



*ThreeRivers*

PARK DISTRICT



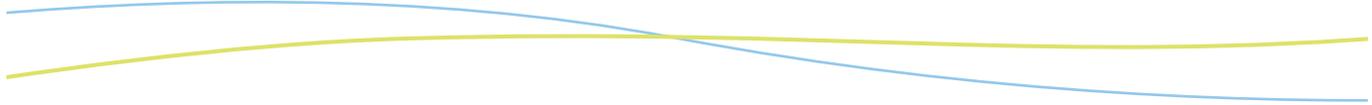
Murphy-Hanrehan Park Reserve  
master plan

*June 19, 2008*

# the **mission** of Three Rivers Park District is to promote environmental stewardship through recreation and education in a natural resources-based park system.

Three Rivers Park District was established in 1957 after legislation was enacted in 1955 allowing for the activation of park districts whose primary duties are “acquisition, development and maintenance of large parks, wildlife sanctuaries, forest and other reservations, and means for public access to historic sites and to lakes, rivers and streams and to other natural phenomena” (Minnesota State Statutes, Chapter 398.07).

Three Rivers Park District serves more than 5.4 million visitors each year with over 26,500 acres of park reserves, regional parks and special-use areas in Hennepin and six adjoining counties. Current outdoor-recreation activities in regional parks include camping, hiking, cross-country and downhill skiing, tubing, bicycling, horseback riding, nature interpretation, golfing, fishing and swimming. Three Rivers Park District also operates a natural resources management program, which administers the restoration and perpetuation of both native wildlife and plants in order to provide a quality recreational experience for park visitors.



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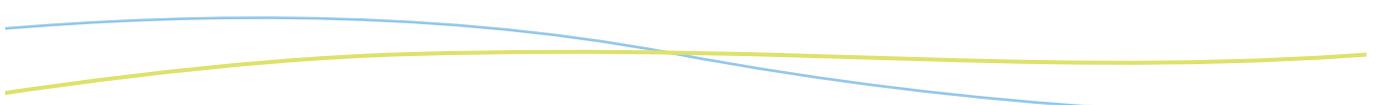
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# Executive Summary

## Visions for Murphy-Hanrehan Park Reserve

Murphy-Hanrehan Park Reserve is a truly unique park. It protects one of the last large mature mesic oak forests in the metropolitan area and the second-largest prairie in Three Rivers Park District while offering a diversity of recreational opportunities through its semiprimitive wilderness setting.

Recreation opportunities and natural resources protection will work in harmony at Murphy-Hanrehan Park Reserve. A vision statement for each of these components is the backbone of the Murphy-Hanrehan Master Plan.

### **Natural Resources Vision:**

*Protect, preserve, and restore native oak forest, prairie and wetland communities to perpetuate the unique ecosystem of Murphy-Hanrehan Park Reserve for future generations.*

### **Recreation Vision:**

*As one of the last remaining semiprimitive park reserves, Murphy-Hanrehan Park Reserve provides critical diversity to the recreation opportunities offered across the Metropolitan Regional Parks System. The park reserve will perpetuate and expand recreation and education opportunities appropriate to its semiprimitive nature.*

## Natural resources management

At over 1,200 acres, the remnant mesic oak forest of Murphy-Hanrehan Park Reserve is a unique natural resource of the Twin Cities metropolitan area. The prairie/wetland complex in the southwest is also a special feature. It provides habitat for the state threatened Blanding's turtle and many other prairie and wetland species.

This unique combination of prairie and mesic oak forest hosts four songbird species of special concern, includes one of the first Audubon Minnesota Important Bird Areas, and serves as an "urban island" in respect to wildlife and vegetation.

However, without active management intervention, the oak forest, the prairie, and the uniqueness of Murphy-Hanrehan Park Reserve will gradually disappear. Natural succession will transform the oak forest composition into a shade-tolerant mix of tree species and the prevalence of numerous invasive species will result in a forest community dominated by buckthorn and honeysuckle.

To fully achieve the natural resources vision for Murphy-Hanrehan Park Reserve, additional vegetation management efforts must occur. These efforts include invasive species and pest control, soil restoration, planting/reseeding, and protection of seedlings from animal damage. On-going forest management activities are critical to the long-term health of the forest and will require an increase of \$115,000 in the annual operating budget for the staff necessary to perform these stewardship duties. In addition, the Master Plan identifies six specific natural resource management actions:

- Regeneration of existing high-quality Oak forests (1,182 acres)
- Enhancement of woods (1,725 acres)
- Oak wilt management
- Improvements to existing low-quality forests (164 acres)
- Reforestation of old fields to native woodlands (310 acres)
- Prairie/wetland complex improvements

## Natural resources development summary

There are five natural resource projects that are included as master plan development projects. These projects are beyond the scope of existing staffing levels, and cost efficiencies can be realized through the use of specialized contracting services.

- Erect and maintain deer exclosure fences to protect portions of the planned 474 acres of planting sites over 15 years.
- Prairie/wetland complex enhancement for wildlife habitat.
- Support for forest research on the long-term health of forests, wetlands and prairie within the park reserve.
- Improvements to 164 acres of existing low-quality forests over an eight-year period.
- Disturbed site restoration work.

The total estimated cost of natural resource development projects is \$798,000 in 2007 dollars.

## The recreation role of Murphy-Hanrehan Park Reserve

Murphy-Hanrehan Park Reserve has historically been managed as a semiprimitive recreation opportunity area in accordance with previous park reserve master plans. The updated Master Plan continues that theme, limiting planned development to facilities that are appropriate to the natural environment and the semiprimitive nature of the park reserve.

Murphy-Hanrehan will provide critical recreation opportunity diversity to over 2.7 million residents in the Twin Cities metropolitan area. Visitors to Three Rivers Park District and to the Metropolitan Regional Parks System are not static in their recreation activities. Research has shown that over time, visitors tend to become more specialized in their activities. To accommodate this specialization, it is necessary to provide a diversity of outdoor recreation opportunity settings, ranging from very urban settings, such as the Minneapolis Chain of Lakes Regional Park, to the wilderness-like settings found in Murphy-Hanrehan Park Reserve.

For example, campers may be introduced to family camping at Baker Park Reserve campground. Over time, some of these campers will further develop their camping skills and may seek more advanced camping opportunities in more remote areas without the full support services found at the Baker Park Reserve campground. Murphy-Hanrehan Park Reserve can help meet that need by providing backpacking and canoe campsites.

Specialization is also found among trail users. Visitors may start out by walking or biking around Lake Harriet. Some trail users will eventually seek more challenging biking or hiking trails, or may seek more natural surroundings or solitude. Paved trails in Elm Creek, Carver, or Lake Rebecca Park Reserves will help meet these changing needs. However, specialization among these visitors is ongoing and some of them may seek very challenging or remote trails such as those found in Murphy-Hanrehan Park Reserve.

Three Rivers Park District facilities offer opportunities across the recreation opportunity spectrum, serving both new visitors and repeat visitors who are moving through their own specialization process. Murphy-Hanrehan Park Reserve serves a critical role as a semiprimitive recreation opportunity setting providing diversity that meets the needs of Three Rivers Park District visitors.

### **“Less is More”**

Coined by Robert Browning in his 1855 poem, “Del Sarto.” Usurped by Ludwig Mies van der Rohe to begin an architectural movement toward the beauty of simplicity. Reflected in the economic theory of marginal utility. Used in countless advertisements ad nauseam. But within a system of parks, less can be more. Less development. Fewer crowds. Less environmental alteration. More diversity. More opportunities. More large tracts of pristine resources.

As the population in the local area grows, there will be continued pressure to develop Murphy-Hanrehan Park Reserve. Preservation of its semiprimitive character and unique natural resources will increase the experiential and ecological value of the park reserve significantly over time. This Master Plan, as well as past master plans, has shown the resolve needed to deliberately preserve and protect the character of the park reserve. Continued commitment to this resolve may be difficult in the future, but without it, diversity is lost, opportunities are diminished, and the overall park system suffers at the expense of future generations.

## **Recreational development summary**

The park reserve currently offers several types of trails including cross-country skiing, hiking, single-track mountain biking, horse trails, and dog-walking trails. There is a boat launch on Murphy Lake, horse trailer parking lot, group camp, and cross-country ski trailhead in the park reserve. In addition, the park reserve is an Important Bird Area that attracts visitors from throughout the entire region.

To meet the recreation vision for Murphy-Hanrehan, the Master Plan purposefully limits new development to facilities that are appropriate to the natural environment and the semiprimitive nature of the park reserve. Specifically, the Master Plan calls for:

- Development of four backpacking campsites and two canoe campsites;
- Improved fishing opportunities (new fishing pier on Murphy Lake and a new ADA-accessible fishing pier with access route and aeration system on Minnregs Lake);
- Expanded trailhead building and related improvements (50 space parking lot, indoor restrooms and education staging classroom) to the current main trailhead facility;
- Addition of a new small trailhead for parking and picnic use adjacent to Minnregs Lake; and
- Addition of a new trailhead for equestrian parking in the southwestern corner of the park reserve.

The total estimated cost of new recreation development projects is \$4,065,000 in 2007 dollars.

## Current and projected visitation

The Metropolitan Council estimates there were approximately 24,400 visits to Murphy-Hanrehan Park Reserve in 2005. When developed, the park reserve visitation is expected to increase to 72,000 annual visits.

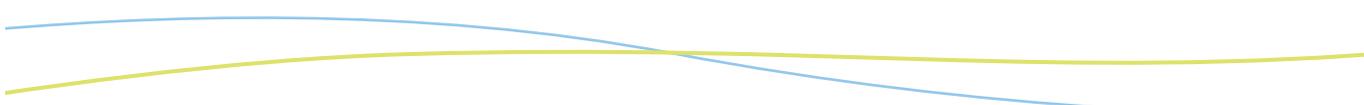
## Acquisition status

The Master Plan recognizes four inholding parcels as critical to the realization of the natural resources, recreational, and educational goals of Murphy-Hanrehan Park Reserve. These parcels total 28.7 acres in size, with an estimated combined 2006 tax-assessed value of \$1,209,000.

Two additional parcels (2.5 acres and 100.0 acres) are recognized as having significant benefit to the park reserve. The recommended strategy for the 2.5-acre parcel is direct acquisition. The parcel has an estimated 2006 tax-assessed value of \$25,000. The recommended strategy for the 100.0-acre parcel is to acquire as much of the parcel as possible. Three Rivers Park District will work with Scott County and Credit River Township to examine creative methods such as transfer-of-development rights that could lower the acquisition cost while maintaining acquisition through a willing seller. The cost of acquiring the 100.0-acre parcel is dependent on the total acreage acquired and the degree of success in working out acceptable arrangements between the involved parties.

The Master Plan recommends excluding five other inholding parcels from the Murphy-Hanrehan Park Reserve boundary (28.5 acres total with an estimated 2006 tax-assessed value of \$1,375,300).

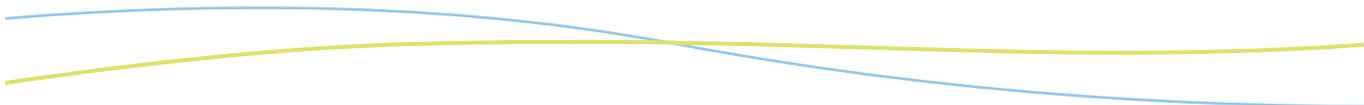
Completion of this acquisition plan will bring the total land, water, and wetland acreage of Murphy-Hanrehan Park Reserve to 2,614 acres.



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# SECTION I: Planning Framework

## Overview

Murphy-Hanrehan Park Reserve is a significant component of the Metropolitan Regional Parks System that covers the seven counties of the Minneapolis-St. Paul metropolitan area. Three Rivers Park District owns and operates Murphy-Hanrehan Park Reserve.

A master plan for each park unit of Three Rivers Park District is maintained to provide guidance and direction on acquisition, development, and management of the park unit. The original Murphy-Hanrehan Park Reserve Master Plan was approved in 1978. Many of that plan's goals, including non-vehicular camping, a diverse trail system, prairie restoration, oak forest preservation, and wildlife habitat enhancement, are still evident in the 2007 Master Plan. The 2007 Master Plan replaces all previous master plans and addendums for Murphy-Hanrehan Park Reserve.

The update of the Murphy-Hanrehan Park Reserve Master Plan is necessary to reflect updated natural resources information and management techniques, and the public's desire for a diversity of recreational opportunities within the metropolitan area. The geographic area served by Murphy-Hanrehan Park Reserve has experienced, and will continue to experience, significant development and population growth. At the same time, the importance of maintaining the park reserve in a semiprimitive state for current and future generations is also growing. The update of the park Master Plan balances the pressures of growth in the region with the responsibility of natural resources stewardship and the goal of providing a more diverse recreation opportunity spectrum in the Metropolitan Regional Parks System.

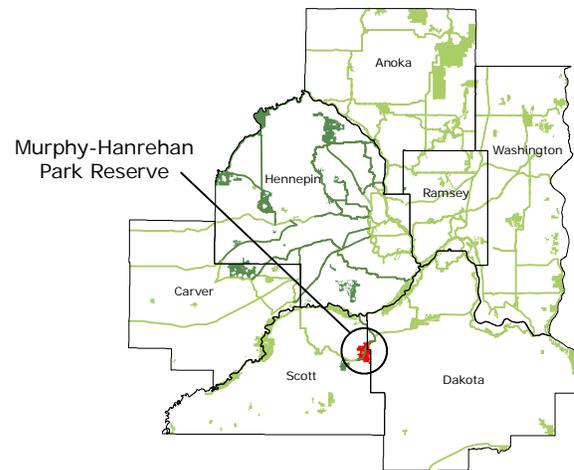
This section of the Master Plan provides background on the Metropolitan Regional Parks System and Three Rivers Park District, the guiding principles used by Three Rivers Park District in planning and managing parks, and the approach used to update the Master Plan.

## Metropolitan regional parks system

The Twin Cities' nationally renowned Metropolitan Regional Parks System significantly contributes to the area's high quality of life. Preserving green space for recreation and resource protection enhances the region's livability and its economic strength.

The Metropolitan Regional Parks System includes 35 regional parks, 11 park reserves, 22 trails, and six special recreation areas and is still growing. Currently, there are 52,000 acres of protected lands, with planned acquisition of an additional 18,000 acres over the next 25 years. The Metropolitan Regional Parks System is made up of 10 park implementing agencies, consisting of six county park departments, three city park departments, and Three Rivers Park District.

The dark green areas denote parks and trails of the Regional Parks System owned and operated by Three Rivers Park District. Murphy-Hanrehan Park Reserve is shown in red.



The Metropolitan Council (Council) is a regional planning agency that oversees and provides partial funding of the regional parks system. The Council works with the implementing agencies to assist in the acquisition and development of regional parks and trails to provide outdoor recreation for public enjoyment and natural resources protection. The Council and implementing agencies also develop regional park policies to protect the region's water quality, promote best management practices, and help integrate the parks system with housing, transportation, and other regional priorities.

The Council also provides guidance in the development of master plans for units of the regional parks system. The Murphy-Hanrehan Park Reserve Master Plan reflects that guidance. Each regional park must have a master plan approved by the Council prior to receiving any acquisition, development, or operational funding from the Council.

The master plan must address a series of topics, including boundaries and acquisition, recreation demand forecasts, natural resources management, development concept, implementation schedule, and development and operational cost estimates. Public input is encouraged throughout the master planning process. The Council's planning requirements help ensure consistency between the implementing agencies and the Council's own regional plans.

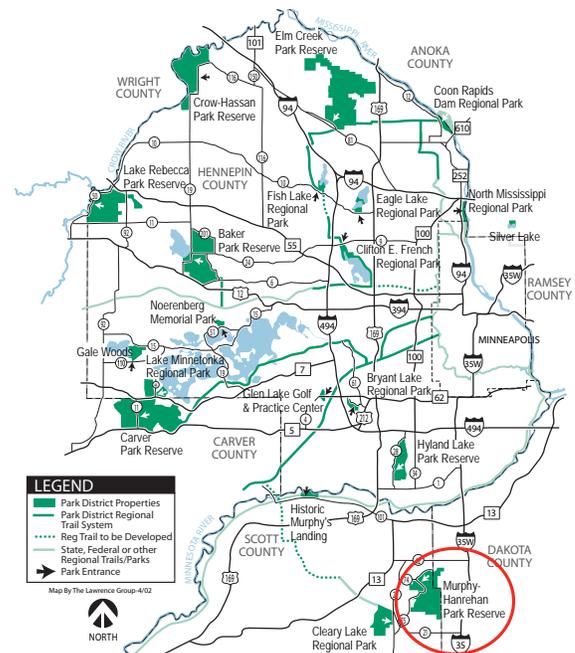
## Three Rivers Park District

Three Rivers Park District is an independent, special park district charged with the responsibilities of acquisition, development, and maintenance of regional park reserves, regional parks, regional special recreation features, and regional trails for the benefit and use of the citizens of suburban Hennepin County, the seven-county Twin Cities metropolitan area, and the State of Minnesota. Three Rivers Park District works cooperatively with the Metropolitan Parks and Open Space Commission, Council, and State Legislature as one of 10 implementing agencies of the Metropolitan Regional Parks System.

the **mission** of Three Rivers Park District is to promote environmental stewardship through recreation and education in a natural resources-based park system.

Three Rivers Park District was established in 1957 by the Minnesota State Legislature when prominent members of the community promoted the benefits of parks in the outlying areas of Hennepin County. Three Rivers Park District's first park, Baker Park Reserve, was created when Morris T. Baker donated 210 acres of land, including a large section of shoreline on Lake Independence.

Three Rivers Park District owns and operates 26,500 acres of regional park reserves, regional parks, and regional special recreation features, and over 200 miles of paved and unpaved trails within the parks and regional trail corridors. Murphy-Hanrehan Park Reserve is Three Rivers Park District's only park reserve in Scott County.



Today, Three Rivers Park District owns and manages approximately 26,500 acres of regional park reserves, regional parks, regional special recreation features, and over 200 miles of paved and unpaved trails through the parks and along regional trail corridors.

## District-wide planning guidelines

Three Rivers Park District manages its lands under four categories of regional open space: regional park reserves, regional parks, regional trail corridors, and regional special recreation features.

### Regional park reserves

Regional park reserves provide and protect representative areas of major landscape types found in the metropolitan area for the purposes of conservation, outdoor recreation, and to perpetuate appreciation and enjoyment by the public. The minimum size is 1,000 acres, with a desirable size of 2,000 acres or more. As a legacy to future generations and to establish and maintain an uncompromising sense of nature, 80 percent of each regional park reserve's land base shall be restored to and retained in a natural state as a viable entity, permitting up to 20 percent to be developed for compatible active-recreation use. Three Rivers Park District owns and operates nearly 22,800 acres within seven regional park reserves.

## **Regional parks**

Regional parks provide a diversity of resources, contiguous to or including water resources, which can accommodate a wide variety of compatible outdoor recreation uses. The minimum site size is 100 acres, with a preferable site size of 200 or more acres. Three Rivers Park District develops active-recreation areas in regional parks in a manner that maintains sufficient natural areas to ensure quality outdoor-recreation experiences in a natural resources setting. Three Rivers Park District owns and operates over 3,000 acres within 10 regional parks.

## **Regional trail corridors**

Regional trail corridors provide for recreational trail activities on linear resources. They perform a recreational-transportation function, provide access to regional parks and park reserves, and may be located along either natural or built features. To be recognized by the Council or Three Rivers Park District, regional trails must serve a linking or destination function. In addition to their recreational function, linking trails provide the backbone of the regional trail network by connecting regional parks to one another. Destination regional trails are routed and developed to provide a high-quality recreation experience that traverses significant natural resource areas. However, destination trails also may be a component of the linking network.

For either trail type, adjacent land with significant natural resources can be acquired as part of the trail corridor. Three Rivers Park District currently operates 70 miles of regional trails with a planned system total of 150 miles.

## **Regional special recreation features**

Regional special recreation features support participation in needed regional recreational opportunities that have a limited and specific purpose and are not found in regional park reserves and regional parks, or along regional trail corridors. The factors of public demand, public support, financial feasibility, county-wide or regional significance, and the inherent recreational or cultural benefits of the feature are considered before designation. Three Rivers Park District owns and operates three regional special recreation features.

## Land-use zone system

Three Rivers Park District plans and manages its lands using a system of three land-use zones: lakes and wetlands, recreational development areas, and natural areas. Each land-use zone has specific development guidelines and is defined as one of the following:

### Lakes and wetlands

The preservation and protection of the ecological characteristic of lakes is the primary water-quality management objective of Three Rivers Park District. Three Rivers Park District water-resources management policies prohibit the degradation of lake-water quality within Three Rivers Park District through the development and operation of its parkland. Three Rivers Park District opposes the degradation of water quality in all lakes below 1989 levels, the year during which Three Rivers Park District's water resources management program was initiated and accurate data collection began. Additionally, Three Rivers Park District will improve degraded lakes to the criteria level established in its Water Resources Management Plan.

Three Rivers Park District fully cooperates with local units of government and watershed management organizations (WMO), and is actively involved in the management of lakes and watersheds adjacent to parkland. Three Rivers Park District reviews and comments on municipal comprehensive plans, WMO plans, and development plats to minimize negative impacts on water quality. Three Rivers Park District also assists local units of government to complete Total Maximum Daily Load (TMDL) analyses for lakes and streams included on the Minnesota Pollution Control Agency list of "impaired" water bodies.

In order to optimize the management of Three Rivers Park District's water resources, the lakes and wetlands in the system are classified by intended use in Three Rivers Park District's Water Resources Management Plan. Each classification is accompanied by appropriate water-quality criteria and standards. Three Rivers Park District water bodies are classified as follows:

- Direct-Contact Recreational Water bodies
- Indirect-Contact Recreational Water bodies
- Wildlife Water bodies
- Aesthetic Water bodies
- Treatment Basins

Protection of wetland functions and values is another key objective of Three Rivers Park District. For master planning purposes and calculation of the 80/20 policy, Three Rivers Park District maps wetlands according to size and type defined by the National Wetland Inventory. To be recognized within a park master plan, wetlands must be at least 2.5 acres in size and classified as a Type 3 through Type 7 wetland (Appendix A). The minimum-size criterion meets the definitional size of a protected water body by the Minnesota Department of Natural Resources (Minnesota DNR). However, during the development process, all wetlands contiguous to proposed projects are identified and delineated. Protection of the identified wetland areas is ensured by rigorous enforcement of the Minnesota Wetland Conservation Act provisions. In addition, buffer zones are established around affected wetlands to provide an additional level of protection.

