Problem Species

Current efforts at Sakatah Lake State Park are focused on five species: common buckthorn (*Rhamnus cathartica*) reed canary grass (*Phalaris arundinacea*), exotic bush honeysuckle (*Lonicera* spp.), Canada thistle (*Cirsium canadense*), and wild parsnip (*Pastinaca sativa*). Park and resource staff should continue to monitor for invasive species to stem new and/or expanded infestations.

Common Buckthorn

Common buckthorn trees and saplings can be found throughout the park. Control efforts to-date have focused on the park's road corridors, the area southeast of the park's contact station, and on larger seed-bearing trees scattered through the park. The area along the roads has had the greatest level of infestation, likely due to the edge effects of the road and past land use disturbance. Buckthorn can also be found in the higher quality oak forests, but numbers here are considerably less than in the edge communities. An emphasis has been placed on using prescribed fire as a tool for long-term maintenance. This is appropriate for most of the oak communities in the park. Restoring or reconstructing desired future conditions in the areas classified as young forest will also help control the buckthorn population.

Exotic Bush Honeysuckle

Exotic bush honeysuckle species are scattered through the park. Though they are relatively less invasive than buckthorn – with regard to spread rate and infestation densities – they still need to be monitored and removed. Notable infestations exist along portions of the Sakatah Singing Hills State Trail and on the hills east of the park office.

Reed Canary Grass

Reed canary grass is problematic in most basins and pervasive in open wetlands in the park. Stand densities are somewhat reduced in the emergent marshes located within the forested sections of the park. Restoration of hydrological features, where possible, should be a primary focus. In addition to this, planting native species, using prescribed fire, and haying may help reduce the problem in some basins. Some control efforts have been attempted but with little success. Attention should be focused on manageable populations prior to initializing or continuing efforts on larger basins.

Wild Parsnip

Wild parsnip has invaded the park within about ten years of this writing and it appears that the Highway 60 corridor is the source. It is common and widely scattered within most grassland areas, with a few dense patches. Timely mowing during the flowering stage may help reduce seed production and carbohydrate reserves in the plant. In low quality old fields, chemical treatment may be appropriate where non-target impacts are minimal.

Canada Thistle

There are a few Canada thistle infestations scattered throughout the park. Mowing at bud and flowering stages since the early 1990s has seemed to reduce the populations considerably. The park and resource staff will continue this approach and initiate a spot treatment approach, as necessary.

Recommendations for Desired Future Conditions

Native Plant Communities and Rare Plants

The native plant communities of the park have undergone rapid change and succession. The losses of historic processes, especially fire and grazing, have allowed more mesic oak forests to develop. Fire should be reintroduced as an ecosystem process to move plant communities back toward a fire influenced system.

The long-term goals for Sakatah Lake State Park's land cover and rare plants are to:

- Sustain or improve the quality of the native plant communities in the park with current EO ranks of B/C or better, 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 park to at least BC rank and then sustain them at that level or above.
- Reconstruct native plant communities in undeveloped, non-native areas of the park to the BC level and then sustain them at that level.
- Sustain populations of threatened or special concern plant species documented to be in the park and other rare plant species that may be discovered.
- Avoid developments that compromise or destroy native plant communities or rare elements.

Native Wildlife

The vast changes in the area's plant communities and the landscape has lead to corresponding changes in wildlife assemblages. As the region was settled and agriculture began to dominate the landscape, wildlife populations were affected in many ways.

Extirpated or extinct species including bison, elk, passenger pigeons, and prairie chickens occurred in the park prior to settlement. There are many species found in the park today that did not occur there historically (e.g. house sparrow, ring-necked pheasant, and others). The MN DNR Wildlife Section released wild turkeys in approximately six locations within a 25-mile radius of Sakatah Lake State Park in the late 1980s and early 1990s. It is not practical at this time to remove any of these species from the park.

With the exception of grassland birds and lepidopteron species, which would benefit from prairie reconstruction and enhancement, it is not currently feasible to reintroduce extirpated species. The Department typically focuses on reconstructing habitat rather than reintroducing wildlife species.

The long-term goals for management of wildlife at Sakatah Lake State Park are to:

- Sustain and perpetuate populations of the 3 invertebrate species and 12 vertebrate species which are state-listed or otherwise considered rare. More species may be added as additional inventories are completed.
 - Over 80% of all respondents to the *2007 Minnesota State Park Visitor Survey* agree that parks are "important in providing habitat for wildlife."
- Conduct inventories of amphibians, reptiles, small mammals and selected invertebrates.
- Manage white-tailed deer populations to control impacts on native vegetation.

Water Resources

As a large landowner on the southern shore of Sakatah Lake, the park plays an important but limited role in the management of the lake's resources. Park staff have the ability to moderate negative lake inputs from the property by maintaining the appropriate natural land cover within the park and adjacent to the lake.

Among other benefits, maintaining or restoring native, natural landscapes within the park helps to reduce erosion and stormwater runoff. Stormwater runoff can negatively affect water quality by carrying excess nutrients and sediment into adjacent water bodies. Natural vegetation, especially along the lakeshore, allows rainwater to infiltrate the soil and nourish plants and animals instead of carrying excess nutrients into the lake.

The Division of Parks and Recreation – and the Department of Natural Resources more generally – strives to maintain good water quality where it exists and to improve it where it does not. Shoreland Best Management Practices (BMPs) are followed within the park system and on other Department properties.

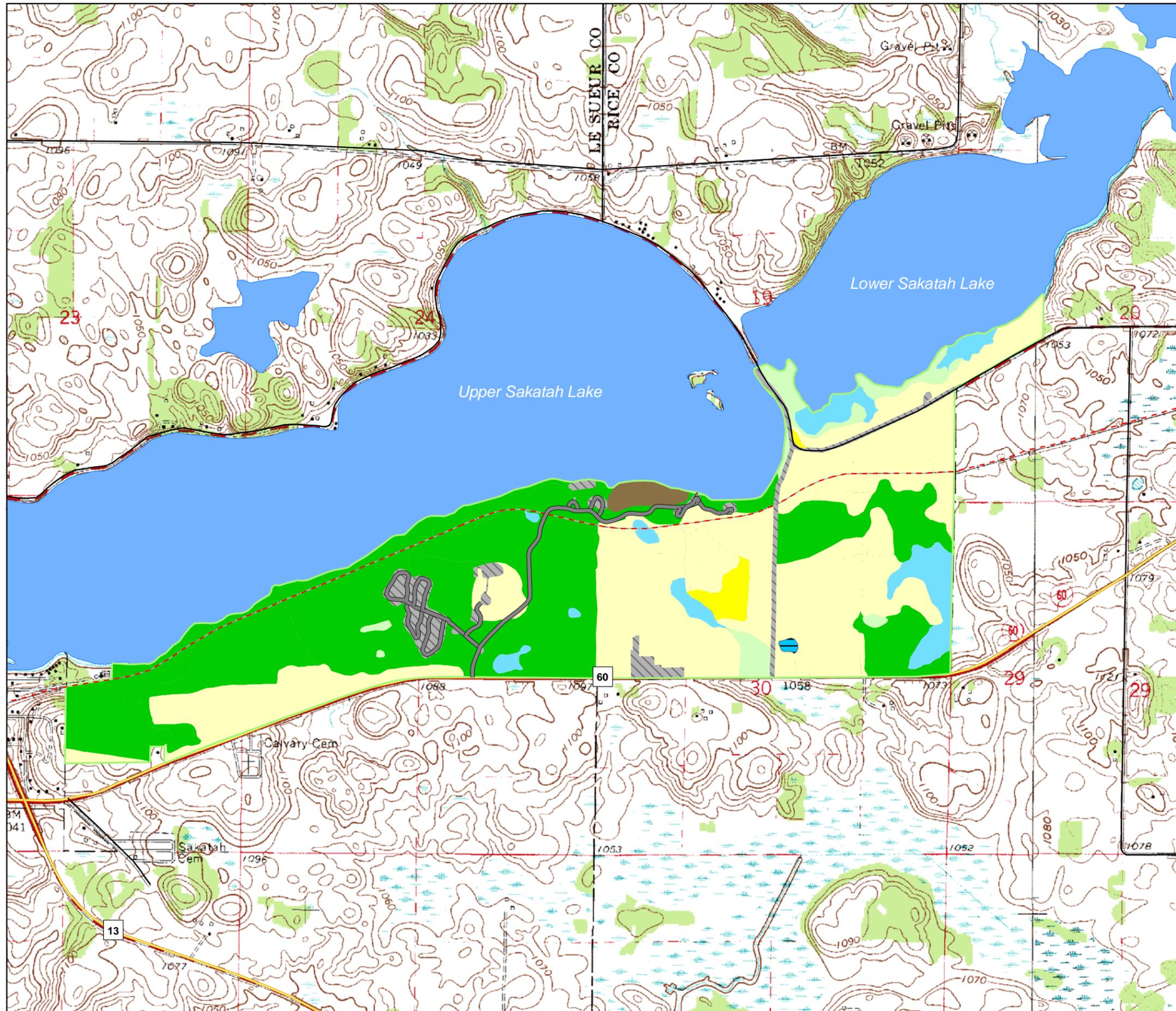
The Department also encourages landowners – including residences, businesses, communities, and others – situated on or near water bodies to follow Shoreland BMPs and maintain sustaining shoreland ecosystems. The way a landowner manages their property and the wastewater that comes from it can have a major impact on water quality downstream, even if they do not live directly on the shoreline¹⁶. Drain tiles, ditches, storm sewers, paved roads, and shallow groundwater can carry pollutant loads from residential, commercial, industrial, and agricultural areas into lakes, rivers, and wetlands.

A healthy lake is a functioning ecosystem. When shoreline property owners and others living in a watershed take steps to ensure the lake's ecological health, the ecosystem is better able to function. The DNR encourages lakeshore owners to manage their shoreline in a natural condition so that the fish and wildlife populations of the lake stay healthy and abundant, and water quality is maintained or improved.

The long-term goals for Sakatah Lake State Park's water resources are to:

- Regularly consult with DNR's Division of Waters, Fish and Wildlife, and Trails and Waterways on how common goals for improving the water quality of Upper and Lower Sakatah lakes can be achieved.
 - Almost 70% of all respondents to the *2007 Minnesota State Park Visitor Survey* agree that parks are "important in protecting water quality."
- Continue to implement Shoreland Best Management Practices (BMPs) at the park.
- Inform nearby landowners of Shoreland BMPs and encourage them to implement them.
- Work with the Cannon River Watershed Partnership (CRWP), Minnesota Pollution Control Agency (MPCA), Le Sueur and Rice counties, and other interested partners to provide volunteers for CRWP's Citizen 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.

