



WOODLAND TRAILS PARK

MASTER PLAN

ADOPTED BY THE ELK RIVER CITY COUNCIL JULY 2016



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ACKNOWLEDGEMENTS

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01 | INTRODUCTION

This master plan outlines the process, vision, and development plan for Woodland Trails Park, a **natural resource-based regional park** in Elk River, Minnesota. The following information is provided in the identified chapters:

- » The Introduction includes the planning process, the description of the park, and information about the park's context and setting.
- » The Existing Conditions chapter includes maps of existing natural resources, summer trails, and winter trails.
- » The Vision + Public Input chapter outlines the goals for this project and the future of the park. Public input received from the community wide Park System Plan in 2014 and during this planning process is also included.
- » The Development Master Plan includes detailed graphics and text describing the desired physical improvements to the park. This chapter also includes programming recommendations.
- » In the Ecological/Land Resources Plan there is detailed information on forest and natural resources issues and management recommendations.
- » The Implementation, Management, and Sustainability Plan categorizes the recommendations and improvements for the park into priority levels and gives them a timeline for implementation.

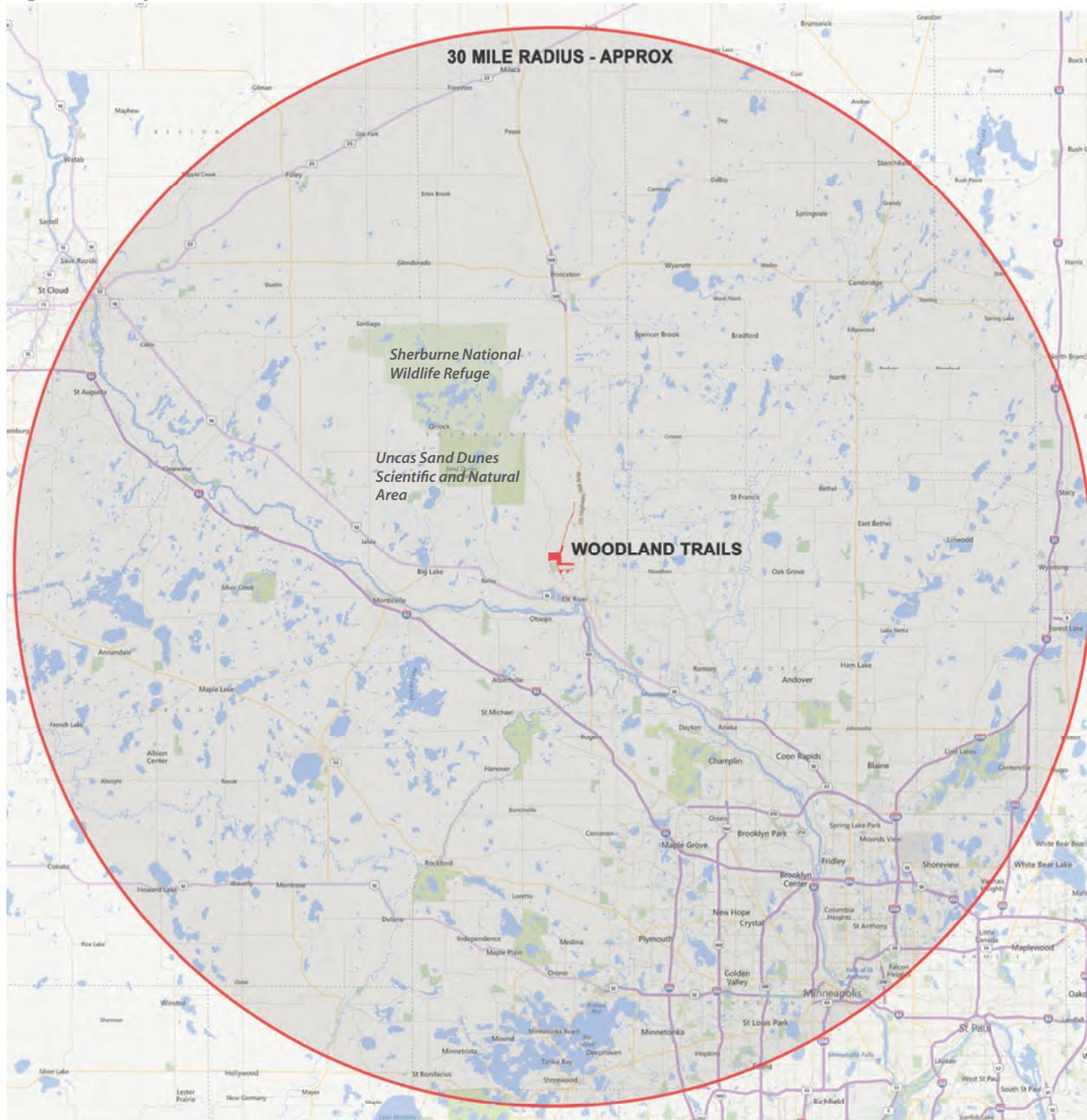
PLANNING PROCESS

The Woodland Trails Master Plan is based on input gathered during the 2014-2015 City of Elk River Parks and Recreation Master Plan process and during the spring/summer 2016 Woodland Trails master planning process. Input was sought and gathered from park stakeholders and volunteers, Parks and Recreation Commission members, city staff, and the general public. The following meetings were held:

- » Individual meetings and site tour held between park planning consultants, city staff, and park stakeholders during March, 2016
- » Community Open House on April 14, 2016 at Elk River City Hall



Figure 1: Project Area Context



- » Parks and Recreation Commission work session on May 11, 2016
- » Parks and Recreation Commission Meetings on June 8, 2016; July 6, 2016; and July 13, 2016
- » City Council Meeting on July 18, 2016

PARK DESCRIPTION