Controlling access to water resources is another important management tool employed by Three Rivers Park District to ensure enjoyable recreational use by park guests and protection of water resources. The degree and type of lake access permitted is determined by size, location, water quality, recreational potential, and associated natural resources of each lake. When appropriate, Three Rivers Park District develops and maintains swimming beaches, boat launches, shore-fishing areas, and/or fishing piers. For some lakes, visual access from adjacent trails or overlooks may be the most appropriate type of access. Many of the smaller or more sensitive lakes within park boundaries have no recreational access.

### **Recreational development areas**

Recreational development areas have high recreational potential and represent those areas where the most extensive and intensive recreational development and active use will occur. Natural resources within these areas are managed to provide a setting that is safe and attractive, and can withstand intensive recreational use.

Within regional park reserves, up to 20 percent of the upland base (excluding lakes and most wetlands) can be identified as recreational development areas. Recreational development areas include, but are not limited to, facilities such as picnic grounds, swimming beaches or swim ponds, creative play areas, and trails. The Council recognizes the linear footprint of trails within regional park reserves as part of the 20 percent developable land base. Support facilities such as maintenance shops, roads, and parking areas also are considered part of the recreational development area.

Regional parks, trails, and special recreation features have no restrictions on the percentage of land base that is allowed for recreational development. However, Three Rivers Park District recognizes the importance of maintaining high-quality natural resources and minimizes recreational development in those areas whenever possible.

### **Natural areas**

All areas within regional park reserves not zoned as lakes, wetlands, or recreational development areas are zoned as natural areas. By Three Rivers Park District policy, at least 80 percent of the upland acreage of a park reserve must be zoned as natural area. The 80 percent in any given park reserve is the sum total of upland acres not developed for public use, encompassing those natural resources being managed, restored, and preserved to establish diversity of native plant communities and viable, diverse, native-wildlife populations. Natural processes and desirable ecological change should be allowed to take place, except where management techniques must be used to mitigate human influence or to maintain desired successional stages. Natural areas are identified first in the master planning process and are not merely what remains after the 20 percent for recreational development areas have been delineated for the park reserve. Careful planning in the early stages is designed to ensure a quality 80 percent as well as a quality 20 percent. Lakes and wetlands, although not included in the calculation of the 80 percent, are important natural resources that are protected through other governmental laws and Three Rivers Park District regulations.

Dispersed recreational facilities such as turf or paved trails may pass through the natural areas as long as they don't compromise significant natural resources.

Significant natural resources occur within the natural areas of park reserves and are managed as three sub-zones:

### **Key environmental components**

Key environmental components are specific natural features of the metropolitan area and are primary factors in the identification and designation of regional park reserves. Natural features include prime examples of historic regional landscapes, aquatic systems, plant communities, other unique features, or combinations of these features. Designated areas include existing natural resources, and may include areas undergoing restoration of a significant natural feature. The designation of key environmental components is intended to protect significant natural resources from degradation.

Recreational development is not allowed to compromise the integrity of the key environmental components, but management may be necessary to restore or preserve the components. Recreational development opportunities are possible as long as the recreational activity and physical development are compatible with the preservation of the natural resources within the key environmental components.

Key environmental component designations may overlap sanctuaries and wildlife preservation designations because of their similar intentions to protect natural resources and restrict incompatible development.

### **Wildlife preservation areas**

Wildlife preservation areas are sensitive ecological areas that are closed to the public during certain times of the year (primarily spring and summer) to ensure that habitats for sensitive wildlife species are protected from disturbance during critical times in their life cycles (mating, nesting, rearing of young). While trails may be allowed in wildlife preservation areas, they may be closed seasonally. Year-round recreational activities and facilities are not allowed in areas under this classification.

### **Sanctuaries**

Sanctuaries are areas designed to protect significant plant communities and associated wildlife from the impacts of human activity. Development is not permitted, and natural resources management is specialized to address specific plant community and/or wildlife needs. Visitation by people is permitted only on a very limited basis for scientific investigation, educational instruction, or management requirements.

## Updating the Murphy-Hanrehan Park Reserve Master Plan

The most recent Master Plan for Murphy-Hanrehan Park Reserve was approved by Three Rivers Park District Board of Commissioners as part of the Master Plan for a System of Parks in 1998. That Master Plan documented existing development within the park reserve, and identified the area surrounding Murphy Lake as the future primary recreation area including facilities for camping, picnicking, and outdoor education.

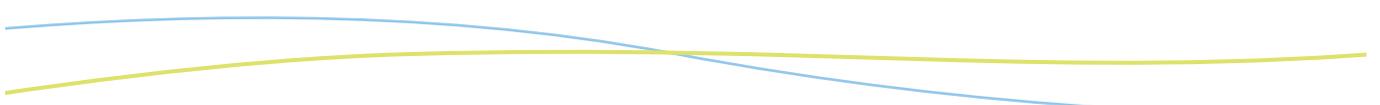
The 2007 update of the Master Plan reiterates the wilderness role of Murphy-Hanrehan Park Reserve in the regional parks system, provides long-term guidance for natural resources management, and recommends recreational development appropriate to the semiprimitive setting of the park reserve.

### **Other considerations affecting the Master Plan update**

The geographic area served by Murphy-Hanrehan Park Reserve has experienced, and will continue to experience, significant development and population growth. At the same time, recreational preferences and trends have changed since 1998. The update of the Master Plan provides an opportunity to assess those trends and to position the park to better serve the current and future needs of the region.

Various levels of government also are involved in the master planning process. The public agencies involved with the master planning process for Murphy-Hanrehan Park Reserve include Three Rivers Park District; the cities of Savage, Burnsville, and Lakeville; the Township of Credit River; Scott and Dakota Counties; and the Council.

The planning time frame for the Master Plan is through the year 2030. Planning within this time frame is possible due to data and growth projections stemming from the Council's 2030 Regional Development Framework Plan. However, growth projections and demographic trends are strongly tied to the U.S. Census and local city comprehensive plans, both of which are updated every 10 years. To maintain accuracy and relevancy, Three Rivers Park District master plans are updated every 10 years.



# SECTION II: Park Background and Acquisition Plan

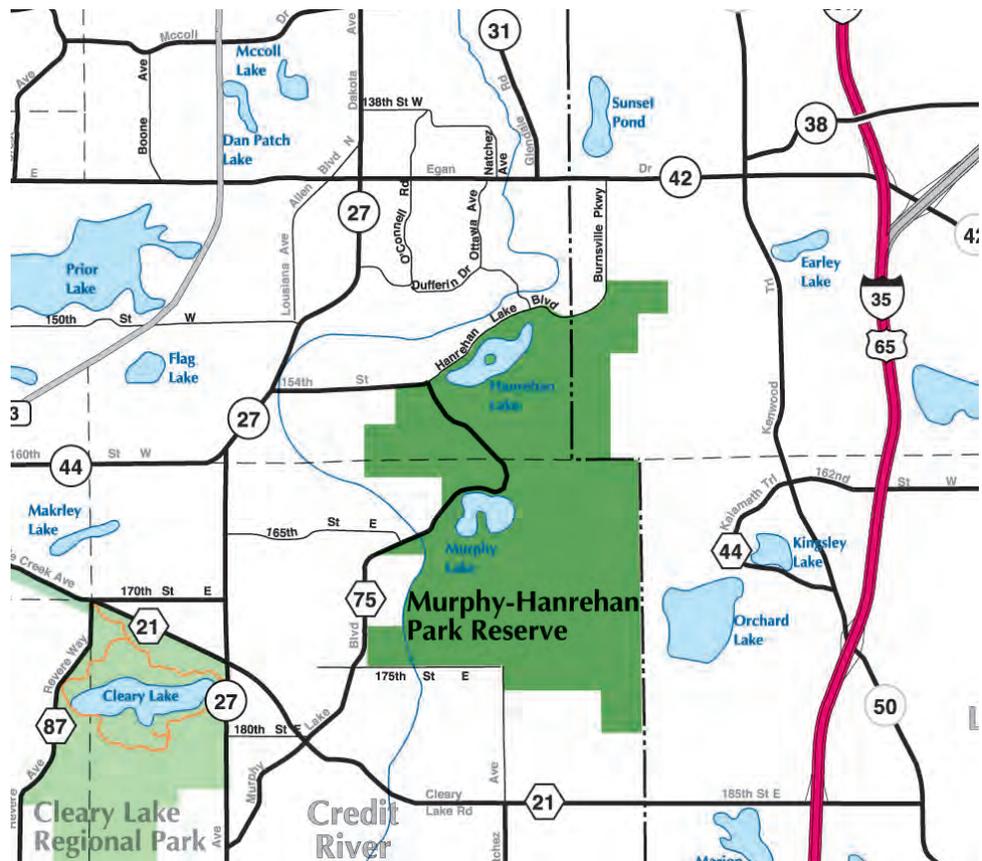
## Location

Murphy-Hanrehan Park Reserve is located in northeastern Scott County within the City of Savage and Township of Credit River, and in the western edge of Dakota County within the cities of Burnsville and Lakeville. The park reserve is planned to include 2,614 acres.

The park reserve is located approximately one mile east of Cleary Lake Regional Park, also owned and operated by Three Rivers Park District. Other regional parks in the area include Lebanon Hills in Dakota County, and Doyle-Kennefick and Spring Lake Regional Parks in Scott County. Several new regional parks and regional trails are planned for this area as well. The impacts of the existing and planned regional parks system units on the role of Murphy-Hanrehan Park Reserve are discussed in the next section.

## Getting to the Park Reserve

There are two primary routes leading to Murphy-Hanrehan Park reserve: with County Road 27 to 154th Street from the North, and County Road 21 (CR 21) to Country Road 75 (CR 75) from the south. The primary trailhead is located just off of the intersection of 154th Street and CR 75 in the northwestern area of the Park Reserve. The boat ramp at Murphy Lake is also accessed off of CR 75. Sunset Boulevard is a gravel road that starts at its intersection with CR 75 and travels east through the middle of the Park Reserve, providing access to the existing equestrian parking lot and group camp. The proposed equestrian trailhead will be located near the intersection of CR 75 and 175th Street East in the southwestern area of the Park Reserve. The proposed trailhead at Minnregs Lake will be located off of Judicial Road, which is accessed from CR 21. All of the roads providing access to Murphy-Hanrehan Park Reserve can accommodate the expected park-based vehicular traffic.



The park reserve is located in the northeastern corner of Scott County. The park reserve is 2,614 acres.

### Park description

The park reserve lies within steep moraines formed by the Grantsburg sublobe of the Des Moines lobe and the earlier Superior lobe, both of the Wisconsin glacial period in Minnesota. In the western part of the park reserve, glacial till from the Des Moines lobe lies over till from the Superior lobe in the western portion of the park; in the eastern part of the park the glacial tills are mixed together.

The conical hills, some of which exceed 100 feet in height in the northeastern section of the park reserve, are evidence of the glacial history of the site. The steep and varying topography not only provides a significant natural resource but unique recreational features as well. Ice-block lakes are common in this type of geologic landscape and many are tucked between the park reserve’s conical hills. The remainder of the park’s landform is much less extreme and generally characterized as rolling topography.

Under Minnesota’s Ecological Classification System, Murphy-Hanrehan Park Reserve is located at the intersection of the far southwestern corner of the St. Paul Baldwin Plains and Moraines subsection and the east-central edge of the Big Woods subsection of the Minnesota and Northeast Iowa Morainal Section in the Eastern Broadleaf Forest Province of Minnesota.

The “Original Vegetation of Minnesota” map, published by the North Central Forest Experiment Station, documented two vegetation types: deciduous forest and prairie merging within the area of the park reserve. The following three vegetation components of the deciduous forest and prairie were likely in existence within the park reserve boundaries prior to European settlement.

### Big woods

The big woods are classified as a dense canopy of large trees, primarily elm, basswood, maple, and oaks. Historically, the western and central portions of the park were classified as big woods; however, the species mix probably had a higher density of oak species than other more typical big wood plant communities.

### Oak openings and barrens

Oak openings and barrens were located at the transition between the big woods and prairie. Large areas of this vegetation component were present in the northern, eastern, and southern portions of the park reserve and were classified as a dense thicket of fire-stunted oak and brush.

### Prairie

Although the presettlement landscape in the vicinity of Murphy-Hanrehan Park Reserve was dominated by woody species, areas of both wet prairie and brush prairie were present in the central and southern portions of the park. It was classified as open, treeless grassland where fires were frequent.



Prairie restoration efforts to mimic presettlement landscape conditions will total 240 acres upon completion.

At the time of the Public Land Survey in the 1850s, the upland vegetation of Murphy-Hanrehan Park Reserve was dominated by oak openings and barrens and prairie openings. White, red, and bur oak and aspen were the primary tree species represented. Areas of wet prairie and brush prairie were also present on the uplands, whereas marshes and sloughs occupied the poorly drained areas.



The oak forest is a great asset from both a recreation and natural resource point of view. Active management will help protect the integrity of the oak forest for years to come.

Today, over 1,200 acres of the park are dominated by high-quality mesic oak forest, containing the same tree species present in the 1850s. A continuous block of oak forest in the northeastern half of the park covers over 800 acres and is among the largest such stands remaining in the metropolitan area. To protect the integrity of the oak forest and the natural resources of the park reserve, Three Rivers Park District began implementing a natural resources program in 1976. This included the initiation of the shade-tree disease control plan to extinguish oak wilt, which is still under way today.



Oak wilt management began in 1976 and is an essential strategy of the Master Plan vegetation management plan.

In the 30 years since the park reserve was established, natural succession has converted many unmanaged old-field areas in the park reserve to woodland and forest areas. Unfortunately, those sites are largely dominated by box elder and elm. Other plant communities represented in the park include a large managed prairie/wetland complex in the southwestern corner and numerous smaller wetland areas.

The contrast from one area of the park to another is further realized with the different user experience and vista opportunities. The oak forest in the northeast offers a very intimate experience, whereas the southern region offers impressive vistas over the wide-open prairie/wetland complex.

The landscape, associated plant communities, and wildlife have impacted the number and type of recreational activities found within the park reserve. The recreational activities have focused on providing users with an increased level of opportunity to interact with the natural environment.

Three Rivers Park District began developing recreational facilities in 1976 by opening a snowmobile trail, and by 1979 the park reserve's challenging cross-country ski trails were opened to the public. The current recreational opportunities are generally more passive in nature and include hiking, walking, dog-walking, horseback riding, mountain biking, birding, and cross-country skiing.

Since then, most of the management activity has continued to focus on maintaining and restoring the existing landscape and associated plant communities and wildlife while providing limited levels of recreation. Murphy-Hanrehan Park Reserve is still one of the most undeveloped parks within Three Rivers Park District and the Metropolitan Regional Parks System.

## Acquisition history

In 1973, Three Rivers Park District and Scott County shared the vision to preserve the unique and naturally significant property at Murphy-Hanrehan Park Reserve from urbanizing threats. This vision was the basis for a joint-powers agreement between Scott County and Three Rivers Park District. The joint-powers agreement identified Three Rivers Park District, the owner of the property, as the lead implement agency. Three Rivers Park District took the lead role of operating the park and all associated responsibilities including land acquisition, general administration, maintenance, and all financial transactions. Scott County and Three Rivers Park District finalized termination of the joint-powers agreement in 2005. The termination agreement recognizes Three Rivers Park District as the sole owner and operator of the property.

The vision of a large park reserve and natural resource protection was also supported by the City of Burnsville, which provided a \$300,000 loan in 1974 to help begin land acquisition in the park reserve. That loan has since been paid in full by Three Rivers Park District.

The majority of what is now the park reserve was acquired by Three Rivers Park District in the 1970s.

A total of 2,482.8 acres of land have been purchased. Past master plans include 11 private inholdings totaling 159.7 acres, with an estimated 2006 tax-assessed value totaling \$2,609,300, plus a 121.0-acre parcel in the northeastern corner of the park reserve owned by the City of Burnsville.

## Acquisition plan

### **Inholding evaluation method**

This update of the Master Plan recognizes that the monetary, ecological, and recreational value of individual inholding parcels to Murphy-Hanrehan Park Reserve varies and that a variety of strategies should be enacted to meet the Master Plan goals while minimizing acquisition costs. Criteria that assess the impact on natural resources goals, recreational development goals, and the park reserve's interior integrity were applied to each of the eleven private parcels. Each inholding parcel was subsequently assigned a rating of Critical benefit, Significant benefit, or Low benefit. These ratings and their associated strategies are discussed below.

### **Critical benefit**

Critical Benefit inholdings are designated as inholdings whose exclusion from the park reserve would be in significant conflict with the Master Plan goals for natural resource protection, and/or recreational development. For these properties, direct purchase is very important. The recommended action is to act now to secure long-term rights to purchase of the property.

### **Significant benefit**

Significant Benefit inholdings hold significant benefit to the park's natural resources base, the park's recreational development plan, and/or to the integrity of the park as a whole, but whose primary benefit(s) may not require direct purchase. For example, instead of direct purchase, a trail easement may suffice to meet the requirements of the development plan, or a conservation easement may act as a buffer to adjacent natural resources management lands. The recommended action is to act now to arrange for protective covenants on these lands.

### **Low benefit**

Low Benefit inholdings are those where there appears to be little current or future value to Three Rivers Park District. Purchase or protective covenants are not needed to meet Master Plan goals or to maintain the integrity of the park. The recommended action is to redraw the Master Plan boundary of the park to exclude these inholdings.

## **Inholding evaluation summary and recommendation**

The updated Murphy-Hanrehan Master Plan adjusts the park reserve boundary to remove five parcels (Parcel ID 8, 9, 10, 11, 12) totaling 28.5 acres and valued at approximately \$1,275,300 in 2006 dollars.

The updated Master Plan identifies two parcels (Parcel ID 1, 2) as significant. Parcel 1 is a 2.5-acre site located at the corner of CR 75 and 175th Street, with a 2006 tax-assessed value of \$25,000. This parcel is a desirable location for the second horse parking lot proposed in the Master Plan. However, the parking lot could be located at a less desirable site to the east. The recommended acquisition strategy for Parcel 1 is direct acquisition, as the parcel is too small for alternative arrangements such as easements. Parcel 2 is a 100.0-acre site located on the west side of the park reserve. The park reserve borders the north, east, and south sides of the parcel. The Credit River is the eastern boundary of the parcel. The recommended goal for this parcel is to acquire as much of the parcel as possible, with a priority on the area adjacent to the Credit River. This strategy protects the river by providing a buffer to the resource. The recommended strategy to achieve this goal is to work with Scott County and Credit River Township to examine creative methods such as

transfer-of-development rights that could lower the acquisition cost while maintaining acquisition through a willing seller. The cost for acquiring Parcel 2 will be dependent on the total acreage acquired and degree of success in working out acceptable arrangements between the involved parties.

The updated Master Plan identifies four parcels (Parcel ID 3, 4, 5, and 6) as critical to the realization of the natural resources and/or recreational development goals of the park reserve, and as such, should remain within the boundaries of Murphy-Hanrehan Park Reserve. These parcels total 28.7 acres in size, with an estimated combined 2006 tax-assessed value of \$1,209,000.

Previous master plans for Murphy-Hanrehan Park Reserve included 121.0 acres owned by the City of Burnsville within the park reserve's Master Plan boundary (Parcel 7), with the idea that the parcel would be "acquired" via a no-cost lease agreement with the city. The city has developed the northern edge of the parcel as a community park, and the city's intentions for the remainder of that parcel are to maintain the property or site in a natural state with recreational development limited to nonpaved trails. The parcel represents 10 percent of the city's parkland; the city has indicated a desire to retain control over the land as well as a desire to coordinate its natural resources management in conjunction with Three Rivers Park District's management of Murphy-Hanrehan Park Reserve. Consequently, this Master Plan update removes parcel 7 from the Master Plan boundaries of Murphy-Hanrehan Park Reserve.

The 1998 Master Plan recommended the sale of a three-acre surplus parcel owned by Three Rivers Park District that is separated from the main body of the park reserve by CR 75. The parcel has a 2006 tax-assessed value of approximately \$30,000. The Credit River runs through the parcel, which is heavily wooded and in a small ravine. The benefits of continued preservation of the riparian area along the Credit River outweigh the limited monetary value of the parcel. This update of the Master Plan recommends continued stewardship of the land by Three Rivers Park District, and removes the surplus status for that parcel.

The updated Master Plan boundary includes 2,482.8 acres currently owned by Three Rivers Park District, 28.7 acres in the four Critical Benefit parcels that need to be acquired, and an additional 102.5 acres in two Significant Benefit parcels. The total estimated acquisition cost is \$1,234,000. Additional costs for the acquisition of all or part of the 100.0-acre Parcel 2 site will be dependent on the total acreage acquired and degree of success in working out acceptable arrangements between the involved parties.

Full completion of this acquisition plan will bring the total land, water, and wetland acreage of Murphy-Hanrehan Park Reserve to 2,614 acres.

### Inholding Evaluation Summary Table

Parcel & Benefit Value	Acres	2006 Tax Assessed Value
<b>Significant</b>		
1	2.5	\$25,000
2	100.0	To be negotiated
<b>Critical</b>		
3	2.6	\$203,000
4	4.6	\$227,300
5	4.7	\$273,200
6	16.8	\$505,500
<b>Not applicable</b>		
7	121.0	\$N/A
<b>Low</b>		
8	5.0	\$376,600
9	4.7	\$252,000
10	1.7	\$110,000
11	3.5	\$292,200
12	13.6	\$344,500
Critical Benefit Subtotal	28.7	\$1,209,000
Significant Benefit Subtotal	102.5	\$25,000*
Low Benefit Subtotal	28.5	\$1,375,300
Publicly owned (#7)	121.0	\$N/A
<b>TOTAL</b>	<b>280.7</b>	<b>\$2,609,300*</b>

\*Does not include Parcel ID 2 which is to be negotiated

### Park boundaries

The Murphy-Hanrehan Park Reserve falls roughly between Hanrehan Lake Road and 175th Street East (north and south) and Murphy Lake Road and the Scott County boundary (west and east).