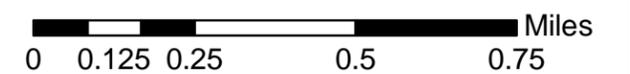
¹⁶ University of Minnesota Extension Service. *Protecting Our Waters: Understanding Shoreland BMPs*. <http://www.shorelandmanagement.org/depth/bmp.pdf>

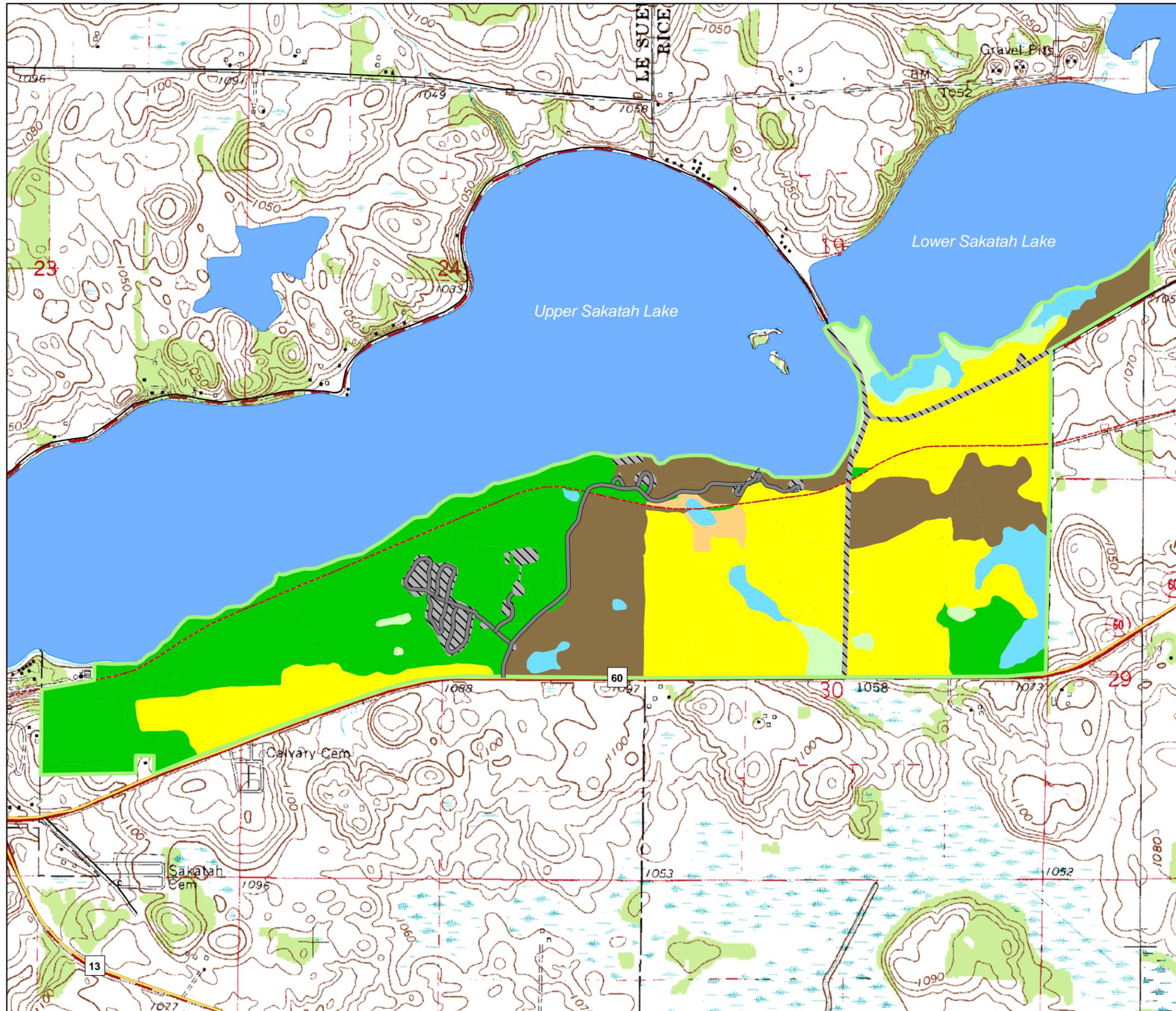


Sakatah Lake State Park Map 3: Land Cover

Legend

-  State Park Roads
-  MN DOT County Roads
-  Sakatah Singing Hills State Trail
- State Parks System Level Land Cover**
-  Fire-Dependent Forest/Woodland Sys
-  Floodplain Forest System
-  Marsh System
-  Mesic Hardwood Forest System
-  Upland Prairie System
-  Wet Meadow/Carr System
-  Other Natural System (Water)
-  Non-Natural System (Old Fields, etc)
-  Facilities (Campgrounds, roads, etc)
-  State Park Statutory Boundary
-  State Trunk Highways
-  Lakes and Rivers



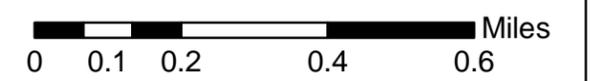


Sakatah Lake State Park

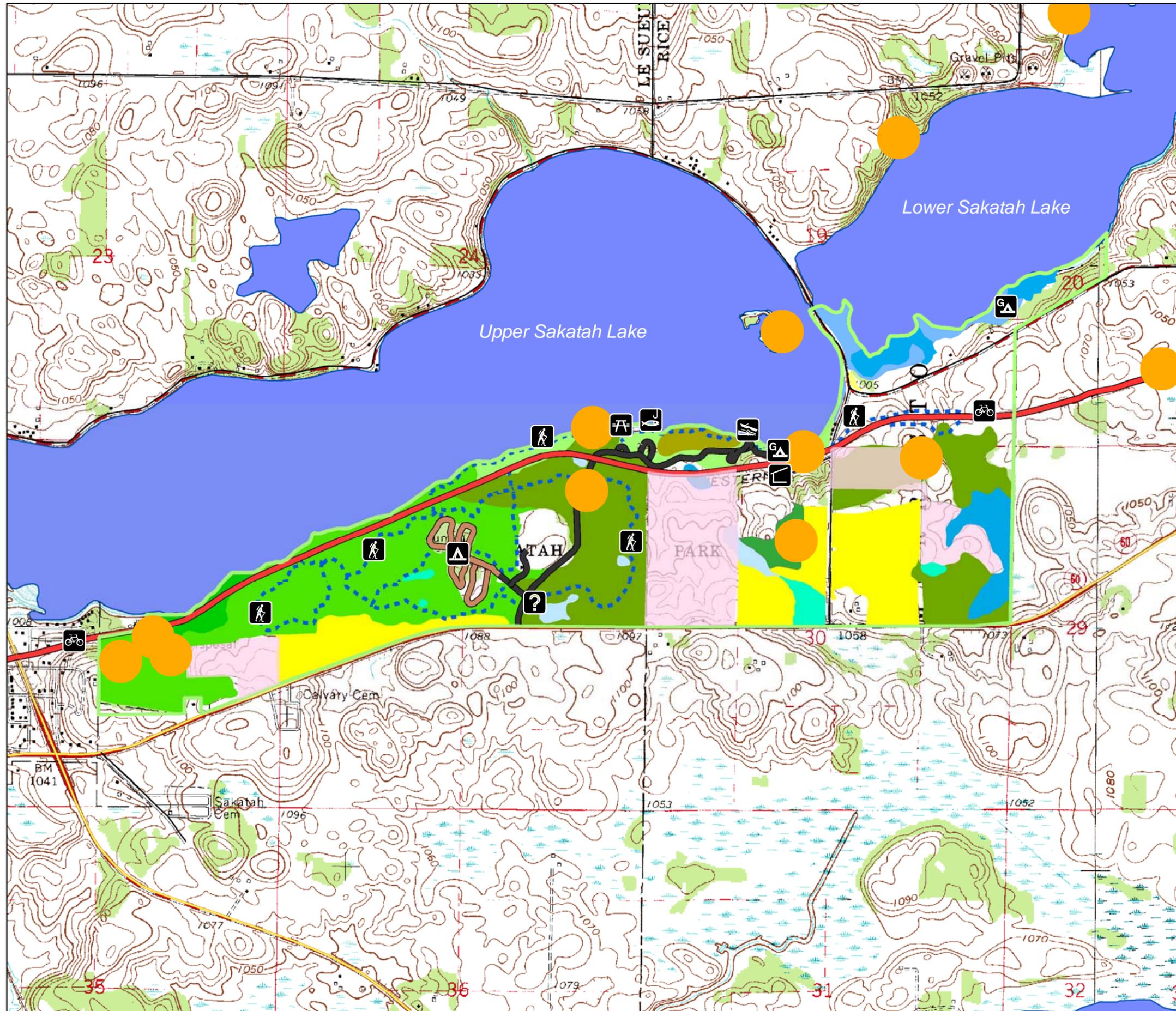
Map 4: Desired Future Conditions

Legend

- State Park Roads
- State Park Statutory Boundary
- Sakatah Singing Hills State Trail
- State Parks System Level Land Cover**
- Fire-Dependent Forest/Woodland Sys
- Floodplain Forest System
- Marsh System
- Mesic Hardwood Forest System
- Upland Prairie System
- Wet Meadow/Carr System
- Wetland Prairie System
- Other Natural System
- Non-Natural System (Old fields, etc)
- Facilities (Campground, roads, etc)
- State Trunk Highways
- Lakes and Rivers
- MN DOT County Roads



MN Department of Natural Resources
Division of Parks and Recreation



Sakatah Lake State Park

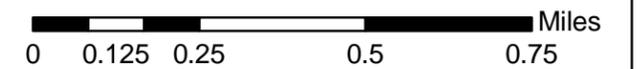
Map 5: Significant Areas and Rare Features

Legend

-  State Park Statutory Boundary
-  Dry Hill Prairie (Southern)
-  Northern Bulrush - Spikerush Marsh
-  Northern Mixed Cattail Marsh
-  Pin Oak - Bur Oak Woodland
-  Prairie or Savanna Reconstruction
-  Red Oak - Sugar Maple - Basswood - (Bitternut Hickory) Forest
-  Red Oak - White Oak - (Sugar Maple) Forest
-  Southern Basin Wet Meadow / Carr
-  Southern Dry - Mesic Oak Forest
-  Southern Mesic Maple - Basswood Forest
-  Southern Mesic Prairie
-  Southern Seepage Meadow / Carr
-  Lake or River

