# Doyle-Kennefick Regional Park Master Plan

## Scott County Parks & Trails

***The mission for Scott County parks and trails is to enhance the health and spirit of our residents and guests by creating a sustainable system that connects people to the natural world.***

Scott County is a regional park implementing agency of the Twin Cities Metropolitan Area. Funding for Scott County's regional parks and trails master planning has been provided through a grant received under the Minnesota Clean Water, Land, & Legacy Amendment, in which 14.25% of the funds generated from the 3/8% increase in the state sales tax will provide funding for regional and state parks and trails.

**December 13, 2011**

# Acknowledgements

This master plan was completed as part of a comprehensive effort to prepare five master plans (three parks and two trails) within a thoughtful and broad analysis of system-wide recreational needs. Special thanks to the Citizen Design Team members for guiding the development of this master plan to meet the needs of current and future Scott County residents.

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# Table of Contents


**Section:** **Page:**

Acknowledgements ..... 2
Table of Contents ..... 3
Introduction ..... 4
Park Description and Site Background ..... 5
Planning Framework ..... 8
Setting and Role ..... 12
Demand Forecast and Trends ..... 15
Citizen Participation ..... 21
Cultural Resources ..... 26
Natural Resource Inventory and Assessment ..... 30
Development Plan ..... 42
Natural Resources Management Plan ..... 49
Boundary and Acquisition Plan ..... 84
Conflicts and Mitigation ..... 89
Implementation, Operations and Maintenance ..... 90
Estimated Costs and Funding ..... 95

**Maps:**

Master Plan Development Concept Graphic ..... MAP 1
Master Plan Development Concept Graphic Enlargement Area Graphic ..... MAP 2
Boundary Map ..... MAP 3
Boundary Change Map ..... MAP 4
Regional Ecological Significance ..... MAP 5
Slope, Soils and Hydrology ..... MAP 6
Minnesota Land Cover Classification Inventory ..... MAP 7
Target Plant Communities ..... MAP 8
Restoration Management Units ..... MAP 9

**Appendices:**

Public Comments/Meeting List ..... Appendix A
Invasive Species Guidelines ..... Appendix B

# Introduction

Doyle-Kennefick Regional Park is located in east central Scott County in an area of rural and low-density residential development, four miles south of the City of Prior Lake. The park's mix of high quality native forests and wetlands offer quality habitat recognized as having regional ecological significance, beautiful scenery and outstanding opportunities for outdoor recreation.

The park is planned to be 1139 acres in size. It is a Scott County facility and is a part of the Metropolitan Regional Park System that covers the seven counties of the Minneapolis-St. Paul metropolitan area. The park became a component of the Regional System in 2004, when a regional park acquisition master plan was prepared by Scott County and submitted to and subsequently approved by the Metropolitan Parks and Open Space Commission and Metropolitan Council.

**Figure 1. Doyle-Kennefick Regional Park Location**

This document is a development master plan for the regional park and builds on and replaces the Doyle-Kennefick Regional Park Acquisition Master Plan approved in 2004. This Doyle-Kennefick Regional Park Master Plan serves as the guide for acquisition, development and management activities for the park and is intended to satisfy the master planning requirements established by the Metropolitans Council's Regional Recreation and Open Space Commission. It presents a vision for the park, a development plan for park amenities and support infrastructure and a natural resources stewardship plan; it details the planning process through which the development concept was created, and summarizes current operations and management policies and practices and estimated costs of implementation. **(Full page maps of the development concept and park boundary can be found in the Maps section.)**

The vision for Doyle-Kennefick Regional Park, established from the year-long master planning process, builds on the site's striking landscape of native forests and wetlands, rolling topography and its link to the American pioneer past through an 1860's homestead. The vision reflects the history of the site and the area's community heritage of living off the land and a joy and passion for outdoor recreation, conservation and nature exploration.

***Vision – Doyle-Kennefick Park is a regional destination for outdoor recreation known for its scenic landscape and diverse habitats of regional and statewide ecological significance. The park offers enjoyment and discovery of the natural world through recreation, conservation, and education***

# Park Description and Site Background

## Introduction

Doyle-Kennefick Regional Park is in an acquisition and stewardship phase and managed as a future park. This section presents an overview of the sites' landscape setting, existing infrastructure and roads and operational activities.

## Landscape Setting

Doyle-Kennefick Regional Park is located in east central Scott County in an area of rural and low-density residential development, four miles south of the City of Prior Lake. The park is within an area zoned Rural Residential Reserve and the surrounding land use consists of low-density residential lots and agriculture. While agriculture and residential land uses are common, natural landscapes on private lands and nearby state conservation lands connect to and surround the park; these natural corridors are dominated by shallow lakes, wetlands, oak forest and maple-basswood forest. The regional park forms a hub within a series of natural area corridors and contains an expansive area of ecologically significant land, making the park and its surrounding area one of the highest quality habitat areas in the County.

### Scenes of the landscape at Doyle-Kennefick Regional Park

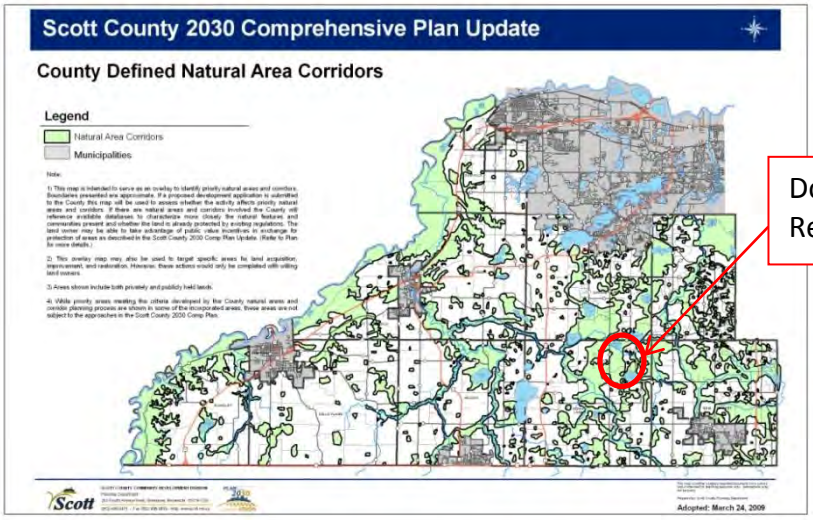



**Figure 2. Natural Area Corridor Map**

Lennon Lake
County Highway 23
Bird's Eye View Looking South

St. Catherine Lake
County Highway 23
County Highway 8
Bird's Eye View Looking South

## Existing Roadway Circulation and Park Structures

The park is bounded by County Road 8 on the north; County Road 23 (Panama Avenue) on the east and County Road 27 (Valley Forge Drive), a gravel road, on the east. In the southern portion of the park 235th Street, a gravel township road, runs roughly east-west through the site and then to the south where it connects to Eden Vale Trail, another gravel township road.

At the center of the park, on land owned by the county is an 1860's homestead (the Kennefick family homestead) with an 1861 log house, circa 1940 barn and outbuildings. Elsewhere in the park on county-owned property are three residential properties, constructed in the 1960's and 1970s.

## Acquisition History and Operational Status

The first acquisition for Doyle-Kennefick Regional Park occurred in 2004 and consisted of the Doyle Family properties totaling approximately 400 acres. This purchase was made concurrently with the designation of the park as a regional park facility. In 2005, a 39.8 acre parcel adjacent to the former Doyle Family properties was acquired. In 2008, a 50.2 acre parcel (39020070) was acquired. A total of 490 acres of park land have been acquired for Doyle-Kennefick Regional Park as of February, 2012.

Since the site was designated a regional facility in 2004 and the first acquisition completed, Doyle-Kennefick Regional Park has been in a stewardship phase. Parks in a stewardship phase are not developed with amenities and do not offer public recreation beyond passive use. At this time the park is not open to the public due to sensitive structures on site and challenges related to offering public use before these structures are fully utilized and before there is an operational presence at the park. This master plan provides the framework for the County to move towards development and operations at the park.

A total of 52 acres of lands that were cropped at the time of acquisition continue to be leased for agricultural production. In 2010, a 54-acre area was taken out of production and restored to prairie and wetland. The remainder of the park is monitored for noxious weeds. Further natural resources stewardship needs and priorities are reviewed in the 'Natural Resources Inventory and Assessment and the 'Natural Resources Management Plan' sections of this document.

# Planning Framework

*The mission for Scott County parks and trails is to enhance the health and spirit of our residents and guests by creating a sustainable system that connects people to the natural world.*

## Planning Process

The Doyle-Kennefick Regional Park Master Plan was completed as a part of a system-wide integrated planning effort that included the preparation of five master plans (development master plans for Cedar Lake Farm and Doyle-Kennefick Regional Parks, the Scott West and Spring Lake Regional Trails, and the Blakeley Bluffs Acquisition Master Plan) and a public policy discussion. Planning considerations were guided by an all-citizen, volunteer planning team, the Citizen Design Team (CDT), consisting of 40 Scott County residents who engaged at every stage of the process. The system-wide planning approach was chosen to provide a broader understanding of the overall needs of the system in what is operationally a young park and trail system. Strong citizen-based leadership was designed into the process to bring the voice of citizens to the forefront.

**Figure 3. Master Planning Sites**

The goal for the planning process was to implement a creative, open and welcoming public process that incorporated county and regional considerations along with site specific opportunities and limitations and local needs and flavor. The overall approach stressed the following:

> Use of practical, creative, and responsive public input techniques that fully engage stakeholders and allow County officials and consultants to openly hear and respond to feedback; and a fully welcoming process that respects and utilizes recent in-depth public input through the 2030 Comprehensive Plan Update.
>
> Identification of park boundaries and lands to provide resource conservation, natural resource based recreation opportunities for the next 100 years, buffering of natural and cultural resources and a plan that encourages the County as a good neighbor.

## Planning Inputs

Inputs that informed the preparation of the Doyle-Kennefick Master plan and the final concept included:

-Cultural resources research and assessment
-Natural resources inventory and assessment
-Park facility and amenity inventory
-Demographics
-Recreation trends
-Public health trends
-Regional and local plans and policies
-Public feedback
-Technical meetings with staff (Scott County, City, Township, Minnesota Department of Natural Resources, US Fish and Wildlife, Scott County Historical Society)

## Public Process Components

Paramount to the planning process was an intense public involvement strategy that included several components listed below. A full account of the public process and findings is provided in the 'Citizen Participation Findings' section.

- Citizen Design Team (CDT) – (seven team meetings)
- Park and trail site planning workshops – (four total; one for Doyle-Kennefick)
- Field trips (seven total; two for Doyle-Kennefick)
- Public policy initiative workshops – (four total; one for Doyle-Kennefick)
- Open houses for preferred master plan concepts – (four total; one for Doyle-Kennefick)
- Outreach – press releases, master planning website, resident mailings, etc
- Parks Advisory Commission (three workshops; three meetings)
- Scott County Board of Commissioners (two workshops; three meetings)
- Local Government Review (15 total; one with focus on Doyle-Kennefick)

## Local Government Review and Input

Feedback was sought directly from each municipality at least once during the initial concept stage through presentations to their councils, boards and/or parks commissions, with staff making more than 15 such visits. Each municipality was invited to participate in the field trips, workshops and open houses. The bulk of local government input was received during November 2010 through early February 2011, when the preferred park and trail concepts were shared with local parks commissions and township boards. Input was given based on consistency with local plans, current and projected needs, and coordination with other projects. Overall, the input received at these meetings was consistent with comments heard through other parts of the process.

List of Affected Municipalities – Areas Specific to Doyle-Kennefick Regional Park in bold text:

- Blakeley Township (Blakeley Bluffs Acquisition Master Plan)
- **Cedar Lake Township**
- Helena Township
- City of New Prague
- City of Elko New Market
- City of Prior Lake
- City of Shakopee

## Parks Advisory Commission

The Parks Advisory Commission played an active role throughout the planning process, participating in all public meetings and tours and assigning liaisons to the CDT. The Commission met in workshop four times to discuss and provide guidance on the process and plans. Staff made five presentations to the Parks Advisory Commission seeking input and guidance and offering an opportunity for a broader county audience to learn about and comment on the process and plans.

## Scott County Board of Commissioners

The County Board participated actively in the public process, providing direction on the process and plans. County Board members participated in each of the open houses and workshops, met in workshop setting twice to consider the plans and provide direction. Staff made presentations on the planning process and plans at three County Board meetings.

# Guiding Plans and Policy

Several plans and policy documents informed and guided the establishment of the planning approach as well as decisions made throughout the planning effort. The process and individual master plans were prepared consistent with the goals and policies of the recently adopted Scott County 2030 Comprehensive Plan Update and the 2030 Parks and Trails Plan (Chapter VII) and the policies and framework of the Metropolitan Council's 2030 Regional Parks Policy Plan.

The following policy documents and previous master plans have helped shape the outcomes of this planning study:

## Policy Documents

- 2030 Regional Parks Policy Plan (Metropolitan Council, 2005, updated in 2010)
- Scott County 2030 Comprehensive Plan Update – Chapter VII, 2030 Parks and Trails Plan (2009)
- Scott County Rural Residential Detailed Area Plan (DAP) – Rural Trail Analysis (2009)
- Scott County Rural Regional Trail Development & Design Guidelines (2009)

## Previous Master Plans

- Suburban Hennepin Regional Park District Master Plan for a System of Parks – Scott County West Regional Trail & Cleary Lake Regional Park (Three Rivers Park District, 1998)

- Doyle-Kennefick Regional Park Acquisition Master Plan (2003)
- Spring Lake Regional Park Development Master Plan (2006)
- Cedar Lake Farm Regional Park Acquisition Master Plan (2007)
- Murphy-Hanrehan Park Reserve Development Master Plan (Three Rivers Park District, 2007)

## Parks and Trails Legacy Plan

The Doyle-Kennefick Master Plan is consistent with the strategic directions identified in the recently adopted statewide *Parks and Trails Legacy Plan (Figure 4)*. The Minnesota State Legislature mandated that the Department of Natural Resources develop the 25-year, long-range plan to help guide how the Legacy Funds, as well as other traditional sources of funding, should be spent for parks and trails of state and regional significance. The plan will also serve as a valuable reference during site design and construction processes and development of specific programming and marketing projects.

**Figure 4.**

***Minnesota Parks and Trails Legacy Plan – Four Strategic Directions***:

- **Connect People and the Outdoors**: better develop Minnesota's stewards of tomorrow through efforts to increase life-long participation in parks and trails.
- **Acquire Land, Create Opportunities**: create new and expanded park and trail opportunities to satisfy current customers as well as to reach out to new ones.
- **Take Care of What We Have**: provide safe, high-quality park and trail experiences by regular re-investment in park and trail infrastructure, and natural resource management.
- **Coordinate Among Partners**: enhance coordination across the large and complex network of public, private, and non-profit partners that support Minnesota's parks and trails to ensure seamless, enjoyable park and trail experiences for Minnesotans.

CLEAN WATER LAND & LEGACY AMENDMENT

Source: Parks and Trails Legacy Plan, Minnesota Department of Natural Resources, 2011.

# Setting and Role

## Metropolitan Regional Park System

Scott County's Parks and Trails system is part of the Regional Recreation Open Space System. This system (now commonly referred to as the Metropolitan Regional Park System or simply the Regional Park System) was created by the State Legislature in 1975 by State Statute 473.147. This statute identifies Metropolitan Council's role in establishing and updating a policy plan for a metropolitan park system, and working in partnership with the local city and county jurisdictions (the "Implementing Agencies") that own and operate the system. As one of the ten Implementing agencies Scott County is eligible for funding and assistance through the Metropolitan Council for projects that are a part of an approved master plan.

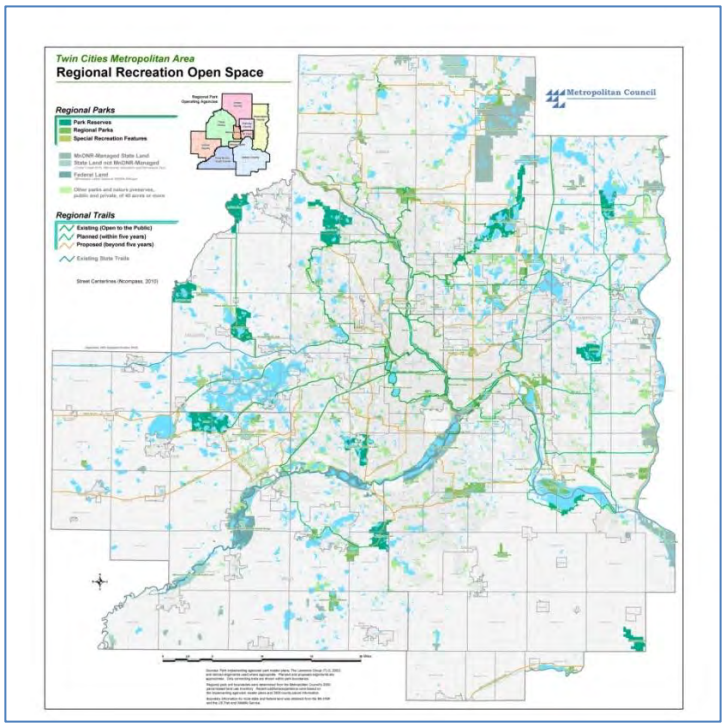



**Figure 5. Metropolitan Regional Park System**

### *Regional Status for Doyle-Kennefick*

In 1974, during a Metropolitan Council process to designate the very first regional park facilities, the area that today makes up Doyle-Kennefick Regional Park was discussed as a potential future site that had outstanding wetlands and forests. While not designated as a regional park facility in 1974, in 2004 the park was formally considered for regional by the Metropolitan Parks and Open Space Commission at the urging of Scott County. The site received approval at this time and was designated a part of the Metro Regional Park System because of its outstanding and significant range of quality natural resources along with a capacity to provide active and passive recreation areas.

## Regional Parks and Park Reserves

The Metropolitan Regional Parks System focuses primarily on facilitating the provision of recreational facilities that require substantial areas of land and/or water and on the protection of high-quality natural resources for public benefit and leisure. This is distinct from the standard role of city and county parks, which tends to focus on the provision of active recreation in smaller spaces. There are four main types of regional facilities including *regional parks*, *park reserves*, *regional trails* and *special recreation features*. *Doyle-Kennefick is*

*designated a regional park.* Both parks and park reserves are expected to provide a diversity of nature-based outdoor recreational activities and to prioritize conservation of unique natural features. Park reserves focus on the conservation of vast acreages of historic landscapes, native plant communities and other unique natural features, with sites typically over 1,000 acres and commonly over 2,000 acres. Park reserve also only allow up to a 20 percent development footprint. Regional parks are expected to provide such experiences on a smaller scale, with preservation of significant resources a fundamental goal, but with a larger recreation foot print and focus on activities.

## Scott County as a Regional Park Provider

Scott County's Parks and Trails system is a burgeoning part of the Metropolitan Regional Park System and one still in the very early stages of operation and development, a factor that shaped the approach to the master planning process. The County has owned the undeveloped 300-acre Spring Lake Regional Park, located in Prior Lake, since it purchased the site in the 1960's, but it was 2004 before the County began taking a more active role as a regional park implementing agency as rapid population growth in the previous two decades had increased demand for park and trail amenities. Since taking a more active park and trails role, the County has identified three additional regional park and park reserve sites, acquired 760 acres of park land and in 2009 began limited park operations at a Cedar Lake Farm Regional Park. Offering formal public use and park amenities at Cedar Lake Farm marked the first time in the County's history that it was directly providing a park operation. In 2011, Scott County established a new partnership agreement, the "Partnership", with Three Rivers Park District to gain efficiencies in the operation and maintenance of all regional park and trail facilities in the county, including Cleary Lake and Murphy-Hanrehan which are owned by Three Rivers Park District. Efficiencies gained are expected to result in further ramping up of new services and enhancements to existing park services, in all of the regional facilities within Scott County.

## Regional Facilities within Scott County

Doyle-Kennefick interrelates with a number of other regional facilities in Scott County (Figure 6).

### Parks and Park Reserves

***Blakeley Bluffs Regional Park Reserve*** was master planned along with Doyle-Kennefick and Cedar Lake Farm Regional parks. This future 2,240 acre park reserve is located along the Minnesota River Bluffs and contains bluff top and floodplain lands with high natural resource, scenic and cultural recourse quality. Currently in the acquisition stages this park reserve is anticipated to provide a range of recreation opportunities based on the Minnesota River, unique bluff areas and expansive areas of future landscape restoration.

***Cleary Lake Regional Park*** is a 1,045 acre park owned and operated by Three Rivers Park District, offering a visitors center/clubhouse with concessions, room rentals and recreation equipment. A 9-hole golf course and driving range hosts extensive youth-centered golf programming. Additional amenities include beach swimming, boating, fishing, picnic shelters,

group campsites, paved bike/hike trail, turf hiking trails, a 30-acre dog off-leash area, and creative play area. Winter activities include extensive cross-country skiing on groomed trails lit for evening use.

***Cedar Lake Farm Regional Park*** was master planned along with Blakeley Bluffs Regional Park Reserve and Doyle-Kennefick Regional Park. The concept for this 251 acre park emphasizes family picnicking and active recreation focused on a large recreational lake, and a 'Market Learning Center' for programming centered on our connection to food, and learning to grow, prepare and purchase it for healthy eating and a sustainable environment and community.

***Murphy-Hanrehan Park Reserve*** is a 2,482 acre park (planned to be 2,614) owned and operated by Three Rivers Park District. The master plan (June, 2008) calls for the development of backpacking and canoe campsites, improvement of fishing opportunities, and trailhead improvements. The plan also calls for ecological enhancements to woodland and prairie/wetland areas, low quality forests, reforestation of old field and regeneration of existing high-quality Oak forests.

***Spring Lake Regional Park*** is a 372-acre park, planned to be 392 acres and to contain a mix of general and specialized recreation opportunities. Development amenities planned include a four-season lakeside pavilion with complimentary lakeshore related amenities; 3.5 mile paved trail loop; 3 miles of nature trails; group camp; adventure ropes course; archery practice area, and an outdoor classroom/performance area. A large patch of high quality maple-basswood forest, wetlands and proximity of Spring Lake and Prior Lake, define the park's sense of place.

## Trails

Scott County has one partially developed regional trail that will ultimately connect Cleary Lake Regional Park with the cities of Prior Lake and Shakopee, and the Minnesota River. Roughly 130 miles of regional trail corridors have been proposed in the County's 2030 Comprehensive Plan traversing both urban and rural settings. Two regional trail search corridors are identified to connect Doyle-Kennefick, Cleary Lake Regional Park, Cedar Lake Farm and the City of Elko New Market.

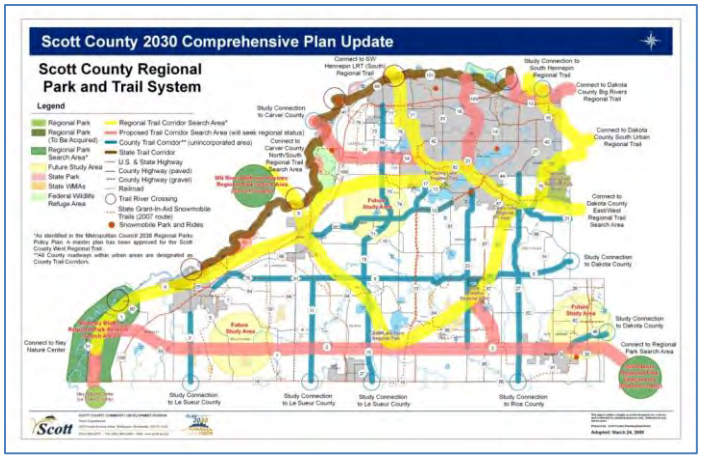



**Figure 6.** Scott County Park and Trail System Map

# Demand Forecast and Trends

As of 2010, Scott County's population is roughly 130,000 residents. This is a 45 percent increase in population since 2000. Population forecasts produced by the Metropolitan Council anticipate nearly 100,000 more individuals by 2030. While these forecasts were developed before the recent economic recession, the overall trend of population expansion is expected to continue in Scott County over several decades. Doyle-Kennefick became a component of the Metropolitan Regional System in 2004 after an acquisition master plan for the park received Metropolitan Council approval. Its designation was based on the significant range of quality natural resources exhibited at the site and the ability to offer passive and active recreation activities.

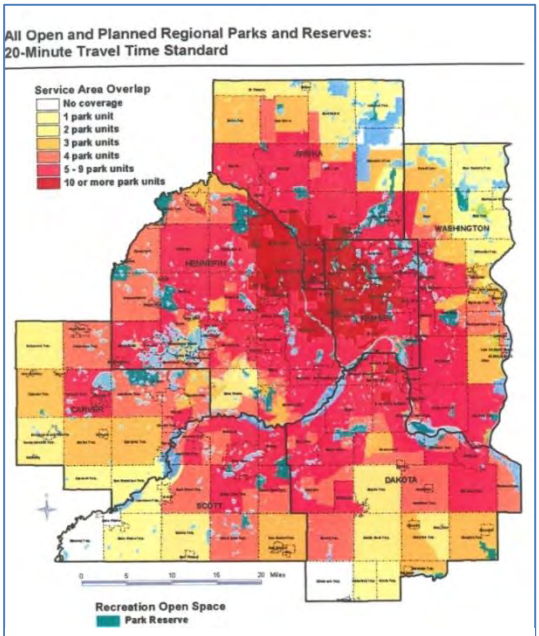



**Figure 7. Open and Planned Regional Parks within 20-minute Travel Time Standard. Source: 2005 Regional Park System Policy Plan, Metropolitan Council**

To better understand recreation needs and barriers to outdoor recreation participation and to gain insights into the role of Doyle-Kennefick Regional Park in meeting these needs and overcoming barriers, a review of recent demographics, resident and outdoor participant surveys, a park facility inventory and gap analysis and trends was done and a summary is provided below.

## Demographics

Demographic information is an important consideration in the planning of regional park and trail facilities to guide both decisions for today and the future. In 2010, Scott County's population approached 130,000 residents. This is an increase of about 40,000 residents (45 percent) since 2000. The growth in Scott County resulted from the completion of the Bloomington Ferry Bridge in the late 1990s, providing an efficient transportation connection south of the Minnesota River to the rest of the metropolitan area. The latest population forecasts produced by the Metropolitan Council anticipate 220,000 residents in Scott County by 2030, an increase of nearly 90,000 more individuals over the next twenty years. Most of the growth is expected in the urbanizing areas, with a projected 85 percent of the population residing in the cities and 15 percent in the townships. While these forecasts were developed before the recent economic recession occurred, the overall trend of population expansion is expected to continue in Scott County over several decades.

Scott County's 65 and older population is forecasted to grow from six percent to fourteen percent by 2030. This age group increase follows statewide trends. According to the

Minnesota Department of Human Services, the state will have 1.5 million baby boomers over the age of 65 by the year 2030, meaning one out of four Minnesotans will be over the age of 65. While the percentage of 65 and older residents will continue to increase, Scott County still has a relatively young population. In 2008, Scott County's median age of 32.7 years was the youngest of all metropolitan counties and well below the state median (37.1). Scott County also has the highest average household size (2.86) in the metro due to a number of young families moving to the county because of affordable housing choices and quality school districts. The anticipated population growth will also result in an increase in the toddler (0-4), school-age children (5-19), and adult (20-64) age groups, albeit at a slower pace than the 65 and older group.

While diversity percentages in Scott County are lower than the rest of the metropolitan area, the county is expected to encounter many changes to its non-white population based on the Minnesota State Demographic Center forecast from 2000 to 2030. The non-white population is expected to increase 243.5 percent between 2000 and 2030. The county began experiencing significant increases in Asian, Eastern European and Hispanic populations over the past decade.

According to 2007-2009 American Community Survey data, of the county's population age 25 and older, 94 percent attained a high school level education. Approximately 35 percent of this same age group in the county had attained a college level education (bachelor's degree or higher). The number of college level graduates is slightly below the metropolitan area's average, but the percentage within Scott County has grown significantly since the US Census 2000 estimate of 23.1 percent.

As a whole, the high education rates reflect higher income levels. According to the 2006-2008 American Communities Survey, the county's median household income was $81,393 in 2008. For comparison, the median household income was $71,920 for the Twin Cities metropolitan area and $57,795 for the state. Scott County residents maintained the highest median income of all the metropolitan counties over the past decade. However, the county's median household income is unevenly distributed with the eastern communities generally having households with higher incomes than those in the western part of the county.

## Recreation and Open Space Survey Findings

### Scott County Resident Findings

Past Scott County resident surveys have included questions related to parks, trails and recreation. The findings show residents value parks and trails for recreational opportunities, but they also recognize the value parks and trails provides for open space preservation and environmental, wildlife and habitat protection. Residents have also been generally satisfied with existing recreational services the County provides, however residents are mixed on how to pay for additional services as the system expands.

## Metro Area Survey Findings

The Metropolitan Council coordinates annual surveys and user counts at all regional facilities. The following are the primary activities that attract users to the regional system. Similar to state statistics, the primary uses are trails activities (hiking/biking), water uses, and picnicking. Their popularity is also related to their availability, as these are generally the most common activities provided at regional and state parks.

Figure 8.
Top Activities in the Regional Park System, 2010

| Activity | Percent of Park Activity Occasion | Percent of Trail Activity Occasion | Percent of Total Visits |
|---|---|---|---|
| Walking/hiking | 21% | 30% | 23% |
| Biking | 10% | 45% | 18% |
| Swimming | 16% | 2% | 13% |
| Picnicking | 10% | 0% | 8% |
| Relaxing | 9% | 2% | 7% |
| Jogging/running | 5% | 10% | 6% |
| Playground use | 7% | 1% | 6% |
| Dog-walking | 5% | 7% | 5% |
| Sunbathing | 6% | 1% | 5% |
| Fishing | 6% | 1% | 5% |
| Boating | 4% | 0% | 3% |
| Zoo visits (Como) | 4% | 0% | 3% |
| In-line skating | 2% | 4% | 2% |
| Camping | 2% | 0% | 2% |

Source: Annual Use Estimate of the Metropolitan Regional Parks System for 2010, Metropolitan Council

## State Survey Findings

At the state level, the Minnesota Department of Natural Resources (MNDNR) continues to survey state park users and to understand current and future needs. The top ten recreational activities for Minnesota adults are listed in the following table. According to the 2008-2012 Statewide Comprehensive Outdoor Recreation Plan (SCORP), "a majority of residents—57 percent—believe outdoor recreation is a 'very important' part of their life and another 25 percent believe it is 'moderately important.' Outdoor recreation is at least moderately important to the vast majority of Minnesotans, but they often don't feel they have enough time to participate as often as they'd like. Expense, effort, outdoor pests and lack of companions all keep people from taking part in outdoor activities." The planned regional

system may help address this concern of limited time availability for Scott County residents. Providing recreational opportunities close to home will increase the availability of outdoor recreation and reduce the amount of travel time required to access these facilities.

## Trends in Outdoor Recreation and Community Health

A number of recent studies have shown a decline in nature-based recreation at the state and national level. In Minnesota, declines have been recorded in fishing, hunting, state park visitation, and state bicycle trail use. The 2007 Minnesota State Parks Research Summary Report found participation declines are most prevalent in age groups 45 and younger. The trend in declining outdoor recreation use can have lasting impacts, as this study found the strongest association with adult park use is the direct experience with parks as a child. Thus, the decline in childhood visitation today may lead to reduced adult visitation decades later.

Studies at the national level stress this same concern for declining use in outdoor recreation. The 2009 Outdoor Recreation Participation Report (Outdoor Foundation) found declines in youth participants, women aged 21-25 (who prefer to recreate indoors), and minority groups. Increased technology, less free time, costs, and accessibility all factored in the reduction of participation. However, the survey also found more Americans participating in outdoor activities in 2008, likely due to the changing economy where many people are choosing to take shorter vacations closer to home and a return to a simpler lifestyle. Activities like camping, hiking and mountain-biking saw increases in participation by youth. The study found gateway activities such as fishing, bicycling, running/jogging, camping, and hiking tend to lead to participation in other outdoor activities.

Improving the health of community residents is a major concern as obesity rates and health care costs related to preventable diseases continue to climb. Sixty-five percent of Minnesota adults do not perform the recommended amount of physical activity (30 minutes/day). A more sedentary lifestyle can be attributed to a variety of factors, including people driving more and walking less, work habits and activities limiting the need for physical activity, and a change in designing communities around the automobile. Research shows a connection between the built environment and health conditions associated with physical activity, such as obesity, diabetes, heart disease, high blood pressure, and high cholesterol. The addition of a more connected trail system and parks designed for accessibility will help provide safer access for residents to improve their health.

> People with access to walking or jogging trails are 55% more likely to be physically active.
>
> Source: Brownson, Ross et al., Environmental Determinants of Physical Activity in the United

Other non-recreational trends may also impact the regional park and trail system. Nationwide, concerns for climate change, energy independence, active living, and sustainability have led many to explore ways of driving less and incorporating healthy activities into their daily lives. The aging society is also having a significant impact on changing needs for recreation. The Baby

Boomer generation is currently using the regional park system at rates that are higher than their actual proportion of the metropolitan area population; visitation by people over the age of 60 is expected to increase as this generation ages. Facilities will need to be kept up to Americans with Disabilities Act (ADA) standards, and more opportunities for low-impact and educational learning opportunities will need to be provided to meet the needs of this growing user base.

## Facility Inventory and Gap Analysis

An inventory of existing and planned park facilities was done to identify recreation gaps, and the potential role of Scott County's regional parks in addressing those gaps. Where gaps were found to exist, the planning process evaluated whether Doyle-Kennefick may offer an opportunity to fill that gap. The extent of the inventory was Scott County and its adjacent counties (Dakota, Rice, Le Sueur, Sibley, Carver, and southern Hennepin County). This also represents a generalized service area for park facilities within a 20-30 minute travel time from Scott County's boundary. The inventory included facilities commonly found in regional, state, or natural-resourced based parks (i.e. hiking and biking trails, camping, picnic shelters, nature centers) and those that are less common (i.e. disc golf, pavilions, swimming features). A broader inventory of all metro regional parks was conducted for specific facilities and amenities as they were being explored in the preliminary concept development stages.