The specific description is as follows:

**In Dakota County:**

In the City of Burnsville (Township 115, Range 21):

The West ½ of the East ½ of Section 34.

In the City of Lakeville (Township 114, Range 21):

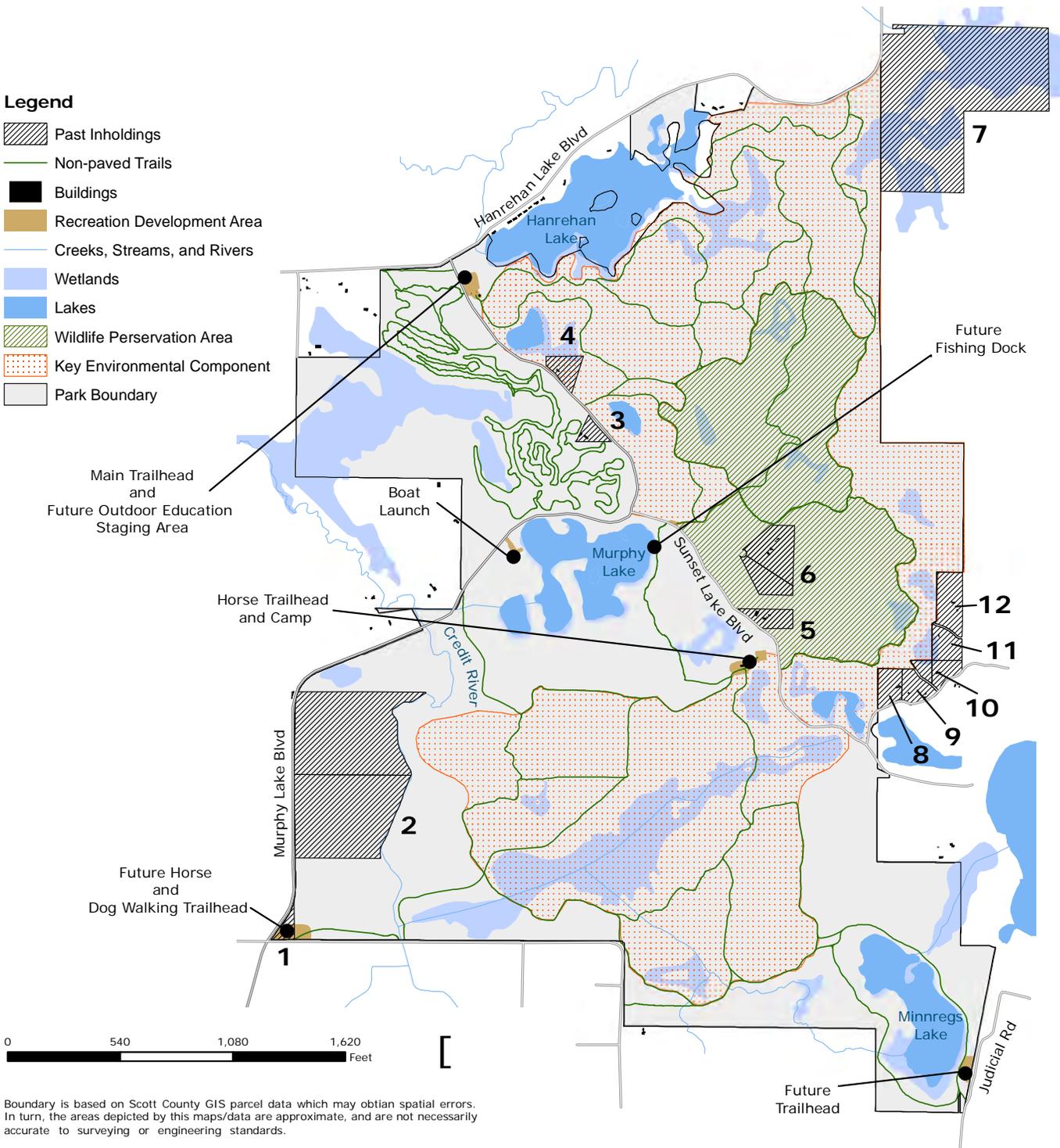
That portion of the Southwest ¼ of Section 11 lying westerly of Judicial Road and Bracketts Crossings 1st and 2nd Addition.

# Murphy-Hanrehan Park Reserve

## Inholding Map

### Legend

-  Past Inholdings
-  Non-paved Trails
-  Buildings
-  Recreation Development Area
-  Creeks, Streams, and Rivers
-  Wetlands
-  Lakes
-  Wildlife Preservation Area
-  Key Environmental Component
-  Park Boundary



Boundary is based on Scott County GIS parcel data which may obtain spatial errors. In turn, the areas depicted by this maps/data are approximate, and are not necessarily accurate to surveying or engineering standards.

In Scott County:

In Credit River Township (Township 114, Range 21):

The North  $\frac{1}{2}$ ; the Southwest  $\frac{1}{4}$ ; the West  $\frac{1}{2}$  of the Southeast  $\frac{1}{4}$ ; that portion of the Northeast  $\frac{1}{4}$  of the Southeast  $\frac{1}{4}$  lying northerly of Lower 167th Street West blocks excluding 11-15 and portions of lots 19 and 20, Lakeview Gardens Addition, all in Section 3, also:

The East  $\frac{1}{2}$ ; that portion of the Southwest  $\frac{1}{4}$  lying southerly of County Road 75 and the North 565 feet of the Northwest  $\frac{1}{4}$ , all in Section 4, also:

That portion of the Southeast  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$  of Section 8, lying easterly of County Road 75, also:

The North  $\frac{1}{2}$  of Section 9, also:

The Northwest  $\frac{1}{4}$ ; the South  $\frac{1}{2}$  of the Northeast  $\frac{1}{4}$ ; The Northwest  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$ ; the North  $\frac{1}{2}$  of the Southeast  $\frac{1}{4}$ ; the Southeast  $\frac{1}{4}$  of the Southeast  $\frac{1}{4}$  and the North  $\frac{1}{2}$  of the Southwest  $\frac{1}{4}$ , all in Section 10.

In the City of Savage (Township 115, Range 21):

That portion of the Southeast  $\frac{1}{4}$  of Section 27, lying southerly of County Road 74, excluding the Jones Addition, also:

That portion of the Southeast  $\frac{1}{4}$  of the Northwest  $\frac{1}{4}$  lying southerly of County Road 74; that portion of the South  $\frac{1}{2}$  of the Northeast  $\frac{1}{4}$  lying southerly of County Road 74 and the south shore of Hanrehan Lake; the Southeast  $\frac{1}{4}$ ; the South  $\frac{1}{2}$  of the Southwest  $\frac{1}{4}$  and the Northeast  $\frac{1}{4}$  of the Southwest  $\frac{1}{4}$ , all in Section 33, also:

The Southwest  $\frac{1}{4}$  and that portion of the Northwest  $\frac{1}{4}$  lying southerly of County Road 74, excluding the Jones Addition, all in Section 34.

## Conflicts affecting acquisition or development of the park

Hanrehan Lake Boulevard, within the City of Savage, is scheduled to be reconstructed in the next few years. That reconstruction will likely require Right-Of-Way (ROW) acquisition of a very small portion of Murphy-Hanrehan Park Reserve immediately west of Hanrehan Lake along a curve to improve road safety. In addition, the City of Savage has indicated an interest in acquiring 20 to 40 acres of Three Rivers Park District land located in the northwestern corner of Murphy-Hanrehan Park Reserve for use as a city park.

The Council and Three Rivers Park District policies have strict limitations on conversion of existing park reserve land to other uses. Conversion would require exchange of equally valuable land contiguous to the park reserve, or an equally valuable exchange of facilities in the case of ROW conversion. Regional parks system lands are protected through restrictive covenants when land is acquired using funds from the Council. These covenants ensure that the land is used only for regional parks system purposes and cannot be broken or amended unless approval is obtained from the Council.

Three Rivers Park District supports working with the appropriate stakeholders to minimize the impacts of the roads aligned through the park reserve. Murphy-Hanrehan Park Reserve is split into three separate areas by Murphy Lake Road (CR 75) and Sunset Lake Road. Both roads serve local residents. These roads are important for providing access to the existing horse-trailer parking lot and the proposed fishing pier on Murphy Lake. Both roads are currently gravel and are not designed for significant amounts of traffic. Development of a major north/south road to the west of the park reserve should be considered by the County to alleviate potential future traffic on Murphy Lake Road. Vacancy of Sunset Lake Road within park boundaries should be pursued. In the meantime, the Master Plan encourages maintaining these roads at their current level of development to minimize impacts on the park reserve.

Scott and Dakota Counties each have regional trails tentatively proposed to connect to Murphy-Hanrehan Park Reserve. Staff from each county indicated a desire to place regional trails and a trailhead within the park reserve. Paved trails within the interior of the park reserve would conflict with the semiprimitive nature of the park reserve. Three Rivers Park District will work with Scott and Dakota Counties to accommodate regional trails.

Future regional paved trails are restricted to the periphery of the park reserve in order to protect the park reserve's wilderness integrity.

As the cities adjacent to Murphy-Hanrehan Park Reserve grow, there will be an increased pressure to develop intensive-use outdoor recreational facilities such as a swim pond or creative play area within the park reserve. However, such intensive-use facilities do not reflect the semiprimitive recreation opportunity setting of the park reserve. As detailed in the next section of the Master Plan, there are several existing and planned parks in the immediate area that are better suited to serve the growing area's need for more intensive-use recreational facilities.



# SECTION III: Public Process and Demand

## Trends affecting Murphy-Hanrehan Park Reserve

### Local area growth

Murphy-Hanrehan Park Reserve is located within the City of Savage and Credit River Township within Scott County and the cities of Burnsville and Lakeville within Dakota County. The Council estimates that there were over 51,000 households within these four communities in 2005, and that an additional 29,000 households will be added by the year 2030. The City of Lakeville will be host to the majority of that growth, and the City of Savage will be host to approximately one-quarter of that growth.

The population of the cities adjacent to the park reserve are expected to increase by 42% by 2030; where as, the annual visitation is expected to triple upon completion of the Master Plan.

City/Township	Population			Households		
	2005	2030	% increase	2005	2030	% increase
Burnsville	61,262	65,000	6%	24,380	28,700	18%
Lakeville	51,722	88,800	72%	16,853	33,500	99%
Credit River Twp.	4,617	5,200	13%	1,506	1,940	29%
Savage	24,662	42,700	73%	8,289	16,000	93%
<b>TOTAL</b>	<b>142,263</b>	<b>201,700</b>	<b>42%</b>	<b>51,028</b>	<b>80,140</b>	<b>57%</b>

Source: Metropolitan Council

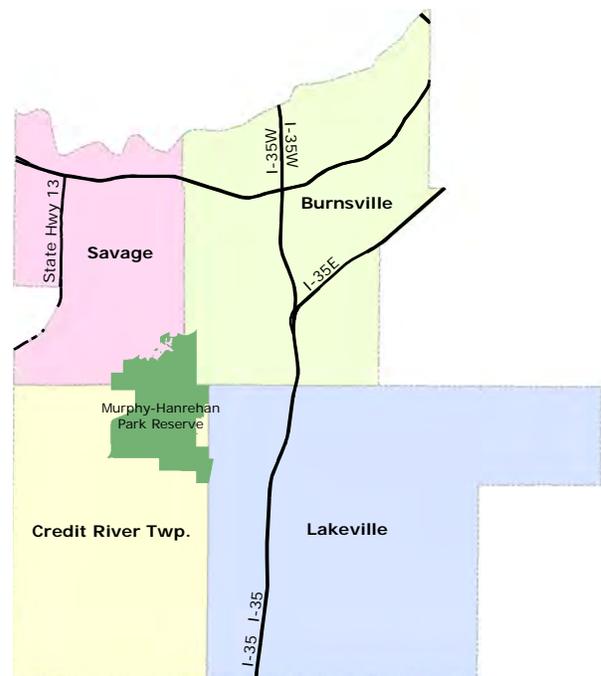
Development pressure around Murphy-Hanrehan will be most pronounced along the northern border of the park reserve within the City of Savage, which is recognized by the Council as a Developing Community. Council investments in regional systems and incentives for the Developing Communities focus on accommodating growth, supporting commercial centers along corridors, encouraging connected land-use patterns for new development, and encouraging the development of communities where shopping, jobs, and a variety of housing choices coexist by design.

Lakeville is also recognized as a Developing Community by the Council. However, only a small portion of Murphy-Hanrehan Park Reserve lies within the City of Lakeville, and the area of the city near the park is already developed as single-family residential use. While development pressure outside of the park reserve within Lakeville is not expected to increase significantly, the population growth of Lakeville through 2030 will likely result in increased trail use of the park reserve from residents of this community.

The eastern border of the park reserve, within the City of Burnsville is currently undeveloped, but will likely be developed as a residential area over the next 20 years. Burnsville is considered a Developed Community by the Council. Council investments in regional systems and incentives for the Developed Communities are to maintain current infrastructure; renew and improve infrastructure, buildings, and land to provide for additional growth, particularly at centers along transit corridors; and support developments that integrate land uses. As infill occurs in the city, day use of trails within the park reserve will increase to reflect the population growth. There will also be demand for more local trail connections to the eastern boundary of the park reserve.

The majority of Credit River Township is recognized as a Rural Residential Area by the Council. The portion of the Township north of County Road 21 will be developed at higher residential densities, with sanitary sewer service. Rural Residential Areas are immediately adjacent to Developing Areas and have large numbers of individual sewage-treatment systems at densities of 2.5 acres or less. Rural Residential Areas face challenges in making the transition from rural unsewered development to sewer development. As the Council updates its system plans, the feasibility of providing regional wastewater services, in conjunction with local water supply and transportation system improvements, will be examined. The Council will partner with each community to explore strategies that would allow some or all existing Rural Residential Areas to make the transition to densities that can be served efficiently with public services. Consequently, there may be significant development around the southern half of Murphy-Hanrehan Park Reserve in the long-term future.

The planning initiatives of the four communities adjacent to and within Murphy-Hanrehan Park Reserve are an important consideration in this master planning effort.

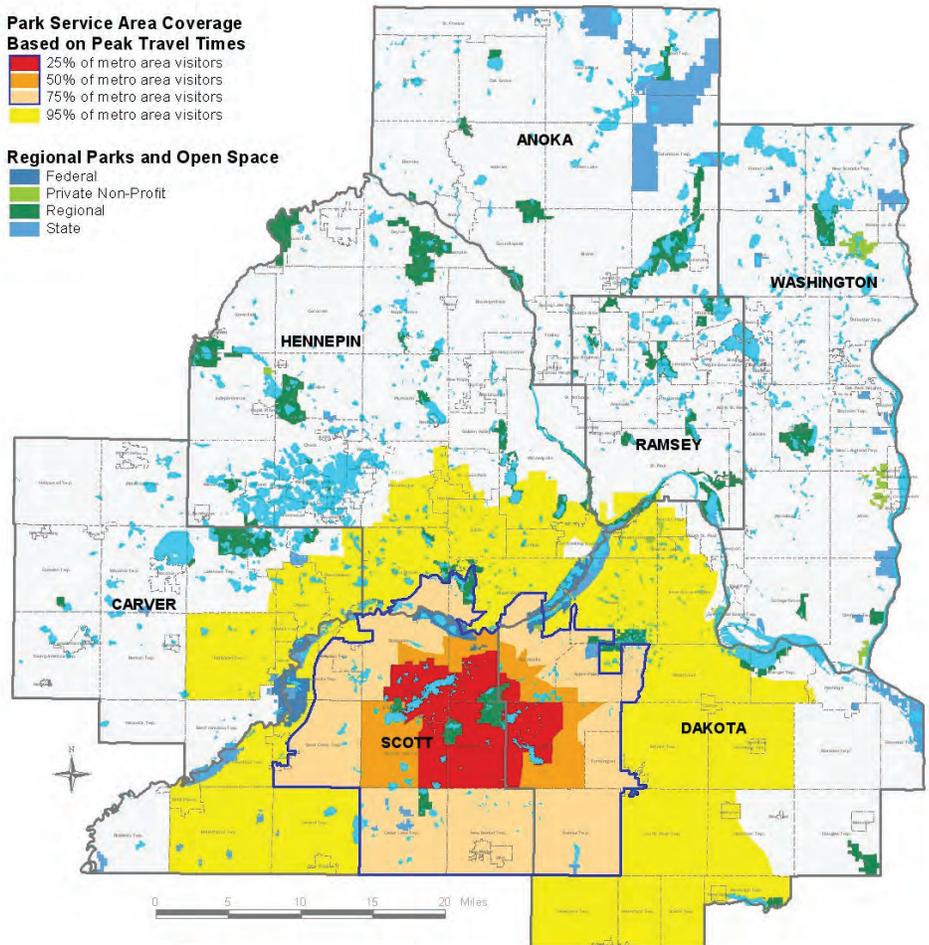


An important consideration for each of these communities will be the development of local trail networks linking to the park reserve and the proposed Scott and Dakota County regional trails.

### Service area of Murphy-Hanrehan Park Reserve

Each park reserve has a primary service area. The primary service area is defined as the range in which 75 percent of consumers (park users) are willing to travel to obtain that park’s product or service. Current and projected population data (in the form of the number of households) for each service area are available from the Council. Mapping and assessment of the service areas as they relate to population are useful in determining areas that are currently underserved and areas that are expected to be underserved in the future.

#### Service Area Coverage for Murphy-Hanrehan Park Reserve



Service Area	Maximum Travel Time (Minutes)	2000 Households	Projected 2030 Households
25%	10	19,930	43,633
up to 50%	14	39,539	82,703
up to 75%	20	96,380	191,190
up to 95%	33	321,964	491,153



Within the primary service area, there were 96,380 households in the year 2000. Growth within the service area is expected to be significant, with an additional 94,810 households added by the year 2030, a 98 percent increase in the number of households over 30 years.

The Council estimates that the primary service area of Murphy-Hanrehan Park Reserve covers 11 communities in Scott County, six communities in Dakota County, and two communities in Hennepin County (see table below for a list of communities within the primary service area).

Scott County Communities

1. Cedar Lake Township
2. Credit River Township
3. Elko New Market
4. Jackson Township
5. Louisville Township
6. New Market Township
7. Prior Lake
8. Sand Creek Township
9. Savage
10. Shakopee
11. Spring Lake Township

Dakota County Communities

12. Burnsville
13. Eagan
14. Eureka Township
15. Farmington
16. Lakeville
17. Rosemount

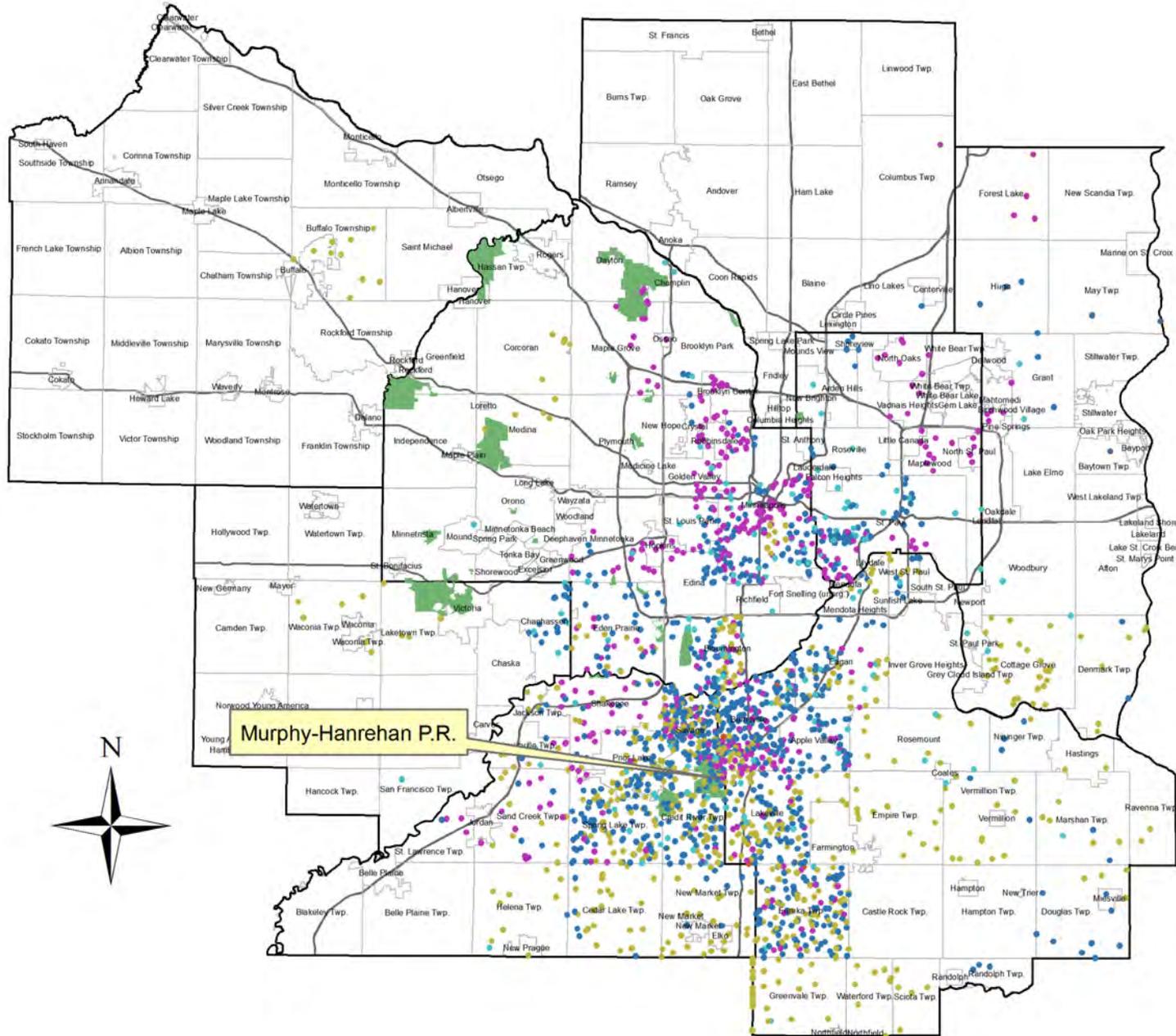
Hennepin County Communities

18. Bloomington
19. Eden Prairie

Three Rivers Park District studies indicate that the cross-country ski trails and birding opportunities within Murphy-Hanrehan Park Reserve have a comprehensive regional service area, and attract individuals from all around the seven-county metropolitan area.