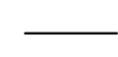
-  Rare Natural and Cultural Features

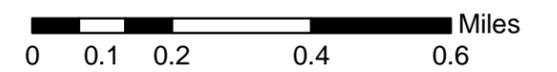
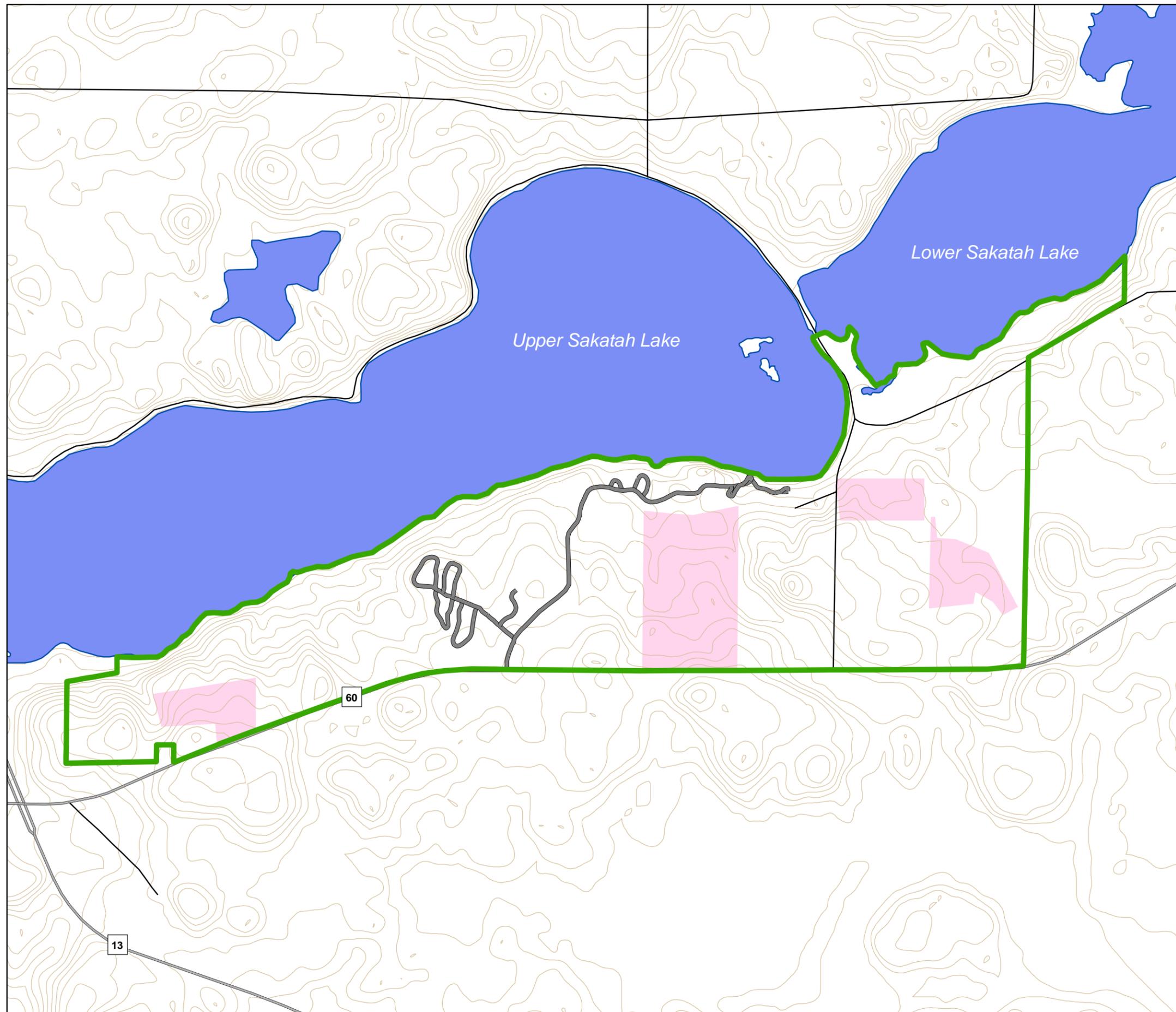
-  Private Property or Life Estate
-  Sakatah Singing Hills State Trail
-  Park Roads
-  Campground Loops
-  Hiking Trails
-  State Trunk Highways
-  MN DOT County Roads
-  MN DOT Township Roads



Sakatah Lake State Park Map 6: 10' Contours

Legend

-  State Park Statutory Boundary
-  Lakes and Rivers
-  Private Property
-  10' Contours
-  State Park Roads
-  State Trunk Highways
-  County Roads
-  Township Roads



CULTURAL RESOURCES

Historically, prairies and savannas abutted forests in the vicinity of the park. The diversity of plant and animal communities made this area a favorable place for use by American Indians. Fur traders and explorers also inhabited the area. Cultural resources found in the park include artifact deposits, burial mounds, and foundation and depression elements from a probable fur-trading post. Surface and subsurface artifact deposits are known from several locations.

A preliminary archaeological survey of Sakatah Lake State Park was conducted by the University of Minnesota's Department of Anthropology in 1971. Four burial mounds first reported in the late 1800s were still present. A habitation site is believed to have existed in the area of the point separating Upper Sakatah Lake and Lower Sakatah Lake, though no detailed analysis of this site has been made.

During early historic times, Dakota Indians inhabited the area. These people lived by hunting, gathering, and trapping. In 1826, Alexander Faribault established a trading post on the northeast shore of Cannon Lake near present day Faribault. He eventually established at least five trading posts at various points along the Cannon River and one of these may have been on a site that is now a part of the park.

The railroad played an important role in opening up the country to settlement. Although the route was surveyed in the late 1870s, none of the actual work was done until the spring of 1882. The Cannon Valley Company completed the railroad from Faribault to Waterville that same year, and four years later the tracks reached Mankato. Electric passenger trains and steam freight trains both used the Mankato to Faribault segment, stopping at various points including Waterville and Elysian.

The Chicago and Northwestern Railroad abandoned the line in the early 1970s because of competition with other forms of transportation. The state purchased the right-of-way, and established the Sakatah Singing Hills State Trail that runs through the park today.

Recommendations for Cultural Resources

The long-term goals for cultural resources at Sakatah Lake State Park are to:

- Work with the Minnesota Historical Society to clearly determine if one of Alexander Faribault's trading posts existed within the park boundary.
- Protect all known cultural resources from vandalism and unintended impacts.
- Configure trails and other developments to avoid or limit impacts to cultural resources.
- Conduct mitigation, in those cases where impacts cannot be avoided, that preserves the artifacts and information.
- Manage native plant communities and invasive species with appropriate methods to preserve the landscape around these cultural resource sites.



An artist's rendition of the Dakota's use of Sakatah Lake and the surrounding landscape,
as seen in the former Interpretive Center at Sakatah Lake State Park.
Photo Courtesy of MN DNR.

INTERPRETIVE SERVICES

The purpose of interpretive services is to provide first-hand, resource-based accessible programs and activities that work to create a sense of connection with and stewardship for Minnesota's natural and cultural heritage. This may be accomplished by telling the park's unique stories and illuminating the changing relationship between people and landscapes over time. Division of Parks and Recreation interpretive staff work in collaboration with other Minnesota Department of Natural Resources (DNR) divisions, agencies, educational institutions, local communities and citizens to develop programs and activities that will enhance the visitor's experience by increasing their understanding, appreciation and enjoyment of the natural and cultural resources.

Division of Parks and Recreation Interpretive Services Mission

To provide accessible interpretive services which create a sense of stewardship for Minnesota's natural and cultural heritage by illuminating the changing relationships between people and landscapes over time.

Division of Parks and Recreation Interpretive Services Goals

The DNR Division of Parks and Recreation views interpretation as a site specific, DNR sponsored, communication process using recreational and environmental experiences to reveal the meanings and relationships of our natural and cultural heritage. To fulfill the Minnesota Department of Natural Resources legislative obligation to provide environmental education and interpretation in state parks, the Division's interpretive programs aim to:

- Promote increased understanding, appreciation and enjoyment of natural and cultural resources in Minnesota.
- Assist in protecting each state park's resources.
- Promote public understanding of and support for the Minnesota Department of Natural Resources and its Division of Parks and Recreation.
- Increase public awareness of critical environmental problems and challenges on a local, state, national and worldwide scope.

Goal and Objectives for Interpretive Services at Sakatah Lake State Park

Based on the Minnesota State Park System's Interpretive Services Plan and an understanding of the park's resources, the following goal and objectives have been developed.

Goal

Visitors to Sakatah Lake State Park will be made aware of, come to appreciate and understand the scenic landscapes, the human impact on the lake and landscape, seasonal recreational opportunities and wildlife viewing opportunities found in the park. Through this process, they will take ownership in the park and work to protect, preserve, and enhance the park's resources.

Objectives

- Interpretive programs will be offered to visitors on a regular and consistent basis. Staff, guest presenters and volunteers may be used to design and lead these programs.
- Volunteer and guest presenter interpretive programs offered will be based on the park's interpretive themes.
- Visitors will have opportunities to learn about the park's native plant and wildlife communities.
- Visitors will have opportunities to learn about the park's long human presence and impact.
- Visitors will have opportunities to learn outdoor recreation skills.
- Visitors will have opportunities to learn nature observation skills.
- Visitors/volunteers will have opportunities to learn about and work on selected resource management activities.

Interpretive Themes

Sakatah Lake State Park provides opportunities for visitors to learn about native and restored natural communities, and to recreate in Sakatah Lake and the Cannon River valley.

Natural Communities and Wildlife

Geology and humans shaped this valley and continue to do so today.

- How have deposition, erosion and other geologic forces over time, shaped the lake and river we see today?
- How have glacial activities shaped the landscape?
- How have the natural communities changed since the end of the Ice Age?
- How did fire shape pre-European settlement vegetation in Sakatah Lake State Park?
- What role does the Cannon River valley play as part of a great North American bird migration corridor?
- What invasive plant species are negatively impacting Sakatah Lake's native communities?
- How is the park restoring and reconstructing natural communities in the park?
- What is prescribed burning and how is it used to manage and restore the park's natural communities?
- What rare and sensitive native plants are located within Sakatah Lake State Park?
- What steps is the park taking to protect its natural communities?
- What affect will climate change have on the park, Sakatah Lake and the Cannon River valley?