## Findings Summary

Doyle-Kennefick Regional Park has a role in filling gaps in regional recreation service, responding to opportunities, and breaking down barriers to outdoor recreation.

- The facility inventory found very few planned or existing paved bike trail loops. Given high bike trail usage reported in metro and state surveys, this appears to be a gap that both Cedar Lake Farm and Doyle-Kennefick Regional Parks can help fill.

- Hiking is among the top recreational pursuits both in the Regional Park System and statewide and appears to be an activity increasing nationally in youth (ages 6-17). While the inventory indicates a number of hiking opportunities in the study area, there are fewer in the central and southern area portions, and a lack of quality hiking experiences offering more distance and scenic natural setting. Offering hiking at Doyle-Kennefick Regional Park would respond to a gap in hiking and is an opportunity to introduce a new site for a service that is increasing in popularity amongst youth participants.

- There are very few mountain biking facilities existing or planned in the study area. While mountain biking is considered a niche recreation with usage numbers far lower than the most common regional park and state park recreation pursuits, outdoor use surveys indicate an increased participation in mountain biking by youth, an age group showing overall decline in outdoor recreation participation. More accessible mountain biking opportunities could attract members of this group and provide a "gateway" experience for

them to other outdoor recreation activities. Larger regional parks and park reserves also tend to have the land mass required for a quality trail system that local parks do not offer. Mountain biking opportunities should be considered in the Scott County system where the landscape will support that type of use, including at Doyle-Kennefick Regional Park.

Trends and findings that will continue to be monitored and considered in making programming and operational decisions follow.

- Minnesota has seen a significant decline in outdoor recreation participation by people under the age of 45 years. Nationally declines have been most prominent in youth, women aged 21-25 and minority groups. Barriers to participation commonly cited include less free time, costs, accessibility (state-wide surveys) and increased technology, costs and accessibility (national surveys). In national surveys, diverse youth participants cite school work as the top reason they don't get out more often – a barrier they cite more prominently than Caucasian youth. A creative mix of programming may help to remove barriers. For instance, offering outdoor recreation opportunities integrated with homework time may help remove the lack of time barrier for youth. To address cost barriers, common methods include using sliding scale fees based on income, scholarships, and partnerships with community groups and schools, all of which will be explored in Scott County.

- As whole, in the coming decades Scott County park users are going to be older and ethnically and racially more diverse. There is an opportunity to explore partnerships with schools, faith organizations, and community groups to enhance the County's capacity to deliver quality recreation opportunities for baby-boomers and the 65 and older age groups, diverse populations and youth.

- The most common forms of recreation in the Regional Park System continue to be centered on trails (biking, walking, hiking), water (swimming, boating, fishing) and picnicking. These are also among the most common recreation pursuits statewide, along with pleasure driving, camping and visiting nature centers and outdoor zoos. A strategy of focusing on removing barriers to these most common activities and/or ensuring barriers are not unintentionally introduced could have the widest benefit.

# Citizen Participation

The master planning process for Doyle-Kennefick Park and the other four park and trail sites was designed to facilitate extensive opportunity for substantive public dialog and citizen feedback. To achieve this several types of input sessions were held and consistent outreach was done throughout the process. While individual input sessions and meetings typically focused on one of the five facilities being planned (Blakeley Bluffs, Cedar Lake Farm, and Doyle-Kennefick parks, and the Scott West and Spring Lake trails) each covered an overview of the other sites, presenting an opportunity for further input. A summary of the citizen participation components and findings are below.

## Citizen Participation Components

### Citizen Design Team (CDT)

This 40-member, volunteer, citizen planning team was formed expressly for the master planning effort. The CDT participated actively in all aspects of the planning process. Their role was to:

-Enhance the project's ability to hear citizen input and bring feedback into planning process.
-Think creatively about current and future recreational needs.
-Give thoughtful consideration to financial implications of the master plans.
-Remember the long-view and future generations, beyond today and current users.
-Identify collaboration and leveraging opportunities as well as redundancies.
-Consider providing natural resource based recreation for the next 100 years.
- Facilitate conservation of important natural and cultural resources for the next 100 years.
-Challenge the County to create a park and trail system that is a good neighbor.

The CDT was divided into two groups, one focused on the park master plans (Blakeley Bluffs, Cedar Lake Farm, and Doyle-Kennefick) and the other focused on the trail master plans (Spring Lake and Scott West). The groups met for monthly work sessions from July 2010 to March 2011, to evaluate park and trail system needs, identify unique features of each site, and refine the design concepts. In addition to the seven CDT work sessions the members participated in eight public open houses and workshops (two specific to Doyle-Kennefick), four team and public field trips (one specific to Doyle-Kennefick), and many members made independent field trips. Several members attended Parks Advisory Commission, County Board and Township Board meetings where the Doyle-Kennefick plan was discussed and considered.

The CDT members helped to facilitate small group discussion at the workshops and focused on listening and having dialog with participants. In addition to collecting feedback at the formal planning sessions, members assisted in outreach efforts by informing neighbors and community members about the sessions and making themselves available to listen and provide information on the plans.

## Park and Trail Site Planning Workshops

In August, 2010 four public workshops were held for the integrated planning process. Each included an overview of all the planning sites and a focus on one of the sites. At these workshops residents shared their insights and personal knowledge related to the park and trail sites and provided programming and facility ideas. The workshops were also an opportunity for residents to express concerns, ask questions and have meaningful dialogue with their neighbors, other residents of the county, staff and the CDT. The workshops provided a wealth of information and considerations for the planning team, including a comment map documenting much of the feedback (Figure 9). The workshops were piggybacked onto the Public Policy Initiative Workshops, taking place immediately following the policy sessions; the approximately 150 residents who participated in the policy workshops were the same individuals who participated in these site planning workshops Approximately 50 residents participated at Doyle-Kennefick.

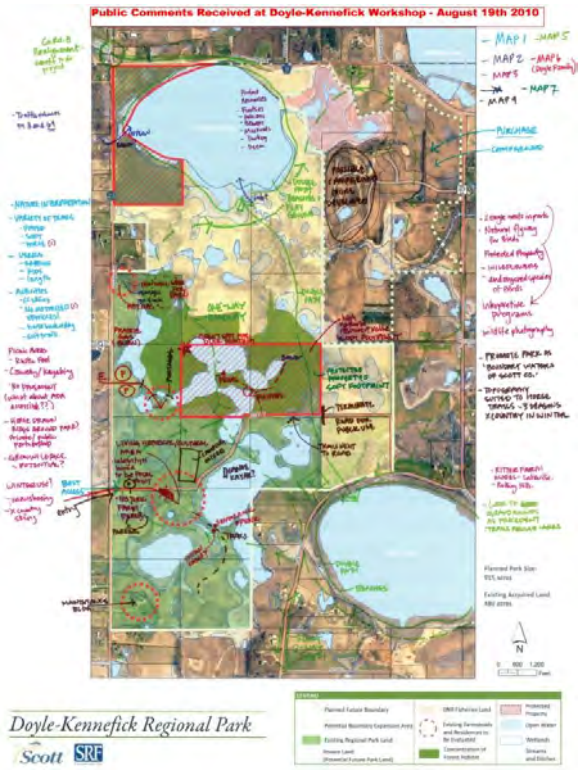



**Figure 9: Comment Map from August, 2010 Site Planning Open House**

## Field Trips

Eight field trips (4 for the public, and 4 for the CDT) were held in September and October, 2010 for the integrated master planning project, with two field trips to Doyle-Kennefick. These outings provided a second opportunity for residents to share their knowledge, insights and concerns related to the site, to learn from one another, ask questions and have dialog. Approximately 30 residents participated in the Doyle-Kennefick field trip.

## Public Policy Initiative Workshops – Resident Priorities and Values

Through four workshops the public was engaged and provided input on broader, system-wide policy matters. They were asked to discuss and prioritize their values related to the acquisition, development and operations of regional parks, park reserves and trails in Scott County. Scott County hired the Citizens League - a non-profit 501©(3) organized for the purpose of providing solutions to public policy questions and improving citizen participation in public policy - to design and implement an outreach process focused on these higher level considerations. The Citizens League facilitated the workshops utilizing interactive response devices to collect data from

**Figure 10: August 2010, Public Policy Workshop**

residents, but more importantly, to serve as a starting point for a more robust conversation about their values and priorities. Questions and conversation sought to engage participants at a high level about their parks and trails system as a whole. What level of quality did they want? How quickly should work be completed? What should the priorities be? How should funding gaps be addressed? This workshop style was similar to a focus group, with the heart of the learning coming from the discussion and conversation. Approximately 150 residents participated in the four workshops.

### Open Houses for Preferred Master Plan Concepts

The final resident input process came through a series of four open houses in February 2011 at which the preferred park and trail site concepts were presented, with the Doyle-Kennefick Regional Park open house on February 16, 2011. A total of approximately 186 residents attended the four open houses with approximately 80 attending the session on Doyle-Kennefick Regional Park.

### Outreach

Each open house, workshop and site tour was announced through a press release, the Scott County SCENE, County website, and direct mailings to landowners within the general vicinity of the proposed park boundaries. Additional outreach was done via the county's email list serve and posting of fliers at key community gathering location.

## Summary of Findings

### *Initial community feedback*

The input received as a part of the workshop, field trip and other outreach mechanisms is summarized below. Thoughts on programming, opportunities, challenges and concerns informed the master plan concept development.

*Summary of Programming and Activity Ideas:*

- *Trails (hiking, cross-country ski, biking, nature walking, mountain biking, horse trails and horseback riding)*
- *Wildflower/wildlife observation (blinds, guides for independent walks)*
- *Natural resource preservation*
- *Focus on non-motorized uses*
- *Camping (primitive, hike-in, campground)*
- *Picnic areas*
- *Canoeing/Kayaking*
- *Pioneer theme*

*Concerns or Challenges:*

- *Funding*
- *Timeframe for development too long*

- *Keeping it simple, that is hard to accomplish*
- *Preserving nature along with recreation*
- *Safety/security of private property and neighbors*
- *Enforcement of laws*
- *Access to roads and park access*
- *Preserving log cabin prior to development*

Priority for Development of Park Amenities and Programming
- Natural-resource based
- Soft/low impact development – keep it quiet, all natural
- Needed maintenance to buildings

A more detailed record of input received at the field trip and workshop is included in Appendix A. This direct resident feedback was considered by the CDT, Parks Advisory Commission and County Board and along with the other planning inputs was re-visited at different points along the planning process to help prepare a preliminary park development concept and implementation plan. The preliminary park development concept was presented at an open house on February 16, 2011, in the Scott County newspaper the SCENE, and on-line at the Scott County website.

## Community Feedback on Preliminary Development Concept

The preliminary development concept was presented at an open house and through other outreach methods. Immediate feedback at the open house, received through group dialog indicated much support for the overall concept and specific elements of the plan. Written feedback reflected the sentiments shared verbally at the open house. A summary of this feedback follows:

*Feedback on Master Plan Amenities and Programming*
- Good variety of attractions.
- Like commitment to diverse interests.
- Like trails (horseback, bike, hiking, snowshoe, walking).
- Scenic spots along hiking trails good.
- Some good planning outlook; like farm set up.
- Like cabin rental.
- Not sure about Pioneer cabin overnight experience. Is there interest?
- Fantastic plan that will preserve pristine setting for generations to come.
- Rather see barn restored to original state along with house, for tours.



*Concerns about Master Plan Concept*
- Safety of people, campers, neighbors and farm animals.
- Too many people using the park.

- Horse “rental” aspect – lots of red tape.
- Development timeline too long.
- Length of overall proposal. A lot could change from current master plan.
- Equestrian trails shared with mountain bikes – scary.
- Increased traffic.
- Noise.
- Commotion of visitors.
- Breaking current bad habits – hunting on land.
- Security of buildings and wildlife.

# Cultural Resources

## Introduction

Preservation of unique historical and archaeological features within the Scott County Parks System is a goal identified in the County's 2030 Comprehensive Plan. As a part of the Doyle-Kennefick Regional Park master planning process a firm specializing in cultural resources, the 106 Group, was hired to conduct a cultural resources assessment to be considered in formulating the park theme and development concepts. The assessment report will serve as a reference for park development planning and to inform future preservation and interpretation efforts at the park.

The purpose of assessment was to:

- Identify known archaeological sites and historic structures within the search area;
- Prepare a cultural resources map of the search area that depicts known archaeological sites and previously inventoried historic structures as well as portions of the search area that have been previously surveyed;
- Identify legislative requirements for cultural resources preservation and/or treatment;
- Suggest cultural resources management and planning recommendations related to future stages of park development; and
- Suggest an interpretive message to guide the development of interpretive elements at the park.

This section summarizes the assessment findings related to the site's history, documentation of cultural resources or sites, legislative requirements and suggested interpretive themes.

## Background Research

The 106 Group conducted background research at the Minnesota State Historic Preservation Office (SHPO) to identify known archaeological sites and previously inventoried architectural history properties within the park. Previous cultural resources surveys were also reviewed to determine what sections of the park have been previously documented as well as what portions have not been previously surveyed but may require survey in the future. No previous cultural resources surveys have been conducted within the Doyle-Kennefick Regional Park. Research was also conducted at the Scott County Historical Society to aid in the development of a brief history of the park and the farmstead within the park.

Two important term used in this section are "pre-contact archaeological remnants" and "historic archaeological remnants". Pre-contact refers to the time before European settlement. Historic refers to the time since European settlement.

## Cultural Resources Assessment Results

There are no previously identified archaeology sites and one previously inventoried architectural history property within the Doyle-Kennefick Regional Park whose National Register of Historic Places (NRHP) eligibility is undetermined (Figure 11).

Figure 11. PREVIOUSLY INVENTORIED ARCHITECTURAL HISTORY PROPERTIES WITHIN THE DOYLE-KENNEFICK REGIONAL PARK

| Inventory No. | Property Name | Address | City / Township | Description | NRHP Status |
|---|---|---|---|---|---|
| SC-CLK-002 | Farmstead | Off County Highway 23 | Cedar Lake Township | Residence | Undetermined |

## History of the Doyle-Kennefick Regional Park

Doyle-Kennefick Regional Park is located in Cedar Lake Township. The township is located in southeastern Scott County and was named for the lake on its western border, Cedar Lake. In 1855, the first European settlers arrived in Cedar Lake Township. The first permanent settler, Thomas O'Donnell built a log house along Cedar Lake in section 18. Like O'Donnell, most of the early settlers in Cedar Lake Township were of Irish nationality (Shakopee Argus Tribune, 4 November 1926).

The township was heavily forested in the mid-nineteenth century and settlers cleared land for the construction of log houses and farming (Shakopee Argus Tribune, 4 November 1926). Throughout its history, Cedar Lake Township has remained rural. As settlers cleared the land, they found that the rich soil with clay subsoil sustained small grains and corn crops. Livestock, such as cattle, horses, sheep, hogs, and poultry were common on nineteenth and early twentieth century farms in the township (Casey 1939).

The Doyle-Kennefick Regional Park is located in portions of sections 2 and 11 of Cedar Lake Township. The 1880 land atlas of Scott County notates James Sherrin, M. Donahue, Michael Kearnery, and Michael O'Connor as landholders in section 2. Portions of section 11 were owned by J. Driscoll, Aetna Insurance Company, the St. Paul & Sioux City Railroad, Charles Kennefick, T. Kennefick, and Henry Hinds (Scott County Historical Society 1880). By 1898, members of the Kennefick family owned most of section 11 (Finnell and McAuliffe 1991).

By the twentieth century, many of the landowners in sections 2 and 11 had changed, except for the Kennefick family. James Kennefick, Ellen Hylnad, Frank Prchal, and John Shea owned land in section 2 and James Kennefick, John Kennefick, Thomas Kennefick, Catherine E. Birch, James Graves, F. Houska, and J. Corcoran owned land in section 11 (The Farmer 1914).
By the 1940s, many of the 40 to 60-acre farms had been combined to create 120 to 360-acre farms in sections 2 and 11. Joseph J. Efta, John J. Shea, and Benedict Skluzacek were the large landholders in section 2. Charles Birch, James L. and George F. Corcoran, and Edward and Mary Kennefick owned all of the land in section 11 that would become the Doyle-Kennefick Regional

Park (Dahlgren 1944). Through the 1960s and 1970s, the land in section 2 stayed in the Efta, Shea, and Skluzacek families while almost all of section 11 was inherited by Francis T. Doyle, the great-nephew of James Kennefick (Dahlgren 1958; Title Atlas Company 1963). The Doyle-Kennefick Regional Park was named after the Doyle and Kennefick families, the largest property owners in section 11 of Cedar Lake Township.

## History of the Doyle-Kennefick Farmstead

According to the Doyle-Kennefick family, the farmstead at 4275 East 235th Street (SC-CLK-002) was settled by Charles Kennefick in 1857 (Minnesota SHPO SC-CLK-002). Charles emigrated from County Cork, Ireland in the 1840s. The first log structure that the Kennefick family built is no longer extant; however a one-room, log cabin that was constructed circa 1861 in which Charles, his wife Caroline, and their children resided is still extant (Minnesota SHPO SC-CLK-002; Kathy Pipkorn, personal communication 2010). In 1863, a log wing that housed the kitchen was added to the cabin (Kathy Pipkorn, personal communication 2010).

According to an 1880 plat map, Charles Kennefick owned 80 acres in section 11 (Scott County Historical Society 1880). Charles Kennefick passed away in 1888 and by 1898 his brother Thomas and his son James owned land in section 11 (Finnell and McAuliffe 1991). According to the 1900 U.S. Census, Caroline Kennefick resided in Cedar Lake Township with six adult children who were farmers (U.S. Federal Census 1900). Over the years, the Kennefick's acquired more land, having a farm totaling 400 acres by 1941 (Minnesota SHPO SC-CLK-002). The log house that was constructed by Charles Kennefick is extant; however, it has been heavily altered. In 1943, the exterior was parged in stucco and a kitchen and bathroom addition were constructed in the 1950s (Kathy Pipkorn, personal communication 2010).

The Doyle-Kennefick family built a barn on the property in 1942 that was constructed of local oak trees. The extant chicken coop was constructed circa 1946 and the extant corncrib was constructed circa 1955 (Kathy Pipkorn, personal communication 2010) In the late twentieth century, the Doyle's children built three additional houses on the property which are now rental properties. The houses are located at 22801, 23125, and 23991 Panama Avenue (Kathy Pipkorn, personal communication 2010).

## Summary of Legislative Requirements

There are many federal laws that govern the treatment of historic, archaeological and cultural resources. However, the most relevant and meaningful for the Doyle-Kennefick Regional Park, if federal funds or permits are involved in park development, is the National Historic Preservation Act of 1966. In addition, there are three state laws that may pertain to the park.

### *National Historic Preservation Act of 1966*

Section 106 of the National Historic Preservation Act requires Federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The SHPO acts on behalf of the Advisory Council in each state. The Section 106 process seeks to accommodate historic preservation concerns with the needs of Federal undertakings through

consultation among the agency officials and other parties with an interest in the effects of the undertaking on historic properties, commencing at the early stages of project planning. The goal of consultation is to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. A Federal undertaking includes such activities as transfer of funds, issuing of permits, providing loans etc.

For further information, see http://www.achp.gov/regs.html

### *Minnesota Historic Sites Act (M.S. 138.661 – 138.6691), 1965*

This Act created a state register of properties "possessing historical, architectural, archaeological, and aesthetic values" and outlines a consultation process for projects that will affect historic sites. Important points:

- Historic sites are defined as properties named in the Act or listed on the NRHP.
- Similar to federal regulations, any undertaking receiving funding or licensing by any political subdivision is covered by the Act.
- If the undertaking affects historic sites, the agency must consult with the Minnesota Historical Society (MHS) to avoid or mitigate adverse effects.
- If the parties agree in writing to an appropriate course of action, the undertaking may proceed.
- If the parties cannot reach agreement, any of the parties may request that the governor appoint a mediation task force.

### *Minnesota Field Archaeology Act (M.S. 138.31 – 138.42), 1963*

- A "state archaeological site" is defined as any publicly owned or leased land or water area that contains material of archaeological interest.
- Only licensed archaeologists may undertake field archaeology on a state site.
- The Act created the Office of State Archaeologist (OSA), which, along with the MHS, oversees compliance with the Act.
- When a state archaeological site is known or suspected to exist, the controlling agency must submit development plans to MHS and OSA for review.
- The controlling agency, in consultation with MHS and OSA, is directed to preserve such sites (which may include data recovery) and is authorized to use its funds for such activities.
- If a site is related to American Indian history or religion, OSA must coordinate with the Minnesota Indian Affairs Council for review and comment.

### *Minnesota Private Cemeteries Act, 1975*

This act provides protection for marked and unmarked human burials and remains. Highlights include:

- It is a crime to intentionally destroy or remove human skeletal remains or burials.
- The Act directs the state archaeologist to authenticate all burial sites. In particular, it directs the state to retain the services of a professional archaeologist to authenticate burials on public lands or waters when requested by a scientific or Indian group.
- Only burials older than 50 years are covered by this Act.
- When human remains or burials are Indian, the State Archaeologist and the Minnesota Indian Affairs Council (MIAC) must attempt to identify their tribal identity.
- No authenticated Indian burial may be relocated without approval of the MIAC.
- When Indian burials are known or suspected to exist on public lands, the political subdivision controlling the land must submit development plans to the state archaeologist and the MIAC for review prior to advertising bids.

## Interpretive Theme

The following are themes to consider for interpretation at the park. The concepts stem from the history of the land within the planned park, the culture of the area today, and information from members of the Doyle-Kennefick family living today.

*Living and Learning on the Land: Doyle-Kennefick Regional Park has provided a livelihood and recreation for generations of people who lived on this land.* Life and survival on an early Minnesota farmstead was inextricably linked to the land. Income and sustenance came not only from fields of crops but from hunting and trapping. The land was also a source of recreation as residents skated, sledded, walked the landscape, and swam. This lifestyle made its inhabitants tuned into the cycles of the seasons and the rhythms of nature.

# Natural Resource Inventory and Assessment

## Introduction

This section presents findings from a natural resources inventory and assessment of the park prepared by Applied Ecological Services (AES). It identifies significant natural features, provides an overview of existing conditions, and discusses conservation priorities, issues and opportunities. These findings informed the development program and design concept for the park and an ecological stewardship vision and plan for the site. **(Full page map images of the figures appearing in this section can be found in the Maps section.)**

## Local and Regional Context

Doyle Kennefick Regional Park is located in Cedar Lake Township, Scott County, Minnesota. The park is located in an area of rural and low-density residential development. The City of Prior Lake lies approximately four miles north of the park. Other public natural areas in the vicinity include MNDNR Fisheries land to the northeast and Bradshaw Lake WMA to the west and southwest.

Within the 7-county metropolitan area, MNDNR has conducted assessments of regionally significant ecological areas and related conservation corridors. These inventories and assessments indicate that the majority of the park contains regionally significant ecological areas located within regional conservation corridors. Conservation planning conducted by Scott County in 2007 identified the park to be at a nexus of several Natural Area Corridors. Figure 12

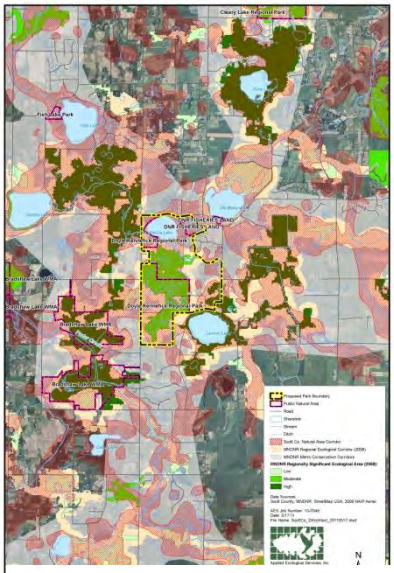


**Figure 12. (Map 5) Regional Context**

illustrates the park's regional ecological context with regard to mapped conservation areas.

## Past and Current Ecological Conditions

### Glacial History, Landforms and Soils

The Wisconsin Glaciation (which ended here about 11,000-12,000 years ago) created the landforms visible at Doyle Kennefick Regional Park. The park is characterized by rolling to hilly topography with numerous depressional lakes and wetlands. Moderate to steep slopes are located throughout the park and are generally concentrated around the edges of lakes, wetlands, and drainageways (Figure 13). These steeper areas may present limitations to park development, and trails through these areas will require environmentally sensitive design.

Following glacial recession, the region was colonized by taiga/spruce-fir vegetation. During the Hypsithermal (a warm/dry period about 6,000-8,000 years ago) there was a significant advance of prairie flora eastward, after which the prairie retreated as the climate became wetter. The Little Ice Age of about 350 years ago accelerated that retreat, especially in the Big Woods region of Minnesota. As a result, the park's upland soils have developed under primarily wooded conditions over the past few hundred years, but a prior period of savanna and prairie occupancy may have influenced their overall evolution.

According to the Scott County Soil Survey (USDA/NRCS SSURGO data), the park's uplands are dominated by Hayden, Lester, and Terril soils (all fine-loamy). The park's lowland soils are generally mapped as "marsh" or Houghton (muck) in the wetland basins, surrounded by Webster and Glencoe (fine-loamy) soils in smaller depressions, along swales, and near wetland edges (Figure 13). The park's upland soils can support a variety of plant communities, including forests, woodlands, shrublands, grasslands, crops, etc. These soils would not be expected to present any significant constraints on park development.

### Hydrology

The park is located along a major tributary to Porter Creek, which in turn is tributary to Sand Creek and the Minnesota River. Most of the park's surface water generally flows north through the park's wetlands and streams, into St. Catherine Lake (in the northwest portion of the park), and outlets (at elevation 944.3) into the major tributary to Porter Creek that flows west and eventually into Cynthia Lake (Figure 13). The west-central portion of the park drains to the west and eventually into Porter Creek (Figure 13). Porter Creek is listed by the Minnesota Pollution Control Agency (MPCA) as impaired for aquatic life due to turbidity. Lennon Lake lies to the southeast of the park, and McMahon Lake lies to the northeast. McMahon Lake is listed by the MPCA as an

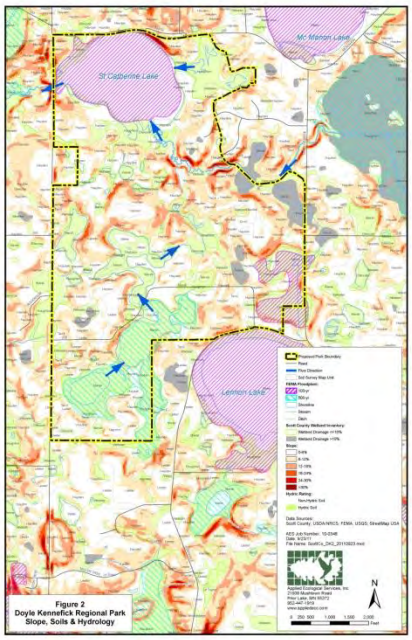



**Figure 13. (Map 6) Slope, Soils and Hydrology**

impaired water due to high levels of nutrients (i.e., eutrophication). Federal Emergency Management Agency (FEMA) mapping identifies the 100-year floodplain to encompass St. Catherine Lake as well as a wetland complex in the southeast corner of the park (just north of Lennon Lake); an area mapped as 500-year floodplain is located in the south-central and southwest portion of the park (Figure 11).

In general, Scott County has abundant and high quality groundwater resources. No wellhead protection areas exist in the park area, and based on a three-tiered classification system (Low, Moderate, and High), the park area's susceptibility to groundwater contamination is rated as "Low" (Scott County Environmental Mapper). This suggests that standard groundwater protection practices (e.g., sealing of unused wells) should suffice in the park area.

## Historical Vegetation

The MNDNR's Ecological Classification System identifies the park within the Big Woods Subsection of the Minnesota & NE Iowa Morainal Section of the Eastern Broadleaf Forest Province. MNDNR data and previous research by F.J. Marschner (1974) indicate that the park's northern and southern portions are located in areas that, prior to European settlement, were dominated by "Big Woods hardwood forest (oak, maple, basswood, and hickory)." The central portion of the park was dominated by "Oak Openings and Barrens." The Oak Openings and Barrens was a fire-influenced ecosystem, with fires recurring every few years. Plant species requiring a significant amount of sunlight inhabited this type of ecosystem, whereas in the Big Woods forest, plant species tolerant of full to partial shade were present.

## Existing Land Cover

Doyle Kennefick Regional Park currently consists of two separate parcels totaling approximately 486 acres. Proposed land acquisition around these parcels would result in a 1,130-acre park (. The park currently contains a variety of land cover types, including a variety of forests, woodlands, grasslands, wetlands, agricultural lands, and rural development. Minnesota Land Cover Classification System (MLCCS) mapping was completed for the park by the Scott County Soil and Water Conservation District in 2001-2003 and updated by AES in 2005-2006 and again (for the park area) in 2009 (Figure 14). Figure 14 A summarizes the park's land cover types and their associated acreages and relative cover.

| Figure 14. Major Land Cover Type | Acres | Percent of Park |
|---|---|---|
| Developed Areas (impervious surfaces, lawn, etc.) | 20.85 | 2% |
| Planted Vegetation (e.g., crops, hayfield, pasture) | 297.30 | 26% |
| Forests (closed canopy) | 179.21 | 16% |
| Woodlands (moderate canopy) | 19.37 | 2% |
| Shrublands (including shrub swamps) | 0.70 | <1% |
| Herbaceous (including upland grasslands and non-forested wetlands) | 461.69 | 41% |

| | | |
|---|---|---|
| Open Water | 159.34 | 13% |
| Total | 1,129.46 | 100 |

The MNDNR County Biological Survey (completed for Scott County in 1998) identified the central portion of the park to be of "moderate biological significance." Two patches of the native plant community "Red Oak – Sugar Maple – Basswood (Bitternut Hickory) Forest" were identified in this central portion of the park, generally corresponding with the park's higher quality forests. Outside of the Minnesota River Valley, mapped sites of biological significance are relatively uncommon in Scott County, and native plant communities are even rarer. Figure 12 illustrates the park's native plant communities as mapped by the County Biological Survey. During MLCCS mapping, natural communities were assigned a quality rank, ranging from A (high quality) to D (poor quality). Figure 15 shows quality ranks for mapped native plant communities.

## Land Cover Descriptions

A brief description of the park's land cover types follows.

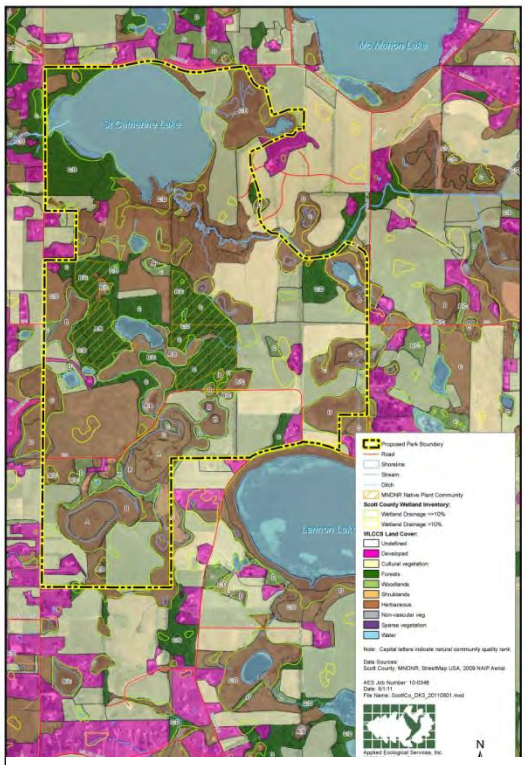



**Figure 15. (Map 7) Minnesota Land Cover Classification Inventory**

## Forests, Woodlands & Savannas

MLCCS mapping identified the majority of the park's forested uplands as Oak Forest - Mesic Subtype (quality ranks A/B to D). Other native forest communities included Maple-Basswood Forest (quality rank C/D) in the northern portion of the park, and a small standof Aspen Forest (quality rank C) in the eastern portion of the park. Scattered patches of Oak Woodland Brushland (quality ranks C and D) occur throughout the park. The remaining wooded areas within the park consist of altered/non-native deciduous forest.

Poorer quality native forests and woodlands received their rank due to a combination of historical logging (resulting in the absence or scarcity of keystone species), historical grazing (resulting in a depauperate ground layer and abundance of armed (i.e., thorny) and other grazing-resistant vegetation), native species and/or structural diversity lower than historical communities, low recruitment of keystone vegetation (e.g., low/no oak regeneration due to overstocked canopies, invasive shrubs, or elevated deer populations and associated browsing), and the presence of invasive species. Past logging of selective species has resulted in atypical assemblages of trees in these forests; some of the park's forests are dominated by bitternut hickory (*Carya cordiformis*), ironwood (*Ostrya*

*virginiana*), and basswood (*Tilia americana*), and few if any sugar maple (*Acer saccharum*) or oak (*Quercus* spp) are present in areas. Diseases such as Dutch elm disease and oak wilt have likely affected some of the park's forests; however, an inventory of infections/impacts has not been conducted. Invasive vegetation in the park's forests and woodlands includes common buckthorn (*Rhamnus cathartica*), Tartarian honeysuckle (*Lonicera tatarica*), burdock (*Arctium minus*), dandelion (*Taraxacum officinale*), giant ragweed (*Ambrosia trifida*), motherwort (*Leonurus cardiaca*), and bull thistle (*Cirsium vulgare*). In addition, indications of earthworms (e.g., holes and castings) were observed in some of the park's forests. Earthworms (which are not native to Minnesota) reduce forest duff, increase erosion, and change soil structure in a way that is detrimental to many native herbaceous plants.

Shade suppression is occurring in some of the park's forests. Dense growth of aggressive woody plants (including both native and non-native species) can shade and suppress ground layer vegetation and result in the loss of ground cover and native plant diversity. The loss of soil-stabilizing plants often leads to erosion, which can lead to loss of topsoil, loss of native seed and other propagules, and sedimentation and nutrient enrichment of downstream aquatic resources.