Three Rivers Park District has recent visitor origin data (2004 through 2006) that defines distribution of visitors categorized by their primary activity. The figure below shows that Murphy-Hanrehan Park Reserve has a broader regional service area than what was defined by the Council, with many visitors coming from the cities of Minneapolis and St. Paul, as well as suburban Hennepin and Ramsey Counties. As Murphy-Hanrehan Park Reserve becomes better known for its semiprimitive wilderness qualities and recreation offerings, it is expected that the service area of the park reserve will continue to grow.

## Visitor Origin Mapping of Murphy-Hanrehan Park Reserve



- 1 Dot = 10 visits
- Biking
- Group Camp
- Hiking/Running
- Horseback Riding
- X-C Skiing
- Major Road
- Park Boundary

Source: Three Rivers Park District Visitor Origin Data 2004-2007

### **Meeting future needs for classic recreational opportunities in a high growth area**

Murphy-Hanrehan Park Reserve is located in one of the fastest-growing areas of the Twin Cities. As this area develops, there will be increased demand for classic outdoor-recreation facilities such as campgrounds, swim ponds, creative play areas, picnic areas and picnic shelters, fishing and boat access, paved trails for biking, unpaved trails for hiking, and opportunities for environmental education.

Part of that need will be met through Cleary Lake Regional Park, which is located approximately one mile southwest of Murphy-Hanrehan Park Reserve. Three Rivers Park District owns and operates Cleary Lake Regional Park, which provides a visitor center, swimming beach, picnic grounds, group camps, 9-hole golf course and driving range, boat and bike rentals, dog off-leash area, a fishing pier, and boat ramp. Cleary Lake Regional Park also provides lighted cross-country ski trails and ski rentals during the winter months.

The Council's 2030 Regional Parks Policy Plan provides guidance on how the system must grow to meet the future outdoor-recreation needs of the region. That plan, along with county-level plans by Scott and Dakota Counties, recognizes the future recreational needs within these counties. Those plans have identified the future regional parks and park reserves that will be needed to meet future demand. Scott County is planning to develop three regional parks and one park reserve. Dakota County has two additional regional parks planned for the area, in addition to its two regional parks and two park reserves that are currently open to the public.

Consequently, the southern portion of the metropolitan region is well prepared to meet the future needs for classic outdoor-recreation facilities in the southern metropolitan area.

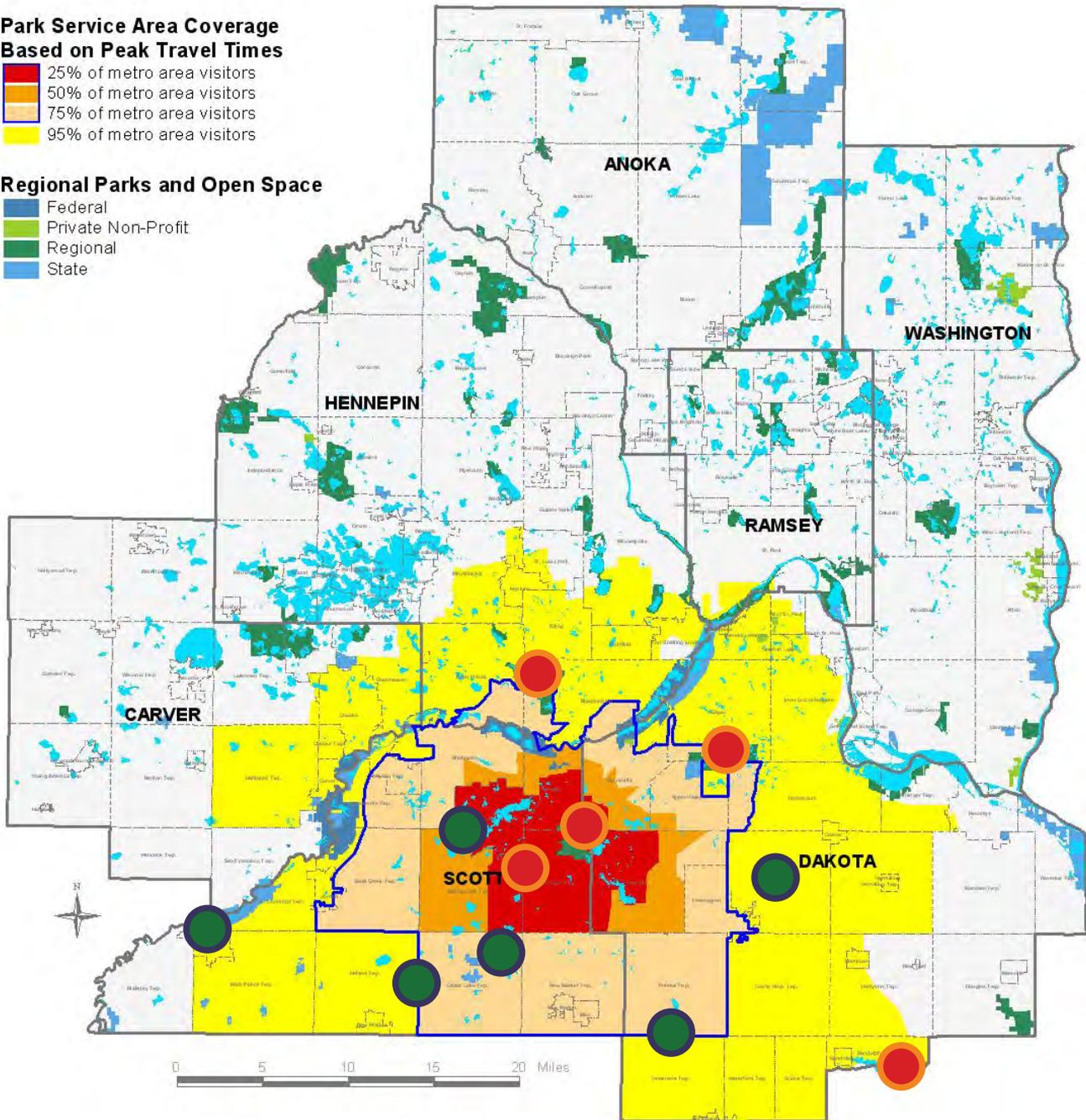
## Service Area Coverage for Murphy-Hanrehan Park Reserve

### Park Service Area Coverage Based on Peak Travel Times

- 25% of metro area visitors
- 50% of metro area visitors
- 75% of metro area visitors
- 95% of metro area visitors

### Regional Parks and Open Space

- Federal
- Private Non-Profit
- Regional
- State



Service Area	Maximum Travel Time (Minutes)	2000 Households	Projected 2030 Households
25%	10	19,930	43,633
up to 50%	14	39,539	82,703
up to 75%	20	96,380	191,190
up to 95%	33	321,964	491,153

● Existing Regional Park/Park Reserve

● Planned Regional Park/Park Reserve



### **The need to provide recreational diversity**

Recreation research has provided important concepts and findings that can improve the recreational offerings of the regional park system. Elwood Shafer's seminal piece "The average camper who doesn't exist" was published by the U.S. Forest Service in 1969. Shafer's work was one of the first recreation studies to identify the idea that within a specific activity, there is a diversity of recreation users. The "average" user may exist only statistically—a composite of the diversity of the users. Consequently, managing for the "average" user may inadvertently exclude the majority of users who participate in an activity, but for very different reasons.

Research has shown that not only are visitors diverse in their tastes, but that a person's tastes may change over time as well, specifically related to their life-cycle stage and to their degree of specialization in their preferred activity. Visitors to Three Rivers Park District and to the Metropolitan Regional Parks System are not static in their recreation activities.

Over time, visitors tend to become more specialized in their activities. For example, campers may be introduced to family camping at Baker Park Reserve campground. Over time, some of these campers will further develop their camping skills and may seek more advanced camping opportunities in more remote areas without the full support services found at the Baker Park Reserve campground. Specialization is also found among trail users. Visitors may start out by walking or biking around Lake Harriet. Some trail users will eventually seek more challenging biking or hiking trails, or may seek more natural surroundings or solitude. Paved trails in Elm Creek, Carver, or Lake Rebecca Park Reserves will help meet these changing needs. However, specialization among these visitors is ongoing and some of them may seek very challenging or remote trails such as those found in Murphy-Hanrehan Park Reserve.

To accommodate this specialization, it is necessary to provide a diversity of outdoor recreation opportunity settings, ranging from very urban settings such as the Minneapolis Chain of Lakes Regional Park to the wilderness-like settings found in Murphy-Hanrehan Park Reserve.

Diversity in outdoor recreation has also been rationalized in economic terms using an example of a hypothetical undeveloped recreational area.<sup>1</sup> If the area were to be used for wilderness recreation, it might support 3,000 visits a year. If intensively developed, it might support 300,000 visits a year. The decision between these two alternatives should take into account the issue of scarcity.

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1. J. A. Wager, "Recreational Carrying Capacity Reconsidered." *Journal of Forestry* 72 (1974) 274-78.

If developed-recreational opportunities are relatively plentiful and wilderness-recreation opportunities scarce, society may place more value on creating additional wilderness-recreation opportunities even though they will accommodate fewer visits each year. This reflects the economic theory of marginal utility: the more we have of some good or value, the less importance/value is placed on each additional unit.

Diversity has also been rationalized in political terms.<sup>2</sup> It can be argued that without broad political support, outdoor-recreation areas are not likely to be forthcoming if outdoor-recreation areas do not serve the needs of a broad spectrum of the population.

Examining each recreation area in isolation will usually lead to management decisions favoring the majority or plurality of potential visitors. While this is justified in many cases, this process will ultimately result in an entire system of recreation areas designated for the average visitor while neglecting the desirable elements of diversity. Instead, each recreation area should be evaluated as part of a larger system of areas, each contributing as best it can to serve the diverse needs of the public. Low density and recreation opportunities preferred by the minority can then be justified and provided within the context of the larger system.<sup>3</sup>

### **Defining recreational diversity**

Diversity occurs across activities and within activities based on the physical, social, and managerial settings in which that activity takes place.

There exists a natural diversity of activities themselves. For example, camping, swimming, picnicking, and fishing are all stand-alone activities, although people may combine some activities to create activity packages that meet their specific goals or motivations.

Within any activity, diversity can be defined through different physical settings. For example, camping at a large developed campground is a very different experience from camping in a small more intimate campground, or camping at a stand-alone hike-in site. Fishing on a lake surrounded by a popular bike path, roads, and buildings provides a different experience from fishing on a lake with an undeveloped shoreline.

Within any activity, diversity can also be defined through different social settings. For example, walking around the lakes in the Minneapolis Chain of Lakes Regional Park provides a highly social setting, with very large numbers of other visitors present at the same time.

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2. W. Burch, Jr. "In Democracy is the Preservation of Wilderness." *Appalachia* 40 (1974) 90-101.

3. R.E. Manning, "Studies in Outdoor Recreation." Oregon State University Press (1999) 178-179.

Walking on a paved trail in a regional park reserve likely provides some degree of social interaction, but on a smaller scale. Hiking on turf trails in the interior of a large park reserve provides very low social interaction.

Within some activities, diversity can also be defined through varying degrees of management involvement in the activity. Some people may prefer self-directed nature study, while others appreciate self-directed nature trails with interpretive signage, and yet others seek out naturalist-led tours. Likewise, some people prefer highly developed facilities such as camping cabins or visitor centers, while others may prefer rustic campsites and simple ranger stations.

### Providing recreational diversity

Outdoor-recreation providers have recognized the needs and the benefits of providing a diversity of recreational opportunities. Over the last 25 years, the U.S. Forest Service and the U.S. National Park Service have employed a planning tool called the Recreation Opportunity Spectrum (ROS). The premise of ROS is that three types of settings are the primary influencers of recreational experience and the resulting benefits associated with those experiences. Environmental settings run from natural to unnatural/highly disturbed. Social settings run from very low density to very high density. Managerial settings run from provision of no facilities to highly developed facilities. There are typically five or six classes of recreation opportunity settings ranging from primitive at one end of the spectrum to urban at the other end.



The word “spectrum” is deliberate in the ROS concept title. Adjoining classes merge into each other on the ROS continuum, and the three setting groups can vary independently of each other.

ROS addresses the complex mix of motivations and benefits found across a widely diverse pool of outdoor-recreation participants. It does this in a simple yet effective model that continues to be a primary tool for planning and managing large outdoor-recreation systems across the United States and in other countries as well.

ROS can be used to assess the diversity of recreational opportunities within the Metropolitan Regional Parks System. The following table provides the general description of each ROS class and provides examples of the regional parks and reserves that would likely fall within that class. The ROS classification of Metropolitan Regional Parks System units within this Master Plan is for the purpose of determining the best use of Murphy-Hanrehan Park Reserve, and is not intended to be a guide for planning of the other units. A more detailed ROS examination of all units should be performed at a systematic level across park implementing agencies.

### ROS Description and Examples

ROS Class	Description	Regional Examples
Urban	Area is characterized by a substantially urbanized environment, although the background may have natural-appearing elements. Renewable resource modification and utilization practices are often used to enhance specific recreation activities. Vegetative cover is often exotic and manicured. Sights and sounds of humans are predominant onsite. Large numbers of users can be expected both onsite and in nearby areas. Facilities for highly intensified motor use and parking are available with forms of mass transit often available to carry people throughout the site.	<ul style="list-style-type: none"> <li>• Minneapolis Chain of Lakes Regional Park</li> <li>• Como Regional Park/Zoo</li> <li>• Lake Nokomis Regional Park</li> </ul>
Rural	Area is characterized by a natural environment that has been substantially modified by development of structures, vegetative manipulation, or pastoral agricultural development. Resource modification and utilization practices may be used to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of humans are readily evident, and the interaction between users is often moderate to high. A considerable number of facilities are designed for use by a large number of people. Facilities are often provided for special activities. Moderate user densities are present away from developed sites.	<p>Most regional parks, including:</p> <ul style="list-style-type: none"> <li>• Cleary</li> <li>• Lebanon Hills</li> <li>• Lake Byllesby</li> <li>• Spring Lake (Scott - as planned)</li> </ul>
Roaded Natural	Area is characterized by predominantly natural appearing environments with moderate evidence of the sights and sounds of man. Such evidence usually harmonizes with the natural environment. Interaction between users may be moderate to high, with evidence of other users prevalent. Resource modification and utilization practices are evident but harmonize with the natural environment.	<p>Most regional park reserves, including:</p> <ul style="list-style-type: none"> <li>• Carver</li> <li>• Spring Lake (Dakota)</li> </ul>
Semi-Primitive	Area is characterized by a predominantly natural or natural-appearing environment of moderate to large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present but would be subtle. Motorized recreation use is not permitted, but local roads used for other resource management activities may be present on a limited basis.	<ul style="list-style-type: none"> <li>• Murphy-Hanrehan Park Reserve</li> <li>• Crow Hassan Park Reserve</li> <li>• Meisville Ravine Park Reserve</li> </ul>
Primitive	Area is characterized by an essentially unmodified natural environment of fairly large size. Interaction between users is very low and evidence of other users is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. Motorized use within the area is not permitted.	<ul style="list-style-type: none"> <li>• None</li> </ul>

## The role of Murphy-Hanrehan Park Reserve in the Metropolitan Regional Parks System

Murphy-Hanrehan Park Reserve cannot, and should not, be all things to all people. Individual parks should not be managed for the “average camper that does not exist.” The Metropolitan Regional Parks System must provide a diversity of recreational opportunities, and that diversity can be assessed through the application of ROS.

As a semi-primitive park reserve, visitors can expect a higher level of interaction with the wilderness than at other regional parks and park reserves.

Murphy-Hanrehan Park Reserve will provide critical recreation opportunity diversity as a semiprimitive recreational opportunity setting for the 2.7 million residents in the Twin Cities metropolitan area.

However, as the population in the local area grows, there will be continuing pressure to more intensively develop Murphy-Hanrehan Park Reserve. Future updates of this Master Plan should bear in mind the following phrase:

### “Less is More”

Coined by Robert Browning in his 1855 poem, “Del Sarto.” Usurped by Ludwig Mies van der Rohe to begin an architectural movement toward the beauty of simplicity. Reflected in the economic theory of marginal utility. Used in countless advertisements ad nauseam. But within a system of parks, less can be more. Less development. Fewer crowds. Less environmental alteration. More diversity. More opportunities. More large tracts of pristine resources.

Preservation of its semiprimitive character and unique natural resources will increase the experiential and ecological value of the park reserve significantly over time. This Master Plan as well as past master plans have shown the resolve needed to deliberately preserve and protect the character of the park reserve. Continued commitment to this resolve may be difficult in the future, but without it, diversity is lost, opportunities are diminished, and the overall park system suffers at the expense of future generations.

## Projected annual visitation

The Council estimates that there were 24,400 visits to Murphy-Hanrehan Park Reserve in 2005. The Council estimates that the park reserve currently serves 96,380 households, and that an additional 94,810 households will move into the park's service area by 2030—a 98 percent increase.

If Murphy-Hanrehan Park Reserve did not accommodate additional recreational development, the park reserve would be expected to have 48,000 annual visits by 2030. However, the actual visitation rate by 2030 will likely be higher due to the addition of the single-track mountain bike trail network, coupled with the actualization of the limited development proposed in this Master Plan. When fully developed as envisioned in this Master Plan, Murphy-Hanrehan is expected to have approximately 72,000 annual visits. This visitation rate is low relative to other regional parks and park reserves, but is in keeping with the concept of Murphy-Hanrehan Park Reserve's recreational setting as a semiprimitive area.

## Public process in the update of the Master Plan

### Initial public input

Three Rivers Park District maintains an active Research and Evaluation Program that periodically interviews park visitors to identify issues and gather suggestions for improvements. Information is gathered through on-site interviews and mail-back surveys. Since 2004, 382 visitors to Murphy-Hanrehan Park Reserve have participated in three different visitor studies.

The studies found that the most popular aspect of the park reserve is its undeveloped natural areas. Viewing scenery, trail hiking, cross-country skiing, horseback riding, mountain biking, and birding are popular activities in the park reserve.

Most of the issues, concerns, and suggestions for improvements from these studies focus on programming, staffing, maintenance, or minor improvements that are best addressed outside of the Master Plan. However, there were four primary issues and concerns identified in these public input studies that warrant consideration in the master planning process and that are addressed in the Master Plan update.

#### 1. Cross-country skiers

Skiers indicated a need for an improved winter trailhead building, preferably with indoor plumbing and a changing room. A fireplace and other amenities were also requested, although not as often as indoor bathrooms.



Mountain bike users made several requests to enhance the mountain bike trails within the park reserve. A new single-track trail system addressing these concerns will open in the summer of 2007.

## 2. Mountain biking

Visitors requested additional mountain biking trails, extended seasonal hours, and improved trail surfaces. Since the studies were completed, Three Rivers Park District has completed construction of a new single-track mountain bike trail network that replaces the old network. These concerns were addressed and resolved with the new network.

## 3. Horseback riders

Horseback riders indicated a need for additional car/trailer parking, as the current lot is often full and limited parking exists on the adjacent road.

## 4. Trails

All types of trail users indicated a need for improved signs along the trails to help identify the type of trail (horse, winter-only, etc.) and their location within the park.

Three Rivers Park District and the Council also have identified strong public demand for additional camping opportunities in the regional parks system. The regional parks system provides over 1,000 campsites, with nearly 80 percent being designed to accommodate recreational vehicles. Dispersed camping is very limited, with less than 50 individual backpack or boat campsites spread across the region. As discussed earlier, providing a diversity of recreational opportunities is important, and Murphy-Hanrehan Park Reserve offers an opportunity to help promote a diversity of camping experiences through limited development of backpack and canoe sites reflective of the semiprimitive setting of the park reserve.

## Initial community input

Three Rivers Park District staff met with staff from local municipalities and counties to confirm that updates to the Murphy-Hanrehan Park Reserve Master Plan were consistent with the comprehensive plans and goals of the local communities and counties. The general consensus from this series of meetings is that Murphy-Hanrehan Park Reserve is a wilderness-like park, whose semiprimitive nature should be preserved for future generations. However, each of the local communities had individual concerns that were considered in the development of this plan.

### City of Burnsville

The City of Burnsville is interested in working with Three Rivers Park District to coordinate natural resources management between the city's Cam Ram Park and Murphy-Hanrehan Park Reserve. The city would like to develop a nonpaved trail through Cam Ram Park with a connection to the nonpaved trail network within Murphy-Hanrehan Park Reserve. Cam Ram Park would serve as a summer trailhead in the northeastern corner of the park reserve.

Cam Ram Park was originally within the Master Plan boundary of Murphy-Hanrehan Park Reserve. The city has expressed interest in retaining ownership of Cam Ram Park, and this update of the Master Plan recommends removal of the Burnsville parcel from the Master Plan boundary for the park reserve.

The City of Burnsville is supportive of a regional trail running along the south side of Hanrehan Lake Boulevard and through Cam Ram Park. As envisioned by Dakota County, this regional trail would connect Murphy-Hanrehan Park Reserve to Lebanon Hills Regional Park to the east and the Big Rivers Regional Trail to the north.

The city also expressed interest in having a trailhead and access on the east side of the park reserve south of Cam Ram Park. This would include a nonpaved trail spur connecting the nonpaved trails of the park reserve with the city trail network. That area of the city is currently undeveloped. Three Rivers Park District encourages cities to develop trail-network connections to regional parks and park reserves, but limits its involvement to adding trail spurs to the edge of the park property.

#### **City of Lakeville**

The City of Lakeville has expressed interest in the development of a small trailhead off Judicial Road at Minnregs Lake. As envisioned by the city, the facility is proposed to include parking, toilets, drinking water, a few picnic tables, and a trail connection between the extensive trail network operated by the city and the park reserve's trail system. This trail connection, as envisioned by Dakota County, will eventually link Murphy-Hanrehan Park Reserve to the Vermillion River Regional Trail. The city would also like the existing trail around Minnregs Lake to be maintained for walking. This trail currently experiences seasonal flooding and moist conditions following significant rain events. The city is interested in partnering with Three Rivers Park District to help realize the city's interests for that portion of the park reserve.