Woodland Trails is a 427-acre park located in the heart of Elk River and is the crown jewel of the Elk River Park system because of its dynamic forested topography and superb trail system. The City of Elk River 2015 Parks and Recreation Master Plan survey identified it as the most visited park in Elk River.

The park was acquired in phases over the past 30 years with the use of park dedication funding, federal Land and Conservation Fund proceeds, and general tax levy funds. Woodland Trails includes the Great Northern Trail, a 4.75 mile, paved regional trail that begins at County Road 1 and runs through the park before continuing north to the city corporate limit. The Great Northern Trail is planned to extend beyond the county's northern boundary. Woodland Trails was recently expanded to include the 32-acre Big Tooth Ridge Park following a recommendation from the city Parks and Recreation Commission and the 2015 Parks and Recreation Master Plan.

The natural open space at Woodland Trails consists of rolling woodland forests, wetlands, and restored tall-grass prairie. The upland hills create a topography of 150 feet of elevation change with



non-native brush to enhance the overall trail system. In all, they built and continue to maintain over 15 miles of trails. Dave and his volunteer crew log over 2,500 hours annually ensuring safe and accessible trails that are maintained at the highest levels.

PARK CONTEXT: WELL-LOCATED AND CONNECTED TO SERVE REGIONAL POPULATION AND/OR TOURIST DESTINATION

Woodland Trails Park is located in the middle of Elk River in Sherburne County with the park's main entrance and parking lot located off County Road 1 about two miles north of US Highway 10.

It is adjacent to the Elk River Golf Club just outside of the current Elk River urban service district. The park is only a few miles from Wright, Anoka and Hennepin counties; it is just outside of the 7-county Twin Cities metropolitan area. It is easily accessed by US Highway 10, Highway 101, and only twelve miles from Interstate 94. The Elk River Golf Club is an 18-hole Championship course open to the public. The Golf Club main entrance and restaurant are just south of the Woodland Trails main entrance. A portion of the golf course becomes available during the winter months for cross country skiing, winter walking, and snowshoeing.

Visitors travel to this part of Minnesota to enjoy its unique landscape, Elk River downtown and Elk River park system including access to the

Mississippi and Elk Rivers.