*Wetlands*

The large wetland complex in the southern portion of the park consists of Water Lily Open Marsh (quality rank A) surrounded by Cattail Marsh – semipermanently flooded (quality ranks B and C). The wetland crosses 235$^{th}$ Street East and flows into Water Lily Open Marsh basins (quality rank A/B). The park also contains Mixed Emergent Marsh (quality rank B to B/C), Cattail Marsh – seasonally and semipermananetly flooded (quality rank B/C and C), Wet Meadow – seasonally flooded (quality rank C), Wet Meadow-floating mat subtype (quality rank A/B), and an Intermittently Exposed Aquatic Bed. The Mixed Emergent Marsh located in the southeast portion of the park contained a dense stand of wild rice, a relatively uncommon plant in Scott County.

Poorer quality native wetlands received their rank due to a combination of low native species diversity and the presence of invasive vegetation. Invasive plants present in the park's wetlands (often along the edges) include hybrid cattail (*Typha* x *glauca*), reed canary grass (*Phalaris arundinacea*), purple loosestrife (*Lythrum salicaria*), and Canada thistle (*Cirsium arvense*).

*Prairie*

A recently restored tract of Mesic Prairie exists in the west-central portion of the park (just north of the Doyle farmstead, north of 235$^{th}$ Street East and east of Panama Avenue/County Highway 23). During our 2010 field assessment, this 50-acre restoration was in its early stage of establishment, indicated by the sparse vegetation and presence of cover crop. According to Scott County staff, the prairie was seeded in early June 2010. Depressions within the prairie will likely consist of Wet Meadow wetland, and several test plots (using different site preparation techniques) are located in the northeast corner of the restoration.

A patch of restored Mesic Prairie (quality rank C/D) exists east of Panama Avenue, just north of 230th Street). This rank was assigned due to modest species diversity, presence of non-native plants (mostly cool-season grasses), and woody invasion due to limited management (i.e., lack of fire, haying, brushing, etc.).

*Lakes*

St. Catherine Lake is the only lake within the proposed park boundary. This lake is an important natural resource in the County due to its large size, its natural surroundings, and its full protection inside a County park. However, it is a shallow lake (maximum depth approximately 7 feet), its water clarity is very poor (<1.5 feet visibility), and blue-green algae blooms are common in mid-summer. Recent MNDNR studies have found that St. Catherine Lake is a significant spawning area for common carp (*Cyprinus carpio)*. Common carp are very destructive to aquatic vegetation and negatively affect water quality. The wildlife value of this lake is much lower than it could be, and the value to people is also greatly limited.

*Other Cover Types*

The park's remaining non-native and cultural vegetation includes non-native grassland with sparse deciduous trees, short grass and mixed trees, cultivated herbaceous vegetation (row crops), hayfield, and low percentages of impervious surfaces (e.g., existing homesteads and outbuildings). Invasive vegetation present in the park's open grasslands and brushlands includes: smooth brome grass (*Bromus inermis*), Kentucky bluegrass (*Poa pratensis*), smooth crabgrass (*Digitaria ischaemum*), orchard grass (*Dactylis glomerata*), timothy (*Phleum pratense*), sow thistle (*Sonchus* spp), sweet clovers (*Melilotus* spp), mullein (*Verbascum thapsus*), Siberian elm (*Ulmus pumila*), and ground clovers (*Trifolium* spp).

Wildlife

During our 2010 assessment, the following wildlife, or indications of these species, were observed within the park: beaver, Black-Capped Chickadee, Song Sparrow, Great-crested Flycatcher, swallows, Black Tern, Wood Duck, Common Yellowthroat, and a wetland wren. In 2010, AES also observed a Henslow's Sparrow adjacent to the park. Of these species, the Black Tern and Henslow's Sparrow are of particular interest, given that these species are relatively uncommon and they have been identified by the MNDNR as Species of Greatest Conservation Need (SGCN) in the region. In the fall of 2006, AES also observed significant numbers of Wood Ducks using the open water in the center of the park as a stopover during migration.

Rare Natural Features

Endangered, threatened, and special concern plant and animal species and animal congregations (e.g., heron rookeries) are recorded and tracked in the MNDNR's Natural Heritage Database. As of March 2010, three records of rare plants or animals were documented within one mile of the park's boundary. These records include:

- (1) Blanding's Turtle – observations of live animals occurred in 1996, 1998 and 2006
- (1) Sandhill Crane – an observation of a pair of adults and 2 young in 2001; nesting was inferred

- (1) Bald Eagle – record consists of 2 nests in the area, one nest or the other was active each year from 2001 through 2005

Over the past nine years, AES staff have observed each of these rare animals adjacent to the park, and it likely that all three species currently utilize the park. Blanding's Turtle and Bald Eagle have also been identified as SGCN species in the region.

## Conservation Priorities, Issues and Opportunities

### Core Habitats and Connectivity

Doyle Kennefick Regional Park contains several larger, high quality, native forests and wetlands. However, further restoring these native ecosystems, enhancing degraded habitats, addressing invasive species infestations, providing ecological connections, and protecting and buffering core habitats are critical to maximize the conservation benefits of the park. Restoring large blocks of high-quality native plant communities will provide a habitat mosaic for a diversity of wildlife species. This will especially favor species that require large territories, special habitats, or isolation from human activity. These habitat mosaics should center on the park's highest quality natural areas and be expanded outward to encompass lower quality natural and cultural vegetation. Based on the park's existing upland land cover, a theme of Mesic Forest restoration and enhancement would be appropriate for the central and northern portions of the park, and an emphasis on Mesic Savanna/Woodland, Mesic Prairie, and native wetland restoration in the southern and eastern portions of the park. Ecological restoration and management in the park will also help to preserve and enhance this important ecological "hub" in the County with regional conservation benefits.

While important conservation steps can be taken inside the park, additional buffer areas should be considered around the park with conservation easements and other mechanisms, working in partnership with residents and developers. These buffers will provide additional natural resource protection and conservation value to the park and region by reducing biological edge effects, dumping, and uncontrolled trespass to the core natural areas in the park. Adjacent homeowners can be provided with technical assistance and cost-sharing opportunities for native landscaping and screening on their residential properties. Educational programs for all nearby residents could inform them of the park's conservation goals and what they can do to assist (e.g., construct rain gardens upstream of the park, install native landscaping for ecological buffering, restrict domestic cats to indoors).

<u>Forests, Woodlands & Savannas</u>

The park's exceptional examples of native forests in a regionally significant ecological area warrant protection. The high quality stands of Mesic Oak Forest and Maple-Basswood Forest in the northern and central portions of the park are valuable and sensitive natural resources at a county scale. While some of these native forests are intact (quality rank A/B), all exhibit

indications of disturbance and degradation, such as past logging, grazing, and/or invasive species. Forest habitats can be severely compromised by disturbance that is both internal (e.g., logging, deer over-grazing) and external (e.g., adjacent development). Ecological enhancement would be appropriate in all park forests and woodlands, but priority should be given to first protecting and enhancing the park's highest quality forests. Therefore, conservation of native forests and woodlands should entail protection, restoration/enhancement, expansion, connection with other natural areas, and ecological buffering.

Fire management is appropriate in most oak-dominated systems, as well as more open canopy systems and areas where desirable shade-intolerant species are present. Especially where such areas are adjacent to wetlands, management units should include the transition area between wetlands and uplands. Deer over-grazing may be a significant issue as restoration of forests, woodlands, and savannas proceeds. Several desirable kinds of herbs, shrubs, and trees are grazed preferentially by deer. Maintaining a low deer population in the park will increase the success of restoration efforts by preserving species diversity and tree canopy regeneration where desired.

Wetlands, Lakes and Streams

The park's examples of high quality wetlands in a regionally significant ecological area warrant protection. Several of the park's wetlands are of exceptional quality (quality rank A and A/B); most of these are Water Lily Open Marsh, which are favored by large rafts of Wood Ducks in migration. (Wood Ducks are extremely wary and flee when people approach—consequently trails along these wetlands require screening or perpendicular access with blinds at the trail terminus.) Wetlands are very susceptible to changes in hydrology and water quality, including off-site influences. Runoff from adjacent properties should be assessed and managed to ensure that the integrity of the park's high quality wetlands is maintained in perpetuity. The natural hydrological regimes and high water quality in the park's wetlands can be protected by buffering all wetlands, other aquatic features, and channels and drainageways within, and also those flowing into, the park. Dispersed, naturalized stormwater management techniques are the best way to achieve this outcome (e.g., native vegetated swales, rain gardens, biofiltration wetlands). Ecological enhancement would be appropriate in all park wetlands, but priority should be given to first protecting and enhancing the park's highest quality wetlands. Opportunities also exist (within and upstream of the park) to restore drained or partially drained wetlands (Figures 11 and 12). Therefore, conservation of native wetlands should entail protection, restoration/enhancement, expansion, connection with other natural areas, and ecological buffering within local watersheds of the wetlands.

While St. Catherine Lake has some inherent limitations due to its shallow depth and common carp population, there is potential for increasing its wildlife habitat and recreational value. Most of the lake's watershed is inside the park (allowing for nutrient runoff management), but a portion lies east of the park. Reducing pollutant loading and mitigating factors that impair water quality in St. Catherine Lake can improve water quality and recreational opportunities. Healthy shallow lakes in the region are typified by lower nutrient runoff, high water clarity, and abundant rooted aquatic vegetation. The submergent plants (ideally native) grow to the

surface over much of the lake during the majority of the growing season, uptaking nutrients and limiting light penetration. Algal growth is limited by reducing nutrient inputs (runoff management), nutrient availability (due to submergent plant uptake), and available light (due to submergent plant shading). Connectivity of the park's aquatic systems to St. Catherine Lake and Porter Creek should be avoided in order to minimize the potential for common carp introduction into the park's high quality wetlands. It may also be appropriate to try to minimize carp access to St. Catherine Lake. Implementation of these restoration strategies would improve lake habitats and provide improved recreational opportunities appropriate for shallow lakes (e.g., wildlife observation, canoeing/kayaking, scenic appreciation). There are opportunities to work with the Scott WMO and MPCA to assess the lake as a part of a planned 2014 water quality monitoring effort for the Lower Minnesota River Basin..

A study completed by the Scott Watershed Management Organization (e.g., Inter-Fluve, 2008) identified significant erosion along Sand and Porter Creeks caused by land use changes and upstream drainage practices. This study identified 20 potential projects along the Porter Creek tributary that flows through the park and St. Catherine Lake. Three of these potential projects occur just east of the park boundary. One of these projects consists of restoring a 500- to 700-foot section of the creek that has been ditched or straightened. The other two projects entail wetland restoration involving ditch modifications to restore hydrology and control of invasive species. One of the two wetland restorations may be impractical, as the ditch causing the hydromodification affects other upstream properties. The Scott WMO is a likely partner for implementing feasible opportunities.

Prairie

Once more established, the recently restored 50-acre prairie will represent a significant tract of prairie habitat capable of sustaining upland grassland birds, insects, and other animals that are absent or scarce in the park. In time, uncommon upland grassland birds, such as Dickcissel, may colonize this habitat for foraging and nesting. The park's other prairie tract (located to the north) will also compliment the park's prairie habitats. Additional ecological benefits will also be achieved through the protection, restoration/enhancement, expansion, connection with other natural areas, and ecological buffering of the park's prairies. Where prairie abuts wetland, combining them in a single management unit will benefit the upland-wetland transition zone.

Invasive Species

Invasive vegetation exists in all but the highest quality native plant communities within the park. These species thrive in disturbed habitats and often dominate and outcompete native plants, resulting in poor habitat diversity and a lower resilience in the face of disturbances and environmental change. Therefore, the control of invasive plants is an important restoration and management issue. Invasive animals (e.g., non-native earthworms, common carp) also cause ecological harm to soils, vegetation, and water quality. Unfortunately, control of invasive animals is often difficult and/or cost prohibitive, but being aware of their presence and not facilitating their spread can slow infestations.

Invasive species pose a significant threat to native plant communities, even during ecological restoration, enhancement, and management activities. The MNDNR has developed guidelines to minimize the introduction and/or movement of invasive species (Attachment A). These guidelines should be followed at all times within the park to prevent new introductions as well as the spread of invasive species within the park.

Species of Greatest Conservation Need

Establishing Doyle Kennefick Regional Park as a refuge for certain Species of Greatest Conservation Need (SGCN) would be appropriate, given the County's paucity of large habitat mosaics, especially inland from the Minnesota River Valley. Blanding's Turtle, Bald Eagle, Black Tern, and Henslow's Sparrow are SGCN species that have already been confirmed on or adjacent to the park. The park's forest, wetland, restored prairie, lake habitats, and potential for other restored native ecosystems suggest the following additional SGCN species are appropriate for the park: Prairie Vole, Wood Thrush, and Trumpeter Swan.

Park Development and Protection of Surface Water and Groundwater

Due to Doyle Kennefick Regional Park's ecological context and high quality natural resources, special care should be given to park development. The development and use of the park should not compromise the ecological integrity of this County-level significant natural resource. As discussed above, protection of water resources is one of the most important tasks to ensure healthy ecosystems, especially wetlands and lakes. Techniques that should be employed to protect the integrity of the park during development, and protect surface and groundwater resources, include:

- Conservation Planning and Design. Follow principles of protecting natural areas and minimizing adverse impacts.
- Low-Impact Development (LID). Use these techniques for sustainable stormwater management (e.g., infiltration) in developments. The Scott Watershed Management Organization (WMO) is a likely partner for LID demonstration sites.
- Ecological Buffers. Promote native perennial plantings, especially along watercourses and shorelines.
- Ecological Stormwater Treatment Trains. Manage stormwater using a series of natural elements (e.g., swales, prairies, wetlands, ponds).
- Erosion Control. Use appropriate techniques to address erosion from steeper slopes and along trails and roads.
- Minimize Connectivity of Water Features. Prevent connectivity of the park's aquatic systems to St. Catherine Lake and Porter Creek to minimize the potential for common carp introduction into the park's high quality wetlands.
- Sealing of Unused Wells. Abandon unused wells per Minnesota Department of Health standards.

- Proper Material Storage and Handling.  Store, handle, and dispose of hazardous and recyclable materials using County waste management procedures.
- Other Best Management Practices.  Use best practices in areas where they are available and appropriate.

# Development Plan

## Overview

The development plan for Doyle-Kennefick Regional Park reflects findings from public feedback and local leadership, natural resources inventory, cultural resources assessment, technical reviews, and consensus reached between the public, Citizen Design Team, Parks Advisory Commission and the County Board regarding how the park should be developed to meet local and regional needs. While the plan will serve as the guide for developing the park over the next 10 to 20 years it should be recognized that it is dynamic and will evolve over time as implementation steps are made, as trends and recreation needs change, and as operational experiences all help further inform the needs and capacity of the site. Based on the considerable amount of land remaining to be acquired in the park and anticipated outdoor recreation demand, development of Doyle-Kennefick is envisioned as a long-term initiative likely be updated before the development plan here is fully implemented. **A full page graphic of the development concept (Map 1) can be found in the Maps section.**

## Development Plan Overview

The development plan provides features and amenities to meet current and anticipated recreational and educational demands. The mix of amenities offers opportunity for short visits, day-long outings as well as overnight stays. The planned amenities provide for winter and summer use, with the flexibility to modify the extent of each through programming. This section describes the vision and planned facilities and infrastructure for three development areas of the park. It also presents the vision and planned location for a trail network, and surface water recreation and picnicking elements.

## Development Areas

The park consists of three development areas:

- Pioneer Homestead and Trailhead
- Outdoor Discovery Area
- Lakeside Retreat Center

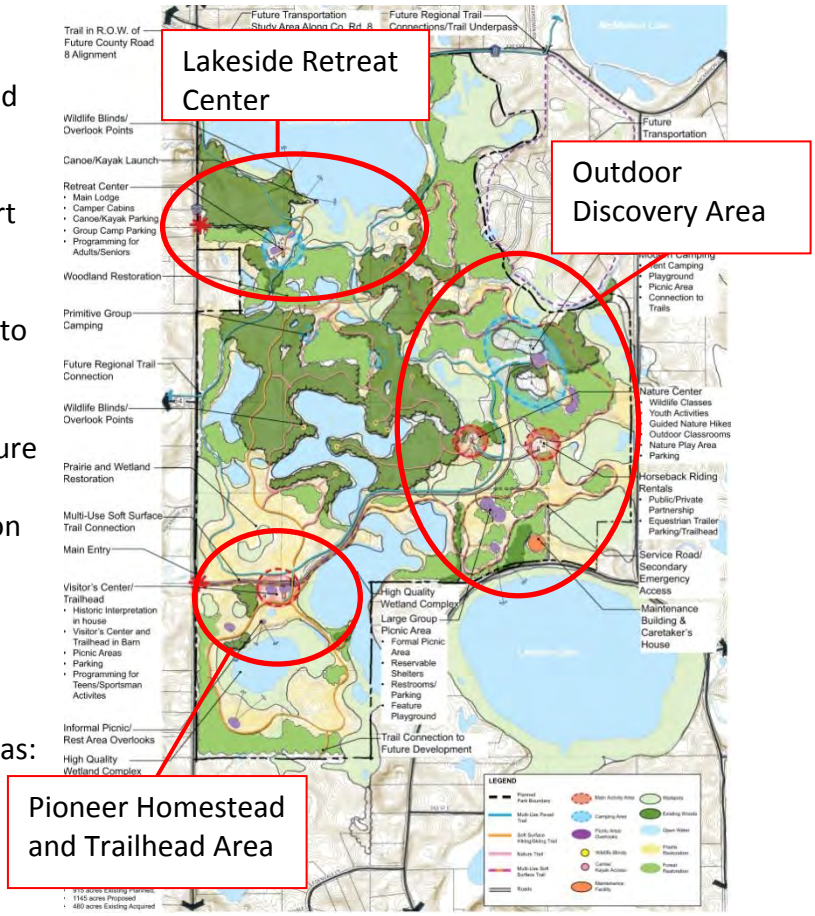



**Figure 16. (Map 1) Major Development Areas of Doyle-Kennefick Regional Park**

## Pioneer Homestead and Trailhead Area

This area of the park is envisioned to provide visitors an overnight 'Pioneer Cabin' experience, trailhead/warming facility and group rental space on the site of an 1860's farmstead nestled in a scenic landscape setting of restored Oak savanna, prairie and wetlands.

**Figure 17. (Map 2) Homestead and Trailhead Development Site**

An 1860's homestead original to the property will be renovated to its 1860's condition offering a unique overnight Pioneer living rental with very basic amenities. It's location at the juncture of miles of recreational trails provides convenient access to a diversity of quality outdoor recreation activities including hiking, birding, biking, cross-country skiing, and facilities in other areas of the park.

**Figure 18. Homestead Circa 1860's**

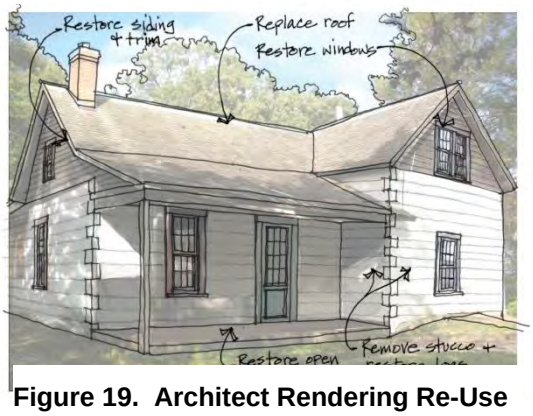



**Figure 19. Architect Rendering Re-Use Concept**

At the time of development and restoration of the homestead, alternative time periods for restoration and interpretation should be considered. For instance examples of rural life at the turnoff the last century or during the 1930's or 1940's may be of interest. Whichever time period is targeted, programming is envisioned as a mix of self-guided activities for over-night

guests and casual day visitors and formal programming carried out through partnerships with the Scott Historical Society, Murphy's Landing and Three Rivers Park District.

The farmstead site will also serve as a major trail-head, at a juncture where to the south is a quiet natural-surface trail loop and to the north an extensive trail system of mixed uses. The trail loop south of the site is planned over a unique land bridge feature between two of the highest quality wetlands in the County, and around a future prairie and Oak savanna area. It offers several quality wildlife observation points.

The trailhead and warming facility planned for the farmstead site could be offered by renovating and re-using the 1940 dairy barn on site. Alternatively a new structure could be built for these purposes. Through the planning process it was determined the barn is in good condition, lends a rustic rural feel to the park, compliments the homestead re-use concept and could support recreation needs of this area of the park. While there was interest in preserving and renovating the 1940's barn for these reasons as well as for its cultural value, it was also recognized that a new structure may offer more flexibility and efficiencies in meeting the functional needs of the space. It is expected that development at the park is a number of years out and that re-use of the barn facility should be reevaluated at the time of detailed site planning to determine whether it or a new structure can best meet the needs and vision for the farmstead site. In the near term this plan calls for small investments to preserve the barn to use it for storage space.

If re-used, the 5,440 square foot dairy barn will be renovated to offer a 4-season warming space and trailhead on the first floor and a 3-season facility on the second floor to accommodate group rentals and community events. The intent is to preserve the rustic barn look and feel of the upper level and outer shell.

**Figure 20. Existing 1940's Dairy Barn**

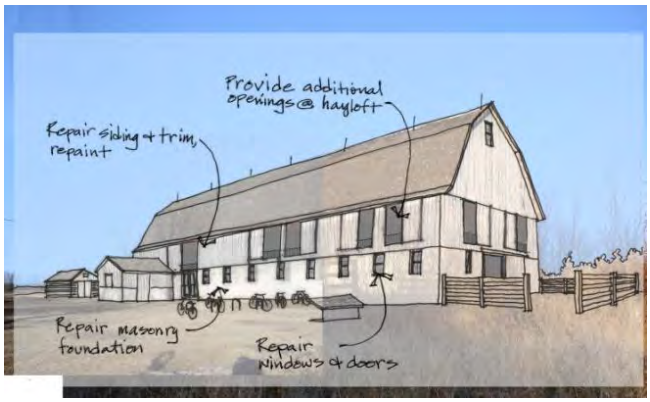



**Figure 21. Architect Rendering of Barn Re-Use**

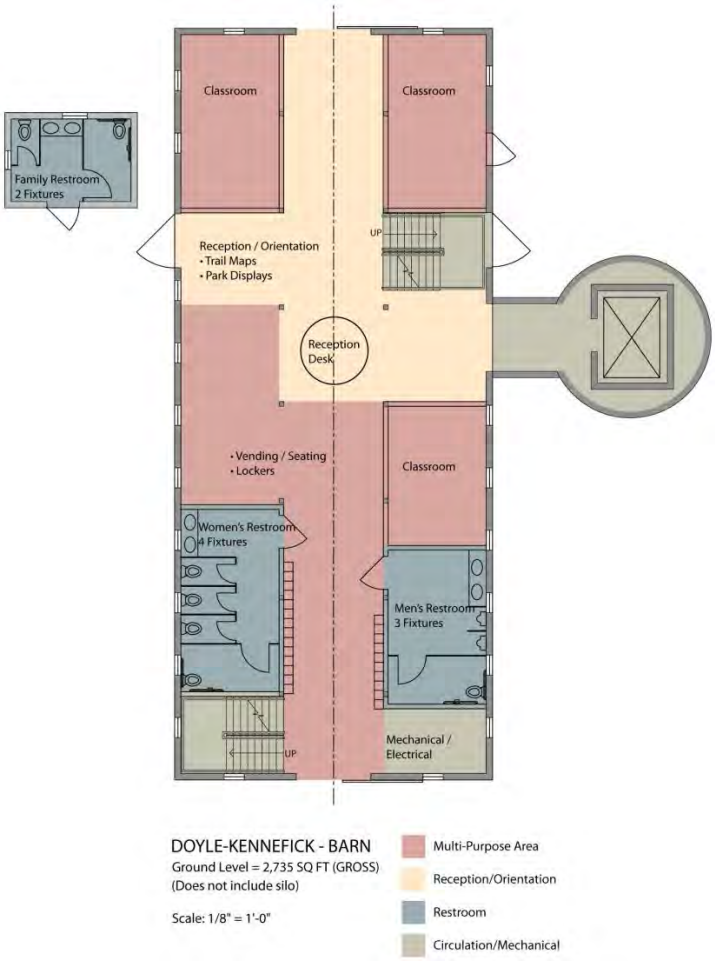



**Figure 22. Barn Floor Plan Main Level**

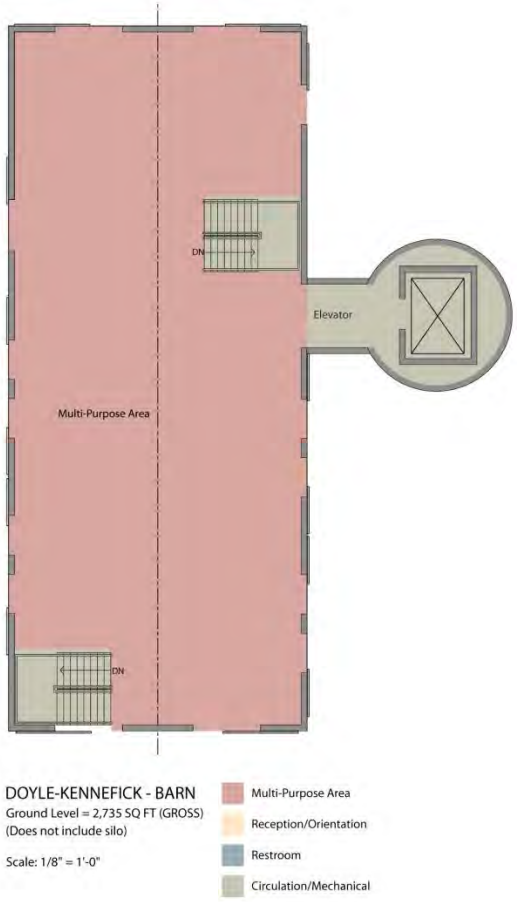



**Figure 23. Barn Upper Level Floor Plan**

**Figure 24. Architect Perspective Drawing on Barn Re-Use**

## Outdoor Discovery Area

This area of the park includes three complimentary facilities; a campground, a nature discovery center, and a public equestrian facility. These facilities are connected via trail to encourage integrated and complimentary programming that can serve a variety of interests and offer activities for multi-day visits. Development of this area of the park is anticipated to be a minimum of ten years and possibly 20 years away for portions of the area which are dependent on future land acquisition from private landowners. Therefore this vision and the identified facilities and their role in the park are intended to be flexible and to be refined as acquisitions are made over time and in consideration of demand and of offerings elsewhere in the system.

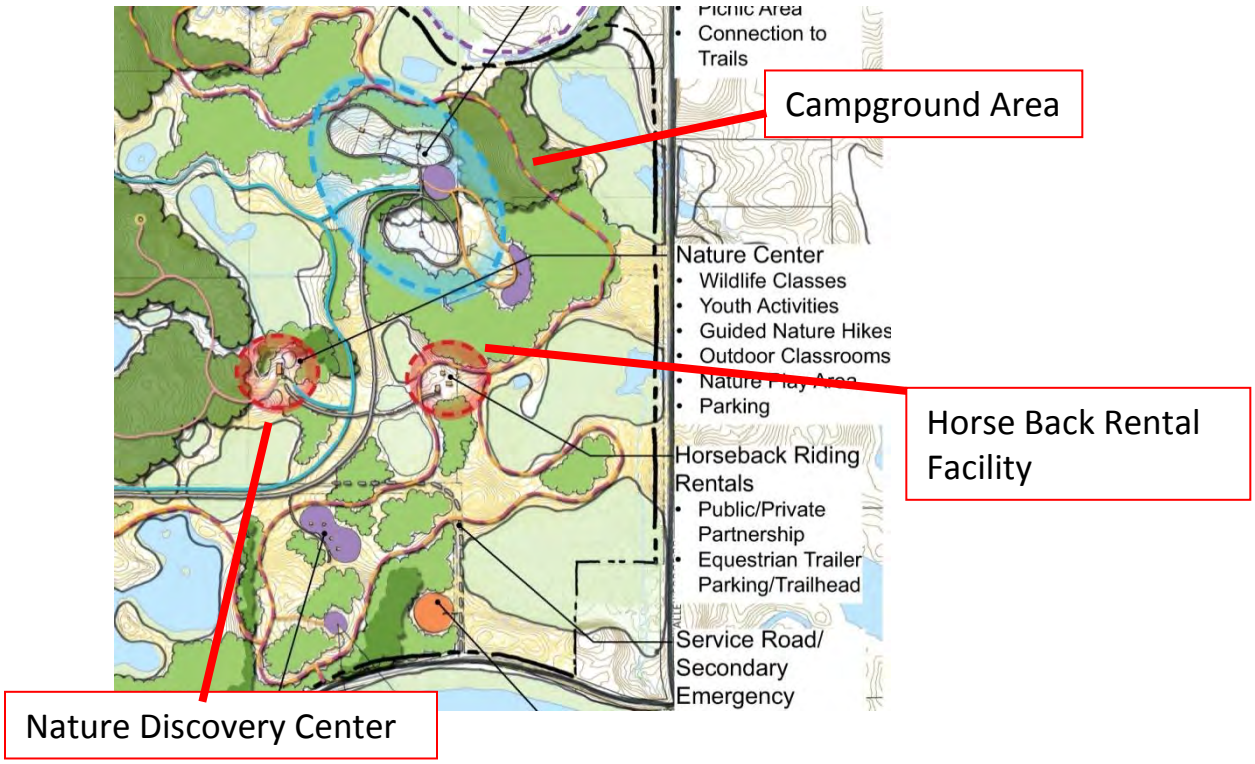



**Figure 25: (Map 1) Outdoor Discovery Area Location**

## Camping

A camping facility is intended with the specific camping type to be evaluated based on system and regional need at the time of site development. A range of camping from rustic hike-in sites to modern tenting and RV sites will be considered based on camping facilities offered elsewhere in the system and demand.

### Nature Discovery Center

This facility is envisioned to offer programming for all ages with a focused program track for youth and young adults involving hand's on skills development related to hunting, trapping, natural history, canoeing/kayaking, archery, and non-game wildlife, habitat and rare species conservation.

### Public Equestrian Center

This facility is intended to fulfill a gap in public horse-back riding rental opportunities within the Metro Regional Parks System and Scott County. The concept is based on the site being operated by a private venture, similar to the model used by Anoka County Parks at Bunker Hills Regional Park (Bunker Park Stables). The vision includes a main building facility for trail riding rentals and group program and site operations; stables; a riding arena to support community-based programs for special-needs and at-risk youth, lessons and community events; and 7 miles of hiking/equestrian trails for horse riding rentals and public equestrian use.

## Lakeside Retreat Center

Located on St. Catherine Lake this facility is envisioned on the site of an existing residential property. It is planned to include a main lodge, camper cabins, and canoe/kayak access. Its function is for multi-day group outings, featuring programmed activities based on various themes dependent on use demands and trends. It will be important to design the site to fulfill varying group interests and age ranges. Based on the trend and demographic analysis this site may be well suited to have a focus on meeting the interests and recreation demands of seniors in particular while accommodating other age groups.

## Trails

An extensive network of trails is planned for the park. Ten miles of quality hiking trail is focused on providing access to the variety of landscapes and habitats of the park, with overlook points to offer scenic viewing and wildlife observation points. A ski trail network and snowshoeing are envisioned to utilize portions of the hiking trail. An eight and a half mile loop of paved trail is planned to circle St. Catherine Lake, to follow the perimeter of the high-quality forests and wetland zone of the center of the park and to connect with the Outdoor Discovery Center facilities. A seven mile hiking and equestrian trail is

identified on the eastern side of the park, linking to the horse-back rental facility, through the rolling terrain towards the southeastern side of St. Catherine's lake and connecting to the hill above Lennon Lake on the south side of the park. Trail alignment throughout the park will require careful site evaluation and placement to avoid habitat fragmentation, wildlife disruption, and erosion. The trails shown are conceptual; final placement will be determined based on more detailed site evaluation. On-going trail management will be necessary and may require modifications to trail alignment and use.

## Road Circulation and Park Entrance

The main park entrance is planned for the intersection of County Road 23 (Panama Avenue) and 235th Street. Currently 235th connects through the park on an east-west alignment before it turns to the south towards Lennon Lake and eventually connects with Eden Vale Trail. Once sufficient park land acquisition and facility development has occurred this road will convert to a park only roadway no longer providing connection to Eden Vale Trail. It will be realigned to provide access to the planned nature discovery, camping and public horse-back rental facility. Because the development timeframe for the park may be 20 years or longer, it will be important to re-evaluate road circulation and the park entrance based on what is learned over time about the functioning of the park and current conditions. County Road 27 (Valley Forge Road) may offer an alternative park entrance. Future site planning should review the park circulation and the park entrance concept based on updated goals for the Pioneer Homestead experience, opportunities to consolidate facility and park use areas, traffic patterns, and opportunities for natural resource stewardship or habitat enhancements.

## Water Recreation

The planning process determined a use concept that fits the natural character of the lake and wetlands at the park and retains their habitat quality and natural-resource based recreation opportunities. Recreation envisioned for St. Catherine Lake includes canoe and kayak access, and shore viewing and picnicking sites to support scenic viewing, informal picnicking and wildlife watching opportunities. Use at the park's wetlands will focus on wetlands ecology education, waterbird watching, and scenic viewing. Through the planning process it was determined that St. Catherine's Lake, a shallow productive water body was not suitable for development of a swimming beach, and two public natural swimming beaches were identified as sufficient in meeting current and future demand.

# Natural Resources Management Plan

## Overview

This section of the Doyle-Kennefick Regional Park Master Plan presents a plan for the parks' ecological assets and is designed to guide restoration, enhancement, and management of the its natural areas and to inform the design and placement of development amenities in the park. This information in this section is from the Doyle-Kennefick Natural Resources Management Plan prepared by Applied Ecological Services during the master planning process. This Natural Resources Management Plan (NRMP) is based on the following natural resource goals for the park:

1. Restore the diversity, beauty, and ecological integrity of native terrestrial and aquatic plant communities;
2. Improve habitat for desirable wildlife;
3. Improve the ecological functioning of the park and mitigate impacts of park development on natural systems by integrating ecological restoration with development; and
4. Develop an ecological stewardship program for restoration and perpetual management of the park's natural areas.

This section provides a discussion of the benefits of ecological restoration, our restoration and management philosophy, the vision for target native plant communities throughout the park, the stages of restoration and management, management units, implementation tasks, and schedules. An opinion of probable cost is provided in the Costs and Funding section and an overview of existing conditions is presented in the Natural Resource Inventory and Assessment chapter.