#### **City of Savage**

The City of Savage is interested in increasing the amount of land available for active recreation areas such as sports fields and playgrounds. The city has informally expressed interest in acquiring 20 to 40 acres of park reserve land located in the northwestern corner of the park reserve. However, the city staff recognizes that these types of facilities would be in conflict with the semiprimitive nature of Murphy-Hanrehan Park Reserve, and that sports fields are not allowed in units of the Metropolitan Regional Parks System.

The city is aware of the requirements regarding conversion of Three Rivers Park District land to nonregional uses as set forth by Three Rivers Park District and Council policies on conversion.

The city has plans for a paved trail along the Credit River. As planned, the trail is consistent with this update of the Master Plan, and with Scott and Dakota Counties' envisioned regional trail running north to the Minnesota River.

Redevelopment of Hanrehan Lake Boulevard and installation of a sanitary sewer is planned to occur within the next two years. The street is proposed to increase in size to three lanes. Minor park reserve boundary adjustments for street right-of-way in the vicinity of the northern trailhead may be required by the city.

### **Credit River Township**

Credit River Township desires the park reserve to remain a major equestrian center and is supportive of the park reserve being managed to provide semiprimitive recreational opportunities. Credit River Township indicated that vacating Sunset Lake Road would place a significant hardship on the residents living east of Murphy-Hanrehan Park Reserve. There are approximately 25 residences within Credit River located on the east side of the park reserve. The road network east of the park reserve has no north/south through-street, requiring residents to travel a few miles to the east to Interstate 35, and then double back at the next intersection to gain access to the rest of Credit River Township.

### **Dakota County**

Dakota County staff is interested in linking the county's regional trail network to Murphy-Hanrehan Park Reserve, and to the envisioned Scott County regional trail network. County staff has identified a need within Dakota County for trails around lakes and would like Three Rivers Park District to consider adding paved trails around Hanrehan and Minnregs Lakes in the park reserve. However, county staff understands that the topography on the southern side of Hanrehan Lake and the private ownership of land on the northern side are significant limiting factors in the feasibility of such a trail.

Additional regional-trail planning initiatives of Dakota County may affect this park reserve. Regional trails could possibly be accommodated without significant impacts to the natural resources or semiprimitive character of the park reserve if the trails were located on the periphery of the park reserve. In turn, the regional trail network would provide increased visitation to the park reserve. Three Rivers Park District will continue to coordinate with Dakota County on regional trail planning.

### Scott County

Scott County is moving forward with plans to develop Spring Lake Regional Park, located approximately eight miles west of Murphy-Hanrehan Park Reserve. Development will include a campground, dog exercise area, picnic grounds, and other intensive-recreation opportunities. It will further alleviate the pressure to develop intensive recreation facilities at Murphy-Hanrehan Park Reserve.

Scott County is developing plans for a regional trail network. As envisioned, there will be a regional trail connecting Cleary Regional Park to Murphy-Hanrehan Park Reserve and to the planned Scott County Regional Parks.

Regional trails can be accommodated on the periphery of Murphy-Hanrehan Park Reserve. As with Dakota County Regional Trails, Three Rivers Park District will continue to coordinate with Scott County on regional trail planning.

## Formal public and governmental review

The draft Master Plan was reviewed by the city park committees of Savage and Burnsville, the City Council of Lakeville, the Credit River Township Board, the Dakota County Parks Director, and the Scott county Parks Advisory Commission.

Overall, government feedback was supportive of the Master Plan, with comments focusing on minor technical corrections.

- The City of Savage would prefer more intensive recreation facility development within the park reserve. Such development is incompatible with the master planned vision for the park reserve. Consequently, no changes to the Master Plan were made.
- Credit River Township has an interest in developing a local park on the large inholding immediately east of Murphy Lake Road if the Park District determines that it would prefer to purchase only that portion of the parcel that buffers the Credit River. The Master Plan recommends that such a partnership be considered by the Board if such an opportunity arises.
- Burnsville's 2007 Natural Resources plan calls for managing their natural-resource are adjacent to the park reserve in conjunction with Park District natural-resources management techniques in the northern half of the park reserve.
- Lakeville is very supportive of the proposed improvements at Minnregs Lake, and provided a resolution of support for those improvement.

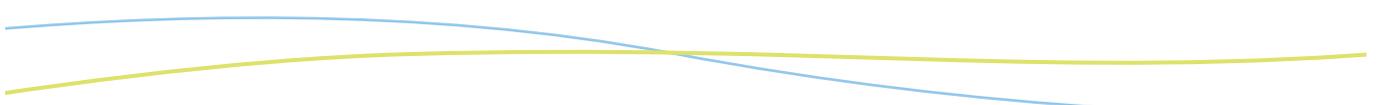
## Special needs populations

Three Rivers Park District is committed to providing access and recreational opportunities to all people, including persons with disabilities, minorities, and other special-population groups. Three Rivers Park District meets this commitment through appropriate facility design and programming considerations, and by actively addressing potential barriers to participation.

However, Murphy-Hanrehan Park Reserve is one of the most challenging within Three Rivers Park District from an accessibility point of view due to its hilly terrain, lack of paved trails, and semiprimitive nature. Future development will consider accessibility issues and implement accessible facilities and trails where appropriate and as required to meet the Americans with Disabilities Act (ADA) standards and guidelines. Three Rivers Park District will also abide by the Universal Access to Outdoor Recreation guidelines.

Three Rivers Park District pursues promotional outreach activities, and works with special-interest organizations such as the Courage Center and Wilderness Inquiry to further encourage participation in activities and use of park facilities. If arrangements are made in advance, interpreters and alternative forms of printed material are available at programmed events.

Three Rivers Park District has several programs designed to assist in obtaining access for persons for whom cost could be a barrier to participation. The “Parks for All People” program is designed to provide free passes for swimming and cross-country skiing to qualified recipients of Hennepin County economic assistance programs. Discounted camping, equipment rental, and educational programs are available. Three Rivers Park District does not charge entrance fees to its regional parks or park reserves.



## SECTION IV: Resource Assessment and Management

Three Rivers Park District's system of parks has been designed to protect and preserve natural settings while at the same time satisfying the public demand for outdoor recreation opportunity. In order to preserve natural areas in perpetuity, and yet make them accessible to the general public, an active program of natural resources management, rather than an attitude of passive protection, is necessary. Natural resources management practices may also be necessary as a means of protecting the health and safety of the public. The primary goal of natural resources management efforts is to restore, preserve and protect natural resources and native wildlife populations, consistent with parkland classification.

### **Natural Resources Vision:**

*Protect, preserve, and improve native oak forest, prairie, and wetland communities to perpetuate the unique ecosystem of Murphy-Hanrehan Park Reserve for future generations.*

## Natural Resources Inventory

### **Topography**

Murphy-Hanrehan Park Reserve's topography varies dramatically. The northeastern area is characterized by steep and hilly topography, and is evidence of one of the most significant glacial events in the geologic history of the metropolitan area. Several of the steep conical hills are in excess of 100 feet and are an instrumental element of the park reserve's popular cross-country ski trails. Very few areas in the northeast are flat.

The southern region of the park reserve is in stark contrast with the northeastern area. The landscape is undulating and gently rolling with understated vistas overlooking the prairie/wetland complex. The more subdued topography of the southern region results in a gradual change in the amount of soil moisture which allows for the transition from upland to lowland plant communities and wildlife across the landscape.

### Rare, endangered, and threatened species inventory

Murphy-Hanrehan Park Reserve hosts several wildlife and plant communities considered rare, endangered, or threatened. About half of the noted species are avian and benefit from the large, continuous oak forest within the park reserve. One of the most significant species is the hooded warbler. Studies have indicated that this park reserve is the only known breeding site within the State of Minnesota and that approximately 90 percent of the hooded warbler breeding population occurs within this park reserve.



Photo by: Judy Voigt-Englund

The Henslow's sparrow is a unique bird species of the park reserve and depends on the park reserve's grasslands for breeding and nesting.

In addition to the list of rare, endangered, and threatened species compiled below by the Minnesota DNR, Three Rivers Park District also notes the Henslow's sparrow (*Ammodramus henslowii*) and Blanding's turtle (*Emydoidea blandingii*).

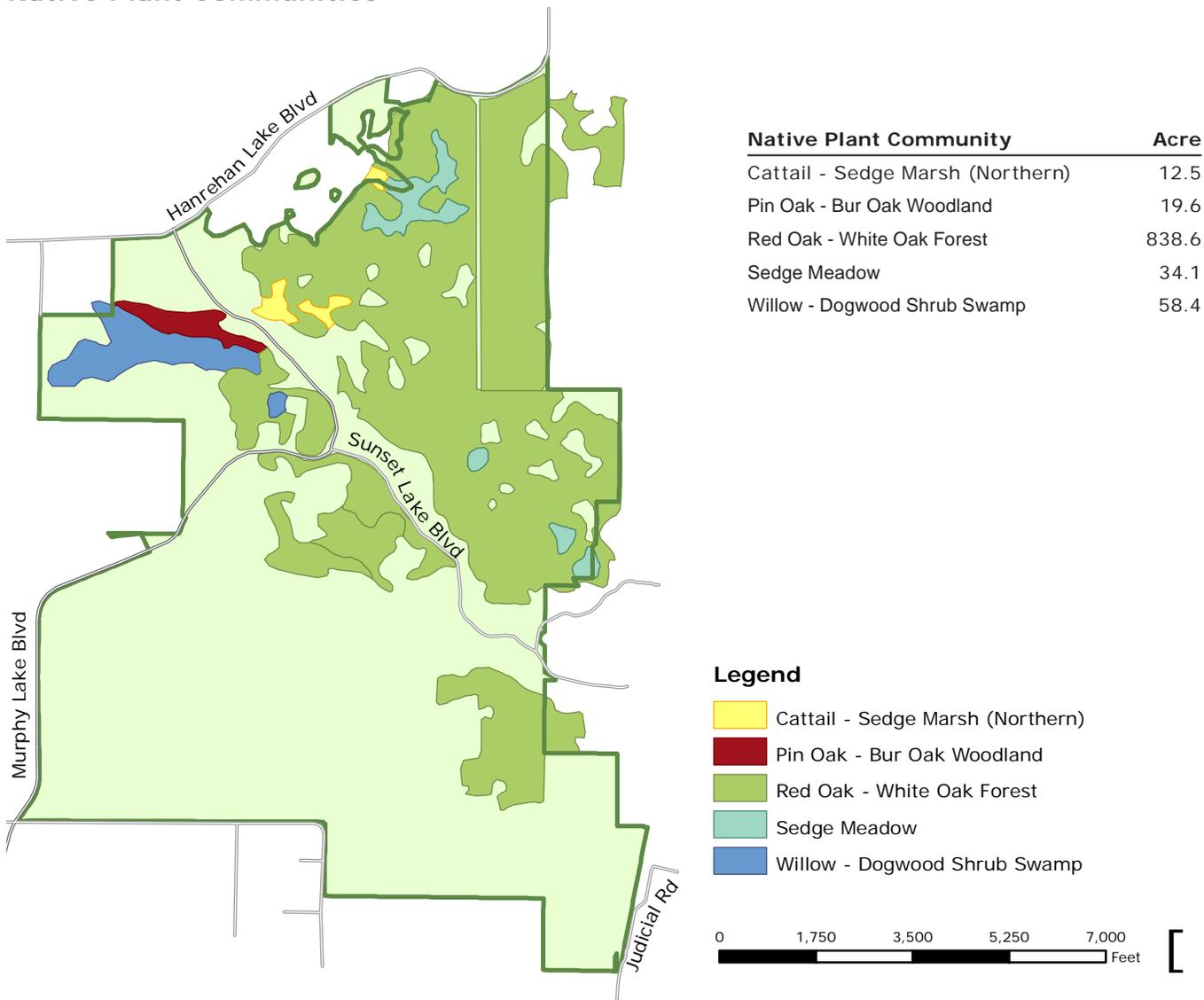
Scientific Name	Common Name
<i>Besseyia bullii</i>	Kitten-tails
<i>Buteo lineatus</i>	Red-shouldered Hawk
<i>Dendroica cerulea</i>	Cerulean Warbler
<i>Empidonax virescens</i>	Acadian Flycatcher
<i>Liparis lilifolia</i>	Lilia-leaved Twayblade
Native Plant Community, Undetermined Class	Native Plant Community, Undetermined Class
Willow - dogwood shrub swamp type	Willow - Dogwood Shrub Swamp
<i>Wilsonia citrina</i>	Hooded Warbler

### Native plant communities inventory

The Minnesota DNR recognizes five native plant communities within Murphy-Hanrehan Park Reserve: cattail, pin and bur oak, red and white oak, sedge meadow, and willow. Many of the recognized plant communities are within natural-resources priority areas and are protected from recreational development and the associated impacts. Although the pin oak community is recognized by the Minnesota DNR as existing within the park reserve, it has not been surveyed or observed in any significance by Three Rivers Park District staff.

The largest and most significant native plant community is the red and white oak forest. The Minnesota DNR designates over 690 acres of native red and white oak plant communities within the park reserve, whereas Three Rivers Park District calculates 1,252 acres of oak forest using aerial photography, field surveys, and staff experience.

### Murphy-Hanrehan Park Reserve Native Plant Communities



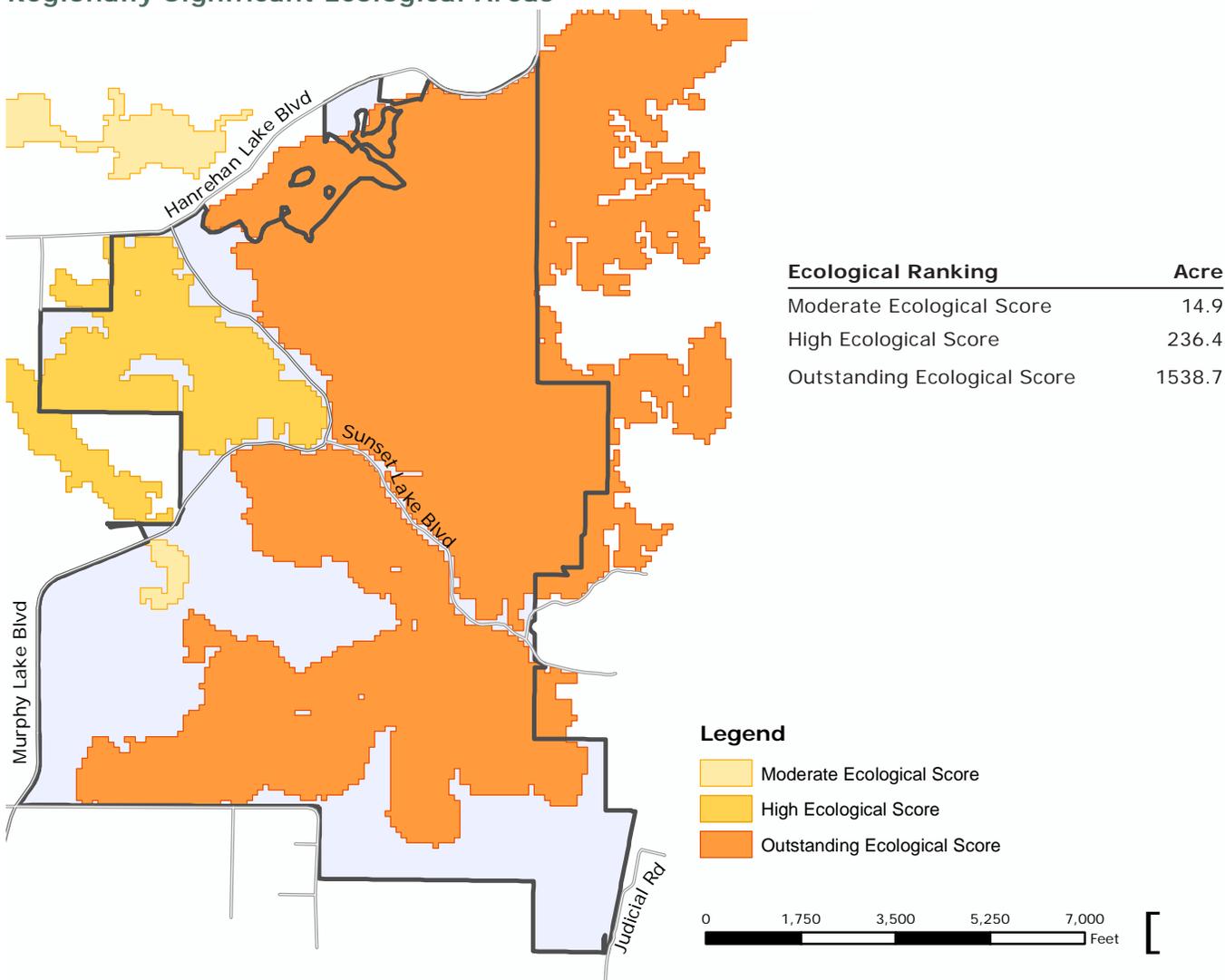
Source: MN DNR. Division of Ecological Services - 1998

### Vegetation

At the time of this Master Plan update, the land cover of Murphy-Hanrehan Park Reserve has not been classified using the Minnesota Land Cover Classification System (MLCCS). When this information becomes available, it will be incorporated into the development and future planning phases of the park reserve.

As an alternative to missing MLCCS data, this park reserve is mapped according to the Regionally Ecological Significant Areas (RESA) data. RESA assesses land according to the size, shape, cover-type diversity, and adjacent land use. According to RESA, approximately 50 percent of Murphy-Hanrehan Park Reserve is of outstanding ecological value and 10 percent is high ecological value.

### Murphy-Hanrehan Park Reserve Regionally Significant Ecological Areas



Source: MN DNR, Central Region - 2000

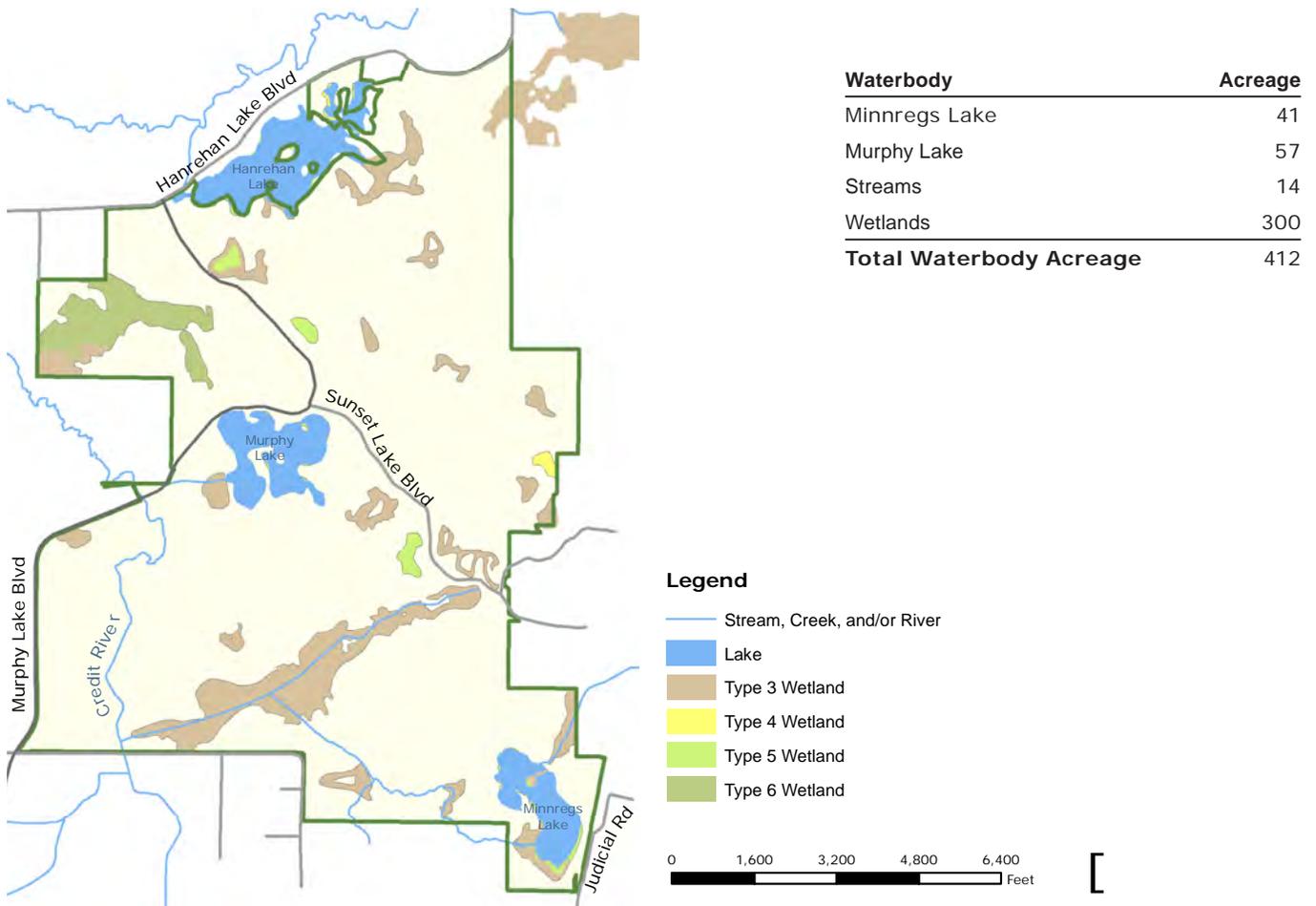
## Lakes, wetlands, and streams

Murphy-Hanrehan Park Reserve streams, lakes, and wetlands account for 17 percent of the total acreage of the park reserve. The three most prominent lakes of the park reserve are Murphy Lake, Hanrehan Lake, and Minnregs Lake, totaling 182 acres. Wildlife research and observations indicate that of these three lakes, Hanrehan Lake, located along the northern park boundary, has the greatest wildlife value.

Wetlands cover 294 acres of the park reserve. Wetlands types 3 through 6 are found within the park reserve and help provide more diverse and balanced plant and wildlife communities. The importance of the wetlands to the quality of water throughout the aquatic systems of the park reserve will continue to grow as development adjacent to the park reserve continues.