Human Presence and Impact in the River Valley

Sakatah Lake State Park provides a window into the cultural and natural changes of the Cannon River valley and area.

- What evidence do we have that early people lived and hunted in the area since the end of the great Ice Age?
- How did the arrival of Euro-Americans impact American Indians and natural resources?
- Why was Sakatah Lake an attractive location for French fur posts?
- How have human influences changed the Cannon River and Sakatah Lake?

- Why is the water quality of Sakatah Lake so severely impaired?
- What can we do to improve the water quality of Sakatah Lake?
- What is a watershed and how does it affect us?
- Why was Sakatah Lake State Park established?

Outdoor Recreation and Nature Skills

Sakatah Lake State Park provides great opportunities for visitors to learn about and recreate in the Cannon River valley.

- What opportunities are there to watch birds and wildlife at Sakatah Lake State Park?
- How can I learn about birds, plants, wildflowers and wildlife in Sakatah Lake State Park, on Sakatah Lake itself, and within the Cannon River valley?
- Where can I find specific wildflowers so that I can photograph them?
- What hiking, biking, cross-country and snowshoeing opportunities does the park provide?
- What opportunities does the park offer for observing nature, enjoying scenic vistas and experiencing solitude?
- What trails would you recommend to explore and enjoy the park?

Existing Interpretive Services

The Minnesota State Park System Interpretive Services Plan (1995) places Sakatah Lake State Park in Group 3. Parks in this group have a resource significance that is medium to high and visitor use that is high but with seasonal peaks. This park merits interpretive programming 4 to 7 days a week during peak season. It also merits a seasonal interpretive center; indoor displays and exhibits; audio-visual programming; self-guided trails and wayside exhibits. The plan departed from the Group 3 recommendations as it calls for an area interpretive naturalist to be assigned to this park, Rice Lake and Nerstrand Big Woods state parks.

Naturalist-Led Programs and Activities

- Currently there are no naturalist-led programs and activities.
- A seasonal Interpretive Naturalist was assigned to the park from 1992 to 1994. In 1995 an Area Interpretive Naturalist position was assigned to Sakatah Lake, Rice Lake and Nerstrand Big Woods state parks. Interpretive programs and activities were conducted mainly on weekends, featuring all the major stories and themes of those three parks. Interns and work study students assisted the Area Interpretive Naturalist each summer. In 2001, the Area Interpretive Naturalist position and internships were eliminated because of changing funding priorities.

Non-Personal Interpretation

- An eight-sided information and interpretive kiosk is located by the campground sanitation building features a Minnesota Biomes interpretive panel.
- Bulletin Boards are located in the picnic area, office, and campgrounds are available and used for posters and interpretive messages, notices, and other visitor information.
- The park's Bird Checklist is available in the park office and online at the MN DNR state park website.
- Several "Birding Kits" are available for check out at the park office. Birding Kits consist of binoculars, a field guide, and the park's bird checklist.

- Two three-ring binders with photographs and information on wildflowers and blooming plants are available for visitors to view in the park office.

Recommendations for Interpretive Services

- Use the state park as a gateway to the outdoors and the Department of Natural Resources by incorporating the priorities, key messages and initiatives of other DNR divisions into State Parks' guided and self-guided services, where appropriate.
 - A strong majority of all respondents to the *2007 Minnesota State Park Visitor Survey* said that "explor(ing) and discover(ing) new things" was the most important experience or motivation for visiting state parks.
- Employ interpretive services staff based on statewide park system priorities and available funding.
- Develop an information/interpretive kiosk that describes and recommends park trails for hiking and observing wildlife and scenery.
- Develop self-guided interpretive services for one of the existing trails that would serve to educate visitors about the park's natural and cultural resources.
 - Over two-thirds of all respondents to the *2007 Minnesota State Park Visitor Survey* support parks providing more "self-guided learning opportunities and exhibits."
- Develop a series of temporary and on-site interpretive signs that tell the resource management stories in the park such as: prescribed burns, prairie reconstruction, savanna restoration and management, wildlife species re-introductions, and invasive/alien species management.
- Develop park-specific tools that enable visitors of all ages to learn about the park's flora, fauna, and water resources including a Wildflower Kit, Discovery Kit, and several Kids Nature Explorer Kits.
- Develop a park outdoor recreation program emphasizing instruction in activities such as cross-country skiing, bicycling, hiking, and snowshoeing.
 - Over 60% of all respondents to the *2007 Minnesota State Park Visitor Survey* said that "be(ing) active" was the most important experience or motivation for visiting state parks.
- Develop a park education program that teaches nature skills-building such as: fishing, hunting, birding, tree and wildflower identification, nature photography, painting and drawing nature, poetry, story telling and writing, song writing and music.
- Develop a volunteer program that trains and engages citizens to work on select resource management activities such as invasive species management, wildlife or native plant community monitoring, restoration and reconstruction.
- Develop a park education program that teaches watershed conservation and protection methods and techniques for developing clean water in Sakatah Lake and the Cannon River.
- Charge a fee for selected "value added" interpretive and recreation programs.
- Develop "first stop for park visitors" orientation, information, and interpretive exhibits of the park and area that are incorporated with the park office.

RECREATIONAL USE AND VISITOR SERVICES

Providing a spectrum of recreational opportunities is fundamental to the mission of the Division of Parks and Recreation. The park planning process provides the opportunity to find out what types of recreation people have an interest in and then evaluate whether those options fit appropriately within the park's resource base and complement versus duplicate what is available within the surrounding region.

Guided by Statute

Recreation is an important component of the state park system. According to chapter 86A of the Minnesota Statutes, the Division of Parks and Recreation shall provide appropriate recreation to "utilize the natural features of the park that can be accommodated without material disturbance of the natural features of the park or the introduction of undue artificiality on the scene..." The statute goes on to say, "Park use shall be primarily for aesthetic, cultural, and educational purposes, and shall not be designed to accommodate all forms or unlimited volumes of recreational use." The specific types of recreational opportunities available will be tailored to each park's unique resources and topography.

Access to All

Minnesota state parks are for the use and enjoyment of all of its citizens. Accordingly, state and local governments – including the state park system – may not discriminate on the basis of disability (Americans With Disabilities Act of 1990, a28 CRF Part 36). That is, access must be provided to park services, programs and activities and all services – when viewed in their entirety – must be usable by individuals with disabilities. This includes facilities like parking, restrooms, drinking water, recreation facilities, and pedestrian access routes. Pedestrian access routes are continuous unobstructed paths that connect accessible elements within a picnic area, camping area, or designated trailhead, like the paths that connect a parking lot to a picnic or camping area, a picnic area to a sanitation building, or accessible picnic tables to other accessible elements.

The Americans with Disabilities Act (ADA) provides guidance for accommodating the natural environment's variable character when providing accessibility. The ADA-delineated modifications and exceptions are applied as necessary to maintain the integrity of an outdoor recreation setting, accommodating such elements as hydrology, terrain, surface characteristics and vegetation. Information regarding accessibility will be available through the use of brochures and on the DNR website (www.dnr.state.mn.us) to guide visitor expectations.

Visitor Expectations: The 2007 Minnesota State Park Survey

This survey indicated that state park visitors, in general, want to have experiences that add value to their lives. Visitors seek out experiences where they have the opportunity to have fun, enjoy natural scenery, get away from life's usual demands, enjoy smells and sounds of nature, and spend time with family. The activities that appear to be most important include hiking/walking, observing/photographing nature, sightseeing, picnicking, and shopping in park nature stores. In addition, learning-related activities are a very important part of the overall experience.

Visitors generally support recreation-based and education-based opportunities that are aligned with the park system's core mission including expanding hiking opportunities and self-guided learning opportunities and exhibits. At the same time, the report says that visitors do not support expanding recreation or development if it harms the existing natural and cultural resources.

The survey also shows that visitors to the park system come from all parts of the state, and all age classes and socioeconomic levels. State parks are visited more frequently by middle-aged adults and children, and less frequently by minority groups and young adults. Annual attendance at Minnesota State Parks varies depending on seasonal availability of camping and weather. Throughout the park system, the majority of visitors are day visitors (86.3%) with overnight visitors (camping and lodging) making up 13.6% of overall use.

Most visitors regularly voice satisfaction with their state park experience. The proportion of all visitors who thought their expectations were satisfied (95.14%) was the highest since survey records were kept, beginning in 1987. The satisfaction rate plays an important role in the DNR's Conservation Agenda and measures a fundamental component of the Division of Parks and Recreation's mission: providing high quality, rewarding experiences to state park visitors.

The Strategic Plan, 2006-2011

Though this draft management plan considers park management and development over a 20-year timeframe, it is important to consider Division-wide goals proximate to the revising of the plan. As this plan was being revised, the Minnesota State Park's 2006-2011 Strategic Plan¹⁷ was published. Divided into five core areas – one being Recreation – the Strategic Plan is intended to provide guidance to the Division over a six-year timeframe.

In addition to covering topics like interpretation, natural and cultural resource management and others, the Strategic Plan outlines a series of desired outcomes and goals for recreation at state parks. Most importantly, the Division will maintain the loyalty and satisfaction rates of its current visitors and attract new user groups. The Strategic Plan also delineates a series of goals to help accomplish this and other desired outcomes.

Goals

- Increase overnight and day use in order to more effectively utilize the existing infrastructure capacity.
- Maintain high visitor satisfaction during a time when traditional services are being reduced or service delivery methods are being changed.
- Keep visitors safe, reduce conflicts among visitors and keep the natural and cultural resources intact for future generations.
- Evaluate the type and amount of recreation offerings in state parks and recreation areas.
- Minimize the impacts of specific user groups on natural and cultural resources in order to meet the Division's mandate.
- Evaluate potential new additions to the state park system, including expansion of existing units or proposals for new units. Evaluations will follow statutory direction to "preserve an accurate representation of Minnesota's natural and historical heritage...provide an adequate supply of scenic, accessible, and usable lands and waters to accommodate the outdoor recreation needs of Minnesota's citizens." It will also

¹⁷ Minnesota Department of Natural Resources, 2007. *Strategic Plan 2006-2011*. Division of Parks and Recreation.

follow the DNR Strategic Conservation Agenda for a sustainable network of natural lands.

- Provide infrastructure improvements or new infrastructure development in order to meet changes in recreation needs, generate revenue, augment visitors education and understanding of the park or to protect natural and cultural resources, and scenic beauty.
- Determine how much capital is needed annually to protect the investment of the state park system infrastructure.