## Benefits of Ecological Restoration

Scott County has a long history and strong dedication to the conservation and enjoyment of its natural resources. The County recognizes the critical role that natural resources play in healthy and sustainable communities, and the importance of ecological restoration and perpetual stewardship. Restoration of native plant communities improves the health of ecosystems, including wildlife habitat and ecological functions. The restoration of native plant species in the park's forests, woodlands, wetlands, and prairies will provide opportunities for populations of breeding birds, invertebrates, mammals, and other wildlife, as well as opportunities for enjoyment by park users. Ecological restoration and management also helps to ensure the provision of numerous other "ecosystem services," such as air and water purification, runoff management, groundwater recharge, erosion control, and aesthetic landscapes.

## Restoration and Management Philosophy

The philosophy of ecological restoration focuses on creating healthy and sustainable ecosystems, often within the context of a developed or disturbed landscape. This natural resource management plan was informed by the park's regional context, position in the

watershed, pre-European settlement vegetation, and current conditions. Through this NRMP, it is our intent to restore plant communities that are native to the area, and where possible, native to the site. However, changes in the landscape and existing conditions often preclude the possibility of re-creating the original landscapes present 150 years ago, and the goals for a given restoration area will dictate the level of effort expended. Therefore, not all natural areas will be restored to exceptional quality native plant communities, but all will be restored and/or managed to meet park goals. There are also active park use areas that will be retained as or converted to primarily a turf and shade tree landscape. As healthy and sustainable ecosystems are established in the park, wildlife populations, ecological functioning, and human enjoyment will be enhanced.

## A Sustainable Strategy

Ecological restoration is a complex science and art that is influenced by site factors (soil, size, and existing vegetation) and surrounding land use, and is almost always done within a context of limited funding. Failed restorations are costly and can drain resources into the future. In the process of targeting areas of land for restoration and subsequent management of those areas, adherence to three management strategies will help ensure that conservation goals are met and that restoration projects fit sustainably within the County's budgetary framework and resource availability. The first strategy is to develop site goals that are based on a prioritization process that considers natural resources significance, availability of funding and other resources, and the probability of ecological degradation. Secondly, the target quality of the plant community or habitat has to be sustainable, and its end point well-articulated and measurable.

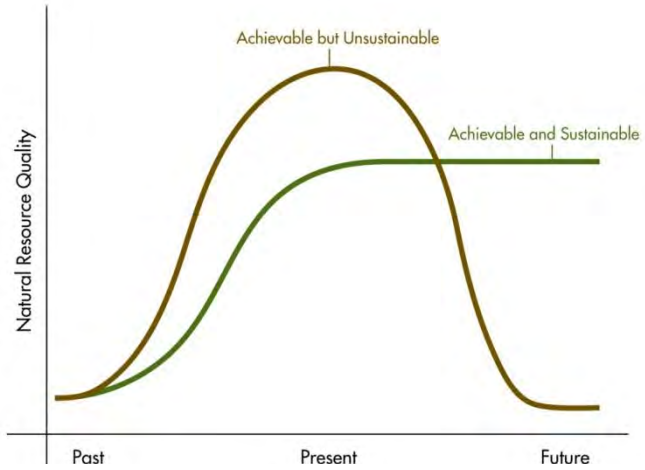



**Figure 26. Relationship of Resource Quality Target, Achievability and Sustainability**

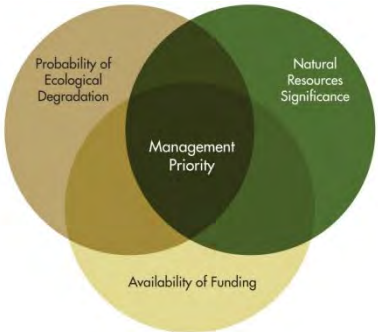



**Figure 27. Prioritization Strategy for Natural Resource Management**



Finally, restoration and management plans need to be seen as flexible because of the variability in timing of funding, restoration activities, response of a site to interventions, the changing management needs of plantings, and changing financial circumstances. Programs need at times to be changed in response to new scientific data and new insights after restoration has been

initiated. For these reasons, this NRMP should be viewed as being neither conclusive nor absolute. This plan is a starting point in an ongoing process of restoring the park's biodiversity and natural processes. It is intended to guide major restoration and management efforts and projects. It is expected that restoration and management activities will be refined and modified as more detailed inventory and assessment is done and as a part of project design at the time of implementation. Regular monitoring and reporting during the restoration process will provide feedback on the program's effectiveness and generate information to evaluate and justify proposed changes to the restoration and management program. This practice of "adaptive management" sets in motion a cycle of evaluation, adjustment and refinement. It is important that adaptive management begins when restoration and enhancement begin, and that it continues in perpetuity as part of park stewardship.

## Ecological Stewardship Vision

Doyle Kennefick Regional Park represents a regionally significant concentration of large, native habitats, some of which are high quality. Past and existing land uses, habitat fragmentation and invasive species have compromised these natural areas. However, due to its size, composition, and context, this park provides a unique opportunity for protecting, enhancing, and expanding plant communities, ecosystems, and wildlife habitat. The Master Plan graphic for the park (Map 1) conveys the vision for park development as well as generalized restoration areas within the park.

With the proposed improvements, the park will become an outstanding resource for recreation and education. Activities compatible with the natural resource goals for this park are walking, hiking, wildlife observation, environmental education, canoeing, low-impact camping, Nordic skiing, and possibly winter orienteering. Prior Lake High School is fifteen minutes from the park, and a curriculum could be developed around the restoration of this area. The City of Prior Lake is actively restoring its parks, with the possibility for collaboration on several fronts among County, City, and School District.

## Target Native Plant Communities

Based on Doyle-Kennefick Regional Park's natural history, specific environmental conditions, and its proposed uses, this NRMP provides guidance to restore and/or manage the following native plant communities:

- Mesic Forest
- Mesic Savanna/Woodland
- Mesic Prairie
- Wet Prairie
- Wet Meadow
- Cattail Marsh
- Mixed Emergent Marsh
- Water Lily Open Marsh Aquatic Bed Wetland
- Open Water Wetland
- Lake

Figure 28 illustrates the target native plant communities for the park, including approximate acreages of each cover type (provided in the legend). In some instances, restoration of these native plant communities will entail enhancement of an existing plant community (e.g., converting an altered/non-native forest into a Mesic Forest), while other areas will be restored from a completely different land cover type (e.g., converting an old field into a Mesic Prairie).

Plant species lists for restoration of native plant communities are provided in Appendix B. Native plant materials should have a source-origin within 200 miles of the park whenever possible, and only native, wild-type (non-cultivar) species should be used. Substitutions for specified seed and plant materials may be necessary due to the rapidly changing availability and pricing of native plant materials. Every effort should be made to match the ecological purpose of species that are unavailable in the selection of replacement species.

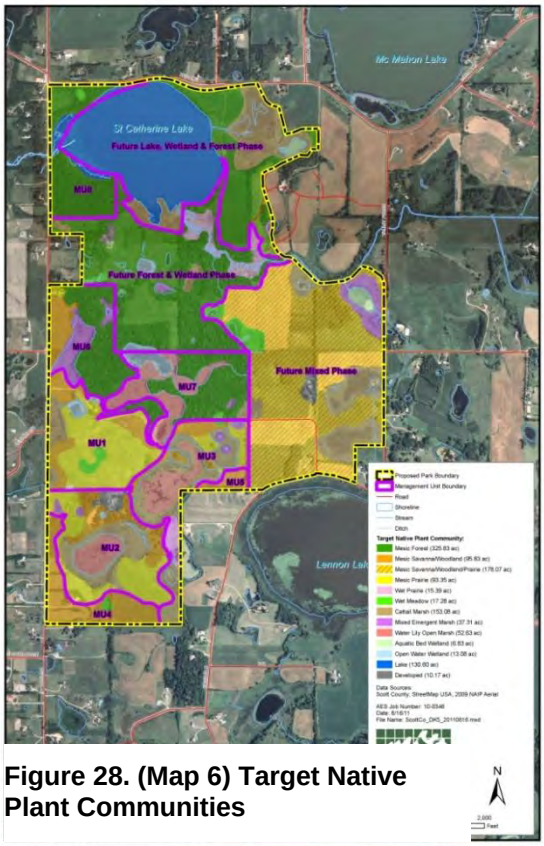



**Figure 28. (Map 6) Target Native Plant Communities**

## Restoration and Management Approach

### Restoration and Management Stages and Implementation Phasing

Ecological restoration and management is comprised of two stages:

1. *Restoration and Short-Term Management*: This initial stage is the most intensive and costly. Significant effort is often necessary to reestablish native vegetation and plant community structure. Actions include tasks such as selective woody brush removal, spraying invasive species with herbicide, native seeding and planting, and using bio-control techniques when available. After invasive plants are removed and native seed and plants are installed, short-term management is critical. The period of time required to complete this restoration and short-term management stage varies depending on the condition of the ecological system, its response to restoration efforts, as well as the size of the site and intensity and scope of the of the restoration work. Typically this initial stage requires about three years for a given management unit, after which the perpetual management stage begins.

2. *Perpetual Management*: After achieving initial restoration goals within a management unit, the restoration process shifts to a reduced-intervention, lower-cost perpetual management stage. The perpetual management stage is critical for maintaining the value of the investment, perpetuating healthy plant communities, and maximizing the ecological and aesthetic benefits of the native plant communities. This perpetual management provides long-term control of invasive species, remedial seeding/planting as necessary, and maintains necessary disturbance patterns (e.g., fire) within the management units.

To carry out these two stages at Doyle Kennefick Regional Park, work tasks are listed and scheduled over a multi-year period for each of the park's management units. Restoration and management at the park are scheduled to occur in phases. Once work begins in a management unit, it is important that all tasks be completed in sequence, or the restoration targets for that unit may not be achieved.

At Doyle Kennefick Regional Park, Phase 1 restoration and management will focus on the southern piece of land currently owned by the County. Phase 2 restoration and management activities are proposed to occur in the northwestern piece of land currently owned by the County. Future phases will proceed as additional lands are acquired and assimilated into the park.

It is important that the restoration and management program and schedule be flexible. Flexibility is necessary because some tasks require suitable weather conditions or are dependent on the completion of preceding tasks. Flexibility is also necessary because feedback from the monitoring program may result in changes of strategy, techniques, and timing in order to meet restoration goals.

## Ecological Monitoring & Reporting

Throughout both stages of ecological restoration and management, ecological monitoring provides important data about the effectiveness of the program. Initial baseline monitoring provides important information against which future monitoring data can be compared. Monitoring assesses the response of native plant communities by measuring ecological indicators of plant community recovery. Effectiveness is judged against the objectives of the project design (i.e., performance standards), and goals can be modified over time as a result of this feedback. Fixed photo-reference points should be established in the park for repeat photography of representative plant communities. Photo documentation throughout the entire restoration and management process (including baseline photographs, taken prior to initial restoration tasks) will provide a valuable record of restoration progress. The results of annual monitoring are used to direct the restoration and management activities for the upcoming year.

Annual ecological monitoring reports, usually completed at the end of a year, provide the locations and dates of all restoration and management efforts undertaken, site photographs, and future work that needs to be completed to address restoration goals. Monitoring reports are useful for documenting progress, assessing the need for modifications to the restoration and management program (i.e., adaptive management), informing County staff and park users of the status of the program, and informing municipalities and regulatory agencies about progress towards achieving conservation goals. Within a given management unit, detailed ecological monitoring and reporting should be done annually for at least the first three years following initial restoration activities. This level of effort is warranted during initial restoration work and the critical establishment period of native plantings. Quantitative or semi-quantitative monitoring and reporting is useful for guiding adaptive management and is necessary to evaluate achievement of performance standards. Less intensive monitoring and reporting should then continue in perpetuity, but frequency and level of effort should be based on site conditions, recent restoration and management activities, pressure by invasive species, etc.

## Specialized Training

Specialized training (often involving licensing or certification), oversight, and guidance are required of personnel before implementation of this NRMP. Personnel and volunteers involved in prescribed burning, brush control, monitoring, seed collection, etc. should receive training commensurate with the activity in which they would be involved. Training is especially important for those activities that may have risk and safety implications, such as prescribed burning and herbicide application.

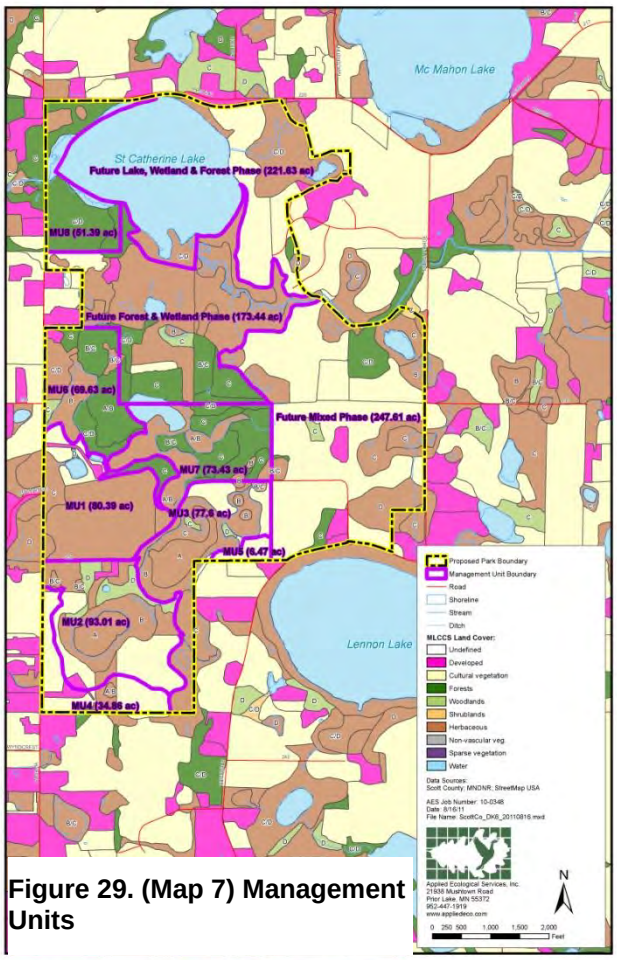



**Figure 29. (Map 7) Management Units**

## Management Units and Task Schedules

Figures 28 and 29 illustrate ecological management units for Doyle Kennefick Regional Park. Each management unit contains a variety of land cover types and requires a variety of restoration and management tasks. Management units were delineated considering property boundaries, anticipated phasing of park development, existing roads, proposed trails, reasonable-sized areas to manage, management needs (e.g., use of prescribed fire), the need for wildlife refugia (e.g., nearby alternate habitat for prairie invertebrates and other wildlife during and after prescribed fires), and proposed uses as presented in the Doyle Kennefick Regional Park Master Plan.

The following sections outline restoration and management tasks to be performed throughout the park as well as within each individual management unit. Implementation of this NRMP should proceed sequentially, beginning with tasks conducted throughout the entire park, then proceeding to individual management units. Based on the anticipated phasing of park development, management units have been prioritized as indicated by their identification code (MU1, MU2, etc.). While management units can be combined, split, and implemented in a sequence different than suggested by their identification code, the issues listed above (property boundaries, management needs, etc.) should be considered when refining the implementation schedule.

## Restoration and Management Tasks for the Entire Park

Restoration and management tasks that will be carried out park-wide at Doyle-Kennefick Regional Park include:

1. *Biological Inventory*
   - As soon as scheduling allows, conduct a thorough plant inventory to inform future restoration planning and identify any rare plants that may be present on site.
   - As soon as scheduling allows, conduct a wildlife inventory to better understand the desirable and undesirable wildlife using the park. This will help inform habitat management strategies to favor rare or uncommon species in or near the park.
   - A "bioblitz" is a cost-effective way to leverage regional technical expertise and involve County residents and park users to inventory a Park's biological resources.

2. *Hydrologic Assessment* - These hydrologic assessment activities are important for informing restoration and management of streams, lakes, and wetlands and for maximizing restoration success of these lowland and aquatic ecosystems.
   - Conduct an assessment of subwatershed areas within and outside of the park and draining to key park water features. The assessment should illustrate delineated subwatershed boundaries and hydrology information that will inform management of water features.
   - Walk all surface waters (streams, lakeshores, wetland edges) within the park, document indications of altered hydrology and erosion, and identify hydrologic restoration needs and opportunities. In 2008, a fluvial geomorphic assessment was conducted of the major tributary of Porter Creek that crosses the northeastern portion of the park, flowing westward and into St. Catherine Lake (Inter-Fluve, 2008). This assessment identified opportunities for remeandering the straightened stream and restoring wetlands just east of the proposed Park boundary.
   - Conduct an inventory of the park's drain tile and other drainage infrastructure using available recorded data, aerial photographs, and field reconnaissance.

3. *Deer Herd Management*

- Ongoing deer herd management may be necessary to prevent over-browsing of the herbaceous and shrub layers at the park. Without herd management, the herbaceous ground layer may become depauperate, and planted or desirable volunteer tree seedlings may not germinate or survive. A deer control program may be considered for Doyle-Kennefick Regional Park if over-browsing and other deer-related conflicts warrant a control.

4. *Annual Ecological Monitoring & Reporting*
   - Each year, walk the park's natural areas and document response to native seeding/planting, survivorship, invasive species presence, problems with vegetative cover, and observations of herbivory, erosion, or illicit activities within the park.
   - Establish fixed photo-reference points and take photos annually.
   - Prepare annual ecological monitoring report that summarizes findings and provides recommendations for future management.

## Restoration and Short-Term Management - Management Unit 1

General Description

Management Unit 1 (MU1) is summarized in Table 1a below by presenting existing land cover types, associated acreages, and target native plant communities with associated acreages.

Table 1a. MU1 Restoration Summary

| Existing Land Cover Type | Existing Acres | Resulting Native Plant Community Acres |
|---|---|---|
| Residence, driveway & landscaping | 1.97 | Mesic Prairie: 1.03<br>Mesic Savanna/Woodland: 0.94 |
| Former cropland | 8.96 | Mesic Prairie: 3.57<br>Mesic Savanna/Woodland: 5.39 |
| Old field with trees | 2.67 | Mesic Prairie: 1.92<br>Mesic Savanna/Woodland: 0.75 |
| Recently restored prairie | 51.58 | Mesic Prairie: 41.83<br>Mesic Savanna/Woodland: 9.75 |
| Mesic Oak Forest (D quality) | 0.30 | Mesic Savanna/Woodland: 0.30 |
| Recently restored wetland | 3.00 | Wet Meadow: 3.00 |
| Cattail Marsh (C quality) & wetland edge | 8.90 | Cattail Marsh: 8.90 |
| Aquatic Bed Wetland | 0.75 | Aquatic Bed Wetland: 0.75 |
| Open Water Wetland | 2.26 | Open Water Wetland: 2.26 |
| **Total** | **80.39** | |

Note: Acreages estimated, based on MLCCS mapping and Master Plan.

Restoration of MU1 will result in a prairie matrix with patches of wetlands and savanna. Continued management of the recently restored Mesic Prairie will provide a moderate-sized block of habitat for upland grassland nesting birds and floral displays throughout the growing season. When possible, in order to allow grassland nesting birds to successfully fledge their young, prescribed burning of the prairie will be conducted before mid-April or after August 1, and any prairie haying will be conducted after August 1. In some cases, particularly during prairie establishment burns later in the season may be necessary to control weeds. In order to

provide refugia for wildlife, MU1 and MU2 will be burned on rotation, such that only one of these units will be burned in a given year. Restored wetlands in the prairie and enhancement of existing Cattail Marsh will result in high quality habitats for native plants and wildlife, including wetland amphibians and reptiles. Wetlands should be burned while burning the adjacent prairie. Restoration of Mesic Savanna/Woodland patches will provide a complex mosaic of habitats, as well as screening and buffering of County Road 23. Desirable tree species that naturally regenerate in Mesic Savanna/Woodland areas will be protected from fire and allowed to grow. Due to their high quality and limited ecological needs, restoration or short-term management is not proposed for the Aquatic Bed Wetland or Open Water Wetland areas, with the exception that the edges of these wetlands should be managed similar to Wet Meadow and Cattail Marsh areas.

<u>Restoration & Short-Term Management Tasks –MU1: Uplands (Mesic Prairie & Mesic Savanna/Woodland):</u>

1. *Site Preparation*
    - Remove residence, driveway, other structures, impervious surfaces, landscaping, etc.
    - Former cropland and old field may be put into Roundup-ready soybean production to prepare these areas for restoration. Soybeans can be harvested in the fall, prior to seeding with natives.
    - While it is actively growing, treat turf grass and all other non-native herbaceous groundcover with herbicide (at least twice). Desirable trees, shrubs, and patches of native vegetation shall be maintained.
    - Where fuel is sufficient, burn existing vegetation to prepare the site for planting.
    - Any undesirable vegetation that germinates shall again be treated with herbicide (when seedlings are approximately 6” tall).
2. *Establish Vegetation: Seeding & Planting*
    - Once weed control is established, seed and/or plant using appropriate local ecotype species. Where possible, seed should be installed with a no-till drill; other areas may use broadcast seeding. Live plants may be used to accent areas of high visibility and to restore appropriate structure and composition to native plant communities.
3. *Removal of Woody Species: Brushing & Thinning*
    - Cut and stump treat all invasive non-native woody vegetation, including but not limited to: common buckthorn, glossy buckthorn, and exotic honeysuckles.
    - In Mesic Savanna/Woodland, remove or selectively thin aggressive native woody species such as boxelder, hackberry, green ash, American elm, and prickly ash in order to achieve target canopy cover goals (10-60% canopy cover for Mesic Savanna/Woodland).
    - Woody clearing should be done only when the ground is frozen, and cut material can be sold for biomass-to-energy or firewood, if feasible. Handling or transport of cut wood should follow all state and federal recommendations to minimize the potential transfer of pests such as Emerald Ash Borer, Gypsy Moth, etc.
4. *Manage Undesirable Species: Weed Control*
    - Control weedy species by mowing newly planted areas to 6” height twice the first season of growth, and once the second season.

- Control invasive non-native herbaceous vegetation with appropriate spot herbicide application and/or mowing. Potential species of concern include, but are not limited to: Canada thistle, bull thistle, leafy spurge, sweet clover, ground clover, crown vetch, bird's foot trefoil, smooth brome, Kentucky bluegrass, spotted knapweed, and reed canary grass.
- Treat invasive non-native woody vegetation seedlings and re-sprouts with foliar herbicide for up to 5 seasons.
- In Mesic Prairie and Mesic Savanna/Woodland, conduct prescribed burn at the end of the third growing season to reduce litter load, stress non-native plants, and prevent encroachment by undesirable woody species.

5. *Annual Ecological Monitoring & Reporting*
   - Each year, walk, assess, document and photo document park conditions.
   - Prepare an annual report summarizing observations and providing specific recommendations for subsequent intervention and management.

<u>Restoration & Short-Term Management Tasks – MU1: Wetlands (Wet Meadow & Cattail Marsh)</u>

1. *Manage Undesirable Species: Weed Control*
   - Control invasive non-native vegetation with appropriate spot herbicide application. Potential species of concern include, but are not limited to: glossy buckthorn, reed canary grass, purple loosestrife, and hybrid and narrow-leaved cattails.
   - Allow adjacent prescribed burns to continue into wetlands. Exercise extreme caution regarding fire's ability to travel through wetlands (i.e., ensure adequate fire breaks).
2. *Enhance Native Vegetation: Seeding & Planting*
   - Once weed control established, augment existing native vegetation with appropriate local ecotype native seed and/or plants. Seed should be broadcast onto wet to moist soil (not over open water), and live plants should be used in standing water (i.e., emergent wetland zones). Live planting into MNDNR Public Waters will require a MNDNR Aquatic Transplant Permit.
3. *Annual Ecological Monitoring & Reporting*
   - Each year, walk, assess, document and photo document park conditions.
   - Prepare an annual report summarizing observations and providing specific recommendations for subsequent intervention and management.

Table 1b. MU1 Restoration and Short-Term Management Schedule

| Task | Description/Subtask | Year 1 | | | | Year 2 | | | | Year 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Spring | Summer | Fall | Winter | Spring | Summer | Fall | Winter | Spring | Summer | Fall | Winter |
| **Site Preparation** (all zones) | Remove anthropogenic structures and landscaping | ■ | | | | | | | | | | | |
| | Install Roundup-ready soybeans (former cropland and old field) | ■ | | | | | | | | | | | |
| | Treat non-native vegetation with herbicide; at least twice (except soybean areas) | ■ | ■ | | | | | | | | | | |
| | Harvest soybeans | | | ■ | | | | | | | | | |
| | Prescribed burn (except soybean areas) | | | ■ | | | | | | | | | |
| | Final prep herbicide (except soybean areas) | | | ■ | | | | | | | | | |
| **Seeding & Planting** (upland zones where weed control adequate) | Install native seed | | | | ■ | | | | | | | | |
| | Install live herbaceous plants | | | | | ■ | | | | | | | |
| | Install live woody plants when dormant | | | | | | | | ■ | ■ | | | |
| **Brushing & Thinning** (all zones) | Cut & stump treat invasive woody plants | | | | ■ | | | | | | | | |
| | Remove or selectively thin aggressive native woody plants | | | | ■ | | | | | | | | |
| **Weed Control** (all zones) | Mow seeded areas (where warranted and feasible) | | | | | ■ | ■ | | | ■ | | | |
| | Spot herbicide and/or spot mowing | | | | | ■ | ■ | ■ | | ■ | ■ | ■ | |
| | Foliar herbicide non-native woody re-growth | | | | | | | ■ | | | | ■ | |
| **Seeding & Planting** (wetland zones, assuming weed control adequate) | Install native seed | | | | | | | | ■ | | | | |
| | Install live plants | | | | | | | | | ■ | | | |
| **Ecological Monitoring & Reporting** (all zones) | Assess/document site, and prepare summary report | ■ | ■ | ■ | | ■ | ■ | ■ | | ■ | ■ | ■ | |

## Restoration and Short-Term Management - Management Unit 2

General Description

Management Unit 2 (MU2) is summarized in Table 2a below by presenting existing land cover types, associated acreages, and target native plant communities with associated acreages.

Table 2a. MU2 Restoration Summary

| Existing Land Cover Type | Existing Acres | Resulting Native Plant Community Acres |
|---|---|---|
| Doyle farmstead | 1.44 | NA (Developed: 1.44) |
| Residence, driveway & landscaping | 1.43 | Mesic Prairie: 1.43 |
| Oak Woodland-Brushland (D quality) | 11.80 | Mesic Savanna/Woodland: 11.80 |
| Cultivated cropland | 28.80 | Mesic Prairie: 26.31<br>Mesic Savanna/Woodland: 1.33<br>Cattail Marsh: 1.16 |
| Old field with trees | 17.06 | NA (Developed: 3.31)<br>Mesic Prairie: 8.15<br>Mesic Savanna/Woodland: 4.62<br>Cattail Marsh: 0.98 |
| Cattail Marsh (B quality) | 19.94 | Cattail Marsh: 19.94 |
| Mixed Emergent Marsh (B/C quality) | 1.40 | Mixed Emergent Marsh: 1.40 |
| Water Lily Open Marsh (A quality) | 10.84 | Water Lily Open Marsh: 10.84 |
| Open Water Wetland | 0.29 | Open Water Wetland: 0.29 |
| **Total** | **93.00** | |

Note: Acreages estimated, based on MLCCS mapping and Master Plan.

Restoration of MU2 will help sustain the high quality wetland at its center, surrounding the wetland with native prairie, savanna, and woodland communities. In order to allow grassland nesting birds to successfully fledge their young, prescribed burning of the prairie will be conducted before mid-April or after August 1, and any prairie haying will be conducted after August 1. In some cases, particularly during prairie establishment burns later in the season may be necessary to control weeds. In order to provide refugia for wildlife, MU1 and MU2 will be burned on rotation, such that only one of these units will be burned in a given year. Enhancement of existing Cattail Marsh and Mixed Emergent Marsh will result in high quality habitats for native plants and wildlife, including wetland amphibians and reptiles. Wetlands should be burned while burning the adjacent prairie. Enhancement of existing Oak Woodland-Brushland and restoration of Mesic Savanna/Woodland patches will provide a complex mosaic of habitats, as well as screening and buffering of County Road 23. Desirable tree species that naturally regenerate in Mesic Savanna/Woodland areas will be protected from fire and allowed to grow. Due to their high quality and limited ecological needs, restoration or short-term management is not proposed for the Water Lily Open Marsh or Open Water Wetland areas, with the exception that the edges of these wetlands should be managed similar to Cattail Marsh and Mixed Emergent Marsh.

Restoration & Short-Term Management Tasks – MU2: Uplands (Mesic Prairie & Mesic Savanna/Woodland)

1. *Site Preparation*
   - Remove residence, other structures, impervious surfaces, landscaping, etc.
   - Cultivated cropland and open areas of old field may be put into Roundup-ready soybean production to prepare these areas for restoration. Soybeans can be harvested in the fall, prior to seeding with natives.
   - While it is actively growing, treat turf grass, old field, and all other non-native herbaceous groundcover with herbicide (at least twice). Desirable trees, shrubs, and patches of native vegetation shall be maintained.
   - Where fuel is sufficient, burn existing vegetation to prepare the site for planting.
   - Any undesirable vegetation that germinates shall again be treated with herbicide (when seedlings are approximately 6" tall).
2. *Establish Vegetation: Seeding & Planting*
   - Once weed control is established, seed and/or plant using appropriate local ecotype species. Where possible, seed should be installed with a no-till drill; other areas may use broadcast seeding. Live plants may be used to accent areas of high visibility and to restore appropriate structure and composition to native plant communities.
3. *Removal of Woody Species: Brushing & Thinning*
   - Cut and stump treat all invasive non-native woody vegetation, including but not limited to: common buckthorn, glossy buckthorn, and exotic honeysuckles.
   - In Mesic Savanna/Woodland, remove or selectively thin aggressive native woody species such as boxelder, hackberry, green ash, American elm, and prickly ash in order to achieve target canopy cover goals (10-60% canopy cover for Mesic Savanna/Woodlands).
   - Woody clearing should be done only when the ground is frozen, and cut material can be sold for biomass-to-energy or firewood, if feasible. Handling or transport of cut wood should follow all state and federal recommendations to minimize the potential transfer of pests such as Emerald Ash Borer, Gypsy Moth, etc.
4. *Manage Undesirable Species: Weed Control*
   - Control weedy species by mowing newly planted areas to 6" height twice the first season of growth, and once the second season when vegetation reaches 30 inches or before undesirable species produce seed.
   - Control invasive non-native herbaceous vegetation with appropriate spot herbicide application and/or mowing. Potential species of concern include, but are not limited to: Canada thistle, bull thistle, leafy spurge, sweet clover, ground clover, crown vetch, bird's foot trefoil, smooth brome, Kentucky bluegrass, spotted knapweed, and reed canary grass.
   - Treat invasive non-native woody vegetation seedlings and re-sprouts with foliar herbicide for up to 5 seasons.
   - In Mesic Prairie and Mesic Savanna/Woodland, conduct prescribed burn at the end of the third growing season to reduce litter load, stress non-native plants, and prevent encroachment by undesirable woody species.

5. *Annual Ecological Monitoring & Reporting*
    - Each year, walk, assess, document and photo document park conditions.
    - Prepare an annual report summarizing observations and providing specific recommendations for subsequent intervention and management.

<u>Restoration & Short-Term Management Tasks – MU1: Wetlands (Cattail Marsh & Mixed Emergent Marsh)</u>

1. *Manage Undesirable Species: Weed Control*
    - Control invasive non-native vegetation with appropriate spot herbicide application. Potential species of concern include, but are not limited to: glossy buckthorn, reed canary grass, purple loosestrife, and hybrid and narrow-leaved cattails.
    - Allow adjacent prescribed burns to continue into wetlands. Exercise extreme caution regarding fire's ability to travel through wetlands (i.e., ensure adequate fire breaks).
2. *Enhance Native Vegetation: Seeding & Planting*
    - Once weed control established, augment existing native vegetation with appropriate local ecotype native seed and/or plants. Seed should be broadcast onto wet to moist soil (not over open water), and live plants should be used in standing water (i.e., emergent wetland zones). Live planting into MNDNR Public Waters will require a MNDNR Aquatic Transplant Permit.
3. *Annual Ecological Monitoring & Reporting*
    - Each year, walk, assess, document and photo document park conditions.
    - Prepare an annual report summarizing observations and providing specific recommendations for subsequent intervention and management.

Table 2b. MU2 Restoration and Short-Term Management Schedule

| Task | Description/Subtask | Year 1 | | | | Year 2 | | | | Year 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Spring | Summer | Fall | Winter | Spring | Summer | Fall | Winter | Spring | Summer | Fall | Winter |
| **Site Preparation** (all zones) | Remove anthropogenic structures and landscaping | ■ | | | | | | | | | | | |
| | Install Roundup-ready soybeans (cropland and old field) | ■ | | | | | | | | | | | |
| | Treat non-native vegetation with herbicide; at least twice (except soybean areas) | ■ | ■ | | | | | | | | | | |
| | Harvest soybeans | | | ■ | | | | | | | | | |
| | Prescribed burn (except soybean areas) | | | ■ | | | | | | | | | |
| | Final prep herbicide (except soybean areas) | | | ■ | | | | | | | | | |
| **Seeding & Planting** (upland zones where weed control adequate) | Install native seed | | | | ■ | | | | | | | | |
| | Install live herbaceous plants | | | | | ■ | | | | | | | |
| | Install live woody plants when dormant | | | | | | | | ■ | ■ | | | |
| **Brushing & Thinning** (all zones) | Cut & stump treat invasive woody plants | | | | ■ | | | | | | | | |
| | Remove or selectively thin aggressive native woody plants (Mesic Savanna/Woodland) | | | | ■ | | | | | | | | |
| **Weed Control** (all zones) | Mow seeded areas (where warranted and feasible) | | | | | ■ | ■ | | | ■ | | | |
| | Spot herbicide and/or spot mowing | | | | | ■ | ■ | ■ | | ■ | ■ | ■ | |
| | Foliar herbicide non-native woody re-growth | | | | | | | ■ | | | | ■ | |
| **Seeding & Planting** (wetland zones, assuming weed control adequate) | Install native seed | | | | | | | | ■ | | | | |
| | Install live plants | | | | | | | | | ■ | | | |
| **Ecological Monitoring & Reporting** (all zones) | Assess/document site, and prepare summary report | ■ | ■ | ■ | | ■ | ■ | ■ | | ■ | ■ | ■ | |

## Restoration and Short-Term Management - Management Unit 3

General Description

Management Unit 3 (MU3) is summarized in Table 3a below by presenting existing land cover types, associated acreages, and target native plant communities with associated acreages.