The Credit River runs south to north in the western region of the park reserve. This water resource connects the park with a greater system of lakes, wetlands, and habitat. It is also recognized by local municipalities as a potential recreation trail corridor.

### Murphy-Hanrehan Park Reserve Lakes, Streams, and Wetlands



Source: MN DNR, Various Years

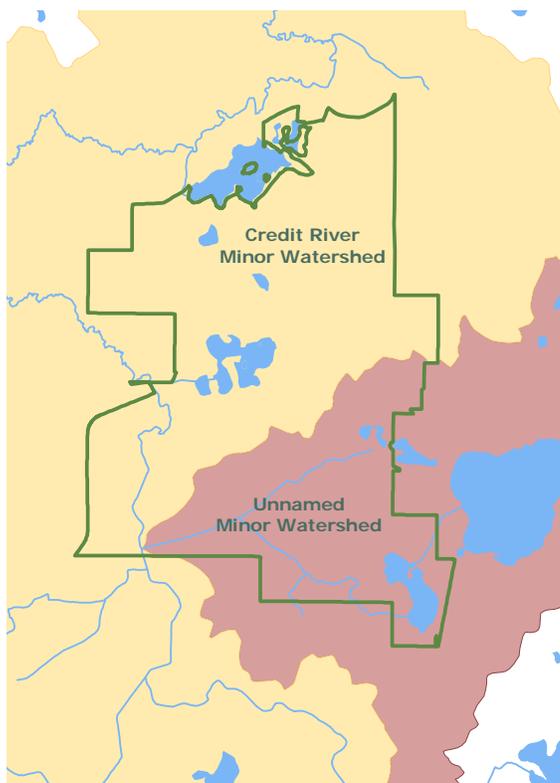
### Watershed

Murphy-Hanrehan Park Reserve is within the Minnesota River-Shakopee major watershed. The park reserve is subdivided into the Credit River minor watershed and a second unnamed minor watershed. Both fall under the regulatory agency of the Scott County watershed management organization.

The Credit River drains the entire northern half and western border of the park reserve and falls within the boundaries of the Credit River minor watershed. The remainder of the park is within the unnamed minor watershed and is primarily drained through a system of drainage ditches that discharge into the Credit River.

Until recently, the land immediately adjacent to the park reserve had been rural in character. Development pressures expanding from the core of the metropolitan area are reaching the boundaries of the park reserve and beyond. Plans are currently under way to extend sanitary sewer and water and to continue residential development to areas adjacent to the park reserve within the next few years. The adjacent stormwater drainage networks' ability to remain stable and adequately handle storm water runoff following rain events and spring thaw will continually be challenged with the plans for additional development. Continued vigilance will be necessary to ensure best management practices in compliance with Three Rivers Park District's nondegradation policy when land conversion occurs.

**Murphy-Hanrehan Park Reserve**  
Minor Watershed Divisions



Sub-watershed	Total Sub-watershed Acreage	Acreage within Park Reserve
Unnamed	3,920	895
Credit River	25,710	1,719

Source: MN DNR, Division of Waters - 1999

## Ground water

Murphy-Hanrehan Park Reserve is within the designation of the Metro and South-Central groundwater provinces. The Metro province is typified by sand aquifers within thick (greater than 100 feet) sand and clay glacial drift over Precambrian and Paleozoic sandstone, limestone, and dolostone aquifers. The South-Central province is classified as a thick glacial drift with limited extent sand aquifers overlying Paleozoic sandstone, limestone, and dolostone aquifers. Existing potable water wells furnish water from the aquifer to the trailheads within the park reserve.

## Soil

The soil database: Soil Survey Geographic (SSURGO) for Murphy-Hanrehan Park Reserve is not yet fully available from the Natural Resources Conservation Service. Once this information is available, it will be used in future development and planning phases.

Generally, the soils of Murphy-Hanrehan Park Reserve are classified as “light-colored hilly forested soils that formed on clay loam glacial till with knobs, ridges or pockets of gravelly and sandy till are mixed” (Scott County Soil Survey, 1959). The soils range from well drained to excessively drained. Future recreational development plans for Murphy-Hanrehan Park Reserve will consider the potential for soil erosion as well as the abundance of boulders and stones that are characteristic of these soil conditions.

## Resource management

### General stewardship plan

Stewardship activities include preserving and restoring native plant and wildlife communities, maintaining existing facilities and infrastructure, identifying and protecting cultural resources, and developing recreation facilities appropriate to a semiprimitive park reserve. Special stewardship activities within Murphy-Hanrehan Park Reserve include the long-range landscape management plan. Stewardship activities will also occur in the form of seasonally closing portions of the park reserve to protect sensitive breeding species, improving the nonpaved trails, and incorporating best management practices into planning, design, construction, and maintenance of all facilities and property.

In addition, each recreation facility proposed in the Master Plan will have specific design developments that strive to implement sustainable principles in order to reduce the impact of the facility on the natural resources while considering the life cycle of the facility and the amount of resources needed to maintain the facility. Design-development plans will be reviewed by Three Rivers Park District and other agencies as appropriate prior to the start of construction.

### **Cultural resources management**

Three Rivers Park District has performed, and will continue to perform, intensive cultural resource investigations when new development proposals are considered or funded. At this time, there are no known cultural resources that are in direct conflict with the proposed recreational development and natural resources plans.

For all Three Rivers Park District development projects, the design-development phase of new initiatives includes archaeological and historic site evaluation guided by the State.

### **Natural resources management and zoning**

Murphy-Hanrehan Park Reserve hosts one of the largest tracts of mesic oak forest in the metropolitan area. Fire suppression and other factors associated with post-European settlement have made natural regeneration of oak forests difficult. Self-sustaining oak forests in an environment lacking a regime of natural disturbance are uncommon occurrences. Without additional management and preservation efforts, oak forests within the metropolitan area will disappear from the local landscape.

The prairie/wetland complex, in the southern portion of the park reserve, complements the wooded regions to the northeast. The complex hosts its own array of plants and wildlife while providing valuable hunting grounds for raptors primarily associated with the oak forest.

One of the most distinctive elements of the park reserve is the dramatic plant community transition across the landscape from the oak forest to the prairie/wetland complex. The spectrum of plant communities provides a diverse system of interconnected habitats and associated wildlife. The rich mix and abundance of avian species within the park reserve undoubtedly exist because of the size, integrity, and connectivity of the oak forest and prairie/wetland complex.

Changes to the plant communities may significantly alter the unique habitats and wildlife found within this park reserve. Preserving the integrity of the plant communities will be a challenging task and will require specialized management strategies.

The following natural resources priority areas have been designated:

#### **Key Environmental Component**

##### **Oak Forest**

The mesic oak forest in Murphy-Hanrehan Park Reserve is a unique natural resource and has been designated as an Important Bird Area of the Twin Cities metropolitan area. The forest, located in the northeastern portion of the park reserve, is the largest contiguous mesic oak forest remaining in the metropolitan area.

It is comprised of aspen; red, white, and bur oaks, and associated tree and shrub species. It also supports the most diverse and abundant woodland bird population in Three Rivers Park District system of parks.

The large expanse of oak forest provides large contiguous blocks of forestland for a number of true 'forest' bird species. Special nesting species include mourning, Kentucky, hooded, cerulean, chestnut-sided, and blue-winged warblers; wood thrush, Acadian flycatcher; rufous-sided towhee; and Cooper's, broad-winged, and red-shouldered hawks. The park reserve supports the only known breeding population of hooded warblers in Minnesota. In addition, red-shouldered as well as Cooper's and broad-winged hawks are present at Murphy-Hanrehan park reserve at a density much higher than the average for the state. One large wildlife preservation area is also located within the oak forest.

Murphy-Hanrehan Park Reserve's oak forest habitat also supports many other common and less common terrestrial species. The park reserve's forest area supports one of only a few known populations of spring peeper frogs located south of the Twin Cities.

This oak forest has retained its unique wildlife association despite partial blow-downs, loss of many oak trees from oak wilt, and invasion of buckthorn; however, additional disturbances may impact the integrity of the forest.

Preserving this forest and its associated wildlife is a goal for natural resources management in Murphy-Hanrehan Park Reserve. It requires perpetuation of the oak canopy, controlling exotic species, and managing recreation facilities to protect rather than exploit the forest resource.

#### Prairie/Wetland Complex

The second key environmental component is the restored prairie/wetland complex in the center of the southwestern portion of the park reserve.



True 'forest' and special nesting bird species attract birders from all over the metropolitan area. Murphy-Hanrehan Park Reserve is the only known breeding site of hooded warblers in Minnesota.



The Murphy-Hanrehan Park Reserve prairie is the second largest in Three Rivers Park District. It includes a remnant prairie patch north of Minnregs Lake.

Murphy-Hanrehan Park Reserve has the second largest prairie system in Three Rivers Park District, behind the Crow-Hassan Park Reserve prairie. The complex provides habitat for grassland birds, including bobolinks, meadowlarks, and Grasshopper and Henslow's sparrows. True mesic plants do best over most of the Murphy prairie, except for the dry gravel ridge north of Minnregs Lake.

The southwestern wetland was created by building two dikes across a lateral ditch leading to the Credit River. Surface water originates from Orchard Lake, and then drains through Minnregs Lake and into the southwest wetland. The wetland system is home to black terns and sandhill cranes, and many herons and egrets feed here. Just as important, this area hosts Three Rivers Park District's largest population of Blanding's turtle.

However, this Key Environmental Component requires physical improvements to fully realize its potential for wildlife. The Master Plan proposes enhancements to existing wetlands and the creation of new wetlands in select areas of the prairie/wetland complex. The wetland enhancements will be made to both shallow ephemeral wetlands as well as deeper, more permanent wetlands and will provide habitat improvements to the associated wildlife including but not limited to the park reserve's songbird, frog, and Blanding's turtle populations. The enhancements will help retain the Blanding's turtles within the park reserve thus reducing the mortality rate currently associated with the turtles leaving the park reserve.

#### **Wildlife Preservation Area**

A large wildlife preservation area is designated within the oak forest; this area is subdivided into a north and south half by a short trail segment. The designation hosts an exceptional diversity of breeding bird species including several rare species such as the red-shouldered hawk, Acadian flycatcher, and Cerulean and hooded warblers.

Many bird species require core forest habitat for breeding purposes. This habitat is becoming more difficult to find in the growing metropolitan area. However, Murphy-Hanrehan Park Reserve has more than one square mile of contiguous forest that currently supports several types of avian species. This area is seasonally closed to the public and Three Rivers Park District management activities during the nesting season to protect and promote the regeneration and survival of birds requiring core woodland habitat for nesting.

## Wildlife Management

The matrix of prairie, wetlands, and oak forest supports a broad range of wildlife from generalist to specialized species. Species include mink, owls, woodpeckers, foxes, deer, raccoons, skunks, coyotes, wild turkeys, skinks, frogs, toads, salamanders, and Blanding's turtles. Studies have conservatively estimated that 85 to 90 native bird species are found within Murphy-Hanrehan Park Reserve.

A study is underway to identify strategies to protect Blanding's turtles during their seasonal migration. During the spring or summer seasons some of the Blanding's turtles leave the park reserve which poses a significant threat to their survival as development around the park reserve increases.

The park reserve also has several valuable water resources for wildlife. Minnregs and Hanrehan Lakes have greater wildlife value than Murphy Lake although all three generally support loons, herons, and egrets. In particular, recreational development along the southern shore of Hanrehan Lake should be avoided due to the prime nesting conditions for several species found along that shore. Wetlands in Murphy-Hanrehan Park Reserve generally support ducks, geese, and terns.

The forested, open, and wetland landscape mosaic provides choice habitat for many sensitive species including hooded and blue-winged warblers, Acadian flycatchers, loons, and red-shouldered hawks. The park reserve also hosts bird species typically found farther north, such as the yellow-bellied sapsucker and chestnut-sided and mourning warblers as well as those typically found further south such as the Acadian flycatcher and Cerulean and hooded warblers. The park reserve has been designated as an Important Bird Area by Audubon Minnesota.



Three Rivers Park District is researching ways to prevent Blanding's turtles from leaving the park reserve during the spring and summer months. The turtles' survival rate increases if they remain within the park reserve boundaries.



The mosaic of plant communities contribute to the diversity of wildlife found within the park reserve.

Deer control, through annual permitted hunts, is an ongoing management activity throughout Three Rivers Park District to keep deer herds in balance with available habitat. However, more control may be needed when major reforestation efforts or woodland rehabilitation are under way. Efforts are scheduled to protect newly planted materials from excessive grazing. Additional or extended hunts may be held to reduce the deer herd further, and it may be necessary to use sharpshooters if hunting alone does not achieve the desired result. Three Rivers Park District will continue to coordinate with surrounding communities to promote stabilization of deer numbers in areas adjacent to the park reserve.

Due to the relationship between wildlife and plant communities, wildlife management is strongly inter-connected with the existing and long-range vegetation management strategies for Murphy-Hanrehan Park Reserve.

### **Water Resources Management**

The major focus of surface water management under the guidance of Three Rivers Park District Water Resources Management Plan and Non-Degradation Policy in Murphy-Hanrehan Park Reserve is the restoration and protection of Murphy Lake, Minnregs Lake, and Hanrehan Lake. The Minnesota River-Shakopee major watershed which includes these three lakes is being converted from agricultural use to urban residential use. Three Rivers Park District will continue to work with the Credit River Watershed Management Commission, local municipalities, and lake associations to minimize the impact of urban development on the lakes.

Three Rivers Park District will advocate for strict compliance with a nondegradation policy during the land development process and provide technical assistance to the watershed commission to implement the policy. Monitoring of oxygen levels and operation of an aeration system will be necessary to maintain the fishing resource in Murphy Lake. However, Three Rivers Park District will not artificially manipulate the water levels of the lake basins to improve boating or fishing. Instead, an important water resource management objective is to maintain the natural water-level fluctuations of the lake basins which supports the long-term diversity and health of the existing native saprophyte populations in all three lakes. A major focus of the lake management efforts in Murphy-Hanrehan Park Reserve will be to maintain these populations.

The Credit River will be significantly affected by the urbanization of the watershed. Three Rivers Park District will continue to prioritize the health of the Credit River as a natural resource amenity while considering and participating in efforts to develop the Credit River as a recreation corridor. In turn, Three Rivers Park District will work with local municipalities to preserve and enhance the integrity of the Credit River in their planning efforts.

Park reserve facilities will be set back from lakes, streams, and wetlands to provide a buffer of natural vegetation between the structures and water bodies. In addition, all future development will include best management practices for water management such as nutrient detention basins, rain gardens, and infiltration basins to comply with the Board adopted nondegradation policy and may not increase the export of pollutants to water resources. Wetlands in the park reserve will be protected through rigorous compliance with the Minnesota Wetland Conservation Act.

Due to the sandy soils of Murphy-Hanrehan Park Reserve, the use of fertilizers and pesticides poses a potential threat to the underlying groundwater resources. Applications of fertilizers and pesticides in the park reserve will conform to the Pesticide and Fertilizer Use Policy guidelines to minimize the potential for these chemicals to leach into the groundwater. Storage of significant quantities of any toxic chemicals is not anticipated in this park reserve.

### Historical Vegetation Management

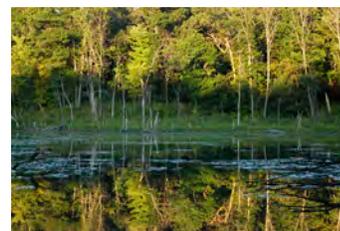
Vegetation changes within the boundaries of Murphy-Hanrehan Park Reserve in the 150+ years since the first Public Land Survey of the region have been influenced by both natural processes and the activities of humans. Many oak openings and prairie areas have been converted to oak forest through natural succession and the elimination of wildfire. To support agriculture at time of settlement, other open areas and oak forest sites were cleared and wetlands were drained.

Since the park reserve was established, many of those former agricultural sites have been reverting back to woody vegetation but not necessarily native oak forest. Many introduced plant species and out-of-place native plants have become established instead. The introduction of exotic species as well as impacts from native plant, insect, disease, animal, and abiotic pests that were not an issue in 1850 have disrupted the processes that regulated natural succession.

Logging, livestock grazing, development for farmsteads and homes (there are still several residential inholdings within the park), roads and trails have also impacted the natural resources of the park reserve.



Past land uses such as logging, livestock grazing, and development of farmsteads, homes, roads, and trails impacted the natural resources of the park reserve.



Many lakes, streams, and wetlands within the park reserve boundary are buffered from development. This practice, as well as other best management practices, are planned for future development projects.

In recent years, forest management within the park reserve has focused on reducing the impacts of oak wilt through inspection and control programs and monitoring other forest pest activity. Reforestation and forest regeneration efforts have been limited to small-scale seedling reforestation projects of less than 10 acres.

A natural resource inventory in 1976 identified a small prairie remnant north of Minnregs Lake. This remnant was significant because it identified rare native species. To promote this remnant landscape, Three Rivers Park District has been working to re-create a 240-acre prairie and re-establish a large wetland complex in the southern portion of the park reserve. The prairie restoration is a work in progress. Forbs are added to stands of native grasses as exotic weeds are eliminated. Control of exotic species will be a perpetual problem, as it is in all native communities. Management techniques of the prairie do not call for fertilizer applications.

As noted earlier, one of the most distinctive elements of the park reserve is the dramatic plant community transition across the landscape from the oak forest to the prairie/wetland complex. The spectrum of plant communities provides a diverse system of interconnected habitats and associated wildlife. The rich mix and abundance of avian species within the park reserve undoubtedly exist because of the size, integrity, and connectivity of the oak forest and prairie/wetland complex.

Without more aggressive management intervention, the oak forest and the uniqueness of Murphy-Hanrehan Park Reserve will gradually disappear.

### **Vegetation Management Plan**

Three Rivers Park District has already taken several steps necessary to achieve the natural resource vision for Murphy-Hanrehan Park Reserve. For example, genetic diversity has and will continue to be maintained in all plantings at Murphy-Hanrehan Park Reserve. A true native oak forest mix of tree and shrub seedlings are produced using seed collected from within Murphy-Hanrehan Park Reserve. Seedlings are propagated and grown at the District Nursery in Crow-Hassan Park Reserve. Current and future production will favor native oaks, but will include the other tree and shrub species indigenous to Murphy-Hanrehan Park Reserve.

In addition, Three Rivers Park District has a long history of supporting forest management research activities and forest pest control efforts conducted by state and federal agencies and the University of Minnesota. Considerable research on oak wilt control has been conducted at Murphy-Hanrehan Park Reserve.

Scientists from the University of Minnesota and the North Central Forest Experiment Station have investigated topics including: the role of root grafting on disease transmission; the efficacy of competing fungi as a control tool for reducing production and dissemination of oak wilt reproductive spores; the biology of nitidulid beetles and their role in the overland transmission of oak wilt; chemical disruption of root graft transmission of oak wilt and the efficacy of mechanical root graft barriers for managing the disease. Research has also been done on invasive species including buckthorn and garlic mustard.

For many years, the Three Rivers Park District has cooperated with and assisted the Minnesota and U.S. departments of agriculture as well as the Minnesota DNR with survey trapping to monitor for forest pests including gypsy moth, emerald ash borer, and exotic bark beetles.

To fully achieve the natural resources vision for Murphy-Hanrehan Park Reserve, additional vegetation management efforts must occur to protect and retain oak forest. These efforts include invasive species and pest control, planting/reseeding, protection of seedlings from animal damage, and restoring disturbed sites to original landforms.

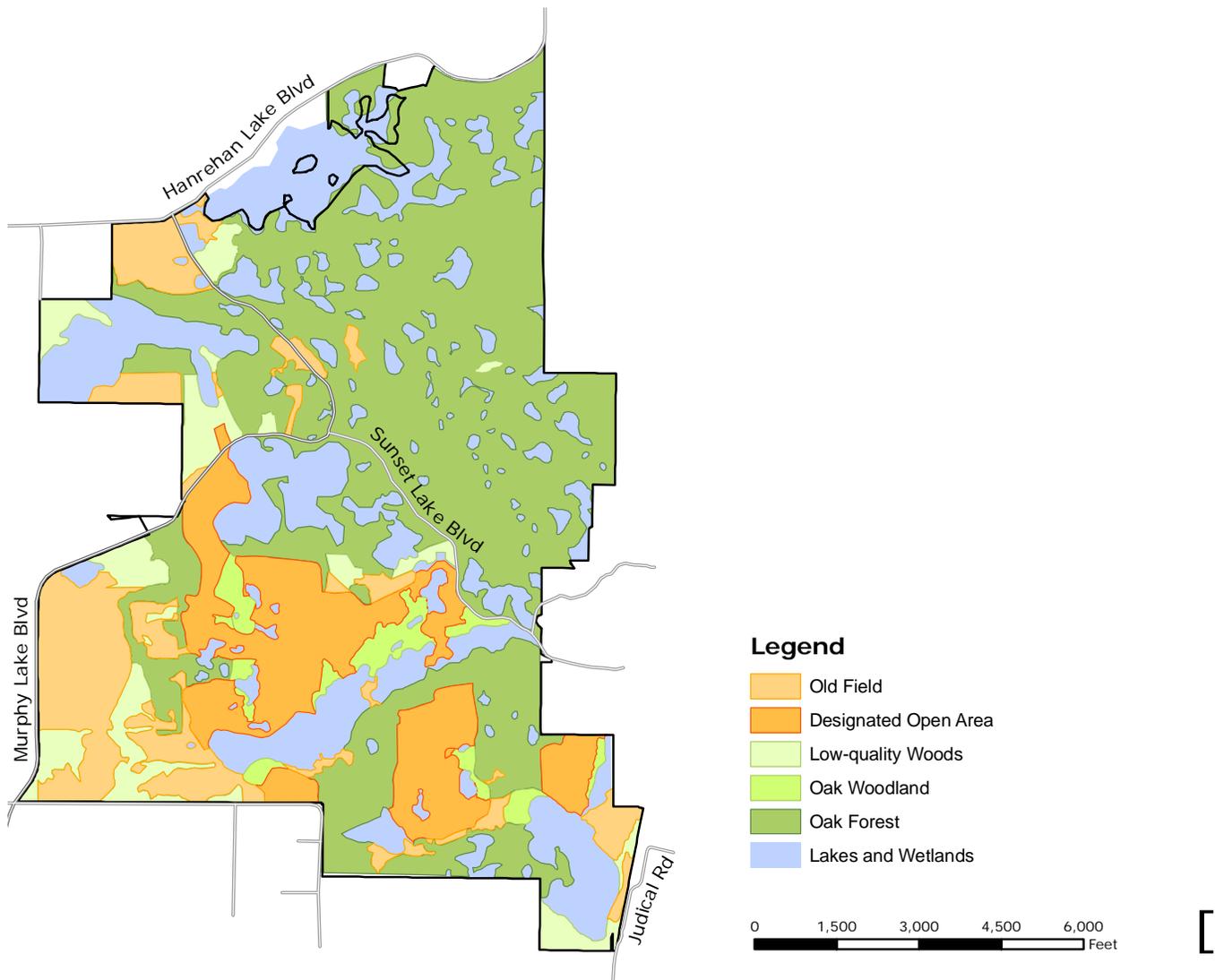
There are five primary areas targeted for specific vegetation management actions:

1. Regeneration of existing high-quality Oak forests (1,182 acres)  
Mature oak forests will not regenerate without catastrophic disturbance, because oak seedlings do not tolerate shade. Without aggressive forest management, shade tolerant invasive species (many not present 150 years ago) will replace oak as the dominant specie on forest sites. As oak forests decline from old age or are disturbed by factors such as storm damage, diseases, insects, invasive exotics, fire, or vandalism, forest management activities will be implemented to redirect the vegetation to oak forest.
2. Enhancement of woods (1,725 acres)  
Oak forest and woodland sites will be enhanced by invasive plant control programs and adding desirable native understory components.
3. Oak wilt management  
Three Rivers Park District will continue to perform aerial survey and ground inspections to identify areas of oak wilt. Application of root graft barriers are used to prevent underground transmission and sanitation measures are applied to eliminate overland transmission.