Existing Recreational Resources and Facilities

Day use

Contact Station/Park Office

This building serves as the first point of contact for visitors entering the park. Visitors receive park information, purchase vehicle permits, and register for camping. There is a small Nature Store where visitors have the opportunity to purchase a limited number of educational and gift items. Firewood and ice are also available. A bulletin board displaying the park map and other information is attached to the front of the building. This building also houses the park's administrative offices.

Sakatah Singing Hills State Trail

Three miles of this 39-mile state trail pass through the park, making it a convenient base for exploring the former Chicago & Northwestern railway bed and the Cannon River Valley. The paved trail offers hikers, bikers, and snowmobilers beautiful scenery through both hardwoods and prairie, and past working farmsteads. Within the park, the trail can be accessed via the spur trail south of the campground or the park road that connects to the picnic area, boat ramp, and Upper Group Camp.

Access to Sakatah Lake

A popular boat ramp and adjacent parking area, both renovated in 2007, are available within the park. Canoes are available for rent next to the boat ramp. Though there is plenty of parking for vehicles and trailers near the boat ramp itself, the campground does not have adequate auxiliary parking space available for parking boat trailers.

Picnic Area and Fishing Pier

The park offers a large picnic area that overlooks Upper Sakatah Lake. There are numerous picnic tables available, along with standing grills and fire rings. No picnic shelter is available, however. A vault toilet building with sinks and running water (in-season) is available, adjacent to the parking area. One vault toilet nearby is available year-round. Once water has been shut off – usually in mid-October – there is a hand pump available. There is not a wide-open expanse for unstructured recreational opportunities (e.g. baseball, soccer, football, Frisbee, etc.) here.

Public comments indicate an interest in the development of a covered, reservable picnic shelter in the picnic area or a multiple-use building elsewhere in the park.

Overnight use

Semi-modern Campground

Sakatah Lake State Park has a 62-site, semi-modern campground, with electricity at 14 sites. There is also a camper cabin available. Camping is available year-round, though only a limited number of sites are available in the winter. Each campsite has the standard state park amenities including a picnic table, fire ring and parking spur. Two sites are handicapped accessible. A handicapped accessible sanitation building with showers and flush toilets is available in-season, as is the nearby dump station. Vault toilets are available year-round.

Aside from a relatively open space to play horseshoes – adjacent to the camper cabin and Sumac Trail access – there is no space for unstructured recreational opportunities here. Public comments indicate a strong interest in a playground area for children.

Public comments indicate an interest in expanding the number of camper cabins, enhancing or expanding electrical service, and renovating existing campsites to make them more user-friendly.

Group Camps

Sakatah Lake State Park has two group camps – the Upper and Lower – which accommodate up to 50-people each for large group gatherings. Due to their popularity, reservations are recommended. A water spigot for drinking water is available at the Upper Group Camp while a hand pump is available at the Lower Group Camp. Vault toilets are available at both camps and parking is limited. The Upper Group Camp also offers an electrical hook-up – relatively unique for rustic Class 3 group camps in state parks – for an additional charge.

Bike-In Sites

These sites, uncommon in the park system, are available only for bike touring or people who bike into the park to camp without motorized vehicles. There are no vehicle parking spots near these sites. Drinking water and toilet facilities are located nearby in the park's Upper Group Camp.

Trails

There is a total of eight miles of trail within Sakatah Lake State Park providing visitors with a variety of trail experiences. The trails provide opportunities for:

- Eight miles of hiking with varying degrees of difficulty, including three miles on the Sakatah Singing Hills Trail.
- Three miles of paved bike trail via the Sakatah Singing Hills State Trail.
- One-quarter mile of accessible trail within the park and 3 miles on the Sakatah Singing Hills State Trail is considered accessible.
- Five miles of groomed cross-country ski trails.
- Three miles of snowmobile trail via the Sakatah Singing Hills Trail.
- Snowshoeing is allowed anywhere off of groomed ski trails.

Recommendations for Recreational Use and Visitor Services

Overall Goals

- Provide outdoor recreational activities that feature the park's resources, that can be accommodated without negatively impacting the natural or cultural resources, that do not detract from the views, and that preserve a sense of place.
- Inform visitors of the interconnected nature of the Division of Parks and Recreation and other divisions within the Minnesota Department of Natural Resources.
- Incorporate strategies developed as a result of the 2007 Visitor Survey and the marketing programs to increase visitor use of Sakatah Lake State Park.

Day Use

Goals

- Increase day use of Sakatah Lake State Park.
- Continue to develop partnerships and outreach opportunities with appropriate organizations.
- Provide access and use for visitors of all physical capabilities, with facilities that meet ADA standards.
- Continue to participate with the local chambers of commerce and regional tourism associations.

Recommendations

- Encourage visitors to sample the variety of experiences available within the park including nature study, fishing, wildlife viewing, trail use, paddling, and other activities.
 - 65% of all respondents to the *2007 Minnesota State Park Visitor Survey* said that "enjoy(ing) different experiences from home" was the most important experience or motivation for visiting state parks.
- Build an enclosed picnic shelter south or southeast of the picnic area, on the site of the existing bathroom or adjacent to the large parking lot near the fishing pier, respectively.
 - The final location of the shelter will be based upon archaeological reconnaissance work by the Minnesota Historical Society.
 - Picnicking was the fourth most popular activity by all respondents to the *2007 Minnesota State Park Visitor Survey*.
- Provide an open space play area for recreational activities like playing catch, kicking a soccer ball, throwing a Frisbee, and setting up a volleyball net near the parking lot closest to the fishing pier.

Overnight Use

Goals

- Enhance the quality of the visitor experience.
- Maintain rustic appeal with minimal development visible.
- Provide an adequate number of campsites and facilities that meet ADA standards.

Semi-modern Campground

Goals

- Develop capacity to accommodate increased numbers of visitors and a wider variety of camping styles.
- Redevelop some existing sites to meet accessibility requirements and to meet demands for this style of camping.
- Protect viewshed from main park road to preserve visual appeal and rustic character of park.
- Increase comfort of visitors at the sanitation building.

Recommendations

- Install children's play equipment near the campground following Division of Parks and Recreation guidelines.
- Enhance some of the existing campsites through the addition of electrical service or higher electrical service, re-grade some sites to provide more comfortable tent pads and level parking spots, and redevelop some sites to allow for vehicle pull-through.
- Maintain or increase spacing between campsites, keeping electric and non-electric sites generally separate from one another.
- Install benches outside the sanitation building for people waiting for use of the shower.
- Upgrade access to drinking water and add accessible tables, fire rings, and walkways to meet ADA standards, where needed.

Remote Camping

Goals

- Give campers the opportunity to experience more remote areas of the park by providing walk-in, cart-in and backpack sites.

Recommendations

- Develop walk-in, cart-in and/or backpack sites in areas that are appropriate for their installation.
 - Almost 90% of campers responding to the *2007 Minnesota State Park Visitor Survey* support parks providing "more walk-in/carry-in campsites."¹⁸

Group Camps

Goals

- Redevelop existing sites to meet accessibility requirements and to meet demands for this style of camping.
- Provide non-roadway access to the rest of the park from the Lower Group Camp.

Recommendations

- Upgrade access to drinking water and add accessible tables, fire rings, and walkways to meet ADA standards, where needed.

¹⁸ Survey respondents were offered six choices: 1) strongly oppose, 2) mildly oppose, 3) neutral, 4) mildly support, 5) strongly support, and 6) don't know. 'Neutral' and 'don't know' responses were not included here.

Camper Cabins

Goals

- Provide camping experiences for people that do not have access to camping equipment, that prefer having a roof over their heads, or that desire an increased sense of security.

Recommendations

- Add camper cabins where resources, existing day-use areas, and the viewshed will not be negatively impacted.
 - Over 80% of campers responding to the *2007 Minnesota State Park Visitor Survey* support parks providing “additional rustic camper cabins.”
- Take actions necessary to ensure that the existing cabin and any cabins developed in the future are operated on a year-round basis.

Trails

Goals

- Provide visitors with varying interests and physical capabilities with a variety of trail opportunities to explore the park and learn about its natural and cultural resources.
- Maintain existing trails in a safe and sustainable condition.

Recommendations

- Develop signage that provides information on the length of the trails and their difficulty.
- Develop sustainable hiking and cross-country ski trails in prairie and savanna portions of the park, which do not negatively impact native communities or their restoration.
 - In areas where active prairie or savanna management is taking place, mowed trails
 - Over three-quarters of respondents to the *2007 Minnesota State Park Visitor Survey* support parks providing “more hiking opportunities.”
- Following the expiration of leases, develop sustainable trails in portions of the park that were held as life estates.
- Develop a spur trail from the Lower Group Camp to the Sakatah Singing Hills State Trail and/or Timber Doodle Trail for improved trail connectivity.
- Consider the development of new uses for trails on a case-by-case basis, weighing new user groups with sustainability of resources and potential for user conflicts.
- Develop a trailhead for the Sakatah Singing Hills State Trail within the park that provides maps and trail information, and offers sufficient parking.
 - The *Sakatah Singing Hills State Trail Master Plan* states “(p)ublic awareness of the trail should be promoted.”
- Working with the Division of Trails and Waterways, develop an informational kiosk adjacent to the Sakatah Singing Hills Trail that would help orient trail users to the park and the opportunities available there.
 - The *Sakatah Singing Hills State Trail Master Plan* states the “(u)se of other public and private recreation facilities that relate to the trail should be encouraged” and that “the user’s appreciation and knowledge of the trail and its resources should be enriched.”
- Participate in planning for regional trail systems that may connect to the Sakatah Singing Hills State Trail.

Contact Station/Park Office

Goals

- Provide a facility that meets the needs and interests of visitors and provides a productive work environment and adequate storage space to accomplish administrative, supervisory and public contact needs of staff.

Recommendations

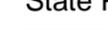
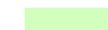
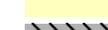
- Renovate contact station space to provide public restroom facilities and additional space for park staff to better accomplish daily business activities.
- Design renovated facility to blend with the landscape.