Table 3a. MU3 Restoration Summary

| Existing Land Cover Type | Existing Acres | Resulting Native Plant Community Acres |
|---|---|---|
| Cultivated cropland | 12.60 | Mesic Prairie: 7.77<br>Mesic Savanna/Woodland: 4.83 |
| Oak Woodland-Brushland (C & D quality) | 1.50 | Mesic Savanna/Woodland: 1.50 |
| Old field with trees | 3.14 | Mesic Savanna/Woodland: 3.14 |
| Wet Meadow (B quality) | 0.54 | Wet Meadow: 0.54 |
| Degraded wetland | 9.15 | Cattail Marsh: 9.15 |
| Cattail Marsh (B & C quality) | 27.82 | Cattail Marsh: 27.82 |
| Mixed Emergent Marsh (B, B/C & C quality) | 7.98 | Mixed Emergent Marsh: 7.98 |
| Water Lily Open Marsh (A quality) | 14.94 | Water Lily Open Marsh: 14.94 |
| **Total** | **77.67** | |

Note: Acreages estimated, based on MLCCS mapping and Master Plan.

Restoration of MU3 will help sustain the high quality wetland at its center, surrounding the wetland with native prairie, savanna, and woodland communities. Enhancement of existing Wet Meadow, Cattail Marsh, and Mixed Emergent Marsh will result in high quality habitats for native plants and wildlife, including wetland amphibians and reptiles. Wetlands should be burned while burning the adjacent prairie. Enhancement of existing Oak Woodland-Brushland and restoration of Mesic Savanna/Woodland patches will provide a complex mosaic of habitats, as well as screening and buffering of adjacent land. Desirable tree species that naturally regenerate in Mesic Savanna/Woodland areas will be protected from fire and allowed to grow. Due to its high quality and limited ecological needs, restoration or short-term management is not proposed for the Water Lily Open Marsh, with the exception that the edges of these wetlands should be managed similar to Wet Meadow and Marsh areas.

Restoration & Short-Term Management Tasks – MU3: Uplands (Mesic Savanna/Woodland & Mesic Prairie)

1. *Site Preparation*
   - Cultivated cropland and open areas of old field may be put into Roundup-ready soybean production to prepare these areas for restoration. Soybeans can be harvested in the fall, prior to seeding with natives.
   - While it is actively growing, treat all non-native herbaceous groundcover with herbicide (at least twice). Desirable trees, shrubs, and patches of native vegetation shall be maintained.
   - Where fuel is sufficient, burn existing vegetation to prepare the site for planting.

- Any undesirable vegetation that germinates shall again be treated with herbicide (when seedlings are approximately 6" tall) when vegetation reaches 30 inches or before undesirable species produce seed.

2. *Establish Vegetation: Seeding & Planting*
   - Once weed control is established, seed and/or plant using appropriate local ecotype species. Where possible, seed should be installed with a no-till drill; other areas may use broadcast seeding. Live plants may be used to accent areas of high visibility and to restore appropriate structure and composition to native plant communities.
3. *Removal of Woody Species: Brushing & Thinning*
   - Cut and stump treat all invasive non-native woody vegetation, including but not limited to: common buckthorn, glossy buckthorn, and exotic honeysuckles.
   - In Mesic Savanna/Woodland, remove or selectively thin aggressive native woody species such as boxelder, hackberry, green ash, American elm, and prickly ash in order to achieve target canopy cover goals (10-60% canopy cover for Mesic Savanna/Woodland).
   - Woody clearing should be done only when the ground is frozen, and cut material can be sold for biomass-to-energy or firewood, if feasible. Handling or transport of cut wood should follow all state and federal recommendations to minimize the potential transfer of pests such as Emerald Ash Borer, Gypsy Moth, etc.
4. *Manage Undesirable Species: Weed Control*
   - Control weedy species by mowing newly planted areas to 6" height twice the first season of growth, and once the second season when vegetation reaches 30 inches or before undesirable species produce seed.
   - Control invasive non-native herbaceous vegetation with appropriate spot herbicide application and/or mowing. Potential species of concern include, but are not limited to: Canada thistle, bull thistle, leafy spurge, sweet clover, ground clover, crown vetch, bird's foot trefoil, smooth brome, Kentucky bluegrass, spotted knapweed, and reed canary grass.
   - Treat invasive non-native woody vegetation seedlings and re-sprouts with foliar herbicide for up to 5 seasons.
   - In Mesic Savanna/Woodland and Mesic Prairie, conduct prescribed burn at the end of the third growing season to reduce litter load, stress non-native plants, and prevent encroachment by undesirable woody species.
5. *Annual Ecological Monitoring & Reporting*
   - Each year, walk, assess, document and photo document park conditions.
   - Prepare an annual report summarizing observations and providing specific recommendations for subsequent intervention and management.

<u>Restoration & Short-Term Management Tasks – MU3: Wetlands (Wet Meadow, Cattail Marsh & Mixed Emergent Marsh)</u>

1. *Manage Undesirable Species: Weed Control*
   - Control invasive non-native vegetation with appropriate spot and/or broadcast herbicide application. Potential species of concern include, but are not limited to: glossy buckthorn, reed canary, purple loosestrife, and hybrid/narrow-leaved cattails.

- Allow adjacent prescribed burns to continue into wetlands. Exercise extreme caution regarding fire's ability to travel through wetlands (i.e., ensure adequate fire breaks).

2. *Enhance Native Vegetation: Seeding & Planting*
   - Once weed control established, augment existing native vegetation with appropriate local ecotype native seed and/or plants. Seed should be broadcast onto wet to moist soil (not over open water), and live plants should be used in standing water (i.e., emergent wetland zones). Live planting into MNDNR Public Waters will require a MNDNR Aquatic Transplant Permit.
3. *Annual Ecological Monitoring & Reporting*
   - Each year, walk, assess, document and photo document park conditions.
   - Prepare an annual report summarizing observations and providing specific recommendations for subsequent intervention and management

Table 3b. MU3 Restoration and Short-Term Management Schedule

| Task | Description/Subtask | Year 1 | | | | Year 2 | | | | Year 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Spring | Summer | Fall | Winter | Spring | Summer | Fall | Winter | Spring | Summer | Fall | Winter |
| **Site Preparation** (all zones) | Install Roundup-ready soybeans (cropland and old field) | ■ | | | | | | | | | | | |
| | Treat non-native vegetation with herbicide; at least twice (except soybean areas) | ■ | ■ | | | | | | | | | | |
| | Harvest soybeans | | | ■ | | | | | | | | | |
| | Prescribed burn (except soybean areas) | | | ■ | | | | | | | | | |
| | Final prep herbicide (except soybean areas) | | | ■ | | | | | | | | | |
| **Seeding & Planting** (upland zones where weed control adequate) | Install native seed | | | | ■ | | | | | | | | |
| | Install live herbaceous plants | | | | | ■ | | | | | | | |
| | Install live woody plants when dormant | | | | | | | | ■ | ■ | | | |
| **Brushing & Thinning** (all zones) | Cut & stump treat invasive woody plants | | | | ■ | | | | | | | | |
| | Remove or selectively thin aggressive native woody plants (Mesic Savanna/Woodland) | | | | ■ | | | | | | | | |
| **Weed Control** (all zones) | Mow seeded areas (where warranted and feasible) | | | | | ■ | ■ | | | ■ | | | |
| | Spot herbicide and/or spot mowing | | | | | ■ | ■ | ■ | | ■ | ■ | ■ | |
| | Foliar herbicide non-native woody re-growth | | | | | | | ■ | | | | ■ | |
| **Seeding & Planting** (wetland zones, assuming weed control adequate) | Install native seed | | | | | | | | ■ | | | | |
| | Install live plants | | | | | | | | | ■ | | | |
| **Ecological Monitoring & Reporting** (all zones) | Assess/document site, and prepare summary report | ■ | ■ | ■ | | ■ | ■ | ■ | | ■ | ■ | ■ | |

## Restoration and Short-Term Management - Management Unit 4

General Description

Management Unit 4 (MU4) is summarized in Table 4a below by presenting existing land cover types, associated acreages, and target native plant communities with associated acreages.

Table 4a. MU4 Restoration Summary

| Existing Land Cover Type | Existing Acres | Resulting Native Plant Community Acres |
|---|---|---|
| Residence, driveway & landscaping | 3.00 | Mesic Savanna/Woodland: 3.00 |
| Cultivated cropland | 26.14 | Mesic Savanna/Woodland: 26.14 |
| Degraded forest | 0.87 | Mesic Savanna/Woodland: 0.87 |
| Old field with trees | 3.73 | Mesic Savanna/Woodland: 3.73 |
| Wet Meadow (A/B quality) | 0.94 | Wet Meadow: 0.94 |
| Degraded wetland | 0.17 | Wet Meadow: 0.17 |
| **Total** | **34.85** | |

Note: Acreages estimated, based on MLCCS mapping and Master Plan.

Restoration of Mesic Savanna/Woodland in MU4 will establish ecological buffering along the southwestern corner of the park as well as screening of County Road 23. Enhancement of existing Wet Meadow and degraded wetland within the management unit will also result in high quality habitat for native plants and wildlife, including wetland amphibians and reptiles. Establishment of Mesic Savanna/Woodland adjacent to the enhanced Wet Meadow will provide a complex mosaic of habitats, as well as screening and buffering of adjacent land. Wetlands should be burned while burning the adjacent Mesic Savanna/Woodland. Desirable tree species that naturally regenerate in Mesic Savanna/Woodland areas will be protected from fire and allowed to grow.

Restoration & Short-Term Management Tasks – MU4: Uplands (Mesic Savanna/Woodland)

1. *Site Preparation*
   - Remove residence, other structures, impervious surfaces, landscaping, etc.
   - Cultivated cropland and open areas of old field may be put into Roundup-ready soybean production to prepare these areas for restoration. Soybeans can be harvested in the fall, prior to seeding with natives.
   - While it is actively growing, treat turf grass and all other non-native herbaceous groundcover with herbicide (at least twice). Desirable trees, shrubs, and patches of native vegetation shall be maintained.
   - Where fuel is sufficient, burn existing vegetation to prepare the site for planting, protecting desirable trees and shrubs.
   - Any undesirable vegetation that germinates shall again be treated with herbicide (when seedlings are approximately 6” tall).
2. *Establish Vegetation: Seeding & Planting*
   - Once weed control is established, seed and/or plant using appropriate local ecotype species. Where possible, seed should be installed with a no-till drill; other areas may use broadcast seeding. Live plants may be used to accent areas of high visibility and to restore appropriate structure and composition to native plant communities.

3. *Removal of Woody Species: Brushing & Thinning*
   - Cut and stump treat all invasive non-native woody vegetation, including but not limited to: common buckthorn, glossy buckthorn, and exotic honeysuckles.
   - In Mesic Savanna/Woodland, remove or selectively thin aggressive native woody species such as boxelder, hackberry, green ash, American elm, and prickly ash in order to achieve target canopy cover goals (10-60% canopy cover for Mesic Savanna/Woodland).
   - Woody clearing should be done only when the ground is frozen, and cut material can be sold for biomass-to-energy or firewood, if feasible. Handling or transport of cut wood should follow all state and federal recommendations to minimize the potential transfer of pests such as Emerald Ash Borer, Gypsy Moth, etc.
4. *Manage Undesirable Species: Weed Control*
   - Control weedy species by mowing newly planted areas to 6" height twice the first season of growth, and once the second season when vegetation reaches 30 inches or before undesirable species produce seed.
   - Control invasive non-native herbaceous vegetation with appropriate spot herbicide application and/or mowing. Potential species of concern include, but are not limited to: Canada thistle, bull thistle, leafy spurge, sweet clover, ground clover, crown vetch, bird's foot trefoil, smooth brome, Kentucky bluegrass, spotted knapweed, and reed canary.
   - Treat invasive non-native woody vegetation seedlings and re-sprouts with foliar herbicide for up to 5 seasons.
   - In Mesic Savanna/Woodland, conduct prescribed burn at the end of the third growing season to reduce litter load, stress non-native plants, and prevent encroachment by undesirable woody species.
5. *Annual Ecological Monitoring & Reporting*
   - Each year, walk, assess, document and photo document park conditions.
   - Prepare an annual report summarizing observations and providing specific recommendations for subsequent intervention and management.

<u>Restoration & Short-Term Management Tasks – MU4: Wetlands (Wet Meadow)</u>

1. *Manage Undesirable Species: Weed Control*
   - Control invasive non-native vegetation with appropriate spot and/or broadcast herbicide application. Potential species of concern include, but are not limited to: glossy buckthorn, reed canary grass, purple loosestrife, and hybrid and narrow-leaved cattails.
   - Burn Wet Meadows to remove thatch, stress reed canary grass, and encourage seed germination. Exercise extreme caution regarding fire's ability to travel through wetlands (i.e., ensure adequate fire breaks).
   - Spot and/or broadcast herbicide degraded wetland areas.
2. *Enhance Native Vegetation: Seeding & Planting*
   - Once weed control established, augment existing native vegetation with appropriate local ecotype native seed and/or plants. Seed should be broadcast onto wet to moist soil (not over open water), and live plants should be used in standing water (i.e.,

emergent wetland zones). Live planting into MNDNR Public Waters will require a MNDNR Aquatic Transplant Permit.

3. *Annual Ecological Monitoring & Reporting*
   - Each year, walk, assess, document and photo document park conditions.
   - Prepare an annual report summarizing observations and providing specific recommendations for subsequent intervention and management.

Table 4b. MU4 Restoration and Short-Term Management Schedule

| Task | Description/Subtask | Year 1 | | | | Year 2 | | | | Year 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Spring | Summer | Fall | Winter | Spring | Summer | Fall | Winter | Spring | Summer | Fall | Winter |
| **Site Preparation** (all zones except degraded wetland) | Remove anthropogenic structures and landscaping | ■ | | | | | | | | | | | |
| | Install Roundup-ready soybeans (cropland and old field) | ■ | | | | | | | | | | | |
| | Treat non-native vegetation with herbicide; at least twice (except soybean areas) | ■ | ■ | | | | | | | | | | |
| | Harvest soybeans | | | ■ | | | | | | | | | |
| | Prescribed burn (except soybean areas) | | | ■ | | | | | | | | | |
| | Final prep herbicide (except soybean areas) | | | ■ | | | | | | | | | |
| **Site Preparation** (degraded wetland) | Spot and/or broadcast herbicide | | | ■ | | | | | | | | | |
| | Prescribed burn | | | ■ | | | | | | | | | |
| | Spot and/or broadcast herbicide | | | | | ■ | | | | | | | |
| **Seeding & Planting** (upland zones where weed control adequate) | Install native seed | | | | ■ | | | | | | | | |
| | Install live herbaceous plants | | | | | ■ | | | | | | | |
| | Install live woody plants when dormant | | | | | | | | ■ | ■ | | | |
| **Brushing & Thinning** (all zones) | Cut & stump treat invasive woody plants | | | | ■ | | | | | | | | |
| | Remove or selectively thin aggressive native woody plants (Mesic Savanna/Woodland) | | | | ■ | | | | | | | | |
| **Weed Control** (all zones) | Mow seeded areas (where warranted and feasible) | | | | | ■ | ■ | | | ■ | | | |
| | Spot herbicide and/or spot mowing | | | | | ■ | ■ | ■ | | ■ | ■ | ■ | |
| | Foliar herbicide non-native woody re-growth | | | | | | | ■ | | | | ■ | |
| **Seeding & Planting** (wetland zones, assuming weed control adequate) | Install native seed | | | | | | | | ■ | | | | |
| | Install live plants | | | | | | | | | ■ | | | |
| **Ecological Monitoring & Reporting** (all zones) | Assess/document site, and prepare summary report | ■ | ■ | ■ | | ■ | ■ | ■ | | ■ | ■ | ■ | |

## Restoration and Short-Term Management - Management Unit 5

General Description

Management Unit 5 (MU5) is summarized in Table 5a below by presenting existing land cover types, associated acreages, and target native plant communities with associated acreages.

Table 5a. MU5 Restoration Summary

| Existing Land Cover Type | Existing Acres | Resulting Native Plant Community Acres |
|---|---|---|
| Developed | 0.24 | Mesic Savanna/Woodland: 0.24 |
| Cultivated cropland | 0.16 | Mesic Savanna/Woodland: 0.16 |
| Planted grasses and old field with trees | 6.01 | Mesic Savanna/Woodland: 6.01 |
| **Total** | **6.41** | |

Note: Acreages estimated, based on MLCCS mapping and Master Plan.

Restoration of Mesic Savanna/Woodland in MU5 will establish ecological buffering along the southeastern corner of the Phase 1 restoration area. Desirable tree species that naturally regenerate in this management unit will be protected from fire and allowed to grow.

Restoration & Short-Term Management Tasks – MU5: (Mesic Savanna/Woodland)

1. *Site Preparation*
   - Remove any structures, impervious surfaces, landscaping, etc.
   - Cultivated cropland, planted grasses, and open areas of old field may be put into Roundup-ready soybean production to prepare these areas for restoration. Soybeans can be harvested in the fall, prior to seeding with natives.
   - While it is actively growing, treat turf grass and all other non-native herbaceous groundcover with herbicide (at least twice). Desirable trees, shrubs, and patches of native vegetation shall be maintained.
   - Where fuel is sufficient, burn existing vegetation to prepare the site for planting, protecting desirable trees and shrubs.
   - Any undesirable vegetation that germinates shall again be treated with herbicide (when seedlings are approximately 6” tall).
2. *Establish Vegetation: Seeding & Planting*
   - Once weed control is established, seed and/or plant using appropriate local ecotype species. Where possible, seed should be installed with a no-till drill; other areas may use broadcast seeding. Live plants may be used to accent areas of high visibility and to restore appropriate structure and composition to native plant communities.
3. *Removal of Woody Species: Brushing & Thinning*
   - Cut and stump treat all invasive non-native woody vegetation, including but not limited to: common buckthorn, glossy buckthorn, and exotic honeysuckles.
   - In Mesic Savanna/Woodland, remove or selectively thin aggressive native woody species such as boxelder, hackberry, green ash, American elm, and prickly ash in order to achieve target canopy cover goals (10-60% canopy cover for Mesic Savanna/Woodland).
   - Woody clearing should be done only when the ground is frozen, and cut material can be sold for biomass-to-energy or firewood, if feasible. Handling or transport of cut wood

should follow all state and federal recommendations to minimize the potential transfer of pests such as Emerald Ash Borer, Gypsy Moth, etc.

4. *Manage Undesirable Species: Weed Control*
   - Control weedy species by mowing newly planted areas to 6" height twice the first season of growth, and once the second season when vegetation reaches 30 inches or before undesirable species produce seed.
   - Control invasive non-native herbaceous vegetation with appropriate spot herbicide application and/or mowing. Potential species of concern include, but are not limited to: Canada thistle, bull thistle, leafy spurge, sweet clover, ground clover, crown vetch, bird's foot trefoil, smooth brome, Kentucky bluegrass, spotted knapweed, and reed canary grass.
   - Treat invasive non-native woody vegetation seedlings and re-sprouts with foliar herbicide for up to 5 seasons.
   - Conduct prescribed burn at the end of the third growing season to reduce litter load, stress non-native plants, and prevent encroachment by undesirable woody species.
5. *Annual Ecological Monitoring & Reporting*
   - Each year, walk, assess, document and photo document park conditions.
   - Prepare an annual report summarizing observations and providing specific recommendations for subsequent intervention and management

Table 5b. MU5 Restoration and Short-Term Management Schedule

| Task | Description/Subtask | Year 1 | | | | Year 2 | | | | Year 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Spring | Summer | Fall | Winter | Spring | Summer | Fall | Winter | Spring | Summer | Fall | Winter |
| **Site Preparation** | Install Roundup-ready soybeans (cropland, planted grasslands, and old field) | ■ | | | | | | | | | | | |
| | Treat non-native vegetation with herbicide; at least twice (except soybean areas) | ■ | ■ | | | | | | | | | | |
| | Harvest soybeans | | | ■ | | | | | | | | | |
| | Prescribed burn (except soybean areas) | | | ■ | | | | | | | | | |
| | Final prep herbicide (except soybean areas) | | | ■ | | | | | | | | | |
| **Seeding & Planting** (where weed control adequate) | Install native seed | | | | ■ | | | | | | | | |
| | Install live herbaceous plants | | | | | ■ | | | | | | | |
| | Install live woody plants when dormant | | | | | | | | ■ | ■ | | | |
| **Brushing & Thinning** | Cut & stump treat invasive woody plants | | | | ■ | | | | | | | | |
| | Remove or selectively thin aggressive native woody plants | | | | ■ | | | | | | | | |
| **Weed Control** | Mow seeded areas (where warranted and feasible) | | | | | ■ | ■ | | | ■ | | | |
| | Spot herbicide and/or spot mowing | | | | | ■ | ■ | ■ | | ■ | ■ | ■ | |
| | Foliar herbicide non-native woody re-growth | | | | | | | ■ | | | | ■ | |
| **Ecological Monitoring & Reporting** | Assess/document site, and prepare summary report | ■ | ■ | ■ | | ■ | ■ | ■ | | ■ | ■ | ■ | |

## Restoration and Short-Term Management - Management Unit 6

General Description

Management Unit 6 (MU6) is summarized in Table 6a below by presenting existing land cover types, associated acreages, and target native plant communities with associated acreages.

Table 6a. MU6 Restoration Summary

| Existing Land Cover Type | Existing Acres | Resulting Native Plant Community Acres |
|---|---|---|
| Residence, driveway & landscaping | 1.32 | Mesic Prairie: 1.32 |
| Oak Woodland-Brushland (C quality) | 1.57 | Mesic Savanna/Woodland: 1.57 |
| Mesic Prairie (C/D quality) | 9.51 | Mesic Savanna/Woodland: 9.51 |
| Mesic Oak Forest (A/B to C/D quality) | 43.52 | Mesic Forest: 43.52 |
| Mixed Emergent Marsh (B & B/C quality) | 13.48 | Mixed Emergent Marsh: 13.48 |
| Water Lily Open Marsh (A/B quality) | 0.21 | Water Lily Open Marsh: 0.21 |
| **Total** | **69.61** | |

Note: Acreages estimated, based on MLCCS mapping and Master Plan.

Restoration of MU6 will consist primarily of enhancing a large, high quality tract of existing Mesic Forest. A moderate-poor quality prairie restoration on the western edge of the management unit will largely be converted to Mesic Savanna/Woodland to provide ecological buffering and screening of County Road 23. Enhancement of existing Mixed Emergent Marsh within the management unit will result in high quality habitat for native plants and wildlife, including wetland amphibians and reptiles. Establishment of Mesic Savanna/Woodland adjacent to the enhanced Mixed Emergent Marsh will provide a complex mosaic of habitats. Wetlands should be burned while burning the adjacent Mesic Savanna/Woodland. Desirable tree species that naturally regenerate in Mesic Savanna/Woodland areas will be protected from fire and allowed to grow. The residence in the northwest corner of the management unit will be removed and converted to Mesic Prairie. Due to its high quality and limited ecological needs, restoration or short-term management is not proposed for the small strip of Water Lily Open Marsh, with the exception that the edges of this wetland should be managed similar to Mixed Emergent Marsh.

Restoration & Short-Term Management Tasks – MU6: Uplands (Mesic Forest, Mesic Savanna/Woodland & Mesic Prairie)

1. *Site Preparation*
   - Remove residence, other structures, impervious surfaces, landscaping, etc.
   - While it is actively growing, treat turf grass and all other non-native herbaceous groundcover with herbicide (at least twice). Desirable trees, shrubs, and patches of native vegetation shall be maintained.
   - Where fuel is sufficient, burn existing vegetation to prepare the site for planting, protecting desirable trees and shrubs.
   - Any undesirable vegetation that germinates shall again be treated with herbicide (when seedlings are approximately 6” tall).
2. *Establish Vegetation: Seeding & Planting*

- Once weed control is established, seed and/or plant using appropriate local ecotype species. Where possible, seed should be installed with a no-till drill; other areas may use broadcast seeding. Live plants may be used to accent areas of high visibility and to restore appropriate structure and composition to native plant communities.

3. *Removal of Woody Species: Brushing & Thinning*
   - Cut and stump treat all invasive non-native woody vegetation, including but not limited to: common buckthorn, glossy buckthorn, and exotic honeysuckles.
   - In Mesic Forest and Mesic Savanna/Woodland, remove or selectively thin aggressive native woody species such as boxelder, hackberry, green ash, American elm, and prickly ash in order to achieve target canopy cover goals (>60% canopy cover in Mesic Forest; 10-60% canopy cover for Mesic Savanna/Woodland).
   - Woody clearing should be done only when the ground is frozen, and cut material can be sold for biomass-to-energy or firewood if feasible. Handling or transport of cut wood should follow all state and federal recommendations to minimize the potential transfer of pests such as Emerald Ash Borer, Gypsy Moth, etc.
4. *Manage Undesirable Species: Weed Control*
   - Where accessible, control weedy species by mowing newly planted areas to 6" height twice the first season of growth, and once the second season when vegetation reaches 30 inches or before undesirable species produce seed.
   - Control invasive non-native herbaceous vegetation with appropriate spot herbicide application and/or mowing. Potential species of concern include, but are not limited to: Canada thistle, bull thistle, leafy spurge, sweet clover, ground clover, crown vetch, bird's foot trefoil, smooth brome, Kentucky bluegrass, spotted knapweed, and reed canary grass.
   - Treat invasive non-native woody vegetation seedlings and re-sprouts with foliar herbicide for up to 5 seasons.
   - In Mesic Prairie and Mesic Savanna/Woodland, conduct prescribed burn at the end of the third growing season to reduce litter load, stress non-native plants, and prevent encroachment by undesirable woody species.
5. *Annual Ecological Monitoring & Reporting*
   - Each year, walk, assess, document and photo document park conditions.
   - Prepare an annual report summarizing observations and providing specific recommendations for subsequent intervention and management.

<u>Restoration & Short-Term Management Tasks – Wetlands (Mixed Emergent Marsh)</u>

1. *Manage Undesirable Species: Weed Control*
   - Control invasive non-native vegetation with appropriate spot herbicide application. Potential species of concern include, but are not limited to: glossy buckthorn, reed canary grass, purple loosestrife, and hybrid and narrow-leaved cattails.
   - Allow adjacent prescribed burns to continue into wetlands. Exercise extreme caution regarding fire's ability to travel through wetlands (i.e., ensure adequate fire breaks).
2. *Enhance Native Vegetation: Seeding & Planting*

- Once weed control established, augment existing native vegetation with appropriate local ecotype native seed and/or plants. Seed should be broadcast onto wet to moist soil (not over open water), and live plants should be used in standing water (i.e., emergent wetland zones). Live planting into MNDNR Public Waters will require a MNDNR Aquatic Transplant Permit.

3. *Annual Ecological Monitoring & Reporting*
   - Each year, walk, assess, document and photo document park conditions.
   - Prepare an annual report summarizing observations and providing specific recommendations for subsequent intervention and management.
   -

Table 6b. MU6 Restoration and Short-Term Management Schedule

| Task | Description/Subtask | Year 1 | | | | Year 2 | | | | Year 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Spring | Summer | Fall | Winter | Spring | Summer | Fall | Winter | Spring | Summer | Fall | Winter |
| **Site Preparation** (all zones) | Remove anthropogenic structures and landscaping | ■ | | | | | | | | | | | |
| | Treat non-native vegetation with herbicide; at least twice | ■ | ■ | | | | | | | | | | |
| | Prescribed burn | | | ■ | | | | | | | | | |
| | Final prep herbicide | | | ■ | | | | | | | | | |
| **Seeding & Planting** (upland zones where weed control adequate) | Install native seed | | | | ■ | | | | | | | | |
| | Install live herbaceous plants | | | | | ■ | | | | | | | |
| | Install live woody plants when dormant | | | | | | | | ■ | ■ | | | |
| **Brushing & Thinning** (all zones) | Cut & stump treat invasive woody plants | | | | ■ | | | | | | | | |
| | Remove or selectively thin aggressive native woody plants (Mesic Forest and Mesic Savanna/Woodland) | | | | ■ | | | | | | | | |
| **Weed Control** (all zones) | Mow seeded areas (where warranted and feasible) | | | | | ■ | ■ | | | ■ | | | |
| | Spot herbicide and/or spot mowing | | | | | ■ | ■ | ■ | | ■ | ■ | ■ | |
| | Foliar herbicide non-native woody re-growth | | | | | | | ■ | | | | ■ | |
| **Seeding & Planting** (wetland zones, assuming weed control adequate) | Install native seed | | | | | | | | ■ | | | | |
| | Install live plants | | | | | | | | | ■ | | | |
| **Ecological Monitoring & Reporting** (all zones) | Assess/document site, and prepare summary report | ■ | ■ | ■ | | ■ | ■ | ■ | | ■ | ■ | ■ | |

## Restoration and Short-Term Management - Management Unit 7

General Description

Management Unit 7 (MU7) is summarized in Table 7a below by presenting existing land cover types, associated acreages, and target native plant communities with associated acreages.

Table 7a. MU7 Restoration Summary

| Existing Land Cover Type | Existing Acres | Resulting Native Plant Community Acres |
|---|---|---|
| Cultivated cropland | 0.22 | Mesic Forest: 0.22 |
| Mesic Oak Forest (A/B to C/D quality) | 19.72 | Mesic Forest: 19.72 |
| Degraded forest | 14.58 | Mesic Forest: 14.58 |
| Aspen Forest (C quality) | 2.54 | Aspen Forest: 2.54 |
| Wet Meadow (B quality) | 0.72 | Wet Meadow: 0.72 |
| Cattail Marsh (B/C quality) | 1.49 | Cattail Marsh: 1.49 |
| Degraded wetland | 0.50 | Cattail Marsh: 0.50 |
| Mixed Emergent Marsh (B quality) | 0.48 | Mixed Emergent Marsh: 0.48 |
| Water Lily Open Marsh (A/B quality) | 26.85 | Water Lily Open Marsh: 26.85 |
| Open Water | 6.33 | Open Water: 6.33 |
| **Total** | **73.43** | |

Note: Acreages estimated, based on MLCCS mapping and Master Plan.

Restoration of MU7 will consist primarily of enhancing a large, moderate quality tract of existing Mesic Forest and expanding this forest by restoring an adjacent degraded forest. A small tract of Aspen Forest will also be enhanced. Enhancement of existing Wet Meadow, Cattail Marsh, and Mixed Emergent Marsh within the management unit will result in high quality habitat for native plants and wildlife, including wetland amphibians and reptiles. These wetlands, intermixed with Mesic Forests, will provide a complex mosaic of habitats. Due to their high quality and limited ecological needs, restoration or short-term management is not proposed for the Water Lily Open Marsh or Open Water, with the exception that the edges of these areas should be managed similar to Mixed Emergent Marsh.

Restoration & Short-Term Management Tasks – MU7: Uplands (Mesic Forest & Aspen Forest)

1. *Site Preparation*
   - While it is actively growing, treat all cropland and other non-native herbaceous groundcover with herbicide (at least twice). Desirable trees, shrubs, and patches of native vegetation shall be maintained.
   - Where fuel is sufficient, burn existing vegetation to prepare the site for planting, protecting desirable trees and shrubs.
   - Any undesirable vegetation that germinates shall again be treated with herbicide (when seedlings are approximately 6” tall).
2. *Establish Vegetation: Seeding & Planting*
   - Once weed control is established, seed and/or plant using appropriate local ecotype species. Where possible, seed should be installed with a no-till drill; other areas may use broadcast seeding. Live plants may be used to accent areas of high visibility and to restore appropriate structure and composition to native plant communities.

3. *Removal of Woody Species: Brushing & Thinning*
   - Cut and stump treat all invasive non-native woody vegetation, including but not limited to: common buckthorn, glossy buckthorn, and exotic honeysuckles.
   - In Mesic Forest and Aspen Forest, remove or selectively thin aggressive native woody species such as boxelder, hackberry, green ash, American elm, and prickly ash in order to achieve target canopy cover goals (>60% canopy cover in Mesic Forest and Aspen Forest).
   - Woody clearing should be done only when the ground is frozen, and cut material can be sold for biomass-to-energy or firewood if feasible. Handling or transport of cut wood should follow all state and federal recommendations to minimize the potential transfer of pests such as Emerald Ash Borer, Gypsy Moth, etc.
4. *Manage Undesirable Species: Weed Control*
   - Where accessible, control weedy species by mowing newly planted areas to 6" height twice the first season of growth, and once the second season when vegetation reaches 30 inches or before undesirable species produce seed.
   - Control invasive non-native herbaceous vegetation with appropriate spot herbicide application and/or mowing. Potential species of concern include, but are not limited to: Canada thistle, bull thistle, leafy spurge, sweet clover, ground clover, crown vetch, bird's foot trefoil, smooth brome, Kentucky bluegrass, spotted knapweed, and reed canary grass.
   - Treat invasive non-native woody vegetation seedlings and re-sprouts with foliar herbicide for up to 5 seasons.
5. *Annual Ecological Monitoring & Reporting*
   - Each year, walk, assess, document and photo document park conditions.
   - Prepare an annual report summarizing observations and providing specific recommendations for subsequent intervention and management.

<u>Restoration & Short-Term Management Tasks – MU7: Wetlands (Wet Meadow, Cattail Marsh & Mixed Emergent Marsh)</u>

1. *Manage Undesirable Species: Weed Control*
   - Control invasive non-native vegetation with appropriate spot and/or broadcast herbicide application. Potential species of concern include, but are not limited to: glossy buckthorn, reed canary grass, purple loosestrife, and hybrid and narrow-leaved cattails.
   - Allow adjacent prescribed burns to continue into wetlands, and burn isolated wetlands. Exercise extreme caution regarding fire's ability to travel through wetlands (i.e., ensure adequate fire breaks).
2. *Enhance Native Vegetation: Seeding & Planting*
   - Once weed control established, augment existing native vegetation with appropriate local ecotype native seed and/or plants. Seed should be broadcast onto wet to moist soil (not over open water), and live plants should be used in standing water (i.e., emergent wetland zones). Live planting into MNDNR Public Waters will require a MNDNR Aquatic Transplant Permit.