The intensive vegetation management plan, which supports the natural resource vision, ensures birding will remain a popular activity within Murphy-Hanrehan Park Reserve.

4. Improvements to existing low-quality forests (164 acres)  
 Forest areas dominated by box elder, ash, and other tree species not characteristic of oak forest will be converted to oak forest. Preparation of planting sites by eliminating undesirable trees, other woody vegetation, and herbaceous plants; installation of seed or plant materials; protection from animal damage; and control of invasive vegetation. This work will be accomplished over an eight-year period.
  
5. Reforestation of old fields to native woodlands (310 acres)  
 Preparation of planting sites by eliminating undesirable herbaceous plants; installation of seed or plant materials; protection from animal damage; and control of invasive vegetation. This work will be accomplished over a 15-year period.

**Murphy-Hanrehan Park Reserve**  
**Natural Resources Management Units**



## SECTION V: Development Plan

Murphy-Hanrehan Park Reserve has historically been managed and developed as a semiprimitive park in accordance with previous master plans for the park reserve. As a semiprimitive park, the park reserve offers greater recreational diversity for the Metropolitan Regional Parks System. This Master Plan update reiterates the importance of continued management and development of the park reserve as a semiprimitive recreational opportunity area.

Future development will be appropriate in scope and scale, and when possible, will be located on the periphery of the park reserve. Development will primarily focus on providing remote camping experiences, increasing fishing opportunities, and improving trailheads and existing trails.

### Existing Recreation Facilities

#### Horse Trailhead and Camp

A horse trailhead parking area for 15 trailers and 15 car stalls is located west of Murphy Lake off of Sunset Lake Road. This area also serves as a horse camp. Camp amenities include a well, open-sided shelter, vault latrine, security lighting, fire ring, picnic area, and overhead tether lines. This facility accommodates up to 20 people and 20 horses. Parking is often at capacity and overflow parking is very limited.

The camp can be reserved as a standard group camp for users without horses and also serves the dog-walking trails and multiuse trails in the winter.

#### Murphy Lake Boat Launch

A small concrete boat launch with a six-vehicle capacity gravel parking area is located on the northwestern corner of Murphy Lake. Murphy Lake is about 70 surface acres and contains black bullhead, black crappie, bluegill, and yellow perch. In 1998, the lake was stocked with walleye fry. Gasoline motors or augers are not allowed on the lake; however, electric trolling motors are permitted.



Fishing within the park reserve is a year round activity. Gasoline motor restrictions on Murphy Lake help preserve the wilderness integrity of the fishing experience.



The horse camp area is also used as a trailhead for hikers and dog walkers. The parking is often at capacity.

## Main Trailhead

The main trailhead is located near the northern boundary of the park reserve south of Hanrehan Lake on Hanrehan Lake Boulevard. The trailhead serves hikers, cross-country skiers, and mountain bikers. The trailhead facility includes turf parking for 180 vehicles, vault latrines, drinking water, and a 1,386-square-foot trailhead building (including 450 square feet of storage on a second level). The building is open year-round on a limited basis as a warming house for cross-country skiers in the winter and a shelter for mountain bikers and hikers in the summer.

## Trails

### Single-track mountain-bike trail

A 9.75-mile network of sustainable, single-track mountain-bike trail was opened to the public in 2007. The network is located in the northwestern area of the park reserve, across Murphy Lake Boulevard from the main trailhead. The trail network is designed as a stacked looped system and is divided into three difficulty levels: 1.0 mile of beginner trail, 2.25 miles of intermediate trail, and 6.5 miles of expert trail. The single-track trail will continue to evolve over the next several years as technical trail features such as jumps, rock outcroppings, and terrain challenges are added.

### Horse trails

There are 13.9 miles of horse trails within the park reserve. The horse trails are generally concentrated in the southern portion of the park reserve and away from areas of the park reserve with the greatest topographic changes to minimize potential erosion impacts. The horse camp/trailhead facility located on Sunset Lake Road provides basic amenities including parking, potable water, vault latrines, and tether lines for horse riders.

### Snowmobile trails

During the winter season, snowmobiling is allowed on four miles of the horse trails that run adjacent to the southern park boundary. Horses are not allowed on the trail segment during the winter season. This snowmobile segment currently forms a critical link between a larger network of snowmobile trails.

Snowmobiling will continue to be allowed along this trail segment as long as it continues to connect to a sanctioned snowmobile trail system outside of the park reserve.



The new single-track trail will evolve over the next several years as additional technical trail features and enhancements are added.

### Cross-country ski trails

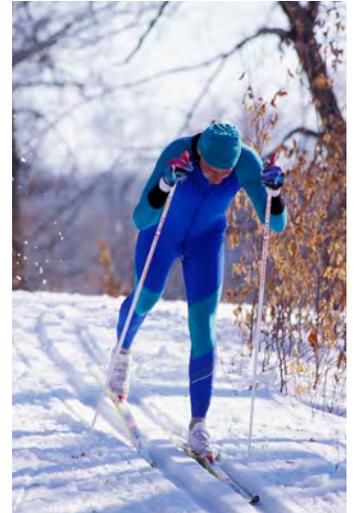
The cross-country ski trail network is 12 miles in length. The trail system winds through the kame and kettle area of the park reserve. It is one of the most challenging cross-country ski trails in the region and has been recognized as one of the best places for cross-country skiing in the metropolitan area. It is designed for advanced skiers seeking challenging terrain and long trail segments. Beginning cross-country skiing opportunities complete with rentals and lighted trails are supported and available at Cleary Lake Regional Park.

The ski trails are routinely groomed when snow cover is sufficient. Additional cross-country skiing support services are available at the main trailhead facility.

### Hiking trails

The park reserve offers 21.4 miles of hiking trails of various difficulty levels and experiences. Trails vary from narrow pathways to mowed turf trails. Many of the trails in the northeastern corner are hilly and under a dense canopy of the oak forest. The trails in the south-central portion of the park reserve are significantly flatter and aligned through the open prairie.

Some segments of hiking trails are multipurpose trails, allowing horseback riding or dog-walking during the summer season. During the winter season, the hiking trails may also allow dog-sledding, skijoring, snowshoeing, dog-walking, and winter walking.



Challenging terrain and long trail segments are designed with the experienced skier in mind.

## Proposed Recreation Development

### Backpacking and canoeing campsites

To provide the needed diversity of a semiprimitive recreational opportunity area, the development plan for this park reserve includes the initial development of four semiprimitive backpack campsites and two canoe campsites. This vision for remote camping sites was first recognized in the original 1978 Park Master Plan.



Backpacking and canoeing campsites offer users with advanced outdoor skills the opportunity to interact with the wilderness on a more intimate level.

The specific location of each site will be determined through detailed on-site evaluations. The Master Plan recommends locating two backpack sites in the oak forests of the northwestern area of the park reserve, and two backpack sites in the more open southern half of the park reserve, and two canoe sites along the southern shore of Murphy Lake.

If warranted by demand, additional backpack and canoe campsites can be developed in the future.

Each campsite will be large enough to accommodate two tents. Users must backpack or canoe their own potable water to their campsite; however, to protect the natural resources and minimize the footprints of each site, firewood and toilets will be provided near each site.

Permits and fees for camping will be required.

### **Improvements to main trailhead facility**

The existing building at the main trailhead does not provide adequate services desired by visitors. Currently, it is too small to serve as an adequate outdoor education staging area.

The Master Plan recommends a new 3,000-square-foot trailhead building. To meet the needs expressed by visitors, the new building will include flush toilets, changing rooms, potable water, and a fireplace for winter warming. The main room of the trailhead building will serve as an outdoor education staging area for wilderness-skill classes, interpretive walks, and other organized programming that reflects the semiprimitive nature of the park reserve.

The new building will continue to serve as the trailhead for the hiking trails in the northern half of the park reserve as well as the mountain-bike and cross-country ski trails. In the future, the building may also serve as a trailhead to a Dakota or Scott County regional trail along Hanrehan Lake Boulevard.

A 50-car paved parking lot constructed with pervious pavement (if feasible) and rain gardens will replace the existing 180-car turf lot. A portion of the original lot will be retained for overflow parking.

During the planning stages of the new main trailhead facility, the existing trailhead building will be studied to determine the feasibility for future use.

### **Murphy Lake boat launch and fishing pier**

A canoe/small boat dock will be added to the existing boat launch. Minimal site improvements in the form of signage, benches, and other amenities are proposed.

Murphy Lake is very shallow, with the exception of a 30-foot deep hole in the eastern half of the lake. To provide improved opportunities for shore-fishing, a fishing pier will be added on the northeastern side of Murphy Lake to provide access to the deep-water area.

The topography of the shore in that area is steep, and the fishing pier will require non-ADA compliant stairs leading from Sunset Lake Road down to the pier. A small five-car parking area will be located across the road from the stairs leading to the pier.

### **New horse/dog-walking trailhead**

The existing horse trailhead parking lot is at capacity on weekends during the summer season. The parking lot at this site cannot be expanded without significant grading and impact to the surrounding vegetation. The current trailhead also serves the dog-walking trail.



A new horse and dog-walking trailhead will relieve some of the parking pressures at the existing horse camp parking lot and will separate daily users from over-night users.

An additional horse trailhead will be developed in the southwestern corner of the park reserve to help relieve the parking pressures of horseback riders. This trailhead will accommodate an additional 30 vehicles with trailers, and will provide vault latrines, potable water, and water for horses. The location will connect directly to the horse trail network and the dog-walking trail.

### **Minnregs Lake improvements**



The Minnregs Lake trailhead will increase access to the park reserve from surrounding communities and provide a basic level of recreational services.

Minnregs Lake is adjacent to the City of Lakeville, which is one of the fastest-growing communities in the metropolitan area. The city has a well-developed and popular local trail network that logically connects to park reserve trails at Minnregs Lake. In addition, Dakota County has a planned regional trail that will connect to the city trails and the park reserve trails at Minnregs Lake.

To accommodate local trail access, regional trail access, and park reserve trail access, the Master Plan recommends development of a trailhead facility along the eastern edge of Minnregs Lake. The trailhead will be comprised of the following:

- An ADA-accessible fishing pier;
- An aeration system to prevent winter-kill of fish;
- Parking for 10 vehicles; and
- Basic site amenities including vault latrines, potable water, and a small picnic area.

The new trailhead would provide direct access to the unpaved trail encircling Minnregs Lake. Segments of the southern portion of the trail closely parallel the lakeshore and are periodically underwater. In keeping with the semiprimitive nature of the park reserve, the Master Plan recommends leaving the unpaved trail around Minnregs Lake in place, with improvements only as needed for protection of natural resources and functionality of the trail.

### **Internal trail system improvements**



Improvements to the existing trails intend to reduce erosion, avoid unsustainable conditions, and enhance the trail user's experience.

Trail improvements are needed throughout Murphy-Hanrehan Park Reserve. Several trails have become degraded as a result of unauthorized trail use and incompatibility between trail alignment and use.

Three Rivers Park District is addressing these trail concerns with the construction of a new sustainable mountain-bike trail system, restricting specific uses to specific trail segments, and seasonally closing select trail segments. However, additional trail inventory is needed to determine how trail alignments and surfaces can be further improved. Improvements will likely include realigning segments of trails; re-grading trails to direct runoff across rather than down a trail; adding bridges, boardwalks, or culverts in seasonally wet locations; and closing some trail segments due to unsustainable circumstances. Signage will be added to better identify where trail users are in the park reserve and what uses are allowed on each trail segment. Improvements may also be in the form of increasing trail access by implementing new trail spurs to connect to local and regional trail networks.

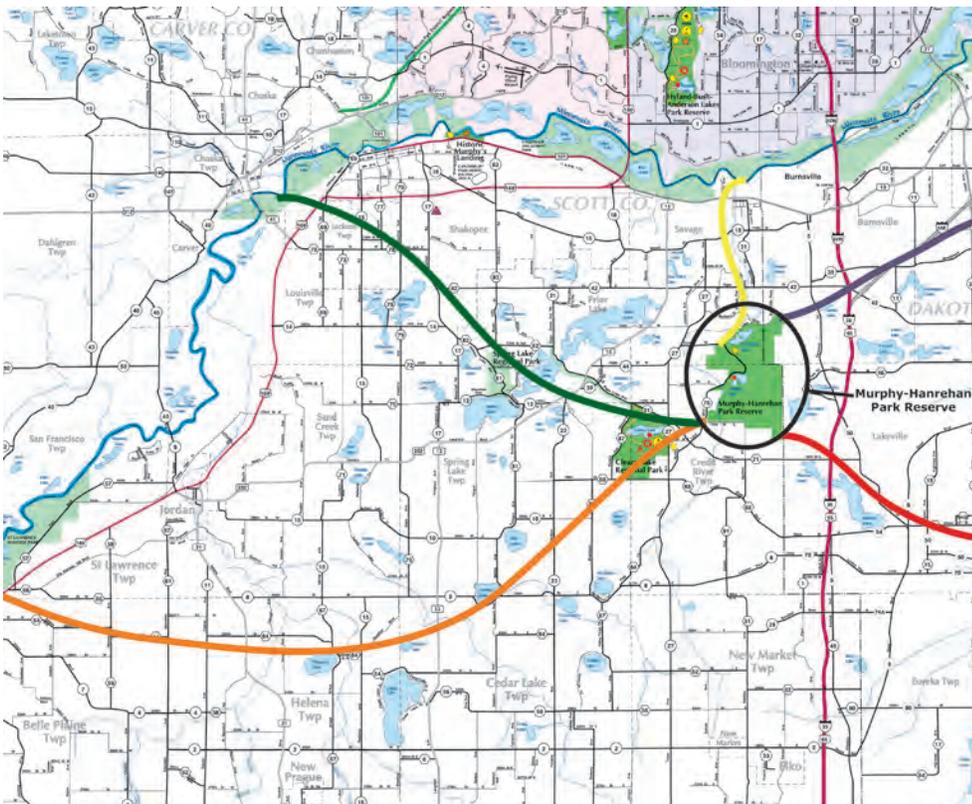
In addition, the Master Plan recommends realigning or seasonally closing the short trail segment that divides the wildlife preservation area into a north and south half in order to better preserve one continuous area for bird breeding purposes.

Until a comprehensive trail inventory and management program are implemented, the short-term objective for the existing trail system is to keep the trail safe and open to the public and, as resources allow, to prevent further degradation.

### Regional trails

Scott and Dakota Counties have envisioned several regional trails connecting to Murphy-Hanrehan Park Reserve. Regional trail study corridors are shown on the adjacent map and include several opportunities to link Murphy-Hanrehan Park Reserve with the proposed regional trails. Regional trails can be accommodated without significant impacts to natural resources or the semiprimitive character of the park reserve if the trails are located on the periphery. In turn, the regional trail network will provide increased access and visitation to the park reserve. With the exception of the proposed trailhead developments outlined above, there are no additional regional trail development projects proposed in this Master Plan. Three Rivers Park District will continue to coordinate with Dakota and Scott Counties on regional trail planning.

General regional trail study corridors in the area of Murphy-Hanrehan Park Reserve.



## Proposed Natural Resource Development

There are five natural resource projects that are included as master plan development projects. These projects are beyond the scope of existing staffing levels, and cost efficiencies can be realized through the use of specialized contracting services.

1. Erect and maintain deer enclosure fences to protect planting sites  
The vegetation management plan calls for planting a minimum of 474 acres. In addition to significantly reducing and managing the white-tail deer population, some planting sites will require deer enclosure fencing to allow seedling establishment. An estimated 20,000 feet of fencing will be purchased and installed over a 15-year period as needed to protect plantings.
2. Support for forest research  
Three Rivers Park District has partnered and collaborated with state and federal research efforts on forest pests, invasive species, and hardwood forest management. However, to fully realize the natural resources vision for Murphy-Hanrehan Park Reserve, further research is needed to identify new strategies for promoting the long-term health of the forest, wetlands, and prairie within the park reserve. The master plan recommends collaborating with appropriate partners such as the University of Minnesota, the state and/or the federal government.
3. Improvements to existing low-quality forests  
Improvements will be made on the 164 acres of existing low-quality forests within the park reserve to convert those sites to oak forest. Specific actions will include preparation of planting sites by eliminating undesirable trees, other woody vegetation, and herbaceous plants; installation of seed or plant materials; protection from animal damage; and control of invasive vegetation. An outside vegetation management firm will be contracted to remove the undesirable woody vegetation. These improvements will be accomplished over an eight-year period.
4. Disturbed site restoration work  
There are several old road beds, borrow pits, earth mines, old homesites, and earth material dumps throughout the park reserve that are considered disturbed sites and which are in need of restoration. Restoration efforts include re-grading and soil enhancement. An outside firm will be contracted to perform this work.

#### 5. Prairie/wetland complex enhancement

Enhancements to the existing wetlands and creation of new wetlands will occur in select areas of the prairie/wetland complex. The wetland enhancements will be made to both shallow ephemeral wetlands as well as deeper, more permanent wetlands and will provide habitat improvements to the associated wildlife including but not limited to the park reserve's songbird, frog, and Blanding's turtle populations.



Several planned regional trails terminate at the park reserve. Aligning the regional trails to the park reserve periphery is essential to preserving the wilderness character.

## Public Service Facilities

### Maintenance Facility

Murphy-Hanrehan Park Reserve does not have a maintenance facility within the park reserve. Maintenance activities for Murphy-Hanrehan Park Reserve are supported through the maintenance facility at Cleary Lake Regional Park.

At this time, the existing and proposed facilities and activities at the park reserve do not warrant a maintenance facility or staff separate from Cleary Lake Regional Park. The Cleary Lake Regional Park maintenance facility is planned to be upgraded in the near future. The maintenance facility improvements will be better able to support the proposed recreational development and natural resources management plans at Murphy-Hanrehan Park Reserve.

The planned wetland enhancements provide wildlife with a greater diversity of wetland habitats and aim to help retain the Blanding's turtle within the park reserve boundaries.

## Utilities

Murphy-Hanrehan Park Reserve is one of Three Rivers Park District's most rustic parks. The utilities and public services necessary to operate the park at this level are minimal. There is one pay phone located at the main trailhead facility. Facilities requiring electricity are limited to the trailhead and boat launch (Minnesota Valley Electric) and the horse camp (Dakota Electric). Natural gas, sewer, and water service are not available within the park reserve at this time. In lieu of municipal sewer and water services, several vault latrines and two wells, one at the trailhead and one at the horse camp, are located within the park reserve.

Emergency services are provided by the respective municipalities.

Additional utilities and public services may be required for several of the proposed development components, including the trailhead facility upgrades.

## Development Area Status

Three Rivers Park District Policy IV states "As a legacy to future generations and to establish and maintain an uncompromising sense of nature, 80 percent of each regional park reserve's land base shall be restored to and retained in a natural state as a viable entity, permitting up to 20 percent to be developed for compatible active-recreation use."

Within regional park reserves, up to 20 percent of the upland base (excluding lakes and most wetlands) can be zoned as recreational development areas. Recreational development areas include, but are not limited to, facilities such as picnic grounds, swimming beaches or swim ponds, creative play areas, and trails.

The linear footprint of trails within regional park reserves is considered part of the 20 percent developable land base. Support facilities such as maintenance shops, roads, and parking areas also are considered part of the recreational development area.

Development plans for the park reserve are limited to 4.5% of the land base.