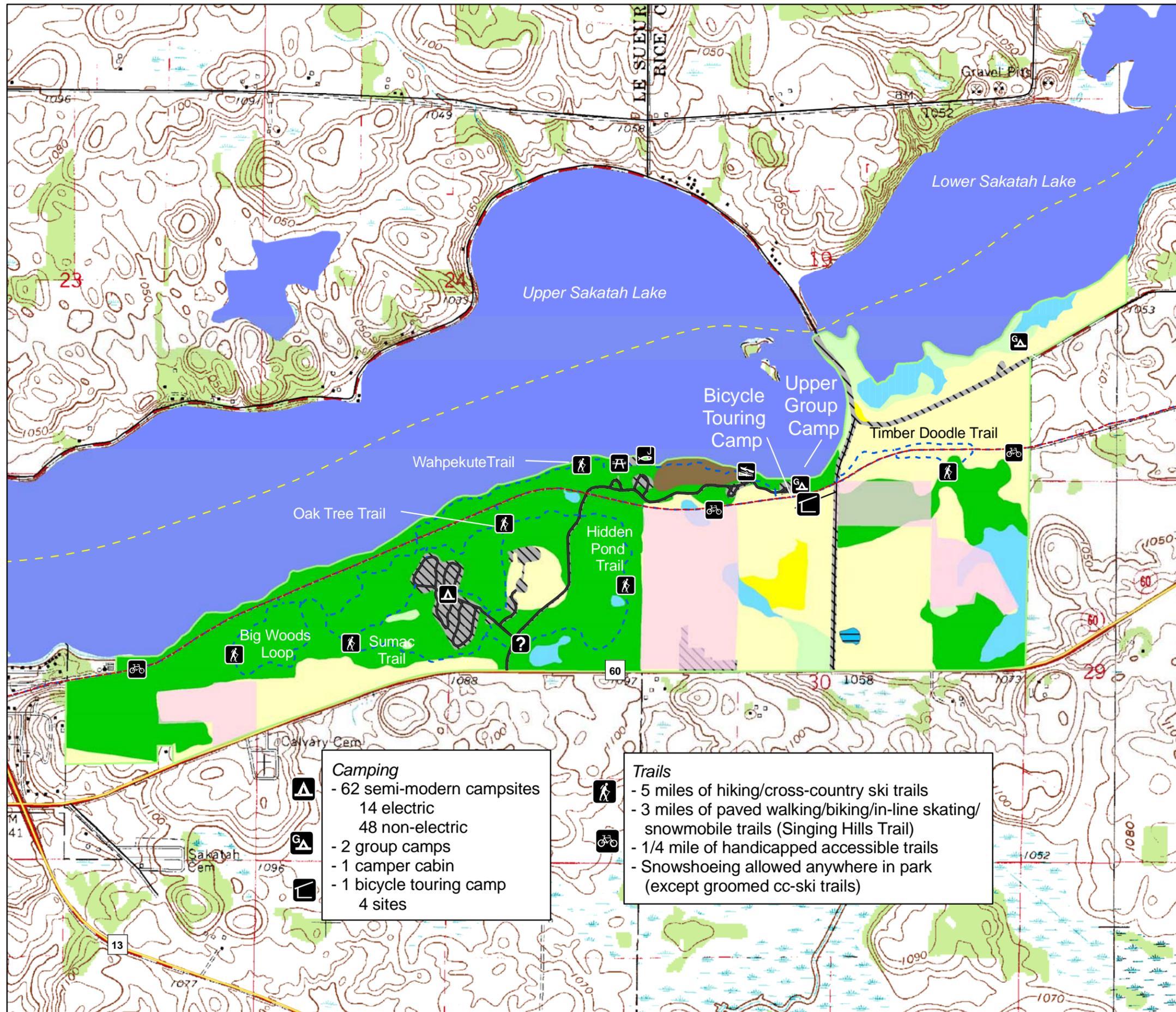


Sakatah Lake State Park Entry Sign.
Photo Courtesy of MN DNR.

Sakatah Lake State Park Map 7: Current Recreation Opportunities

Legend

-  State Park Statutory Boundary
-  Sakatah Singing Hills State Trail
-  Hiking Trails
-  Cannon River Canoe Trail
-  Campground Loops
-  Park Roads
-  Private Property
- State Parks System Level Land Cover**
-  Fire-Dependent Forest/Woodland Sys
-  Marsh System
-  Mesic Hardwood Forest System
-  Upland Prairie System
-  Wet Meadow/Carr System
-  Other Natural System (Water)
-  Non-Natural System (Old fields, etc)
-  Facilities System (Campground, etc)
-  Lake or River
-  State Trunk Highways
-  County or Township Roads

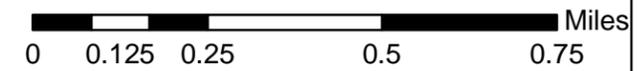


Camping

- 62 semi-modern campsites
- 14 electric
- 48 non-electric
- 2 group camps
- 1 camper cabin
- 1 bicycle touring camp
- 4 sites

Trails

- 5 miles of hiking/cross-country ski trails
- 3 miles of paved walking/biking/in-line skating/snowmobile trails (Singing Hills Trail)
- 1/4 mile of handicapped accessible trails
- Snowshoeing allowed anywhere in park (except groomed cc-ski trails)

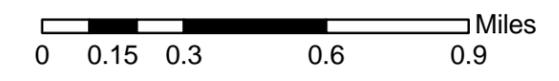
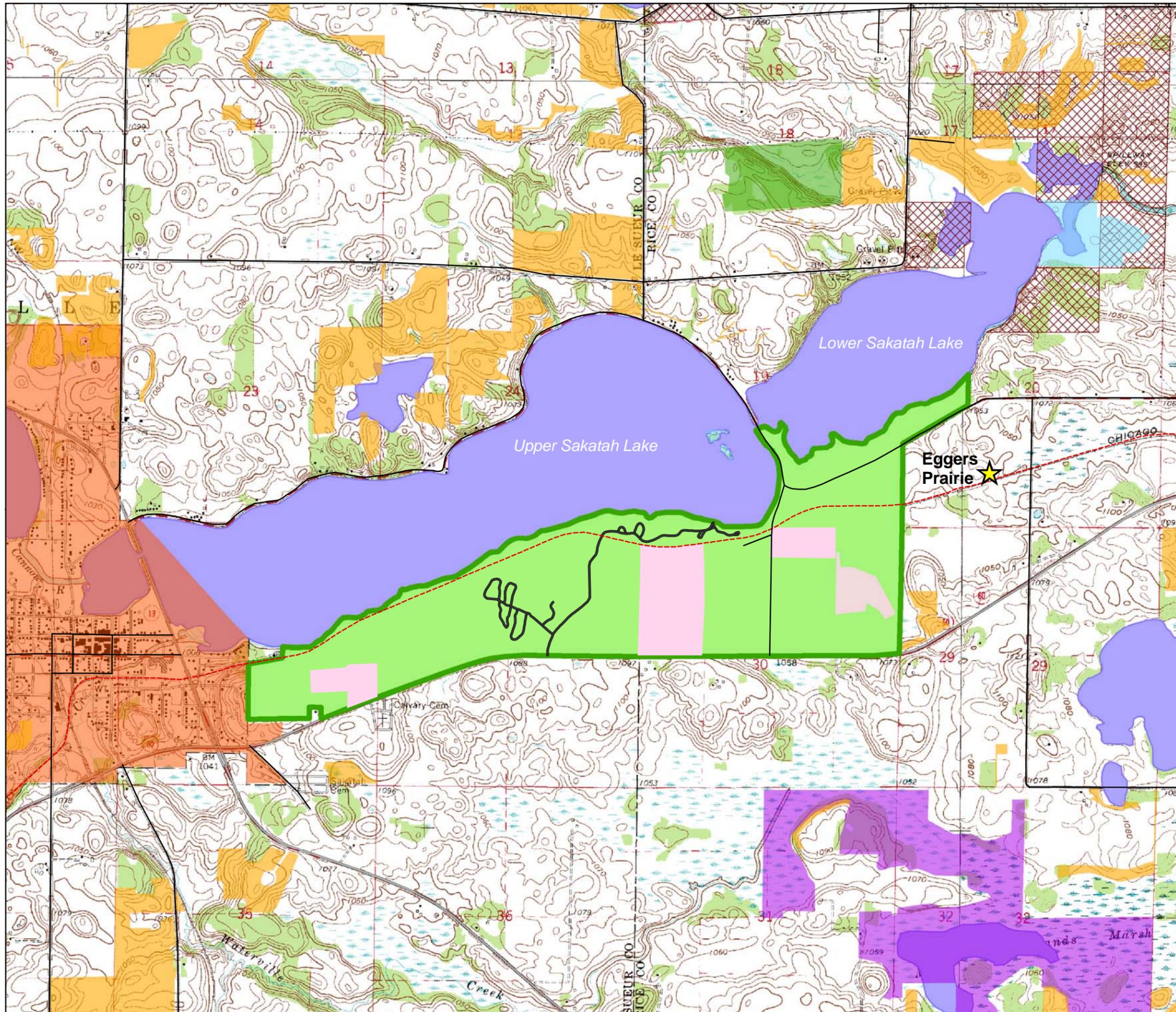


MN Department of Natural Resources
Division of Parks and Recreation

Sakatah Lake State Park Map 8: Park Boundary and Adjacent Lands

Legend

-  State Park Statutory Boundary
-  Private Property
-  Sakatah WMA
-  Townsend Woods SNA
-  Conservation Reserve Program
-  Conservation Easements (RIM)
-  Easement Interests (State Owned)
-  Waterville Municipal Boundary
-  Lake or River
-  DNR Administered State Trails
-  State Park Roads
-  State Trunk Highway
-  County or Township Roads



MN Department of Natural Resources
Division of Parks and Recreation

PARK BOUNDARY

The Minnesota State Legislature establishes state park boundaries. A legal park boundary defined in Minnesota Statutes provides staff, citizens and policy makers with a common understanding of which lands are appropriate for inclusion in the park. It is the current policy of the Division of Parks and Recreation to include within a statutory boundary only those lands where the landowner has agreed to inclusion. The DNR is then authorized to negotiate with willing sellers for acquisition of lands contained within that statutory boundary. Being within a statutory park boundary does not have any impact on the landowner. He or she retains full ownership and rights to the land unless he or she decides to sell to the park.

As a part of the planning process, the Citizen Advisory Committee reviews the existing state park land base, and discuss what boundary alterations should be considered to ensure that natural and cultural resources are protected, and recreational and educational opportunities consistent with the park's mission can be provided. The Division of Parks and Recreation reviews those suggestions and at such time as a boundary modification, the Minnesota Department of Natural Resources will contact landowners affected and ask for documented support. Local units of government will also be contacted during the process.