3. *Annual Ecological Monitoring & Reporting*
   - Each year, walk, assess, document and photo document park conditions.
   - Prepare an annual report summarizing observations and providing specific recommendations for subsequent intervention and management.

Table 7b. MU7 Restoration and Short-Term Management Schedule

| Task | Description/Subtask | Year 1 | | | | Year 2 | | | | Year 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Spring | Summer | Fall | Winter | Spring | Summer | Fall | Winter | Spring | Summer | Fall | Winter |
| **Site Preparation** (all zones) | Treat non-native vegetation with herbicide (at least twice) | ■ | ■ | | | | | | | | | | |
| | Prescribed burn (all areas that will burn) | | | ■ | | | | | | | | | |
| | Final prep herbicide | | | ■ | | | | | | | | | |
| **Seeding & Planting** (upland zones where weed control adequate) | Install native seed | | | | ■ | | | | | | | | |
| | Install live herbaceous plants | | | | | ■ | | | | | | | |
| | Install live woody plants when dormant | | | | | | | | ■ | ■ | | | |
| **Brushing & Thinning** (all zones) | Cut & stump treat invasive woody plants | | | | ■ | | | | | | | | |
| | Remove or selectively thin aggressive native woody plants (Mesic Forest and Aspen Forest) | | | | ■ | | | | | | | | |
| **Weed Control** (all zones) | Mow seeded areas (where warranted and feasible) | | | | | ■ | ■ | | | ■ | | | |
| | Spot herbicide and/or spot mowing | | | | | ■ | ■ | ■ | | ■ | ■ | ■ | |
| | Foliar herbicide non-native woody re-growth | | | | | | | ■ | | | | ■ | |
| **Seeding & Planting** (wetland zones, assuming weed control adequate) | Install native seed | | | | | | | | ■ | | | | |
| | Install live plants | | | | | | | | | ■ | | | |
| **Ecological Monitoring & Reporting** (all zones) | Assess/document site, and prepare summary report | ■ | ■ | ■ | | ■ | ■ | ■ | | ■ | ■ | ■ | |

## Restoration and Short-Term Management - Management Unit 8

General Description

Management Unit 8 (MU8) is summarized in Table 8a below by presenting existing land cover types, associated acreages, and target native plant communities with associated acreages.

Table 8a. MU8 Restoration Summary

| Existing Land Cover Type | Existing Acres | Resulting Native Plant Community Acres |
|---|---|---|
| Maple-Basswood Forest (C/D quality) | 24.66 | Mesic Forest: 24.66 |
| Degraded forest | 13.52 | Mesic Forest: 13.52 |
| Old field with trees | 3.25 | Mesic Forest: 3.25 |
| Degraded wetland | 0.78 | Wet Meadow: 0.78 |
| Open Water | 9.19 | Open Water: 9.19 |
| **Total** | **51.40** | |

Note: Acreages estimated, based on MLCCS mapping and Master Plan.

Restoration of MU8 will consist primarily of enhancing a large, moderate quality tract of existing Mesic Forest and expanding this forest by restoring adjacent degraded forests and an old field with trees. A degraded wetland in the forest will be restored to Wet Meadow, resulting in high quality habitat for native plants and wildlife, including wetland amphibians and reptiles. Restoration or short-term management is not proposed for the Open Water (i.e., the western portion of St. Catherine Lake) until the assessment and diagnosis of lake restoration needs is completed. In the interim, lakeshore vegetation should be managed similar to Mixed Emergent Marsh (see other management units).

Restoration & Short-Term Management Tasks – MU8: Uplands (Mesic Forest)

1. *Site Preparation*
   - While it is actively growing, treat all cropland and other non-native herbaceous groundcover with herbicide (at least twice). Desirable trees, shrubs, and patches of native vegetation shall be maintained.
   - Where fuel is sufficient, burn existing vegetation to prepare the site for planting, protecting desirable trees and shrubs.
   - Any undesirable vegetation that germinates shall again be treated with herbicide (when seedlings are approximately 6” tall).
2. *Establish Vegetation: Seeding & Planting*
   - Once weed control is established, seed and/or plant using appropriate local ecotype species. Where possible, seed should be installed with a no-till drill; other areas may use broadcast seeding. Live plants may be used to accent areas of high visibility and to restore appropriate structure and composition to native plant communities.
3. *Removal of Woody Species: Brushing & Thinning*
   - Cut and stump treat all invasive non-native woody vegetation, including but not limited to: common buckthorn, glossy buckthorn, and exotic honeysuckles.

- In Mesic Forest, remove or selectively thin aggressive native woody species such as boxelder, hackberry, green ash, American elm, and prickly ash in order to achieve target canopy cover goals (>60% canopy cover in Mesic Forest).
- Woody clearing should be done only when the ground is frozen, and cut material can be sold for biomass-to-energy or firewood, if feasible. Handling or transport of cut wood should follow all state and federal recommendations to minimize the potential transfer of pests such as Emerald Ash Borer, Gypsy Moth, etc.

4. *Manage Undesirable Species: Weed Control*
   - Where accessible, control weedy species by mowing newly planted areas to 6" height twice the first season of growth, and once the second season when vegetation reaches 30 inches or before undesirable species produce seed.
   - Control invasive non-native herbaceous vegetation with appropriate spot herbicide application and/or mowing. Potential species of concern include, but are not limited to: Canada thistle, bull thistle, leafy spurge, sweet clover, ground clover, crown vetch, bird's foot trefoil, smooth brome, Kentucky bluegrass, spotted knapweed, and reed canary grass.
   - Treat invasive non-native woody vegetation seedlings and re-sprouts with foliar herbicide for up to 5 seasons.
5. *Annual Ecological Monitoring & Reporting*
   - Each year, walk, assess, document and photo document park conditions.
   - Prepare an annual report summarizing observations and providing specific recommendations for subsequent intervention and management.

<u>Restoration & Short-Term Management Tasks –MU8: Wetlands (Wet Meadow)</u>

1. *Manage Undesirable Species: Weed Control*
   - Control invasive non-native vegetation with appropriate spot and/or broadcast herbicide application. Potential species of concern include, but are not limited to: glossy buckthorn, reed canary grass, purple loosestrife, and hybrid and narrow-leaved cattails.
   - Burn Wet Meadows to remove thatch, stress reed canary grass, and encourage seed germination. Exercise extreme caution regarding fire's ability to travel through wetlands (i.e., ensure adequate fire breaks).
   - Spot and/or broadcast herbicide degraded wetland areas.
2. *Enhance Native Vegetation: Seeding & Planting*
   - Once weed control established, augment existing native vegetation with appropriate local ecotype native seed and/or plants. Seed should be broadcast onto wet to moist soil (not over open water), and live plants should be used in standing water (i.e., emergent wetland zones). Live planting into MNDNR Public Waters will require a MNDNR Aquatic Transplant Permit.
3. *Annual Ecological Monitoring & Reporting*
   - Each year, walk, assess, document and photo document park conditions.
   - Prepare an annual report summarizing observations and providing specific recommendations for subsequent intervention and management.

Table 8b. MU8 Restoration and Short-Term Management Schedule

| Task | Description/Subtask | Year 1 | | | | Year 2 | | | | Year 3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Spring | Summer | Fall | Winter | Spring | Summer | Fall | Winter | Spring | Summer | Fall | Winter |
| **Site Preparation** (all zones except degraded wetland) | Install Roundup-ready soybeans (accessible portions of old field) | ■ | | | | | | | | | | | |
| | Treat non-native vegetation with herbicide; at least twice (except soybean areas) | ■ | ■ | | | | | | | | | | |
| | Harvest soybeans | | | ■ | | | | | | | | | |
| | Prescribed burn (all areas that will burn, except soybean areas) | | | ■ | | | | | | | | | |
| | Final prep herbicide (except soybean areas) | | | ■ | | | | | | | | | |
| **Site Preparation** (degraded wetland) | Spot and/or broadcast herbicide | | | ■ | | | | | | | | | |
| | Prescribed burn | | | ■ | | | | | | | | | |
| | Spot and/or broadcast herbicide | | | | | ■ | | | | | | | |
| **Seeding & Planting** (upland zones where weed control adequate) | Install native seed | | | | ■ | | | | | | | | |
| | Install live herbaceous plants | | | | | ■ | | | | | | | |
| | Install live woody plants when dormant | | | | | | | | ■ | ■ | | | |
| **Brushing & Thinning** (all zones) | Cut & stump treat invasive woody plants | | | | ■ | | | | | | | | |
| | Remove or selectively thin aggressive native woody plants (Mesic Forest) | | | | ■ | | | | | | | | |
| **Weed Control** (all zones) | Mow seeded areas (where warranted and feasible) | | | | | ■ | ■ | | | ■ | | | |
| | Spot herbicide and/or spot mowing | | | | | ■ | ■ | ■ | | ■ | ■ | ■ | |
| | Foliar herbicide non-native woody re-growth | | | | | | | ■ | | | | ■ | |
| **Seeding & Planting** (wetland zones, assuming weed control adequate) | Install native seed | | | | | | | | ■ | | | | |
| | Install live plants | | | | | | | | | ■ | | | |
| **Ecological Monitoring & Reporting** (all zones) | Assess/document site, and prepare summary report | ■ | ■ | ■ | | ■ | ■ | ■ | | ■ | ■ | ■ | |

## Restoration and Short-Term Management - Future Phases

Ecological restoration and management needs are not well defined for future phases of park development; therefore, detailed restoration and short-term management tasks and schedules are not provided for future phases. Restoration, enhancement, and management activities required in future phases will be similar to those described for Management Units 1 through 8. Regarding the restoration of St. Catherine Lake, there are opportunities to work with the Scott WMO and MPCA to assess the lake as a part of a planned 2014 water quality monitoring effort for the Lower Minnesota River Basin. There are also opportunities to work with the Scott WMO regarding restoration projects along the Porter Creek tributary that flows through the park and St. Catherine Lake.

## Perpetual Management Tasks – All Restoration Zones

Perpetual management is essential to restoring and maintaining the composition, structure, and function of healthy native ecosystems. The two primary perpetual management tasks are:

1. *Weed Control*
   - Control invasive non-native herbaceous vegetation, primarily with appropriate spot herbicide application. Haying or mowing may also be employed, and cutting of invasive woody vegetation may also be necessary in areas. Mowing is less effective than haying (or burning) because it does not remove plant material; over time the accumulated organic matter results in nutrient enrichment, which often favors invasive plants.
2. *Prescribed Burning*
   - Generally burns are conducted on a three year rotation, beginning with the fall or spring following the third full year of growth after seeding. In order to mimic natural fire regimes, burns should extend across habitat gradients (e.g., Mesic Savanna/Woodland – Mesic Prairie – Wet Prairie – Wet Meadow - Marsh) when possible.

Perpetual management tasks (Table 9) are repeated at different intervals for different plant communities to ensure that healthy restored plant communities are maintained over the long term.

Table 9. MU1 Perpetual Management Schedule

| | Task Frequency (once every X years) | | | |
|---|---|---|---|---|
| **Plant Community** | **Prescribed Burning** | **Weed Control (Spot Herbicide)** | **Remedial Seeding/Planting** | **Detailed Monitoring & Reporting** |
| Mesic Forest | NA | 3-4 | 3 | 1 |
| Mesic Savanna/Woodland | 2-3 | 2-3 | 2-3 | 1 |
| Mesic Prairie & Wet Prairie | 3-4 | 1-2 | 3-5 | 1 |
| Wet Meadow, Cattail Marsh & Mixed Emergent Marsh | 3-4 | 1-2 | 3-5 | 1 |
| Water Lily Open Marsh, Aquatic Bed Wetland, Open Water Wetland, and Lake | NA | as needed | NA | 1 |

Notes: NA = not applicable
Schedule assumes that prescribed burning will be employed as a restoration and management technique. If prescribed burning is not employed, haying should be used in prairie areas to remove accumulating plant material.

## Other Restoration and Management Considerations

Land development at Doyle Kennefick Regional Park will include construction of buildings, trails, roads, and public facilities next to restoration areas. Construction activities will encroach on and disturb the restored trees, shrubs, wildflowers, and native grasses and sedges in restoration areas unless they are protected.

Protection includes:

- Installing silt fences around all construction areas where grading occurs.
- Installing reusable construction fencing around native plant communities.
- Installing reusable construction fencing around the drip line of trees and shrubs that will be retained.
- Preventing soil compaction due to equipment.
- Preventing smothering of woody vegetation due to soil stockpiling in the rooting zone.
- Initial and remedial information sessions with all contractors working on the site.
- Identification of a lead contact to deal with continued problems of damage to restoration areas.

# Boundary and Acquisition Plan

## Overview

In the master planning process the park boundary defined in the 2004 Doyle-Kennefick Regional Park acquisition master plan was modified to include an additional 221 acres, changing the planned park acreage from 918 acres to 1139 acres (Figures 30 and 31). Thirty two parcels fall within the planned park boundary. Eight parcels totaling 490 acres are Scott County owned; twenty-one parcels are privately owned, and two are in Minnesota Department of Natural Resources ownership. The non-county owned parcels, or inholdings, have an estimated combined 2011 tax-assessed property value of approximately $3,484,663.74. (Further information on acquisition related costs is presented in the Costs and Funding section.) Two important factors shaped the review of the boundary and ultimately influenced the boundary modification. Significant development constraints associated with lands within the park boundary presented considerable challenges to designing the recreational facilities envisioned for the park and non-residential lands adjacent to the park boundary presented an opportunity to add lands that would provide these recreational facilities. Importantly, these additional lands also preserve important viewsheds, buffer sensitive resources and create opportunities for natural resource restoration**. Full page images of the Park Boundary Figure 30 (Map 3) and Boundary Change Map Figure 31 (Map 4). can be found in the Maps section.**

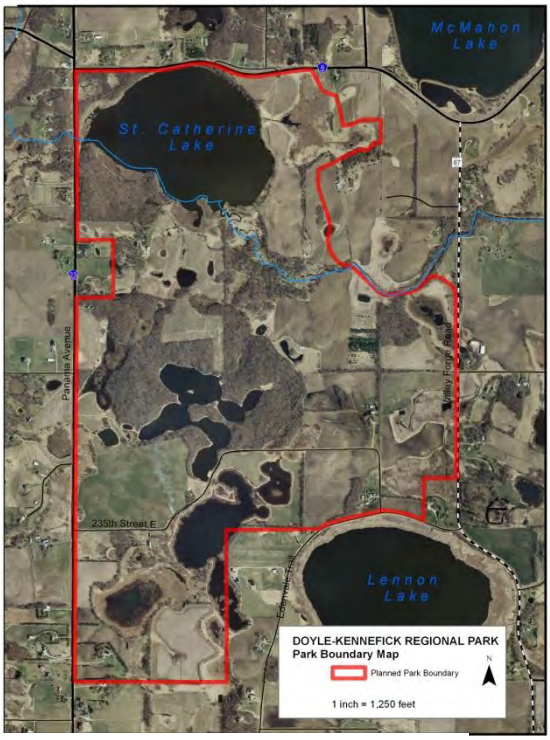



**Figure 30. (Map 3) Park Boundary Map**

## Boundary Study Analysis

During site analysis the developable land acreage of the existing park boundary was determined to be 479 acres, close to half of the 2004 planned parks size of 918 acres. The remaining 439 acres were identified as being non-developable, consisting of St. Catherine's Lake, wetlands, restricted development properties (based on acquisition grant agreements) and areas of high quality and regionally significant native plant communities. These lands were identified as being non-developable or very minimally developable based on wetland regulation, the County's commitment to preservation of significant natural resources (2030 Parks Policy Plan), and restrictions related to grant funding for land acquisition. While the site is a regional park and not a park preserve, community and resident input emphasized a vision of the park that

preserved and enhanced the natural landscape and integrated recreational use in a sustainable manner and within a limited footprint. These factors aligned to influence the majority of the development footprint to remain outside a core 439 acres at the center of the park.

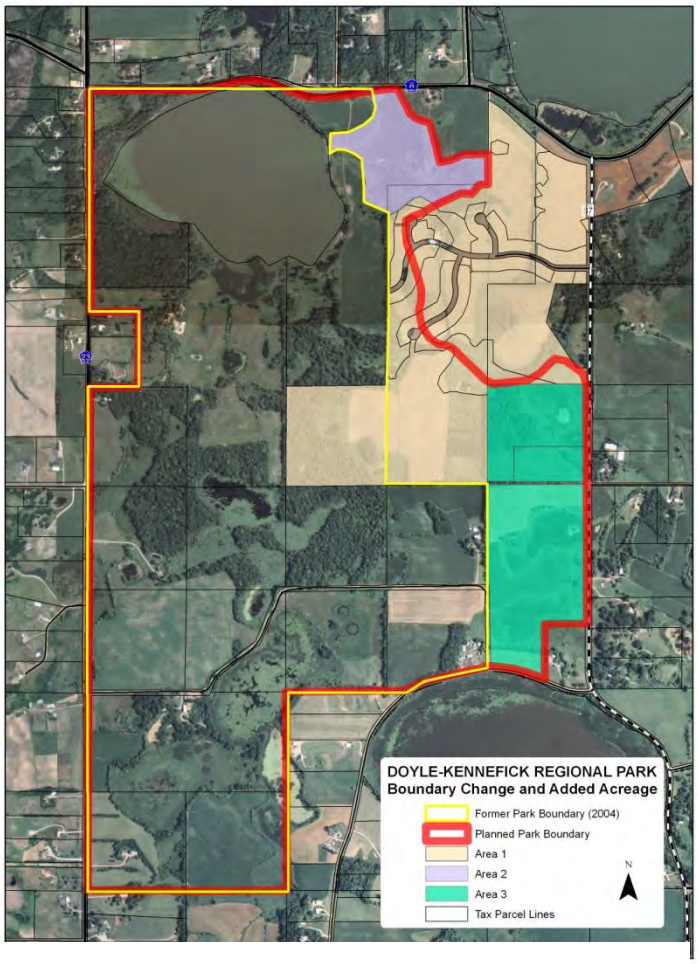



**Figure 31. (Map 4) Boundary Change Map**

Another consideration in the boundary analysis was the presence of large tracts of land adjacent to the park and landowner willingness to have their property in the planned boundary for potential future acquisition. Adjacent to the park on the north-east boundary is a planned 240-acre residential development project site (see Area One on Figure 27). The project has an approved final plat (St. Catherines of the Lake 1st Addition), but no infrastructure or houses have been built. The property was foreclosed on in 2010 and is now bank-owned. The existing plat and developer agreement identifies the dedication of 40-acres of the property for park land within the previously planned park boundary. To the south of this residential development site are three additional parcels totaling approximately 108 acres (see Area 3 on Figure 30). The residential development site and the properties to its south were studied for the potential to offer recreation amenities, infrastructure, and conservation value to the park. It was determined that a portion of the residential development site and the full extent of properties to the south should be added to the park to achieve the corresponding goals of conserving the parks' significant and sensitive resources and fully maximizing its recreational potential.

The modified boundary includes an additional approximately 112 acres of the bank-owned site. However, the ultimate boundary in this particular area is intended to be decided based on further site analysis and future negotiations with the land owner. The County is supportive of a boundary that protects the residential development project as planned. Feedback from Cedar Lake Township indicates their preference for future development of the site, and the site analysis, engineering and planning work that has already gone into the site potentially has a substantial value to a future developer.

Not every property reviewed was found to be of value to the park. On the south end of the park, a 45-acre outlot of the residential plat Edenvale Estates 2nd Addition was studied for potential value to the park. Analysis showed that acquisition of this property would improve viewsheds from within the park, particularly from the homestead site. Soft-surface trails with a trail access to the neighborhood on the south end of the site could also be provided. Overall however, the planning team concluded the functional value of this parcel to the park was not high enough to warrant its addition.

On the north side of the bank-owned property on are two Minnesota Department of Natural Resources parcels totaling approximately 41 acres and consisting of wetland (see Area 2 on Figure 30). These lands may remain in the boundary under DNR ownership, or there is potential of a transfer of the lands to the County. Initial discussions with the agency indicate these lands, originally identified for fisheries purposes, have no functional use related to fisheries and that ownership for regional park purposes would align with their goals for the property.

Figure 32. Parkland Acreage and Acquisition Changes by Parcel

| PREVIOUS BOUNDARY | | BOUNDARY ADDITIONS | |
|---|---|---|---|
| PID | Acreage | PID | Added Acreage |
| *County Owned Park Lands* | | *Private Inholdings* | |
| 39110030 | 40.00 | 30790150 | .76 |
| 39020070 | 50.42 | 30790260 | 1.67 |
| 39110070 | 40.00 | 30790240 | 2.86 |
| 39110090 | 40.00 | 30790060 | 1.61 |
| 39020030 | 40.00 | 30790230 | 1.23 |
| 39110080 | 40.00 | 30790070 | .81 |
| 39110040 | 160.00 | 30790030 | 3.3 |
| 39110071 | 40.00 | 30790250 | 2.05 |
| 39110050 | 40.00 | 30790120 | 44.83 |
| *Private In-holdings* | | 30790140 | 6.55 |
| 119350080 | .39 | 30790050 | 6.22 |
| 119350200 | .26 | 30840020 | 28.00 |
| 39020040 | 115.90 | 30840010 | 10 |
| 30790130 | 39.89 | 39120010 | 69.60 |
| 39020020 | 76.96 | | |
| 39110020 | 40.00 | *MnDNR Lands* | |
| 39110060 | 39.84 | 30100010 | 5.90 |
| | | 39020021 | 35.20 |
| St. Catherine Lake | 115 | | 221.00 |
| Total | 918.66 acres | | |
| | | | |
| Total Acreage Planned Boundary | | | 1136 |

## Acquisition Plan

It is the County's practice to acquire lands for park purposes from willing sellers and as funding permits. While the County has legal authority to utilize eminent domain and has chosen to use it related to road projects, it has been the County's practice to purchase parkland only from willing sellers and this practice is expected to continue.

The acquisition approach for the remaining inholdings at Doyle-Kennefick Regional Park will be based on a set of Siting and Acquisition guidelines identified in the 2030 Comprehensive Plan and listed below. All potential acquisitions will be evaluated using the Park Land Functional Analysis System identified in the 2030 Comprehensive Plan. Together these will help ensure success in meeting the long-term acquisition goals and purpose of Doyle-Kennefick Regional Park.

### Siting and Acquisition Guidelines

1. *Land Use Changes and Parcel Availability Status* –Staying appraised of potential land use changes and land sales is an important element of a successful acquisition program. Primary means of doing so include; having consistent communication and dialog and building relationships with landowners and residents of the area and with Township officials; tracking development applications and building permits through the County's Planning and Zoning process and; and monitoring real-estate listings.

2. *Resident and Landowner Involvement* – Involvement of residents and landowners brings valuable insights to planning, acquisitions and operations. It adds creativity and a ground-level level awareness to these processes and decisions. Periodic up-date mailings, public meetings, updates to Township officials and informal discussions are all activities that will be used to maintain open dialog with the community and individual residents.

3. *Parcel Prioritization* – An evaluation system has been established to prioritize parcels for potential park purposes. As acquisition opportunities arise this system will be used to help determine the County's response.

4. *Level of Threat* -Assessing the level of threat is an important part of prioritizing acquisitions and allocation of financial resources. If a parcel that has been identified for the park reserve is in imminent threat of having its land use changed to be incompatible with future park needs (e.g. from agricultural to residential), the parcel may need to be moved up in the acquisition priority list. Areas that have been identified for future park lands but have a low level of threat, due to remoteness from development pressures or a landowner who is simply not willing to sell, can be placed further down the priority list.

5. *Maximize Opportunities of County's Land Use Growth Plan* With a well-planned and targeted growth plan landowners can be approached early on by the County and be made aware of the future opportunity to sell (or donate) their land for park purposes. Landowners should view being located in a future park or corridor as a potential asset since there is one more potential buyer (the County) when they are ready to sell.

6. *Leveraging* - There are multiple ways in which the County can leverage resources. Acquisitions grants, cost sharing, donations and multiple partners should be explored.

7. *Partnerships* – Options to work with other agencies on will be regularly explored.

8. *Donations* – Donations of property and financial donations can be an effective element of a park land acquisition program.

# Conflicts and Mitigation

No conflicts with other existing or proposed projects or land uses affecting Doyle-Kennefick Regional Park were identified in the planning process. However, future reconstruction of County State Aid Highway 8 presents an opportunity that will be important to continue tracking. Future reconstruction of County State Aid Highway 8 (220th Street East) ( east-west roadway along the north end of the park) and its intersection with County State Aid Highway 23 to meet future roadway and traffic safety improvement goals will present an opportunity for the paved trail loop planned around the St. Catherine Lake. The County Highway and Parks and Trails Departments have together identified this as an area for integrated planning and construction design and implementation. The County Highway Department is currently studying CSAH 8, primarily with a focus on near term needs for the roadway sections eastward of Doyle-Kennefick. For the section of CSAH 8 along the north end of the park and westwards, the planning process is focused on longer term needs and planning. The planning process has included a review of park goals, in particular the trail loop in this area, and the plan will identify the intent to integrate the trail loop and other potential park goals into a joint future roadway reconstruction/park improvement project. Aligning these projects will create an opportunity for a superior solution to meet the needs for both the roadway and the park, and opens up opportunities for resource leveraging and cost savings.

# Implementation, Operations and Maintenance

## Overview

Implementation will require significant initial and long-term capital investments for physical development, operations and maintenance. Implementation is expected to occur over a number of years as funding and other resources become available and plans become refined and ready for implementation. This section provides an overview of the County's governance, and operational and management practices and operational framework related to implementing the master plan.

## Operations and Maintenance

### Governance

The Scott County Board of Commissioners is the governing and policy board with jurisdictional and operational authority for Scott County regional parks and trail facilities. The Scott County Parks Advisory Commission, appointed by the Board, serves as ambassadors for the citizens of the County and to inform and make recommendations to the Board on policy, planning, operational and financial matters related to the Scott County regional parks and trails facilities and system.

In December 2010, the Scott County Board and Three Rivers Park District Board entered into a unique operating partnership, the "Partnership", to collaboratively operate the regional facilities within Scott County – both those under Scott County ownership and those under Three Rivers Park District ownership. Under the Partnership, Three Rivers will assist in the operation and maintenance of the park and trail units owned by Scott County and will continue to operate the Three Rivers facilities within Scott County. The intent of the Partnership is to bring efficiencies to the provision of parks and trails to the citizens of Scott County.

Ultimate policy and management direction for Scott County facilities will continue to be set by the Scott County Board, with guidance from the Scott County Parks Advisory Commission. However, under the new Partnership, it will be done in consideration of the collaborative implementation effort of the two agencies and within a governance structure that includes a Partnership policy-making board made up of the chair and vice chair from the Scott County Board of Commissioners and the Three Rivers Park District Board of Commissioners. Additionally, under the Partnership, a Three Rivers board member will serve on the Parks Advisory Commission.



### Ordinances

Scott County has adopted Park Ordinance, Number 29 to provide for the safe and peaceful use of the parks, trails, and corresponding facilities. Scott County's Park Ordinance, Number 29 is

enforced for all users and activities within the Scott County-owned facilities of the park and trail system, including Doyle-Kennefick Regional Park and the Three Rivers Park District Ordinance is enforced at Three Rivers Park District facilities. The two ordinances are very similar and the organizations are committed to work through differences that arise. Enforcement and communication of the ordinance to park users will continue to be monitored and the two organizations will work proactively and cooperatively to remedy confusion or potential conflicts that could arise from having two separate sets of rules and regulations.

## Public Services and Safety

The Scott County Sheriff's office is responsible for patrolling County parks and trail facilities. A Sheriff's Deputy or a Community Service Officer will respond to calls for service needs at the park reserve. Community Service Officers are uniformed, non-sworn officers. In addition to responding to calls for service, the 911 First Responder systems will answer any emergency call made from the park reserve. Scott County participates in a statewide mutual aid program that facilitates the sharing of public safety resources in times of emergency or other unusual conditions. This program serves to facilitate the assistance received from surrounding police agencies, including New Prague Police, New Prague Fire Department, New Prague Ambulance and Three Rivers Park District Police.

As part of the new Partnership agreement, Scott County and Three Rivers Park District are evaluating long-term public safety operations to determine the best approach to providing a safe, consistent, efficient, and cost-effective service to the public. Considerations include ways to enhance communication and collaboration between the Sheriff's Office and Three Rivers Park District Police. Some examples include: utilizing the Scott County 911 system for Three Rivers Park District officers in Scott County, opening Scott County Sheriff training to Three Rivers officers, and increased resource sharing.

The park is outside the current Metropolitan Urban Service Area (MUSA) and borders the New Prague Long-Term Sanitary Sewer Service Area. Sanitary sewer service is available for a portion of the property through the Cedar Lake Water and Sanitary Sewer District which services up to 325 homes around Cedar Lake and is connected to the City of New Prague Municipal System. The park owns 4 sanitary sewer connections to meet the facility n. The Cedar Lake Water and Sanitary Sewer District Board

There is no public transportation service available at this time.

## Acquisition Practice

It is the County's practice to only purchase lands for park purposes from willing sellers and only as funding permits. While the County has legal authority to utilize eminent domain and has chosen to use it related to road projects, it has been the County's practice to only buy parkland from willing sellers and this practice is expected to continue.

## Maintenance

Maintenance of Doyle-Kennefick Regional Park is overseen by the Scott County Parks and Trails Department and carried out by several Scott County departments including Parks and Trails, Public Works, and Facilities. Starting in 2011, under the Partnership, maintenance is also now carried out by Three Rivers Park District. Moving into the future, Three Rivers Park District will have an expanded role in the directing and carrying out maintenance at the park.

## Natural Resources

The Scott County Parks and Trails department oversees natural resources management for the park. Natural resource management priorities and projects were identified to coincide with development of the park, as much as possible. These are summarized in the natural resources management section of this document and will guide future natural resource management work in the park. Stewardship activities are completed through the use of county staff, contractors, volunteers, and the County's Sentence-to-Serve program. The County's parks and trails department, natural resources department and Scott Watershed Management Organization participate in collaborative planning and the development of joint projects and initiatives to leverage additional resources, compliment areas of expertise, and to expand the overall capacity to meet the County's natural resource goals. As the Partnership evolves natural resources management is an area that will likely see growth in collaboration with Three Rivers Park District.

## Property Stewardship

At the time of acquisition lands are evaluated for health, safety and welfare concerns and current infrastructure systems such as water systems, sewer systems, electrical, and building conditions analyzed. Property stewardship activities begin immediately upon acquisition and include, but are not limited to general cleanup of the site, location and identification of property lines and property corners, grounds maintenance, noxious weed control, building maintenance, invasive species control and cultivation of lands currently being farmed. The Natural Resources Management Plan will guide the land conservation activities on newly acquired properties. Depending on site condition, target land cover, and the development timeline and amenities planned for the property it remain in its current cover, or the process of restoring or converting to its targeted land cover or plant community may begin immediately. In some cases lands being used for farming may continue to be cropped through a rental agreement for a number of years. Overall, the site will be secured and appropriate measures taken to protect it until park development operations occur.

## Sustainability

Scott County strives to incorporate sustainable practices into its daily operations and resource management, planning, and design, and construction projects. The County 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 implementation of the Doyle-Kennefick development concept the County will utilize guidelines such as the Minnesota Sustainable Building Guidelines (B3 Project) and the Leadership in Energy and Environmental Design (LEED).

The County will pursue implementation of sustainable principles that encourage conservation of natural resources, energy conservation, waste reduction, maintenance of healthy systems, and achievement of lowest life-cycle cost.

## Partnerships and Volunteers

In addition to the partnership with Three Rivers Park District, Scott County promotes pursuing and working through partnerships whenever possible. It is the County's practice to proactively and cooperatively work with the local, state and federal park providers in Scott County and the region sharing information and resources and identifying and entering into cooperative agreements where it can create efficiencies, improve service or enhance the management of important resources. An emphasis is also placed on creating opportunities for partnerships with the private sector.

Similarly, Scott County is committed to working with volunteers as a means to support the community and to achieve more service with fewer resources. Volunteering provides youth with job experience, offers purposeful work to retired-age residents, and provides the opportunity for individuals and groups looking to give back to their community. The County will continue to work through existing partnerships and volunteer arrangements and will look for new prospects to carry out work at Cedar Lake Farm through these approaches.

## Public Awareness

Promotion of Scott County's park and trail system and outreach to the public on planning and development issues are primary interests of the Scott County Board of Commissioners and the Parks Advisory Commission. Scott County is committed to providing up-to-date useful information to citizens and park users and to working with residents and other agencies on the long-term implementation of the Blakeley Bluffs Acquisition Master Plan.

Scott SCENE

Vol. 21, No. 4 — The mission of Scott County is to deliver quality public services to all citizens in an effective, professional and efficient manner. — August/September 2009

Garden bounty

Master Gardeners are offering programs to help improve production and preserve food for winter. Page 12

Planning for trails underway

Transportation, recreation corridors to be reviewed

In recent years, Scott County has made investments in developing a park system that will serve residents today and in the future. But parks are not the *only* focus of the Scott County Parks and Trails program: The recently adopted *Scott County 2030 Comprehensive Plan Update* promotes a more balanced focus on both parks *and* trails. To help achieve this balance, Scott County is embarking on new efforts to plan and ultimately build a comprehensive recreation and transportation trail system.

**Regional Trails**

As one of ten park implementing agencies for the Twin Cities area, Scott County is responsible for planning and building natural resource-based parks and trails that connect to the rest of the regional system. Regional trails provide connections to regional parks — or serve as destinations themselves. Regional trails are intended to serve residents of the entire metropolitan area, but surveys show the majority of users tend to live within three miles of the trail. Currently, one partially completed regional trail exists in Scott County, generally following County Roads 21 and 82 or Prior Lake and County Road 79 in Shakopee.

The *2030 Comprehensive Plan Update* identified a number of search areas for future regional trails. It will take decades and a variety of methods to complete this system, including land acquisition, trail dedication through land development, temporary trail routes, and road reconstruction projects.