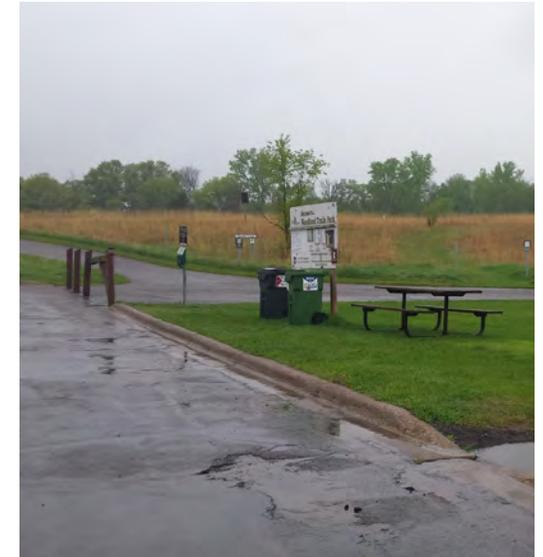
Recent acquisitions to the Elk River park system are the Bailey Point Nature Preserve and the William H. Houlton Conservation Area. Both are less than two miles from Woodland Trails Park with wildlife natural areas located on opposite sides of the Elk River at the confluence of the Mississippi and Elk Rivers. The 336-acre William H. Houlton Conservation Area is scheduled to open in the fall of 2016 and has over 1.75 miles of Mississippi River frontage and 1.1 miles along the Elk River. It was purchased for the city in collaboration with the Trust for Public Land to be managed as native habitat for wildlife. The DNR hopes that the property will become a model for native habitats adjacent to residential areas and a destination location for the region.



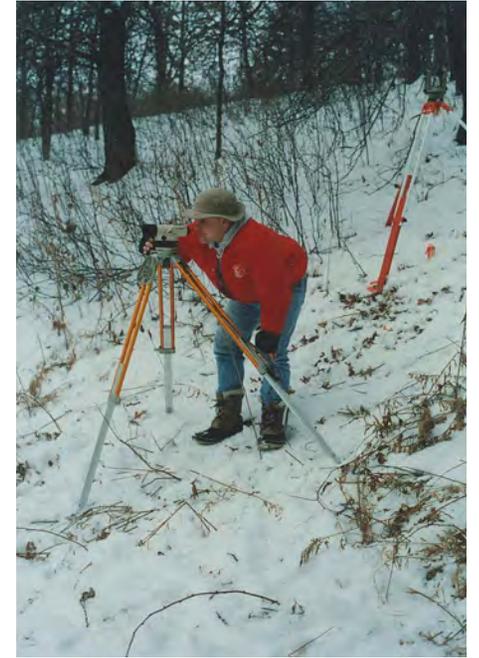
Recently burned prairie area near park entrance



Recently burned prairie area near park entrance



Existing trailhead at parking lot



Photos showing the construction of the Biathlon Course over 20 years ago by park volunteers. Photos courtesy of Dave Anderson.

02 | EXISTING CONDITIONS

PROVIDES AN EXCEPTIONAL OUTDOOR RECREATION EXPERIENCE

Woodland Trails Park provides visitors with opportunities for a variety of outdoor recreation experiences in a range of landscapes, encourages appreciation and better understanding for nature and ecology and increases the depth and range of human experience and enjoyment of the natural environment all year long. Its natural landscapes provide a very strong cross-section of trails to enjoy the park's natural beauty and wildlife making it an appealing destination unto itself attracting visitors from a 30-mile radius.

The Great Northern Trail, constructed on a rail-to-trail corridor, is a 4.75 mile paved trail popular for bikers, hikers, skaters and skiers. The trail begins at mile marker 0 located at County Road 1 and the Meadowvale Elementary School and then extends north to the tunnel under County Road 30 where it continues to its current terminus at the city/county line mile marker 4 ³/₄.

The trail has finely finished concrete mile markers completed by an Eagle Scout project and benches installed intermittently along the trail for rest and nature enjoyment. Trail crossings at two of the main roads, including the tunnel, has solar powered lighting and signalled trail crossings. The trail meets all of the American Disabilities Act specifications.