Background

Land and Water Conservation Fund

Funds from the Land and Water Conservation Fund (LWCF) have been used to acquire land or construct recreational facilities in this park. LWCF grants have contributed to outdoor recreation throughout the United States since 1966. By using these funds, the state has agreed to maintain recreational facilities in a manner that promotes safe use and invites public use, and to retain the land in this park solely for outdoor recreation and related support facilities. If the DNR decides that it is essential that lands that were part of a LWCF project be used for another purpose, it may be possible to replace those lands with other lands that have at least the same fair market value and provide equivalent recreational opportunities. This conversion can only be done with the approval of the National Park Service (NPS) Regional Director (pursuant to Section 6(f)(3) of the L&WCF Act and 36 CFR Part 59). Conversions are coordinated through the Minnesota State Liaison Officer to the NPS. The NPS Regional Director has authority to approve or disapprove conversion requests and/or to reject proposed property substitutions. The Minnesota State Liaison Officer who administers the LWCF program should review all actions that would cause a significant change of use or park boundary change.

Existing Park Statutory Boundary

Sakatah Lake State Park includes 848.1 acres within its statutory boundary. Of that acreage, the Division of Parks and Recreation administers 813 acres, while the Division of Trails and Waterways administers 6.6 acres (the Sakatah Singing Hills Trail). Twenty-eight-and-a-half acres within the boundary remain in private ownership. The park will begin to manage approximately 66 acres of land that was held in a life estate agreement within the next five years.

Park Boundary Modification Process

The Citizen Advisory Committee, Technical Advisory Team, and park and regional staff considered the opportunities for boundary adjustments at Sakatah Lake State Park. Committee and team members were interested in preserving and buffering natural resources, wildlife habitat, and viewsheds to preserve the sense of wildness within the park from the potential impacts of future development. The Citizen Advisory Committee and Technical Advisory Team used the Division of Parks and Recreation criteria for evaluating boundary changes as a guide.

The Division of Parks and Recreation focuses acquisition efforts primarily on undeveloped lands and parcels with important natural resource qualities or restoration potential. The Division seeks to minimize purchase of parcels with homes or other development due to the increased cost of acquisition. The Division makes an effort to inform and seek the support of local units of government when a statutory boundary change is proposed. In addition, the Division works with neighboring landowners and local units of government to preserve natural and cultural resources, recreational opportunities and important viewsheds. Conservation easements, local government protective zoning, coordinated resource management efforts and other actions are additional ways in which the local communities can work in cooperation with staff in protecting Sakatah Lake State Park.

Criteria defined for addition of land to the park include:

- Buffer key areas adjacent to the park.
- Preserve important viewsheds to protect sense of place within the park.
- Protect or provide opportunities to enhance significant habitat, natural resources and cultural sites.

Park Boundary Modifications

The park provides open space, natural and cultural resource protection, and recreational opportunities for local residents and visitors from all over the world. The park is also an integral part of the Cannon River watershed providing important conservation of resources on a regional scale.

Goal

As the area around the park continues to face development pressure, preserving the surrounding natural areas, wildlife habitat and viewsheds will serve an important role in preserving and protecting Sakatah Lake State Park.

Proposed Park Statutory Boundary Additions and Deletions

Addition

Park staff and the Citizen Advisory Committee have identified one potential statutory boundary expansion area to the east of the current park boundary. The area, approximately 240 acres in size, is bounded by State Highway 60 to the south, Kent Avenue to the east, and County Road 99 to the north. Such an expansion would connect existing parkland with Eggers Prairie, a high-quality prairie remnant and local seed source for the park.

The suggested statutory boundary expansion would also tie in the section of the park on the south shore of Lower Lake Sakatah. There is great potential in this area to increase recreational opportunities and re-establish high quality natural areas, including prairie and savanna communities and eventually woodland. Restoring native plant communities here would also create wildlife habitat and increase the size of the natural buffer on Sakatah Lake. This, in turn, would help to promote better water quality in Sakatah Lake and the Cannon River Watershed more broadly.

Deletion

None recommended.

Park Boundary Recommendations

The following are general recommendations for acquisition and/or conservation for the future, when opportunities arise:

- Add lands to the park statutory boundary as described above.
- Continue to pursue acquisition of private lands within the park's current statutory boundary that support the Division of Parks and Recreation's mission to protect and perpetuate the diverse natural, scenic, and cultural resources for low impact use, education and enjoyment of park visitors.
 - Almost 90% of respondents to the *2007 Minnesota State Park Visitor Survey* agreed that parks are "important in protecting the landscape from development."
- Consider acquisition of parcels outside of the park statutory boundary that meet boundary change criteria and are supported by the property owner.
- 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.
- 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.
- Work with special interest groups and local and county units of government to develop education and stewardship opportunities to be implemented by surrounding land owners on their property to buffer, protect and enhance significant natural resources and important viewsheds.
- Propose parcels that are highly developed or of no resource value to the park to be removed from the boundary.
- Provide local units of government the opportunity to review proposals.



The Eggers Prairie, just east of the existing state park statutory boundary off the Sakatah Singing Hills State Trail, is a high quality native plant community and local seed source.
Photo courtesy of MN DNR.

PARK OPERATIONS

Current staffing at Sakatah Lake State Park includes:

- Park Manager (full-time)
- Assistant Park Manager (80%)
- Buildings and Grounds (1, full-time, shared position; 40% at Sakatah Lake)
- Building and Grounds/Security Ranger (1, part-time seasonal)
- Parks Workers (2, part-time seasonal and 2, intermittent seasonal)
- Natural Resource Workers (1, part-time seasonal)
- Green View (2, part-time seasonal)

Staffing Level and Operational Issues

Sakatah Lake State Park is committed to protecting the park's natural resources, providing appropriate recreational opportunities and high quality public service, and ensuring safe and clean facilities. Operational or staffing limitations may diminish the park's ability to meet these goals. Sakatah Lake, like the park system as a whole, has experienced budget constraints as less government funding is available. Tight budgets led to reduced staff hours in three key positions at the park including the Assistant Manager, Interpretive Naturalist, and Building and Grounds Worker.

The Assistant Manager position has been reduced from full-time to 80%, making it challenging to accomplish all administrative functions in a highly efficient manner. With the need to focus on core operational activities, some important functions such as resource management activities receive less attention.

The elimination of the interpretive staff in 2001 was a great loss to the park and public. Providing and continuing to improve quality interpretive services was identified as an important goal during the planning process.

While the park keeps up with basic maintenance activities, repairs and preventative maintenance occur on a less frequent basis because of the conversion of the park's year-round Buildings and Grounds Worker position to a shared position. For example, the public is impacted when the campground shower building is opened a week or two later than weather would dictate because staff is not available to turn on the water system and clean the buildings earlier.

Operational challenges are related to funding issues as well. Whereas the most dramatic impact of reduced funding is seen in staffing issues, other effected areas include the increased cost of energy and fleet services resulting in budget reductions in other areas of park operations. In some cases, maintenance, development and other projects are deferred longer than is desirable.

Enforcement

Law Enforcement within the park will comply with guidelines in the Minnesota Department of Natural Resources Enforcement Manual (March, 2001) and Minnesota State Park Rules (2000).

The park manager and assistant park manager have limited enforcement authority within the Sakatah Lake State Park boundary. For assistance, they may call on other law enforcement agencies including Minnesota Department of Natural Resources conservation officers, the Le Sueur and Rice County Sheriff's departments, and the Waterville Police Department. The Minnesota Department of Natural Resources Division of Parks and Recreation will continue to work with local authorities to assure effective law enforcement in the park.

Recommendations for Park Operations

- Review visitor use and staffing needs on a regular basis, using the Division of Park and Recreation's Operating Standards, to ensure consistency throughout the park system.
- Utilize volunteers and work programs to supplement and support park staff, where appropriate.



A well-used Park Ranger vehicle.
Photo courtesy of MN DNR.

PLAN MODIFICATION PROCESS

DNR Division of Parks and Recreation's management plans document a partnership-based planning process, and the recommended actions resulting from that process. These comprehensive plans recognize that all aspects of park management are interrelated, and that management recommendations should also be interrelated.

Over time, however, conditions change that effect some of the plan recommendations or even an entire plan. Plans need to acknowledge changing conditions, and be flexible enough to allow for modifications as needed.

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

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

Plan Amendments

Plan Amendment Criteria

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

The proposed change:

- Alters Sakatah Lake State Park'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 state park 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 Division of Parks and Recreation, the issue should be resolved within the Division, with input from the public. The proposed change is then reviewed with the DNR Division of Parks and Recreation Management Team.
2. If the proposed change involves other DNR Divisions, the issue should be resolved by staff and approved by the affected Division Directors. This may require one or two

area/regional integrated resource management team meetings. The proposed change will be reviewed through the DNR Regional Interdisciplinary Review Service (RIRS).

3. If the proposed change issue involves other state agencies, the issue should be resolved by staff and approved by the DNR Division of Parks and Recreation Management Team - with input from the public - and reviewed by RIRS.
4. If the proposed change is potentially controversial among elected boards, park user groups, adjacent landowners or the public, an open house will be held that is advertised in the local and regional area.
5. All plan amendments should be coordinated, documented, and distributed by the DNR Division of Parks and Recreation 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 Sakatah Lake State Park management plan (through mission, vision, goals, and objectives), the Department 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 Recreation's Resource Management and Interpretive staff will determine when an update is needed, and coordinate the revision with the Sakatah Lake State Park planning section. Program sections should be rewritten in a format consistent with the plan as originally approved by the Department. To retain consistency, DNR Division of Parks and Recreation planning staff will be involved in the revision review, editing and distribution.