In order to be ready for future trail development opportunities, more detailed studies for each trail alignment are needed today. The first study is being completed as part of the Detailed Area Planning (DAP) for TRAILS to Page 14

A planning study is underway to identify alignment alternatives for a future regional trail that will someday connect Murphy-Hanrehan, Cleary Lake (above), Doyle-Kennefick, and Cedar Lake Farm regional parks.

Scott County uses a variety of resources to promote its regional park and trail system. Available resources include:

- Scott County SCENE
- Press releases to local media outlets
- Brochures, newsletters, and direct mailings
- On-line presence (website, e-mail lists, maps)
- City/township park & recreation websites
- Regional park & trail maps (Met Council, Cyclopath.org)
- Advertisements in recreation and tourism publications

## GoScottGo.org

New technologies and improved access to public databases have greatly enhanced the ability to share accurate park and trail information with residents. Scott County recently partnered with Carver County to develop GoScottGo.org, which includes a clearinghouse of recreational activities, programs, and facilities in Scott County. This website and the underlying initiative is based upon a national "active living" effort, which has found that the overall health of a community is impacted by its built environment and residents' safe access to recreational opportunities.

GoScottGo.org will be a key component for promoting the Scott County regional park and trail system. The website includes an interactive park and trail mapping application that assists users in charting out their walking, biking, and running routes, as well as find parks and trails close to their home. As park development is completed, the interactive map will be updated to provide the latest data available.

In addition to the above resources, other new opportunities for promotion may arise as part of Scott County's new partnership agreement with Three Rivers Park District. Three Rivers could provide an increased role in marketing all regional park and trail facilities in Scott County. Scott County will continue to explore additional promotional opportunities (and efficiencies gained) with Three Rivers and other park/trail partner agencies.

## Park Planning Construction Projects

As additional park planning projects arise (e.g. development master plan) and construction plans are proposed, public information meetings will be held as a means to inform the public, collect input and have dialogue on ideas and potential conflicts. Scott County is committed to working with residents and other agencies once the design process commences for park construction projects.

## Accessibility

Scott County is committed to providing activities, access and resources for all park visitors, including persons with disabilities and members of special population groups and will do so throughout planning, development, and operation and maintenance activities of the regional park and trail system. Scott County supports equal access for all users to its park and trail facilities. Park facilities will be designed to meet or exceed guidelines established by the Americans with Disabilities Act. Future park facilities will be aligned to accommodate a wide-range of user groups with varying abilities, and offers access to many populations.

Scott County's current policies strive to keep public park, trail, and open space facilities affordable for all residents.

# Estimated Costs and Funding

## Site Development Estimated Costs and Phasing

The estimates below provide an overview of potential costs for each program area of the park and associated amenities. The total estimated costs for amenities and infrastructure for all phases is $11,500,800. Cost figures are based on a master plan level evaluation, intended to inform general budgeting purposes and project phasing. Cost numbers are based on 2011 bidding data. For planning purposes these number should be increased by 10% every year to account for inflation. As funding is identified for specific program areas cost projections will be further refined based on site-specific information and current material and labors costs.

Costs are presented according to a preliminary phasing plan that is based on a number of considerations. Those include current infrastructure of the park- including the need for structure preservation- existing site use, budget constraints, awareness of anticipated near vs. long-term recreational demand, and phasing of amenities to capture construction cost-savings. It is important to note that the phasing plan is intended to be flexible and to be used as a guide.

*Doyle-Kennefick Regional Park Phasing and Cost Estimate – Site Improvements*

Figure 33.

**Doyle-Kennefick Regional Park Cost Estimates – Site Improvements**

| Phase 1 Site Improvements | Cost |
|---|---|
| Establish visitor parking facilities for farmstead site | $200,000 |
| Establish patio area around trailhead center | $35,000 |
| Establish informal picnic areas around farmstead site | $60,000 |
| Establish north and south trail loops from Trailhead center – soft surface only | $155,000 |
| Make barn structure weather-tight and secure, including silo | $20,000 |
| Make homestead structure weather-tight and secure | $65,000 |
| | |
| Phase 1 Total | $535,000 |
| | |
| Future Phase Site Improvements | Cost |
| Establish hard surface trail circulation and extend sot surface trail on north side of park as property is acquired | $685,000 |
| Establish hard surface trail connection around St. Catherine Lake (subject to Hwy 8 realignment) | $350,000 |
| Establish secondary access for canoe/kayak launch on St. Catherine Lake | $45,000 |
| Implement soft surface nature trail loops | $110,000 |
| Renovate homestead - main and upper level including mechanicals | $95,000 |

| | |
|---|---|
| Renovate barn – main floor and upper levels including mechanicals | $625,000 |
| Renovate outbuildings | $50,000 |
| | |
| Total: | $1,960,000 |
| | |
| Future Phase Site Improvements | Cost |
| Extend park access road to serve horseback riding rental facility | $80,000 |
| Establish large group picnic shelter and restroom building | $810,000 |
| Develop playground facility within large group picnic area | $250,000 |
| Establish horseback riding rental facility and multi-use soft surface trail system | $760,000 |
| Construct maintenance facility | $650,000 |
| Extend park access road to serve campground facility | $115,000 |
| Establish modern campground facility and dump station | $1,650,000 |
| Establish primitive group camping sites | $30,000 |
| Complete paved multi-user trail loop connection to campground facility | $44,000 |
| | |
| Total: | $4,389,000 |
| | |
| Future Phase Site Improvements | Cost |
| Construct nature center and outdoor learning areas | $1,500,000 |
| Establish retreat center on south side of St. Catherine Lake | $1,200,000 |
| | |
| Total: | $2,700,000 |
| | |
| Subtotal | $9,584,000 |
| 20% Contingency | $1,916,800 |
| Cost Estimate Total | $11,500,800 |
| | |

## Natural Resources Estimated Costs

Cost estimates on restoration and on-going management are presented below for each of the seven natural resource management units for planning and budgeting purposes. Many variables will influence actual cost, including the targeted level of restoration, actual scheduling of activities, and whether activities will be conducted by staff, volunteers and/or contractors. The costs presented are based primarily on the use of contractors to carry out activities. Scott County's management approach utilizes volunteers and Sentence to Serve crews which can substantially reduce costs.

*Figure 34. Opinion of Probable Cost*

| Management Unit | Year 1 | Year 2 | Year 3 | Annual Avg. Perpetual Cost |
|---|---|---|---|---|
| MU1 (80.39 ac) | $45,900 | $101,300 | $100,000 | $550/ac |
| MU2 (93.01 ac) | $74,300 | $80,400 | $84,300 | $550/ac |
| MU3 (77.60 ac) | $18,300 | $45,200 | $47,800 | $550/ac |
| MU4 (34.86 ac) | $27,500 | $121,400 | $123,100 | $525/ac |
| MU5 (6.47 ac) | $12,700 | $23,500 | $23,900 | $525/ac |
| MU6 (69.63 ac) | $29,100 | $64,600 | $67,200 | $450/ac |
| MU7 (73.43 ac) | $17,700 | $19,700 | $13,500 | $300/ac |
| MU8 (51.39 ac) | $37,000 | $25,300 | $21,100 | $400/ac |

Cost assumptions: Live trees planted in Mesic Forest and Mesic Savanna/Woodland only.
Live shrubs planted in Mesic Savanna/Woodland only.
Live herbaceous plugs planted in Mesic Forest and edges of Cattail Marsh and Mixed Emergent Marsh.

Cost notes: Live woody plantings amount to over 50% of Year 1-3 total cost of all management units. Yearly totals are not provided because it is likely that restoration and management activities will be initiated at only one or few management units within a given year, and scheduling is yet to be determined.

## Land Acquisition Estimated Costs

In total, approximately 1139 acres on 32 parcels fall within the planned park boundary. Eight parcels totaling 490 acres are Scott County owned, twenty-one parcels are privately owned, and two are in Minnesota Department of Natural Resources ownership. The non-county owned parcels, or inholdings, have an estimated combined 2011 tax-assessed property value of approximately $3,484,663.74. Additional acquisition costs will include legal fees, appraisal costs, environmental site assessments, and survey costs, and these will need to be included in a final acquisition cost figure at the time of purchase. Property stewardship is often needed at the time of land acquisition and includes activities such as general demolition, well abandonment, septic tank removal, and other miscellaneous activities. These activities vary substantially from site to site depending on the current use and immediate planned use of the property after acquisition (i.e. for public recreational, cropland, or residential rental use) and their costs will be determined at the time of acquisition. The direct costs of acquisition could be offset with the conveyance or sale of parklands identified in this plan for removal from the park.

## Operations Estimated Costs

Beginning in 2011, Scott County parks, including Doyle-Kennefick Regional Park have been operated under the Scott County and Three Rivers Park District Partnership, or the Partnership. Starting in 2011 a part-time seasonal Three Rivers Park District maintenance position was added to the Partnership. Three Rivers Park District's role in directing and carrying out maintenance activities will be expanded in 2012 and future years. In 2012 volunteer caretakers will also assist in staffing and operating the site.

As the development and natural resource plan are implemented, additional resources and capacity will be required to operate and maintain the park. Anticipated operational resource needs, costs and a strategy for meeting those needs will be determined as specific development projects are planned. The integration of Three Rivers Park District and further use of volunteers are anticipated to result in an increase in the operational capacity for the park. While an increase in operational funding will be necessary in the future as large portions of the development plan are implemented, near term improvements are expected to be operated within the existing budget and the efficiencies gained through the Partnership.

## Funding Sources

A number of potential funding sources are available for regional park development, land acquisition and natural resources restoration including local, Metropolitan Council, state and federal sources. Traditionally, operations and maintenance costs are funded by the local implementing agencies, in this case Scott County, with some contributions from the Metropolitan Council. For Doyle-Kennefick Regional Park, and other Scott County facilities, the annual operating costs are funded through the Partnership budget. The primary source of those funds is through Scott County property taxes. Additional operations revenue is received from the State of Minnesota as part of the Operations and Maintenance Fund allocations from the Council and is available through the Minnesota Clean Water, Land and Legacy funds.

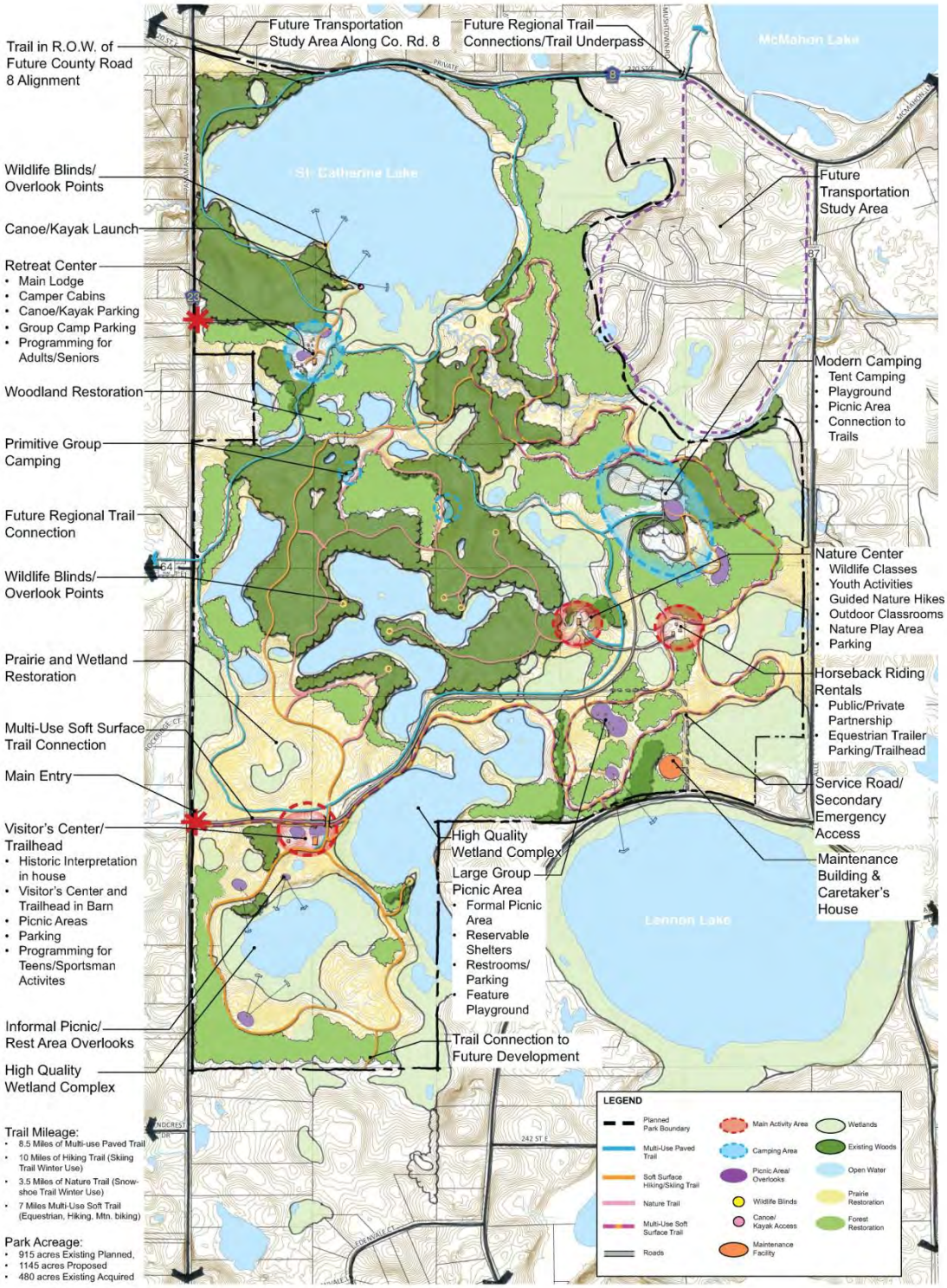
The Council and State of Minnesota provide funding for acquisition and development through the Regional Parks Capital Improvement Program (CIP) and the Minnesota Clean Water, Land and Legacy funds. Development at Doyle-Kennefick Reginoal Park may be funded through the Regional Parks CIP, Scott County Capital Investment Program, donations or other funding sources that may be available at the time of development.

## Other Revenue

Additional revenue for this park will come through reservation picnic rentals, special events, camping fees, rental fees and programming fees. Revenue projections will be made as facilities are identified for development.

# MAPS

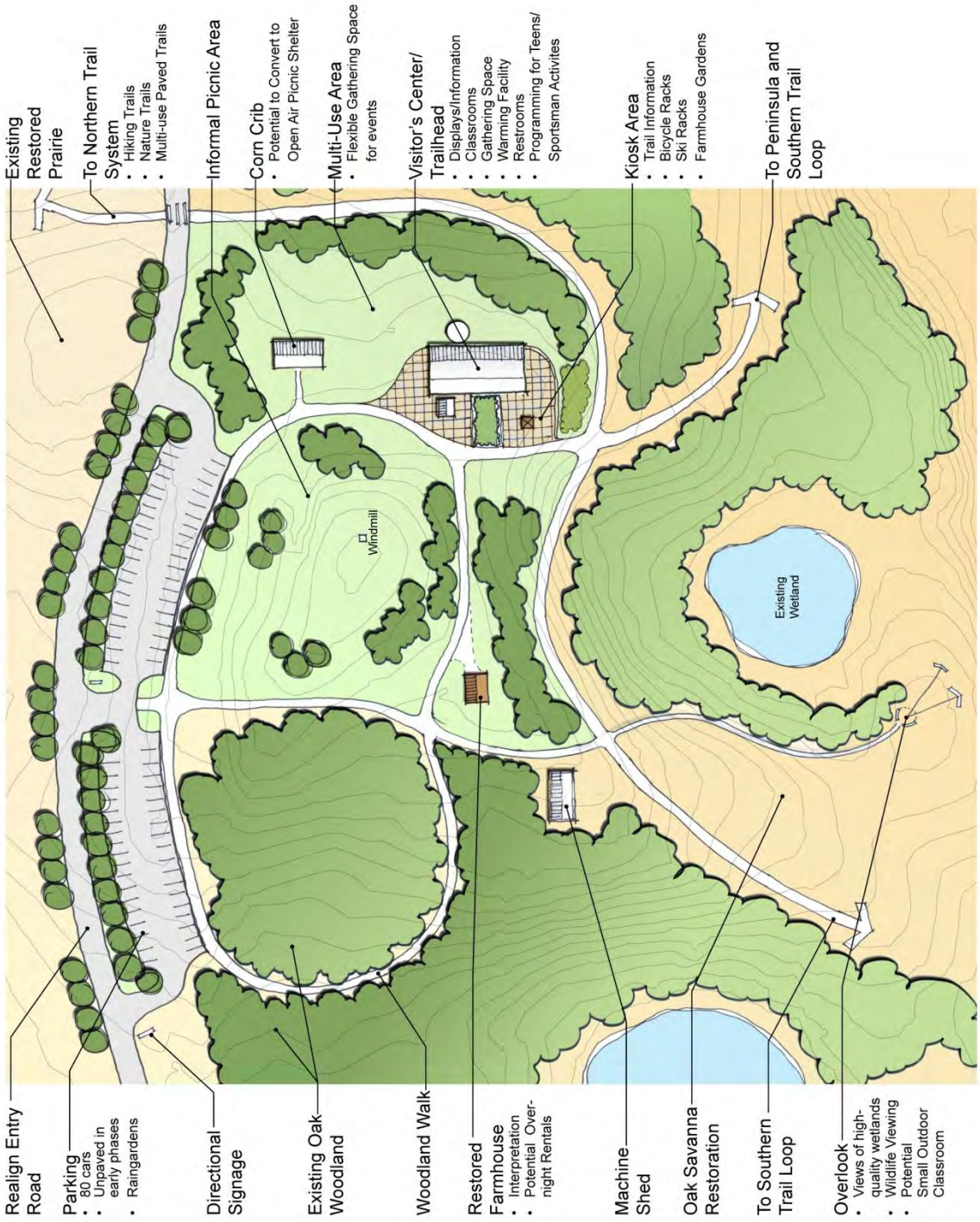
# MAP 1: Master Plan for Doyle-Kennefick Regional Park



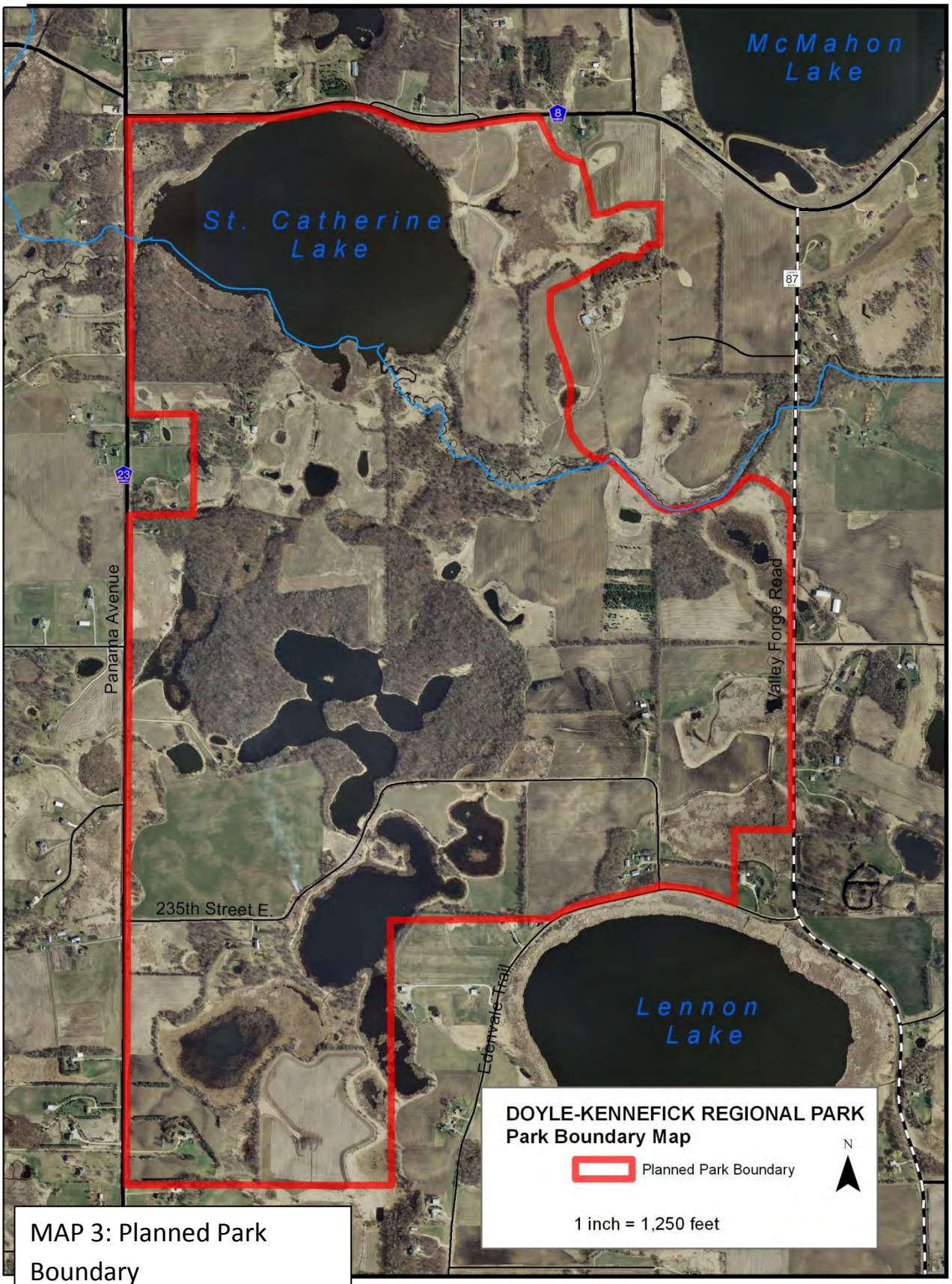

Master Plan
*Doyle Kennefick Regional Park*

Scott SRF Consulting Group, Inc.