Recreational activities provided at Woodland Trails Park include the following:

- » The green, grassy trails have variable and some challenging elevations perfect for the cross country skier, snowshoer, runner, and those exercising their pets.
- » Just as its name implies, Woodland Trails is the place to see deer, owls, woodpeckers and other wildlife that inhabit the forest.
- » Unique and well-maintained prairie plantings and diversity throughout.
- » Hiking is pleasurable and because of the flat terrain along the paved trails, the park attracts elderly/handicapped visitors.
- » Linear recreation sports that require paved trails, such as longboarding and rollerblading, are also popular in the park.



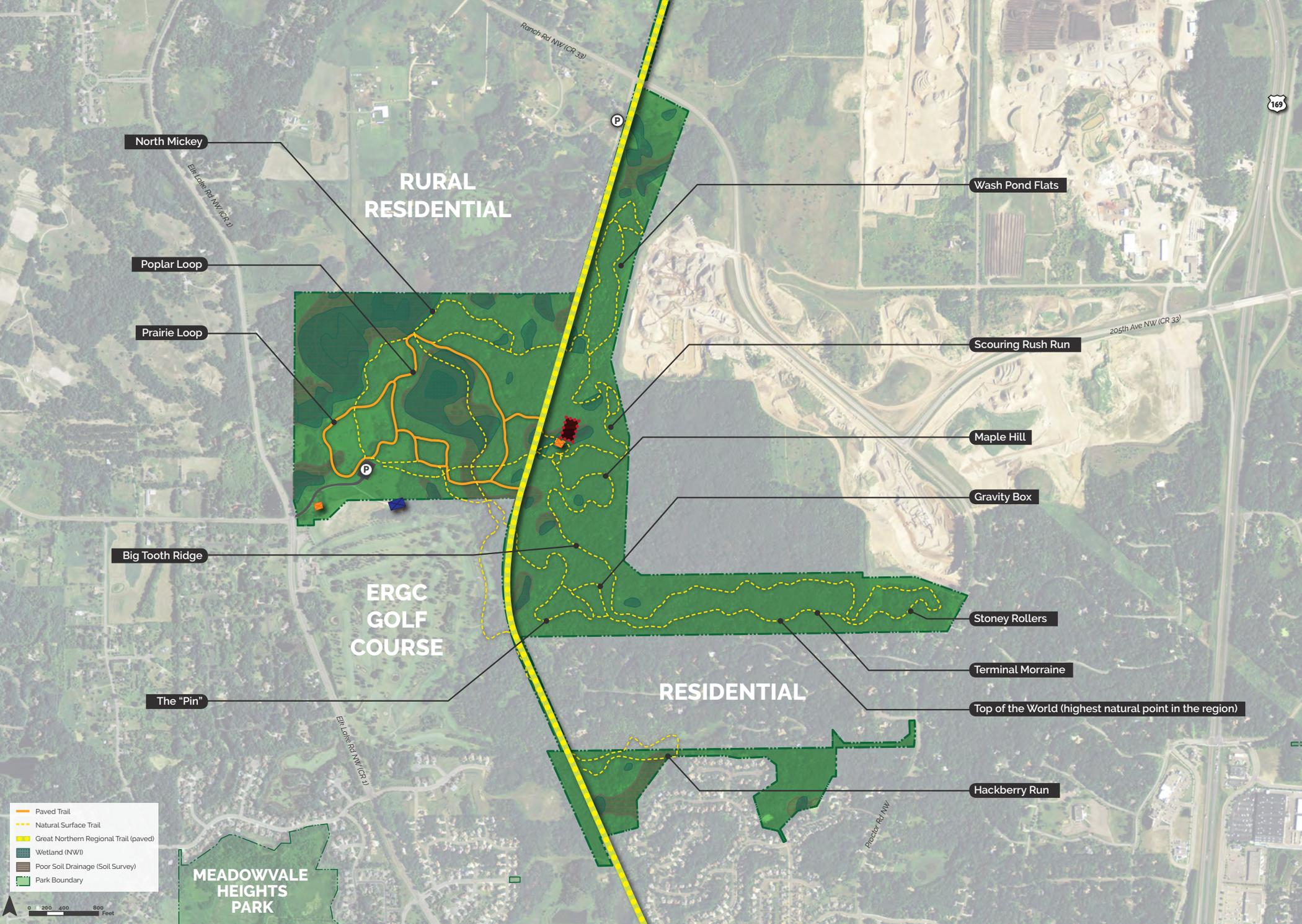


Figure 3: Summer Trail Map

WOODLAND TRAILS PARK PRESERVES A REGIONALLY-SIGNIFICANT AND DIVERSE NATURAL OR HISTORIC LANDSCAPE

Woodland Trails Park is a dynamic piece of property from a biological and topographic prospective. The plant diversity is relatively high due to the fact that most of Woodland Trails has never been tilled. However, portions of the park have been pastured and logged.