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University of Minnesota Extension Service. 2005. *Protecting Our Waters: Understanding Shoreland BMPs*. <http://www.shorelandmanagement.org/depth/bmp.pdf>

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

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

Le Sueur County, Minnesota. <http://www.co.le-sueur.mn.us/>

Minnesota Department of Natural Resources: Ecological Classification System.
<http://www.dnr.state.mn.us/ecs/index.html>

Minnesota Department of Natural Resources: Minnesota County Biological Survey.
<http://www.dnr.state.mn.us/eco/mcbs/index.html>

Minnesota Department of Natural Resources: Canoeing.
<http://www.dnr.state.mn.us/canoeing/index.html>

Minnesota Department of Natural Resources: Minnesota Snowmobile Trails Assistance Program (Grants-in-Aid) http://www.dnr.state.mn.us/grants/recreation/gia_snowmobile.html

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

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

Minnesota Department of Natural Resources: Tri-County ATV Park.
http://www.dnr.state.mn.us/ohv/tri_county/index.html

Minnesota River Valley Birding Trail. <http://www.birdingtrail.org/>

National Scenic Byways Program: Minnesota. <http://www.byways.org/explore/states/MN/>

NOAA Satellite and Information Service. National Climatic Data Center, U.S. Department of Commerce http://cdo.ncdc.noaa.gov/climatenormals/clim60/states/Clim_MN_01.pdf

Rice County, Minnesota. <http://www.co.rice.mn.us/>

APPENDIX A – PLAN RECOMMENDATIONS

Natural Resource Management Recommendations

Land Cover and Rare Plants

- Sustain or improve the quality of the native plant communities in the park with current EO ranks of B/C or better, 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 park to at least BC rank and then sustain them at that level or above.
- Reconstruct native plant communities in undeveloped, non-native areas of the park to the BC level and then sustain them at that level.
- Sustain populations of threatened or special concern plant species documented to be in the park and other rare plant species that may be discovered.
- Avoid developments that compromise or destroy native plant communities or rare elements.

Wildlife

- Sustain and perpetuate populations of the 3 invertebrate species and 12 vertebrate species, which are state-listed or otherwise considered rare. More species may be added as additional inventories are completed.
 - Over 80% of all respondents to the *2007 Minnesota State Park Visitor Survey* agree that parks are “important in providing habitat for wildlife.”
- Conduct inventories of amphibians, reptiles, small mammals and selected invertebrates.
- Manage white-tailed deer and other wildlife populations to control impacts on loss of native vegetation.

Water Resources

- Regularly consult with DNR’s Division of Waters, Fish and Wildlife, and Trails and Waterways on how common goals for improving the water quality of Upper and Lower Sakatah lakes can be achieved.
 - Almost 70% of all respondents to the *2007 Minnesota State Park Visitor Survey* agree that parks are “important in protecting water quality.”
- Continue to implement Shoreland Best Management Practices (BMPs) at the park.
- Inform nearby landowners of Shoreland BMPs and encourage them to implement them.
- Work with the Cannon River Watershed Partnership (CRWP), Minnesota Pollution Control Agency (MPCA), Le Sueur and Rice counties, and other interested partners to provide volunteers for CRWP’s Citizen Monitoring Program.
- Use the state park as a gateway to the outdoors and the Department of Natural Resources by coordinating with interested groups to present programs focused on watershed management, water resources, and water quality.
- Create a native shoreland planting demonstration and associated interpretive signage in a high-visibility location.

Cultural Resource Management Recommendations

- Work with the Minnesota Historical Society to clearly determine if one of Alexander Faribault's trading posts existed within the park boundary.
- Protect all known cultural resources from vandalism and unintended impacts.
- Configure trails and other developments to avoid or limit impacts to cultural resources.
- Conduct mitigation, in those cases where impacts cannot be avoided, that preserves the artifacts and information.
- Manage native plant communities and invasive species with appropriate methods to preserve the landscape around cultural resource sites.

Interpretive Services Recommendations

- Use the state park as a gateway to the outdoors and the Department of Natural Resources by incorporating the priorities, key messages and initiatives of other DNR divisions into State Parks' guided and self-guided services, where appropriate.
 - A strong majority of respondents to the *2007 Minnesota State Park Visitor Survey* said that "explor(ing) and discover(ing) new things" was the most important experience or motivation for visiting state parks.
- Employ interpretive services staff based on statewide park system priorities and available funding.
- Develop an information/interpretive kiosk that describes and recommends park trails for hiking and observing wildlife and scenery.
- Develop self-guided interpretive services for one of the existing trails that would serve to educate visitors about the park's natural and cultural resources.
 - Over two-thirds of respondents to the *2007 Minnesota State Park Visitor Survey* support parks providing "more self-guided learning opportunities and exhibits."
- Develop a series of temporary and on-site interpretive signs that tell the resource management stories in the park such as: prescribed burns, prairie reconstruction, savanna restoration and management, wildlife species re-introductions, and invasive/alien species management.
- Develop park-specific tools that enable visitors of all ages to learn about the park's flora, fauna, and water resources including a Wildflower Kit, Discovery Kit, and several Kids Nature Explorer Kits.
- Develop a park outdoor recreation program emphasizing instruction in activities such as cross-country skiing, bicycling, hiking, and snowshoeing.
 - Over 60% of all respondents to the *2007 Minnesota State Park Visitor Survey* said that "be(ing) active" was the most important experience or motivation for visiting state parks.
- Develop a park education program, that teaches nature skills building such as: fishing, hunting, birding, tree and wildflower identification, nature photography, painting and drawing nature, poetry, story telling and writing, song writing and music.
- Develop a volunteer program that trains and engages citizens to work on select resource management activities such as invasive/alien species management, wildlife or native plant community monitoring, restoration and reconstruction.
- Develop a park education program that teaches watershed conservation and protection methods and techniques for developing clean water in Sakatah Lake and the Cannon River.

- Charge a fee for selected “value added” interpretive and recreation programs.
- Develop “first stop for park visitors” orientation, information, and interpretive exhibits of the park and area that are incorporated with the park office.

Recreational Use and Visitor Services Recommendations

Day Use

- Encourage visitors to sample the variety of experiences available within the park including nature study, fishing, wildlife viewing, trail use, paddling, and other activities.
 - 65% of all respondents to the *2007 Minnesota State Park Visitor Survey* said that “enjoy(ing) different experiences from home” was the most important experience or motivation for visiting state parks.
- Build an enclosed picnic shelter south or southeast of the picnic area, on the site of the existing bathroom building or adjacent to the large parking lot near the fishing pier, respectively.
 - The final location of the shelter will be based upon archaeological reconnaissance work by the Minnesota Historical Society.
 - Picnicking was the fourth most popular activity by all respondents to the *2007 Minnesota State Park Visitor Survey*.
- Provide an open space play area for recreational activities like playing catch, kicking a soccer ball, throwing a Frisbee, and setting up a volleyball net near the parking lot near the fishing pier.

Overnight Use

- Install children’s play equipment near the campground following Division of Parks and Recreation guidelines.
- Enhance some of the existing campsites through the addition of electrical service or higher electrical service, re-grade some sites to provide more comfortable tent pads and level parking spots, and redevelop some sites to allow for vehicle pull-through.
- Maintain or increase spacing between campsites, keeping electric and non-electric sites generally separate from one another.
- Add camper cabins where resources, existing day-use areas, and the viewshed will not be negatively impacted.
 - Over 80% of campers responding to the *2007 Minnesota State Park Visitor Survey* support parks providing “additional rustic camper cabins.”
- Take actions necessary to ensure that the existing cabin and any cabins developed in the future are operated on a year-round basis.
- Develop walk-in, cart-in and/or backpack sites in areas that are appropriate for their installation.
 - Almost 90% of campers responding to the *2007 Minnesota State Park Visitor Survey* support parks providing “more walk-in/cart-in campsites.”
- Install benches outside the sanitation building for people waiting for use of the shower.
- Upgrade access to drinking water and add accessible tables, fire rings, and walkways to meet ADA standards, where needed.

Trails

- Develop signage that provides information on the length of the trails and their difficulty.

- Develop sustainable hiking and cross-country ski trails in prairie and savanna portions of the park, which do not negatively impact native communities or their restoration.
 - In areas where active prairie or savanna management is taking place, mowed trails could be used as a firebreak during controlled burns.
 - Over three-quarters of respondents to the *2007 Minnesota State Park Visitor Survey* support parks providing “more hiking opportunities.”
- Following the expiration of leases, develop sustainable trails in portions of the park that were held as life estates.
- Develop a spur trail from the Lower Group Camp to the Sakatah Singing Hills State Trail and/or Timber Doodle Trail for improved trail connectivity.
- Consider the development of new uses for trails on a case-by-case basis, weighing new user groups with sustainability of resources and potential for user conflicts.
- Develop a trailhead for the Sakatah Singing Hills State Trail within the park that provides maps and trail information, and offers sufficient parking.
 - The *Sakatah Singing Hills State Trail Master Plan* states “(p)ublic awareness of the trail should be promoted.”
- Working with the Division of Trails and Waterways, develop an informational kiosk adjacent to the Sakatah Singing Hills Trail that would help orient trail users to the park and the opportunities available there.
 - The *Sakatah Singing Hills State Trail Master Plan* states the “(u)se of other public and private recreation facilities that relate to the trail should be encouraged” and that “the user’s appreciation and knowledge of the trail and its resources should be enriched.”
- Participate in planning for regional trail systems that may connect to the Sakatah Singing Hills State Trail.

Contact Station/Park Office

- Renovate contact station space to provide public restroom facilities and additional space for park staff to better accomplish daily business activities.
- Design renovated facility to blend with the landscape.

Park Boundary Recommendations

The Division of Parks and Recreation developed a set of criteria to guide consideration of boundary changes. The criteria include: acquiring additional lakeshore, protecting the lakes and their associated habitat and hydrology; buffering the park from impacts of future development; provide additional protection of significant native plant communities; protect viewsheds that enhance the park experience and make connections to significant plant communities that extend beyond current boundary to protect habitat and wildlife corridors.

- Add lands to the park statutory boundary as described in the Park Boundary chapter (pg. 69)
- Continue to pursue acquisition of private lands within the current park statutory boundary that support the Division of Parks and Recreation’s mission to protect and perpetuate the diverse natural, scenic, and cultural resources for low impact use, education and enjoyment of park visitors.
 - Almost 90% of respondents to the *2007 Minnesota State Park Visitor Survey* agreed that parks are “important in protecting the landscape from development.”

- Consider acquisition of parcels outside of the park statutory boundary that meet boundary change criteria and are supported by the property owner.
- 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.
- 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.
- Work with special interest groups and local and county units of government to develop education and stewardship opportunities to be implemented by surrounding land owners on their property to buffer, protect and enhance significant natural resources (e.g. Shoreland BMPs) and important viewsheds.
- Provide local units of government the opportunity to review boundary modification proposals.

Recommendations for Park Operations

- Review visitor use and staffing needs on a regular basis, using the Division of Park and Recreation's Operating Standards, to ensure consistency throughout the park system.
- Utilize volunteers and work programs to supplement and support park staff, where appropriate.



The south shore of Upper Sakatah Lake.
Photo Courtesy of MN DNR.