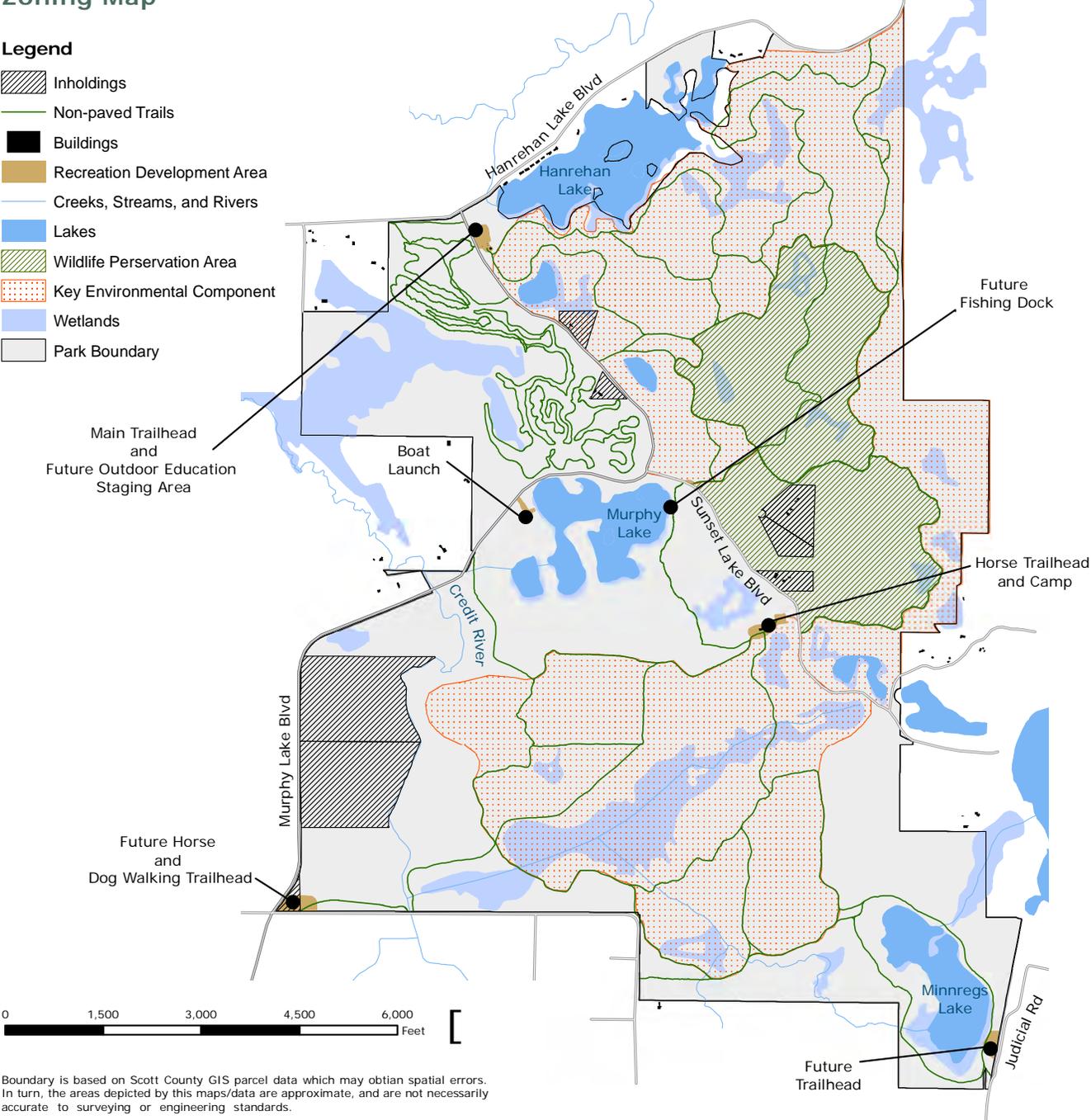
The total upland base (excluding lakes and wetlands) within the boundary of Murphy-Hanrehan Park Reserve is 2,201.5 acres. One hundred acres—or 4.5 percent of the total upland base—are zoned as recreational development areas in the 2007 Murphy-Hanrehan Park Reserve Master Plan.

# Murphy-Hanrehan Park Reserve

## Zoning Map

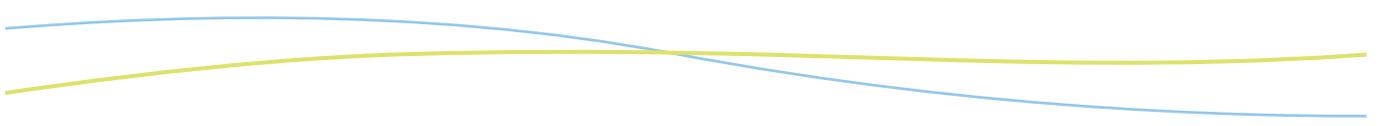
### Legend

-  Inholdings
-  Non-paved Trails
-  Buildings
-  Recreation Development Area
-  Creeks, Streams, and Rivers
-  Lakes
-  Wildlife Preservation Area
-  Key Environmental Component
-  Wetlands
-  Park Boundary



Boundary is based on Scott County GIS parcel data which may obtain spatial errors. In turn, the areas depicted by this maps/data are approximate, and are not necessarily accurate to surveying or engineering standards.





## SECTION VI: Operations and Management

Murphy-Hanrehan Park Reserve is operated under Three Rivers Park District ordinances and policies. The park is overseen by full-time professional operations and maintenance staff. Services and maintenance staffing levels are increased as needed through the employment of seasonal staff. Park Service Officers and Park Police Officers provide public safety services. Maintenance services for Murphy-Hanrehan Park Reserve are provided by maintenance operations at Cleary Lake Regional Park.

### Ordinances

Three Rivers Park District Board of Commissioners has adopted a set of ordinances that define the rules and regulations of Three Rivers Park District in order to provide for the safe and peaceful use of the parks and corresponding facilities; for the educational and recreational benefits and enjoyment of the public; for the protection and preservation of the property, facilities, and natural resources; and for the safety and general welfare of the public.

A copy of the ordinances may be obtained from the Three Rivers Park District Web site ([www.ThreeRiversParkDistrict.org](http://www.ThreeRiversParkDistrict.org)). Rules and regulations are also posted throughout Three Rivers Park District properties and facilities. Posted information includes park hours, permitted and prohibited activities, fees, map of the park and/or trails, and who to contact in case of an emergency. Three Rivers Park District Police and Park Service Officers regularly patrol all property and trails on foot and by horse, bicycles, and motor vehicles. When necessary, ordinances may be enforced via citations.

### Operations—Public safety

The Public Safety Section consists of Park Police Officers, Park Service Officers, and support staff. Park Police Officers are licensed peace officers in the State of Minnesota and have the authority to arrest and detain criminal offenders and enforce a variety of traffic laws just like other law-enforcement officers throughout the state. Additionally, Park Police Officers are highly trained in administering first aid and most are certified as Emergency Medical Technicians. Park Police Officers strive to be proactive and utilize a variety of alternative patrol techniques that include mounted, snowmobile, bicycle, and four-wheel ATV patrols.

Park Service Officers have enforcement authority as well, but it is limited to minor park offenses. Park Service Officers are an important component of the Public Safety function, and they communicate directly with the Park Police Officers when they observe suspicious or criminal behavior. Park Service Officers are very knowledgeable in park activities and are relied upon to assist with traffic flow and parking issues, as well as to administer first aid to park users who may be ill or who may have been injured.

Three Rivers Park District's Public Safety Plan includes the general patrol of regional parks and park reserves by a Park Police Officer or Park Service Officer. Many high-volume parks have a Park Service Officer stationed at the respective park to be readily available to provide assistance to park users. To meet the public safety needs generated by the addition of the facilities proposed in the Master Plan, and the overall visitation growth expected through 2030, the Master Plan identifies additional staffing of 1 full-time (FTE 1.0) Public Safety Officer incumbent upon and in accordance with the park reserve's improvements.

## Operations—Maintenance

Due to extensive property holdings, geographic distribution of facilities, and the need to create an efficient and cost-effective work force, Three Rivers Park District organizes and budgets maintenance services in three geographic divisions. Within each division are two work clusters that typically provide maintenance service for four to six Three Rivers Park District parks, park reserves, and regional trails. The Cleary Work Unit of Three Rivers Park District's Minnesota Division provides maintenance services for Murphy-Hanrehan Park Reserve.

## Operations—Natural resources

Three Rivers Park District Parks Operations Services Department provides natural resources management services for each park and park reserve. Natural resources management for Murphy-Hanrehan Park Reserve is discussed in depth in Section IV of the Master Plan.

## Sustainability

Three Rivers Park District strives to incorporate sustainable practices into its daily operations, programming, resource management, and every new planning, design, and construction project. Three Rivers Park District will consider implementation of green technology such as pervious pavement, rain gardens, geothermal heating, green roofs, recycled products, and other innovative techniques into future infrastructure enhancements, as appropriate.

In addition, Three Rivers Park District will continue to utilize guidelines such as Minnesota Sustainable Building Guidelines (B3 Project) and the Leadership in Energy and Environmental Design (LEED) Rating System in the planning and development of project initiatives. Three Rivers Park District will continue to pursue and implement sustainable principles that encourage conservation of natural resources, energy conservation, waste reduction, maintenance of healthy environments, and achievement of lowest life-cycle cost.

## Solid-waste management

Three Rivers Park District contracts solid waste removal. Receptacles are located in designated areas within the park system and include recycling containers. Recycling material includes cardboard, aluminum, paper, and glass. Three Rivers Park District encourages recycling through provision of comingling (nonseparation) of recycling materials. Additional recycling services are located in nature and visitor centers, where vending and concession services are available. Extra efforts are made in remote park offices to recycle through central collection practices. All recycling and waste generated by Three Rivers Park District is processed; land filling is not allowed.

## Outdoor education programming

Consistent with the park reserve's semiprimitive character, outdoor education programming efforts provide access to the park's natural resources in a manner that protects rather than exploits them. Murphy-Hanrehan Park Reserve offers one of the richest opportunities for geological interpretation and experience of a relatively undisturbed wilderness in the metropolitan area. The outdoor education program is built upon promoting awareness and interaction with the geological and ecological uniqueness of the site.

Specifically, the outdoor education program will provide opportunities for park-system visitors who are pursuing outdoor skills development, including topics such as backpacking, minimum impact camping, survival skills, wild edibles, camp cookery, canoe/kayak touring, mountain biking, and advanced cross-country skiing. Consistent with Three Rivers Park District's commitment to using outdoor recreation as a vehicle for environmental interpretation, these outdoor skills programs will also foster understanding and appreciation of the park reserve's natural resources. Other programs will provide specific instruction pertaining to the unique geology, ecology, and bird life of the park reserve. While the "classroom" will typically be the interior of the park reserve, the expanded trailhead building will serve a critical role as the primary staging area for these education opportunities, offering a large indoor space for getting organized and pre/post session discussions.



Outdoor education at Murphy-Hanrehan Park Reserve focuses on protecting natural resources rather than exploiting them as well as providing opportunities for park visitors to pursue outdoor skill development.

## Outreach and marketing

Three Rivers Park District's Marketing Communications Section manages a centralized marketing communications function that oversees public relations, marketing, media relations, the Web site, brand management, event planning, and promotion. A number of effective marketing and outreach tools are used to promote Three Rivers Park District including but not limited to an annual distribution of a district-wide map, the Web site, direct mail, press releases, centralized reservation system, feedback phone line, brochures, ads, and on-site promotion.

Three Rivers Park District collaborates with a wide array of community, business, and government organizations promote its facilities, programs, and services, and to educate the public about its resources. Three Rivers Park District also works with the Metropolitan Regional Parks System and the State Office of Tourism to leverage shared opportunities for creating awareness and visibility, and works with county agencies to provide information about scholarship programs available to individuals receiving economic assistance.

# SECTION VII: Estimated Costs and Funding

## Acquisition costs

<b>Parcel &amp; Benefit Value</b>	<b>Acres</b>	<b>2006 Tax Assessed Value</b>
<b>Significant</b>		
1	2.5	\$25,000
2	100	To be negotiated
<b>Critical</b>		
3	2.6	\$203,000
4	4.6	\$227,300
5	4.7	\$273,200
6	16.8	\$505,500
<b>TOTAL</b>	<b>131.2</b>	<b>\$1,234,000*</b>

\*Does not include Parcel ID which is to be negotiated

## Recreational Development Costs Summary\*

Development Area/Project	Estimated Cost (2007 dollars)
Backpacking(4) /Canoe(2) Campsites	\$50,000
Main Trailhead <ul style="list-style-type: none"> <li>• Parking lot for 50 vehicles - \$350,000</li> <li>• Parking lot: pervious pavement and rain gardens - \$200,000</li> <li>• Sanitary sewer/water - \$250,000</li> <li>• New building (3,000 SF, with plumbing) - \$1,200,000</li> </ul>	\$2,000,000
Murphy Lake Boat Launch improvements	\$10,000
Murphy Lake Fishing Pier <ul style="list-style-type: none"> <li>• Stairs - \$10,000</li> <li>• Parking lot for 5 vehicles - \$50,000</li> <li>• Fishing Pier - \$30,000</li> </ul>	\$90,000
New Horse/dog-walking trailhead <ul style="list-style-type: none"> <li>• Parking lot for 30 vehicles/trailers - \$500,000</li> <li>• Vault Latrines - \$45,000</li> <li>• Drinking water/well - \$25,000</li> </ul>	\$570,000
Minnregs Lake <ul style="list-style-type: none"> <li>• ADA-compliant fishing pier and trail - \$230,000</li> <li>• Parking lot for 10 vehicles - \$100,000</li> <li>• Picnic shelter 24' x 36' including sitework - \$175,000</li> <li>• Vault latrines - \$45,000</li> <li>• Drinking water (assume well is needed) - \$25,000</li> <li>• Lake aeration system - \$20,000</li> </ul>	\$595,000
Internal trail system improvements <ul style="list-style-type: none"> <li>• Addition of at least 10 bridges/boardwalk/or culverts, realigning trail segments, rebenching the existing trail tread, improving signage, and other trail improvements.</li> </ul>	\$750,000
<b>TOTAL</b>	<b>\$4,065,000</b>

\*Cost estimates include planning, design, and construction fees.

## Natural Resources Development Costs Summary

<b>Project</b>	<b>Estimated Costs (2007 dollars)</b>
<ul style="list-style-type: none"> <li>• Deer fence enclosure fencing</li> <li>• 15-year timeframe</li> <li>• 20,000 linear feet</li> <li>• Average annual cost: \$8,000</li> </ul>	\$120,000
<ul style="list-style-type: none"> <li>• Support for forest research on Long-term forest, wetlands and prairie health</li> </ul>	\$100,000
<ul style="list-style-type: none"> <li>• Improvements to existing low-quality forests</li> <li>• 164 total acres</li> <li>• Eight-year time frame</li> <li>• 20 acres/year @ \$2,000/acre: \$40,000/year</li> </ul>	\$328,000
<ul style="list-style-type: none"> <li>• Disturbed site restoration</li> <li>• Grading</li> <li>• Soil enhancement</li> <li>• Planting</li> </ul>	\$150,000
<ul style="list-style-type: none"> <li>• Prairie/wetland complex enhancement</li> <li>• Wetland enhancement to promote wildlife habitat</li> <li>• Prairie enhancement to promote wildlife habitat</li> </ul>	\$100,000
<b>Total</b>	<b>\$798,000</b>

## Implementation schedule

Development will occur as funding becomes available and at the discretion of Three Rivers Park District Board of Commissioners.

## Operating costs

In order to maximize operating resources, Three Rivers Park District maintains geographically dispersed work units. Services include natural resources management, maintenance, public safety, and facility and program services. Three Rivers Park District monitors all resources needed to provide support services across Three Rivers Park District work units. Current year operating costs include an estimate of labor hours expended at the park unit, commodities, and contracted services directly charged to the park unit. Administrative and management costs are not included in the estimates. The estimates for future operating budget expenditures, as reflected in this Master Plan, represent additional costs that will be incurred by District-wide or geographical work units as capital development is implemented.

### **Maintenance operating costs**

The 2007 annual cost for maintaining Murphy-Hanrehan Park Reserve is projected to be \$83,750. At the time the Master Plan is fully implemented and all development completed, the annual operating and maintenance costs are estimated to increase by \$70,700 to a total of \$154,450 in 2007 dollars.

Due to the cost savings associated with providing maintenance through sub-regional work clusters, much of the maintenance equipment and tools needed for maintenance of planned facilities are already in place. However, some site-specific equipment will need to be purchased at an estimated one-time cost of \$62,000.

### **Public safety operating costs**

The current annual cost for Public Safety services at Murphy-Hanrehan Park Reserve is approximately \$15,000.

Projected costs for Public Safety annual operating services at Murphy-Hanrehan Park Reserve upon completion of all proposed recreational developments and a 2030 annual visitation level of 72,000 visits is approximately \$50,000 (2007 dollars)—an annual increase of \$35,000. This figure includes additional staff requirements of one full-time Park Service Officer (FTE 1.0). There is an estimated one-time expected cost of \$30,000 for equipment and vehicles.

### Wildlife operating cost

The current annual cost for Wildlife Operations at Murphy-Hanrehan Park Reserve is approximately \$25,000.

The costs include prairie and open space management, exotic species control in designated open areas, and control of wildlife. Vegetation surveys, monitoring, and enhancements for wildlife species including the Blanding's turtle as well as prairie and woodland birds are included in this cost.



Annual seed collecting is a vital aspect of prairie management and restoration efforts.

### Water resources management operating cost

The current annual cost for water resources services at Murphy-Hanrehan Park Reserve is approximately \$5,000.

The costs include lake monitoring, well monitoring, aeration-system permitting and operation, and culvert inspections.

### Vegetation management operating costs

Currently, \$76,500 is budgeted annually for oak wilt management at Murphy Hanrehan Park Reserve. A total of \$122,000 is budgeted for the seedling reforestation program District-wide. Of that amount, \$61,000 will need to be specifically directed to reforestation efforts in Murphy-Hanrehan Park Reserve for up to 23-years. A one-time cost of \$20,000 is required for a large-scale deer removal program prior to initiation of planting. Deer removal will continue to occur on an on-going basis and will be funded through the annual operating budget. An annual operating increase of \$115,000 (2007 dollars) is required to fund forest management (oak forest regeneration and enhancement) and would include a 1.0 FTE Forestry Specialist position and seasonal help.

### **Program and facility services operating cost**

Three Rivers Park District delivers services to park visitors through naturalists, recreation programmers, facility attendants, and supervisory staff to support cross-country skiing, mountain biking, hiking, and camping at backpacking or canoe campsites.

The total anticipated facility and program services costs when all facilities are operational is \$35,000 in 2007 dollars.

### **Funding sources**

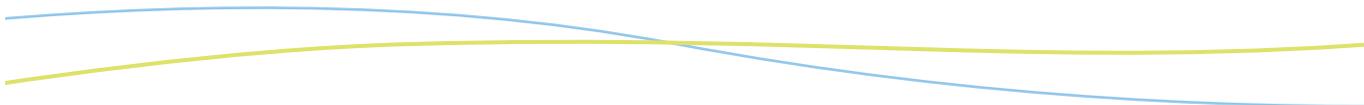
Annual operating costs are funded through Three Rivers Park District General Fund Budget. The primary source of these funds is through property taxes of residents of suburban Hennepin County. Because Murphy-Hanrehan Park Reserve is outside of Three Rivers Park District's taxing jurisdiction, additional funding contributions for the park reserve are negotiated with Scott County on an annual basis. Additional revenue is received from the State of Minnesota as part of the Operations and Maintenance Fund allocations from the Council. Some of the annual rehabilitation costs also may be funded from Three Rivers Park District's Park Preservation, Rehabilitation, and Maintenance (PRP) Fund, which includes revenues allocated to Three Rivers Park District from the State of Minnesota Lottery in Lieu of funds source as well as Three Rivers Park District general obligation bonds.

The Council and State of Minnesota provide funding for acquisition, development, and redevelopment projects through the Regional Parks Capital Improvement Program (CIP). The development proposed in this Master Plan may be funded through the Regional Parks CIP, through Three Rivers Park District bonds, donations, and/or other funding sources that may be available at the time of development. For example, funding for specific projects may be acquired through appropriate State grant programs for fishing piers and CORE - Cooperative Opportunities for Resource Enhancement.

## Other revenue

Additional revenue for this park reserve will come through overnight camping fees for the backpacking and canoe campsites, rental fees for the trailhead building, reservation fees for the group horse camp, annual horse trail pass permits, and annual and daily cross-country ski pass permits. The existing facilities and fees generated approximately \$5,000 in revenue in 2006. The combined revenue from user fees, passes, and facility rentals is projected to be \$18,000 when all facilities proposed in the Master Plan are fully operational.





# APPENDICES



# APPENDIX A: Wetland Descriptions

Wetland Type	Soil	Hydrology	Vegetation	Common Sites
1	Usually well-drained during much of the growing season	Covered with water or waterlogged during the variable seasonal periods	Varies greatly according to season and duration of flooding from bottomland hardwoods to herbaceous plants	Upland depressions, bottomland hardwoods (floodplain forests)
2	Saturated or nearly saturated during most of the growing season	Usually without standing water during most of the growing season but waterlogged within at least a few inches of the surface	Grasses, sedges, rushes, various broadleaved plants	May fill shallow basins, sloughs, or farmland sags; may border shallow marshes on the landward side and include low prairies, sedge meadows, and calcareous ferns
3	Usually water logged during the growing season	Often covered with 6" or more of water	Grasses; bulrushes; spikerush; and various other marsh plants, such as cattail, arrowhead, pickereralweed, and smartweed	May nearly fill shallow lake basins or sloughs; may border deep marshes on landward side, commonly as seep areas near irrigated lands
4	Usually covered with 6" to 3' or more of water during the growing season	Usually covered with 6" to 3' or more of water during the growing season	Cattail; reed; bulrush; spikerush; and wild rice; open area may have pond weed, duckweed, waterlily, and spatterdock	May completely fill shallow lake basins, potholes, limestone sinks, and sloughs; may border open water in such depressions
5	Inundated	Usually covered with less than 10-foot-deep water; includes shallow ponds and reservoirs	Fringe of emergent vegetation: pond weed, duckweed, waterlily, and spatterdock	Shallow lake basins and may border large open water basins
6	Usually waterlogged during the growing season	Often covered with as much as 6" of water; water table is at or near the surface	Includes alder, willow, buttonbrush, dogwood, and swamp privet	Along sluggish streams, drainage depressions, and occasionally on floodplains
7	Waterlogged within a few inches of the surface during the growing season	Often covered with as much as 1' of water; water table is near the surface	Hardwood and coniferous swamps with tamarack, northern white cedar, black spruce, balsam fir, balsam poplar, red maple, and black ash, deciduous sites frequently support beds of duckweed and smartweed	Mostly in shallow ancient lake basins, old riverine oxbows, flat terrains, and along sluggish streams
8	Usually waterlogged during the growing season	Water table at or near the surface	Woody, herbaceous, or supporting a spongy covering of mosses; typical plants are heath shrubs, sphagnum mosses, sedges, leatherleaf, Labrador tea, cranberry, and cottongrass; may include stunted black spruce and tamarack	Mostly on shallow glacial lake basins and depressions, flat terrain, along sluggish streams

Source: DNR's Technical Definitions of Wetland Types in Minnesota