According to the map of the original vegetation of Minnesota better known as Marchner's Map, completed by Francis J Marchner, the property was historically Oak Openings and Barrens and Aspen-Oak Land. In the Minnesota Biological Survey of 1993, much of Woodland Trails was identified as a naturally significant Oak Forest Dry Subtype and a small portion as a Mixed Hardwood Swamp. The portion of the park called Big Tooth has a similar landscape with Big Tooth Aspen on both ends of the park. Since 1993, this forest has changed dramatically due to Oak Wilt, European Buckthorn, human activity and the deer herd.

Some of the original flora and fauna still exist today for the benefit of visitors who come to the park. From a topography perspective, the property is one of the most dynamic pieces in central Minnesota. Woodland Trails is part of an end moraine with some eskers and kettle wetlands. The lower elevations of this natural landscape are

approximately 950 feet and the highest elevations approximately 1100 feet. Hikers and cross country skiers alike love to reach the highest elevation point in the park called Top of the World that can provide a magnificent view of the area.

The adjacent region north of the park has over 2,500 acres with similar topography that are currently being mined for aggregate. Therefore Woodland trails will, in the very near future (20 years) be one of the only sites in this region preserving the original glacial geology.

WOODLAND TRAILS PARK FILLS A GAP IN RECREATIONAL OPPORTUNITY WITHIN THE REGION

Trail-hiking, running, snowshoeing, cross country skiing, and biking are currently the most popular recreational offerings at Woodland Trails Park. While many of these activities are allowed and encouraged at parks throughout the Elk River park system and nearby county parks, Woodland Trails is able to offer a unique experience because of its dynamic forested topography and superb trail system. The highly groomed ski trails are maintained by the Elk River Nordic Ski Club volunteers. The trails have a regional reputation as a premium activity during the winter months. These trails have become a hot-spot for fantastic skiing in the North Metro region. Trails are largely wooded over rolling terrain, but some sections have good climbs and descents. Trails consist



Garage at Park Entry



Unfinished Building at Biathlon Range



Biathlon Shooting Range



Trail Underpass at Ranch Road (CR 33)

of several interconnected loops aptly named and marked with signage on all the trails. The Great Northern Trail is part of the groomed ski trail system offered in the park. All of the trails throughout the park are well marked by directional signs built by Eagle Scouts and maintained by the city. Be sure to check out the Top-of-the-World location which is located at the park's highest point. The park also has a biathlon range used each winter for biathlon events. The range is a 10-minute walk from the main parking lot.



Prairie Restoration Area

EXISTING TRAILS

Woodland Trails Park is primarily a trails based recreation park. Today there are several miles of mowed paths through prairie and woodland settings and paved trails in the park. In the winter, many of these trails are groomed for cross country skiing, but winter walking is also popular. Figures 3 and 4 display the layout of existing summer and winter trails in the park.