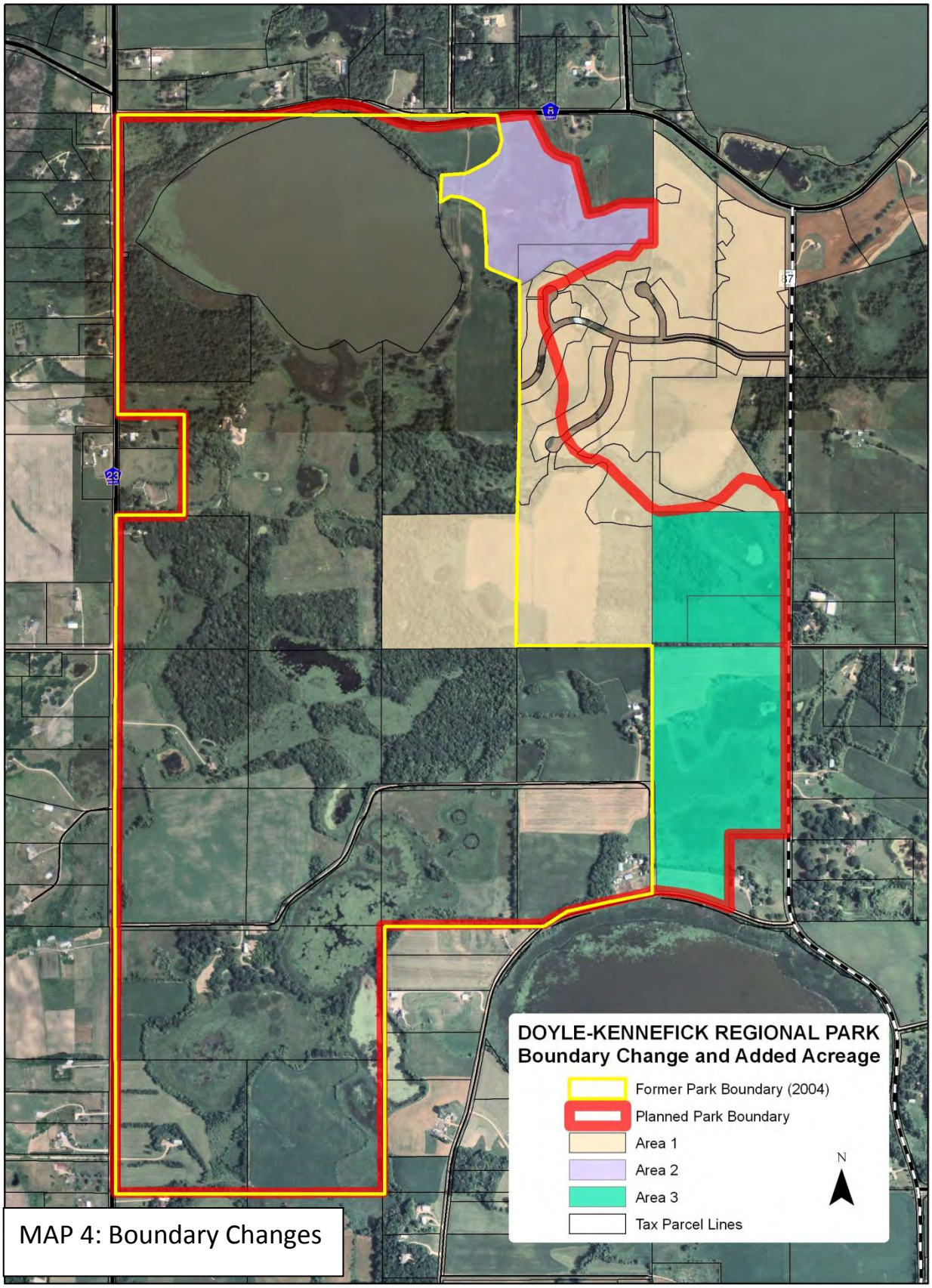
CLEAN WATER LAND & LEGACY AMENDMENT



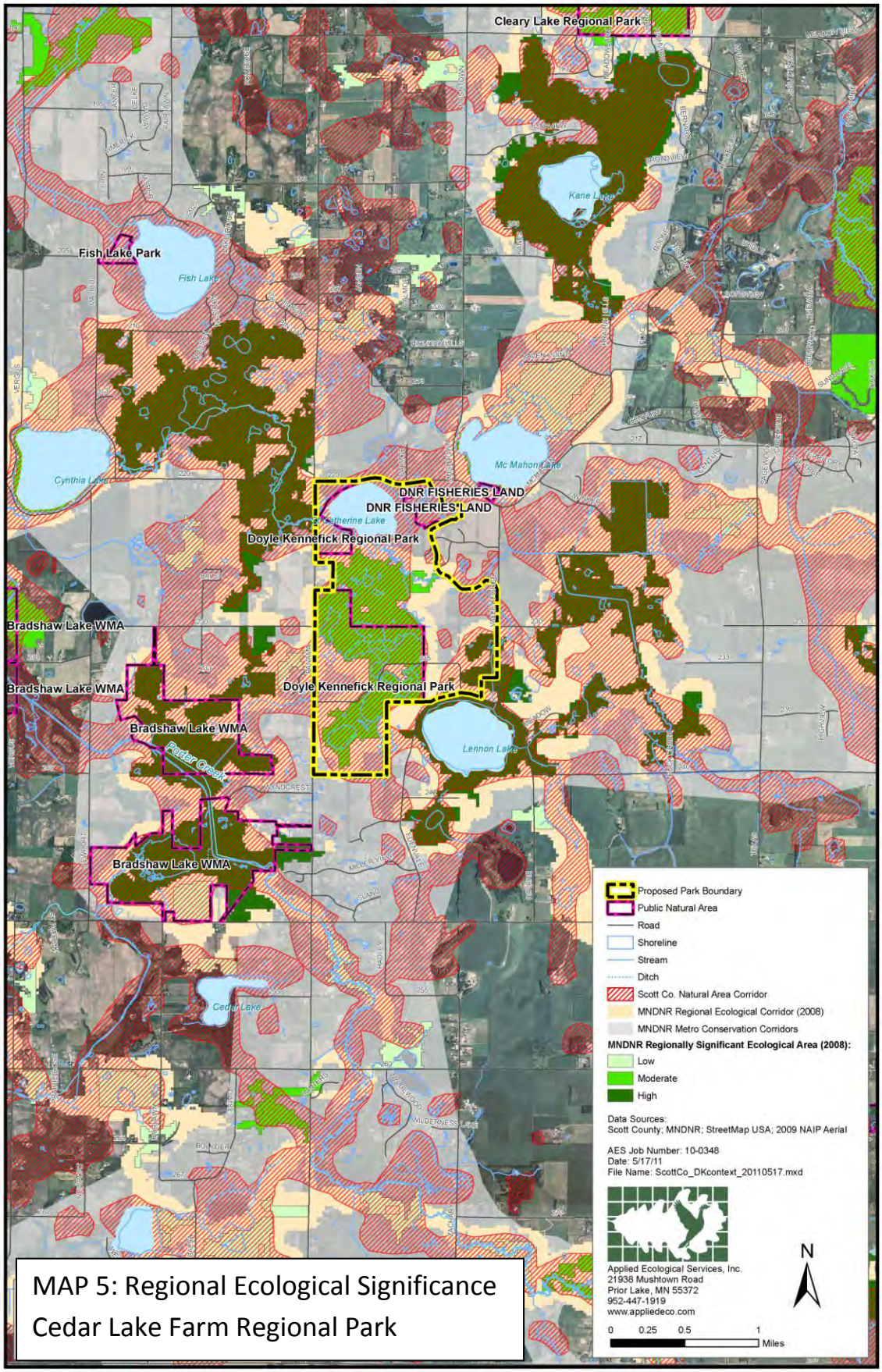

MAP 2: Master Plan Enlargement Area for Doyle-Kennefick Regional Park



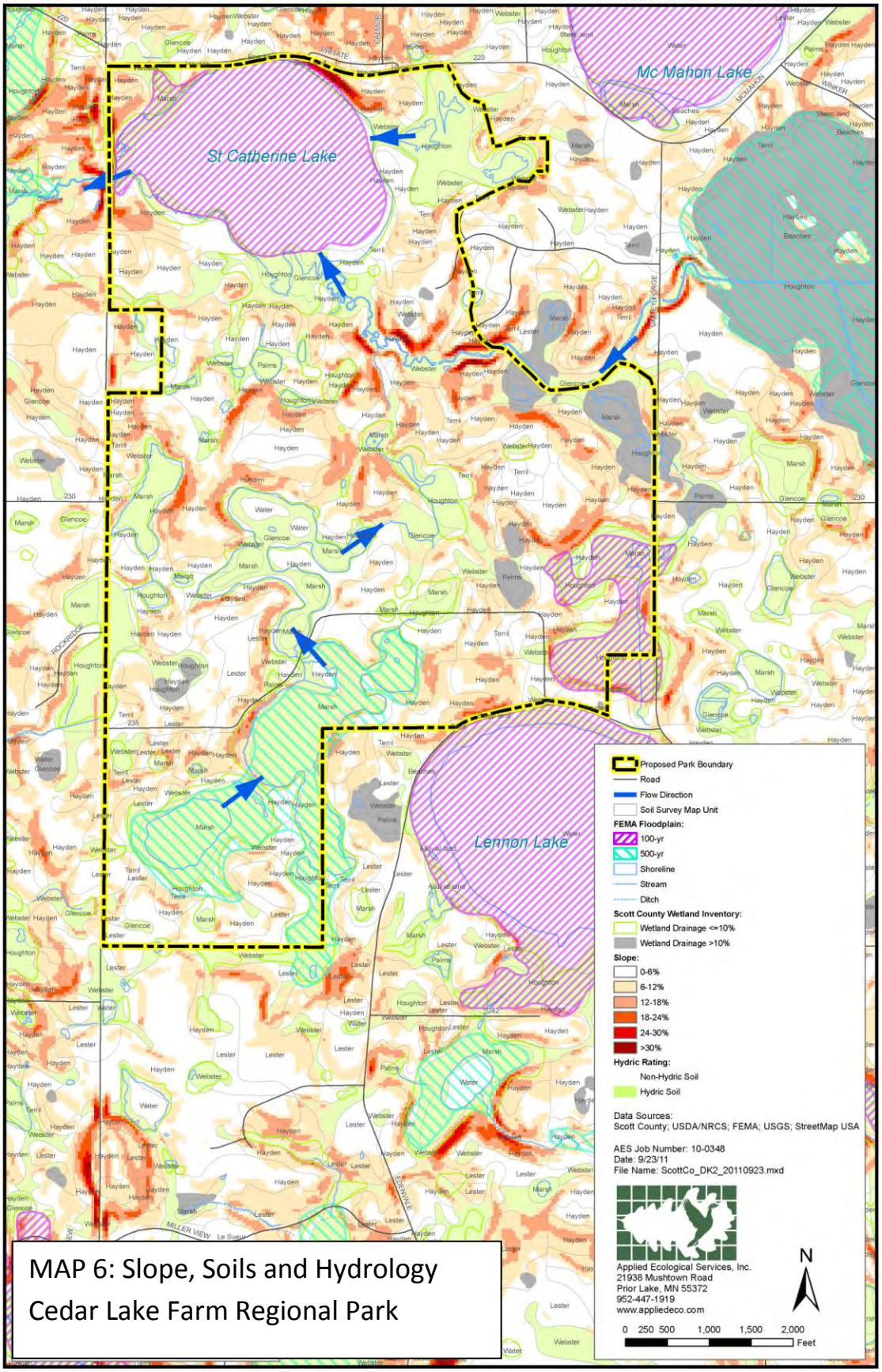

MAP 3: Planned Park Boundary



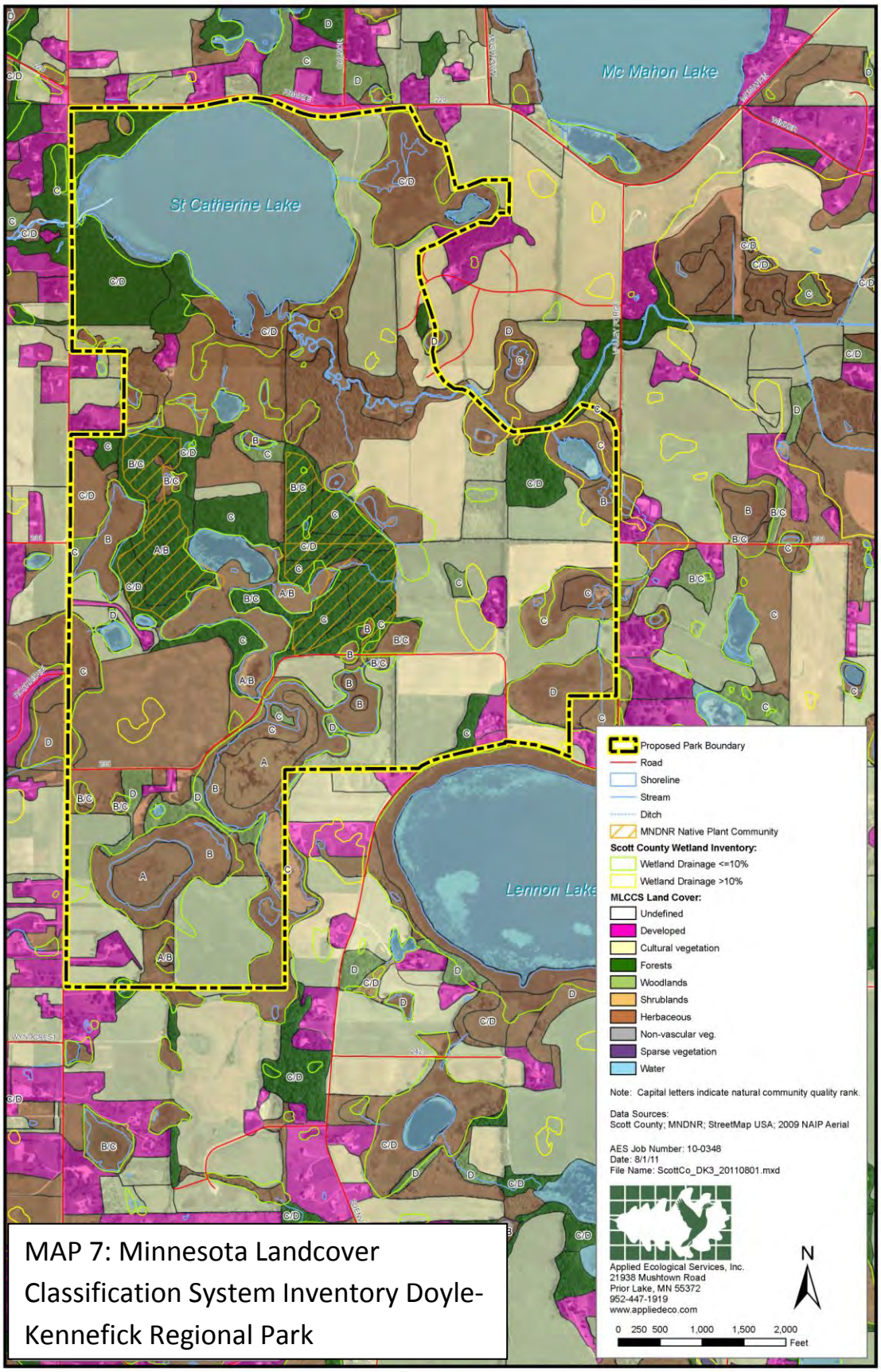

MAP 4: Boundary Changes



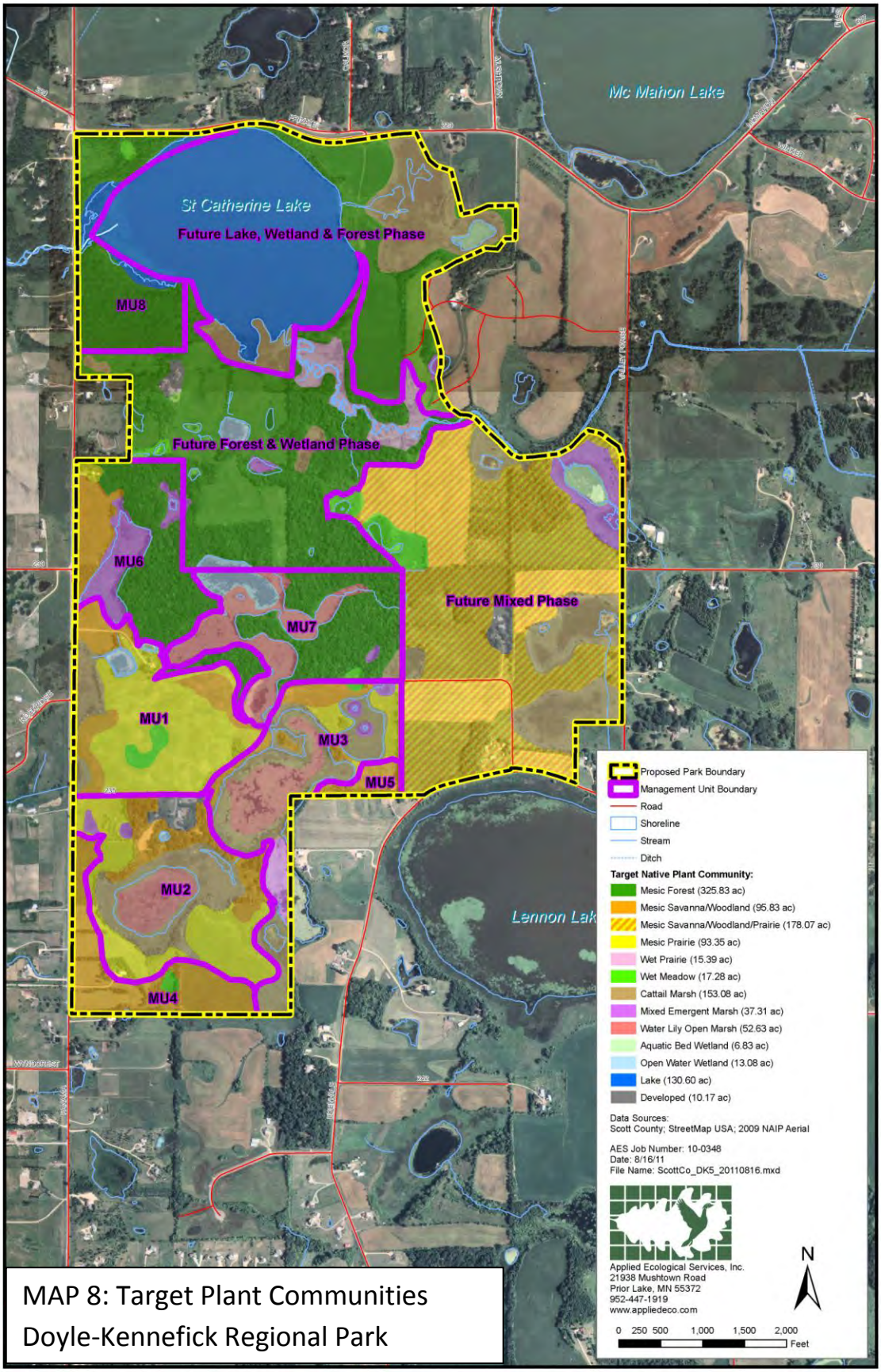

MAP 5: Regional Ecological Significance
Cedar Lake Farm Regional Park



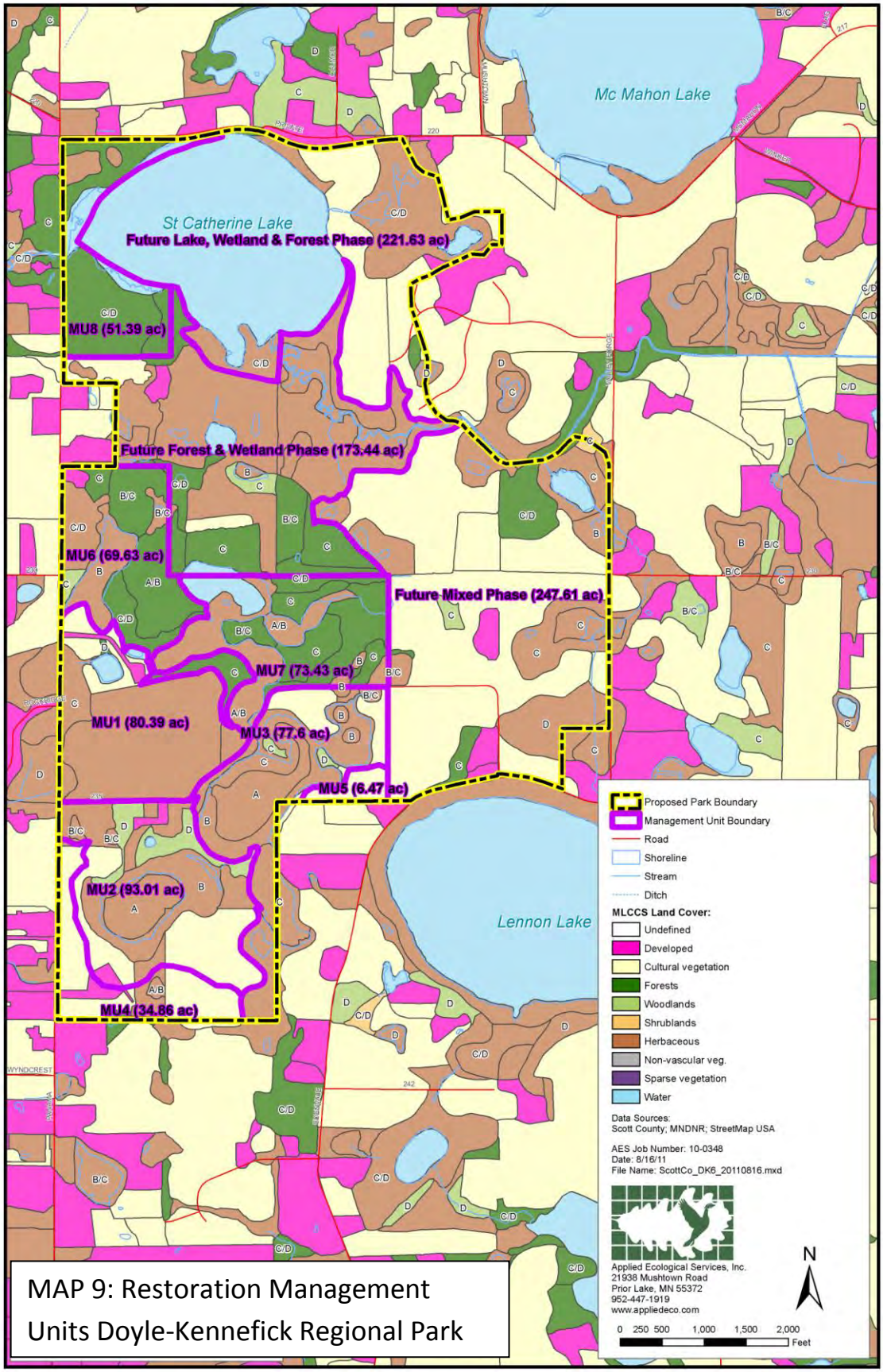

MAP 6: Slope, Soils and Hydrology
Cedar Lake Farm Regional Park




MAP 7: Minnesota Landcover Classification System Inventory Doyle-Kennefick Regional Park




MAP 8: Target Plant Communities
Doyle-Kennefick Regional Park




MAP 9: Restoration Management Units Doyle-Kennefick Regional Park

# Appendix A

## 1 - List of Public Meetings and Events

## 2- Summary of Public Comments for Doyle-Kennefick Site Planning Workshop – Summary of Discussion and Written Comments

## 3 - Master Plan Concept Open House – Written Comments

## Scott County Park and Trail Master Planning Process
## List of Public Events and Meetings

### *FIELD TRIP EVENTS – On-Site Field Trips with Citizen Design Team and Public*

| DATE | TOUR LOCATION/FOCUS |
|---|---|
| **Saturday, September 11, 2010**<br>• 8:30am to noon – CDT only<br>• Noon to 2:00pm – Public | Cedar Lake Farm Regional Park |
| **Saturday, September 18, 2010**<br>• 8:30am to noon – CDT only<br>• Noon to 2:00pm – Public | Doyle-Kennefick Regional Park |
| **Saturday, September 25, 2010**<br>9am to Noon – CDT only | Trails Field Trip |
| **Saturday, October 2, 2010**<br>• 9am to Noon – CDT Only<br>• Noon to 2:00pm – Public | Blakeley Bluffs Park Reserve Area |

### *CITIZEN DESIGN TEAM MONTHLY MEETINGS*

| MEETING | DATE | LOCATION |
|---|---|---|
| #1 | Thursday, July 22, 2010 | Scott County Law Enforcement Center |
| #2 | Thursday, August 12, 2010 | Scott County Regional Training Facility |
| #3 | Thurs, September 16, 2010 | PARKS CDT - Ney Nature Center<br>TRAILS CDT - Scott County Government Center |
| #4 | Thursday, October 21, 2010 | Cleary Lake Regional Park |
| #5 | Thursday, November 18, 2010 | PARKS CDT - State Bank of New Prague<br>TRAILS CDT - Scott County Government Center |
| #6 | Thurs, January 20, 2011 | PARKS CDT - Scott County Law Enforcement |
| #6 | Thursday, January 27, 2011 | TRAILS CDT - Scott County Conference Center |
| #7 | Thursday, March 10, 2011 | Scott County Regional Training Facility |
| #8 | Thursday, September 28, 2011 | Cedar Lake Farm Regional Park |

## *PUBLIC WORKSHOPS*

**First Set of Workshops: Public Policy Discussion and Collection of Park/Trail Ideas**

| DATE | WORKSHOP FOCUS |
|---|---|
| Wednesday, August 18, 2010 | Cedar Lake Farm Regional Park |
| Thursday, August 19, 2010 | Doyle-Kennefick Regional Park |
| Wednesday, August 25, 2010 | Blakeley Bluffs Park Reserve Search Area |
| Thursday, August 26, 2010 | Scott West and Spring Lake Regional Trail Search Areas |

**Second Set of Workshops: Presentation of Master Plan Concepts and Input/Feedback**

| DATE | WORKSHOP FOCUS |
|---|---|
| Wednesday, February 16, 2011 | Doyle-Kennefick Regional Park |
| Thursday, February 17, 2011 | Cedar Lake Regional Park |
| Wednesday, February 23, 2011 | Blakeley Bluffs Park Reserve Search Area |
| Thursday, February 24, 2011 | Scott West and Spring Lake Regional Trail Search Areas |

## *LOCAL GOVERNMENT UNIT (LGU) MEETINGS – DISCUSSIONS AND INPUT*

| DATE | GOVERNMENTAL BODY | MEETING FOCUS |
|---|---|---|
| November 4, 2010 | Sand Creek Township Board | Spring Lake Trail search area |
| November 22, 2010 | Shakopee Park and Rec Board | Scott West Trail search area |
| November 22, 2010 | Jordan Parks Commission | Spring Lake Trail search area |
| December 6, 2010 | Credit River Township Board | Scott West Trail search area |
| December 7, 2010 | Blakeley Township Board | Blakeley Bluffs search area |
| January 4, 2011 | Cedar Lake Township Board | Doyle-Kennefick concepts |
| January 4, 2011 | Helena Township Board | Cedar Lake Farm concepts |
| January 20, 2011 | Prior Lake Parks Commission | Scott West and Spring Lake Trails |
| February 1, 2011 | Downtown Shakopee Partnership (business group) | Scott West Trail/Downtown route |
| February 1, 2011 | Blakeley Township Board | Blakeley Bluffs concepts |
| February 1, 2011 | Helena Township Board | Cedar Lake Farm concepts |
| February 8, 2011 | Shakopee City Council - Workshop | Scott West Trail/Downtown route |
| February 8, 2011 | New Prague Parks Commission | Cedar Lake Farm concepts |
| February 10, 2011 | Elko New Market Parks Commission/New Market Township Joint Meeting | Doyle-Kennefick concepts |
| May 3, 2011 | Shakopee City Council | Scott West Trail/Downtown route – Selection of preferred alignment |

## *SCOTT COUNTY MEETINGS – INPUT AND AUTHORIZATION*

| DATE | GOVERNMENTAL BODY | MEETING FOCUS |
|---|---|---|
| October 6, 2010 | Scott County Parks Advisory Commission | Shared findings from 1st round of public workshops |
| October 12, 2010 | Scott County Board of Commissioners - Workshop | Shared findings from 1st round of public workshops |
| November 3, 2010 | Scott County Parks Advisory Commission - Workshop | Presented preliminary concepts |
| December 1, 2010 | Scott County Parks Advisory Commission - Workshop | Presented early preliminary concepts |
| February 2, 2011 | Scott County Parks Advisory Commission | Presented preferred concepts from CDT |
| February 8, 2011 | Scott County Board of Commissioners - Workshop | Presented preferred concepts from CDT |
| May 4, 2011 | Scott County Parks Advisory Commission | Presented refined preferred concepts |
| July 6, 2011 | Scott County Parks Advisory Commission | Recommend Approval of Trail Master Plans and Structures Re-Use Review |
| August 30, 2011 | Scott County Board of Commissioners Workshop | Concepts and structures re-use discussion. |
| September 6, 2011 | Scott County Board of Commissioners Workshop | Concepts and structures re-use discussion Cont'd. |
| September 13, 2011 | Scott County Board of Commissioners | Approved Trail Master Plans and Submittal to Metropolitan Council |
| October 25, 2011 | Scott County Board of Commissioners | Park structures renovation and re-use concept as recommended by PAC and CDT |
| November 2, 2011 | Scott County Parks Advisory Commissioners | Recommend Approval of Cedar Lake Farm Master Plan |
| November 8, 2011 | Scott County Parks Advisory Commissioners | Approval of Park structures renovation and re-use concept as recommended by PAC and CDT |
| December 7, 2011 | Scott County Parks Advisory Commission | Recommend Approval of Doyle-Kennefick and Blakeley Bluffs Master Plans |
| December 13, 2011 | Scott County Board of Commissioners | Approval of Parks Master Plans and Submittal to Metropolitan Council |

August 19, 2010

# Doyle-Kennefick Public Workshop Comments:

**Group Discussion:**

Camping
Neighbors/Respecting- Concerns
Cleaning up the Park/Security
Roadway Access/Traffic
Interim Use of Property
Living History Farm
Kid Day Camps
Maintain Character of Existing Neighborhood
Horses
Trails (looped system)
Water based activities
Access Concerns 23/87
Wildlife Observation Areas
Dogs (leash vs. off leash)
Maintain Natural Setting
Education/Interpretation
Boundary Waters of Scott Co.
Low Impact Activities
Nature Center
Access 235th St.
Cross-country ski, Nature Trails

**Individual Forms:** (24 Forms- 22 had comments to questions)

1. What issues or challenges do you see for developing the park facility?

Funding (3)- more land to acquire
Timeframe ("If it takes 40 years like Spring Park, I will be dead", "I want to see something happen NOW") (2)
Keep it simple, that is the challenge
Preserving Nature
Safety/Security of Private Property and Neighbors (5)
Enforcement of Laws (3)
Keeping the Riff Raff out
Local objection
Making sure visitors know the boundaries of the parks
Access to roads/Park Access (4)
Management
Managing FiresWetlands/Circulation around (2)

Circulation around St. Catherine/Access to St. Catherine (2)
Invasive removal
Existing Structures
Natural Resources vs. Amenities (development)
Roads- County Rd. 64- high traffic counts/traffic volume increases (2)
Keep the homestead together/How do you preserve log cabin prior to development? (3)
NO CAMPING!- nearby land and homeowners do not want
Stop the hunting
Land acquisition just south of St. Catherine Lake

2. What types of programming or activities should be accommodated at the park?

Nature Walks with guides
Wildflowers and Birds/Wildlife observation programming- sanctuary/blinds (6)
Trails around each lake- complete circle- connect lakes
Separate paths for walkers and bikers (2)
Shoreline beaches
Playground on each lake
One-way roads around lakes with parking along roads
Natural resource preservation (4)
No hunting should be allowed
Non-motorized use (3)
Non-motorized Lake Use- would rather see Cedar Lake with active motorized lake
Primitive Camping/Hike-in Camping (3)
Camping
Camping- unless its offered at Cedar Lake
Horse Trails/Horseback riding (8)
Historic Farm Demos
Picnic areas- general and rustic shelters (2)
Nature Trails (hiking, XC ski) (11)
Snowshoeing
Bike Trails (2)
Nature Center (2)
Canoeing/Kayaking (4)
Youth Hunting
Hunting during seasons- maybe special hunts
Day Camp activities

Pioneer theme- agriculture and living activities/ manual farming old style (2)
Sustainable Farming
Restore original homestead to its log house form.
Rental of the original farm house for overnight stays
Barn as nature center or events interpretation (2)
Would like to see ATVs- but realize it may be difficult- there is no place to ride in the metro area (2)
Snowmobile Trails

3. What should be the priority for the development of park amenities and programming?

More elbow grease, less talk and paperwork
Nature Center and Interpretive center
Plan activities for the area, region not for many from outside of county

Natural-resource based (2)
Rustic
Historic Living Farm
Trailhead/trails! (5)- horse, hike, ski
Picnic near homestead/barn
Soft/low impact development- keep it quiet, all natural (4)
Facilities at home site to protect and preserve it. Restore its historical value.
Needed Maintenance to buildings (2)
Allow limited hunting during special time periods
Prairie Restoration
Portages between lakes- small BWCA type loop-with camping along the way
Satellite/toilets
Parking similar to Murphy-Hanerehan or Ritter Park
Needed Utilities
Acquire the remaining land

**Additional Comments/Questions:**
Emulate Lake Calhoun, Harriet, Lake of the Isles, etc- these parks work and draw all from the outside.
Meeting dates were not timely promulgated- when you come back to this group please promulgate the meeting in a timely fashion.
Do we have any numbers relative to number of people using the parks we have? Coverage#/day for each season?
Like the idea of prairie grass- get it going- do any parks have it now?
Go basic, no frills, a park should be simplified.
Enjoy parks that have water access and fishing platforms, leave most to nature, disturb as little as possible with simple trails.
We are in Horse Country – Doyle Kennefick should have horse trails.
Horse Trails for 3 seasons- and cross-country during the winter
No camping here due to proximity of other camping sites at nearby Cleary Lake, Fish Lake. Think Cedar Lake would be better for camp site.
Current night-time and daytime traffic has increased along with garbage dumping, sign shot and painted, and deer hunting on park land
If shooting range is considered- restrict hours of use- same for OHV's so it is quiet the majority of the time.
Horses and OHV's could alternate and use the same hardened trails
DNR has money/funding for OHV development
Create a citizen burn team, tree maintenance team, invasive removal team, etc.
Usage/entrance fees would help cover LeSueur county use for Doyle and Cedar Lake – maybe no entrance fee for Scott County residents- free pass for residents, others pay.
Each park should have a different feature (example- golf at one park, tennis at another park and so on)
Split the new funds between all the new parks to develop them.
Themes can be applied to parks…

# Doyle-Kennefick Regional Park
# Master Plan Concept Open House (2/16/11)
# Evaluation Form – Responses in Red

***XX Participants Signed In***

1. ***On a scale of 1 to 10, how would you rate the proposed park boundary? (please circle)***

| ***Poor*** | ***+ 1*** | ***+ 2*** | ***+ 3*** | ***+ 4*** | ***+ 5*** | ***+ 6*** | ***+ 7*** | ***+ 8*** | ***+ 9*** | ***+ 10*** | ***Excellent*** |
|---|---|---|---|---|---|---|---|---|---|---|---|

*10, 10, 10, 9, 8, 8, 8, 8, 8, 7, 7, 7, 6, 5, 2, 1*

***Please describe what you like and/or dislike about the master plan.***

*-I think it is a fantastic plan to preserve a pristine setting for generations to come. The Doyle land was a thing of beauty that my children and I have enjoyed just driving by for many years. Now maybe my future grandchildren and I can see this land first hand.*
*-A good start for the master plan, the view boards are very clear.*
*-NA*
*-Good mix of uses. Like the cabin rental idea.*
*-Phased approach allowing some near-term (next 10 years) development is very good. Soft surface trails and nature trails are of primary interest. Very happy with plan in that regard. Scenic overlooks off of nature trails are a very nice feature – adds interest to hiking loops.*
*-Like: Commitment to diverse interests. Dislike: I'd rather see the barn restored to its original state along with the house, with caretakers to give tours. Unfortunately that involves on-going funding.*
*-Happy the land won't be covered with houses. Phases are slow – I'll be long gone before it is available for use. Many unanswered questions – typical (ok/understandable) at this point. Good variety of attractions.*
*-Looking forward to the equestrian trails.*
*-Like that the land will be utilized for the county / community.*
*-NA*
*-NA*
*-Horse trail asap*
*-More horse riding trails, less bikes*
*-Park has been county owned for six years, plans seem quite vague.*
*-Some of the planning does have a great outlook – like the farm set-up. I don't like the bike trails/mtn bike ideas. I think that since this county mostly consists of horseback riders that we (the county) should focus on getting trails done now – not 10-15 years from now.*
*-You have no concept of what you have and will actually chase out all the animals, birds, aquatic life that people come to see.*
*-It sucks you need to listen to the local people and what they want.*

2. ***On a scale of 1 to 10, how would you rate the effectiveness of the proposed park boundary to preserve the area's unique character (natural, historical, cultural, etc.)? (please circle)***

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Poor*** | **+** | **+** | **+** | **+** | **+** | **+** | **+** | **+** | **+** | **+** | ***Excellent*** |
| | ***1*** | ***2*** | ***3*** | ***4*** | ***5*** | ***6*** | ***7*** | ***8*** | ***9*** | ***10*** | |

*10, 10, 10, 9, 6, 9, 8, 8, 8, 8, 7, 8, 8, 6, 7, 4, 1*

***Please describe other facilities or programming activities you would like at the park that are not shown in the master plan.***

*-I think all of the important bases are covered.*
*-NA*
*-NA*
*-Reconstruct a near replica barn.*
*-NA*
*-NA*
*-Not sure about overnight pioneer experience – is there interest? Teaching possibilities good.*
*-NA*
*-NA*
*-NA*
*-NA*
*-Horse trails asap*
*- I would like to soft trails to happen immediately.*
*-It seems that the potential for additional boundary increase has obscured the clarity in planning*
*-I don't want a horse riding facility. I would like to see a place where those of us who do have our own horses are able to have that type of place. Also the county should allow saddle clubs to come in and care for the land now – volunteer-wise since they are non-profit.*
*-Barn should have video area to educate children for identifying plants, trees, aquatic life and worksheet geocaching map or area for them to find items in film.*
*-You need to have horse trails sooner than 10 years*

3. ***On a scale of 1 to 10, how would you rate Phase 1 (i.e. first 10 years of development of the master plan.)? (please circle)***

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Poor*** | **+** | **+** | **+** | **+** | **+** | **+** | **+** | **+** | **+** | **+** | ***Excellent*** |
| | ***1*** | ***2*** | ***3*** | ***4*** | ***5*** | ***6*** | ***7*** | ***8*** | ***9*** | ***10*** | |

*8, NA, NA, 8, 8, 10, 8, 8, 8, 8, NA, NA,NA, 6, NA, 1, 1*

***Please describe if there are improvements in later phases that you would prefer be moved to Phase 1.***

*-I wish the whole project could move faster. As an avid walker and snowshoer, I hope a system of trails can be established so the land can be enjoyed at a very basic level.*
*-NA*
*-I would like to see St. Catherine Lake loop to be part of phase 1 tied in with lower park area.*

*-I would like to see horse access sooner.*
*-NA*
*-Personal preference: Give horse trails priority.*
*-Biking trails. Walking paths.*
*-Will be dead before they happen.*
*-NA*
*-NA*
*-NA*
*-Horse trails asap. Local horse clubs will be welcomed to maintain and service trails.*
*-I would rather see trails developed before renovations to the buildings*
*-It seems that hrose trails could be included inearlier phases without waiting for a horse rental facility. See Murphy Hanrehan facility.*
*-NA*
*-Too little, too late*
*-Horse trails*

1. ***What issues are you concerned with related to the long-term implementation of this park?***

*-My biggest concern will be that hunting be kept out of this park. I know that was initially a part of securing funding for park development. The sale of my 30 acres to the park area in the future would be contingent on keeping the park a gun-free zone. We have lots of shooting coming from the east of Valley Forge Road (not Horse and Hunt). It's not something I enjoy hearing while I'm sitting on my deck in the summer.*
*-NA*
*-NA*
*-NA*
*-Retaining a "natural" feel with trails – soft surface, sustainable trail designs, naturally surfaced (no wood chips or crushed rock). Plan seems to address these concerns in its current form (Phase 1).*
*-That I won't live long enough to see it all happen.*
*-Increased traffic on Panama and 230th Street east. Noise, commotion of visitors (moved here for quiet and to get away from people/crowds. Breaking current bad habits – hunting on land. Security of bldg. and wildlife.*
*-Equestrian trails shared with mountain bikes is a scary proposition. Horses are flight animals not conducive to fast moving quiet surprises.*
*-Length of the overall proposal. Lots could change from current master plan.*
*-NA*
*-Primary concern is with regard to the horse "rental" aspect. I'm a horse owner and also own a boarding facility (MN Horse and Hunt) and I see a ton of red flap. I'd be glad to share my expertise if you care to discuss.*
*-NA*
*-Too many people using it. Wood ticks – control is greatly needed.*
*-NA*
*-NA*
*-Safety of people, campers, neighbors, animals. Sandhill cranes cannot have people within ½ mile of nesting sites. Do your research and know what you have!*
*-Don't care.*

# Appendix B

### Minnesota Department of Natural Resources Identification and Description of Practices that will Avoid the Introduction or Movement of Invasive Species

It is the DNR's policy to limit the introduction of invasive species onto DNR managed lands and waters, limit their rate of geographical spread, and reduce their impact on high value resources.

The movement of equipment, organisms, and organic and inorganic material are potential pathways for the introduction or spread of invasive species. Each of these pathways should be considered and addressed to reduce risk associated with invasive species movement.

### General Procedures for Intentional Movement of Equipment

1. Before arriving at a work site, inspect for and remove all visible plants, seeds, mud, soil, and animals from equipment.
2. Before leaving a work site, inspect for and remove all visible plants, seeds, mud, soil and animals from equipment.
3. After working on infested waters or waters known to harbor pathogens of concern, clean and dry equipment prior to using in locations not known to be infested with species or pathogens present at the last location visited.

### Specific Procedures: Vehicles and Heavy Equipment

1. When possible maintain separate equipment to use on uninfested sites.
2. If working on multiple sites, work in uninfested sites before infested sites and clean equipment after use.
3. When working within a site with invasive species work in uninfested areas before infested areas and clean equipment after use.
4. Avoid entering site under wet conditions to minimize rutting and other soil disturbances.
5. Minimize area of soil disturbance with equipment.
6. Minimize number of access points to site.
7. When creating roads and trails minimize area of vegetation and soil disturbance.
8. Survey site before management treatment and treat or avoid moving equipment through existing patches of invasive species.
9. Conduct post management treatment monitoring and treat any responding invasive species.
10. Inspect all gear and remove vegetation, soil, and organisms prior to arriving and leaving site.
11. On sites that are known to be infested with species such as garlic mustard, spotted knapweed, leafy spurge, etc (species with small seed that can collect on cloth material) wash clothing after work is complete.
12. Carry boot brush in or on all vehicles and clean boots and clothing (in a controlled area) when leaving any site.
13. Use brush to clean gear and equipment such as chainsaws to remove loose soil and plant materials.
14. Avoid parking in patches of invasive species. When unavoidable, clean vehicle of all visible evidence of soil and vegetation when leaving site.
15. Brush off (hand remove) plants, seeds, mud, soil and animals from vehicles, including wheel wells, tracks, hums, blades, grills, etc.
16. Power spray equipment after hand removal if necessary to remove aquatic plant remnants (particularly curley-leaf pondweed, Eurasian watermilfoil, flowering rush, and purple loosestrife) and earthworms.

### General Procedures for Intentional Movement of Organisms, Organic and Inorganic Material (including water, fish, plants, mulch, soil, gravel, rock)

1. Do not plant or introduce prohibited or regulated invasive species or other listed invasive species.
2. Do not transport water from infested waters, except by permit. When you must use water from an infested waters, do not drain this water or water that has come in contact with organisms from the infested waters, where it can run into another basin, river, or drain system that does not go to a treatment facility.
3. Use only mulch, soil, gravel, etc. that is invasive species-free or has a very low likelihood of having invasive species.
4. Do not transplant organisms or plant material from any waters with known populations of invasive aquatic invertebrates
5. Do not move soil, dredge material, or raw wood projects that may harbor invasive species from infested sites.

### Specific Procedures: Re-vegetation (Aquatic and Terrestrial Plants)

1. Do not plant or introduce prohibited or regulated invasive species or other listed invasive species.
2. Inspect transplanted vegetation for signs of invasive species that may be attached to the vegetation and remove (i.e., other plant material and animals, etc.)
3. Re-vegetate with native species.
4. Preserve existing native vegetation. Peel topsoil that contains natives away from the work zone, stockpile and then replace it at the end of construction. This can help re-establish native species quickly.
5. If stockpiled invasive free topsoil isn't adequate for post-construction landscaping, and black dirt, sand or gravel must be purchased, purchase invasive species (i.e., worm) free material.
6. Purchase certified weed-free mulch.
7. Inspect outside of storage containers and materials for visible presence of invasive species.
8. If possible use seeding material, plants, fill, straw, gravel, and mulch that is certified as uninfested.
9. Monitor areas where materials are added for evidence of invasive species germination.
10. When possible minimize the use of outside materials.

### Procedures to Minimize the Risk of Increasing the Dominance of Invasive Species on Site

1. Survey site before burning and treat or avoid moving through patches of invasive species before burn is conducted.
2. Avoid entering site under wet conditions to minimize rutting and other soil disturbances.
3. Conduct post-treatment monitoring and treat any invasive species (such as resprouts and germination).

### Site Planning and Management

Construction activities that disturb the soil surface can expose dormant invasive species seed banks and create a growth medium that favors invasive plants. Landscaping can also introduce invasive plant species, as can maintenance activities such as mowing, grading, and stormwater pond maintenance.

Exercise site-level management to minimize the introduction, spread, and impact of invasive species. Site-level management shall include planning, implementation and evaluation procedures that reduce the risk of introduction, spread, and impact of invasive species. Procedures include identification of invasive species, monitoring for invasive species, developing strategies and actions to minimize spread and impact, implementing management actions, and evaluating success.