Main Parking Lot

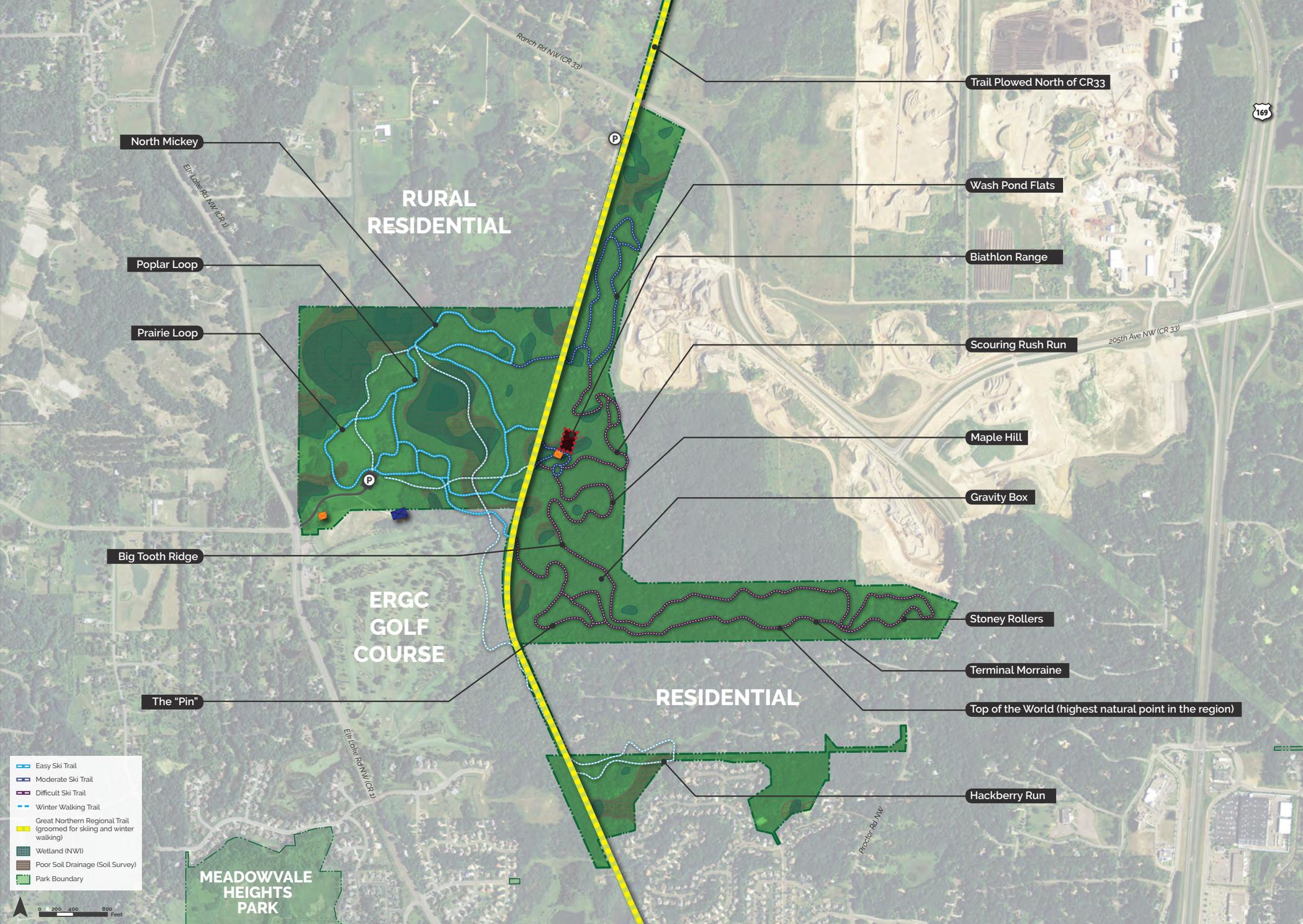
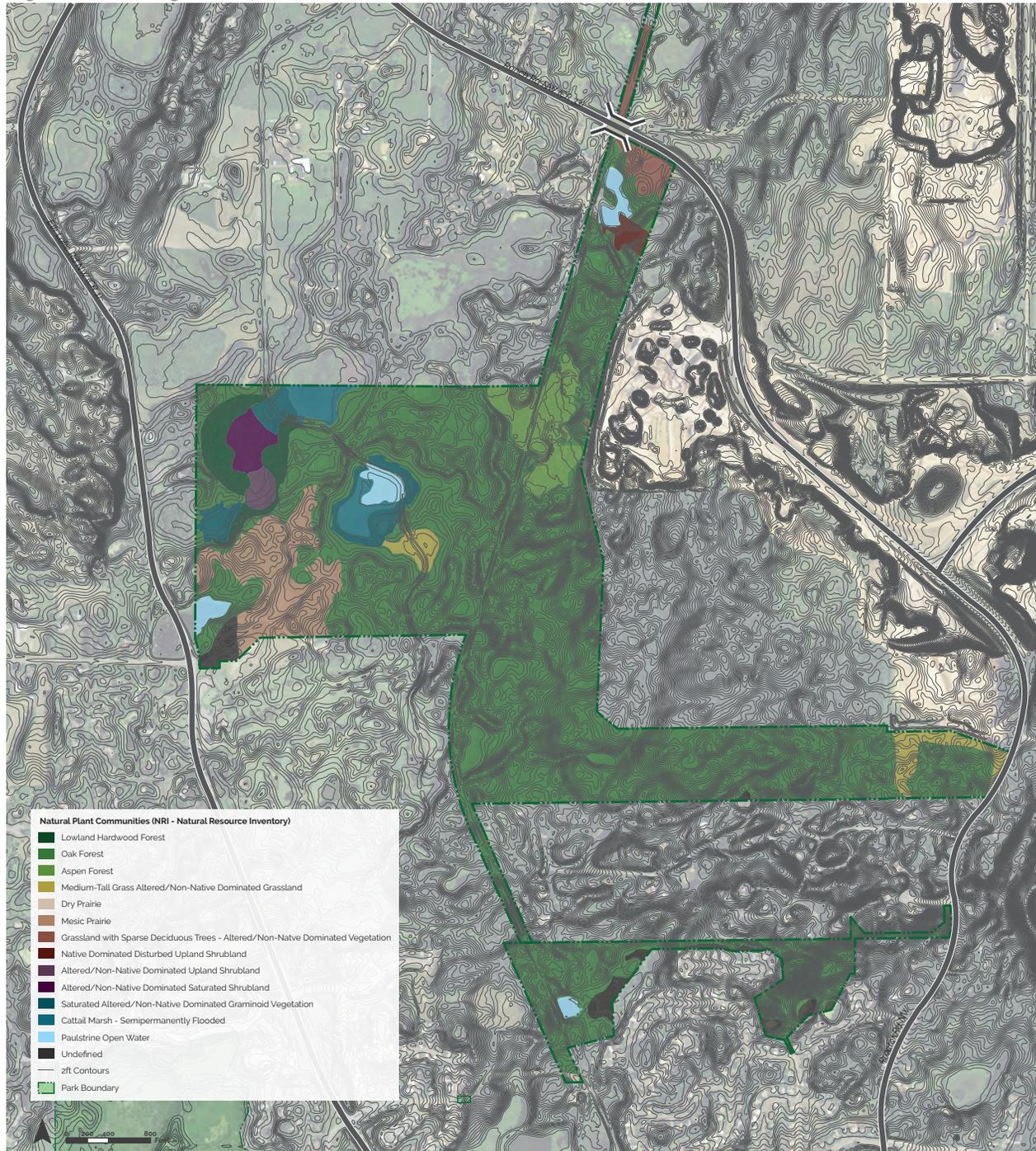


Figure 4: Winter Trail Map

Figure 5: Existing Natural Resources



EXISTING NATURAL RESOURCES

The natural open space at Woodland consists of rolling woodland forests, wetlands, and restored tall-grass prairie. The upland hills create a topography of 150 feet of elevation change with slopes ranging from 3% to 35%.

The major land cover in the park is oak forest. Small wetlands and a large prairie restoration area also provide habitat and diverse biodiversity within the park. Surrounding high quality natural areas to the west and north of the park provide a larger matrix of natural habitat in the area. There is the potential that some of the areas could be added to the park the future in order to preserve their biodiversity. Figure 5 displays the existing natural resources and topography in the park.

Significant oak wilt and bur oak blight has affected areas of the park. Other natural resource issues include invasive species such as buckthorn, honeysuckle, and reed canary grass.

PARK ISSUES AND OPPORTUNITIES

Site analysis work along with input from city staff, park volunteers, and the public contributed to Figure 6: Issues and Opportunities diagram. Existing features of the park and trail as well as potential park expansion areas, natural resource impacts, and surrounding land use issues are displayed on the diagram.

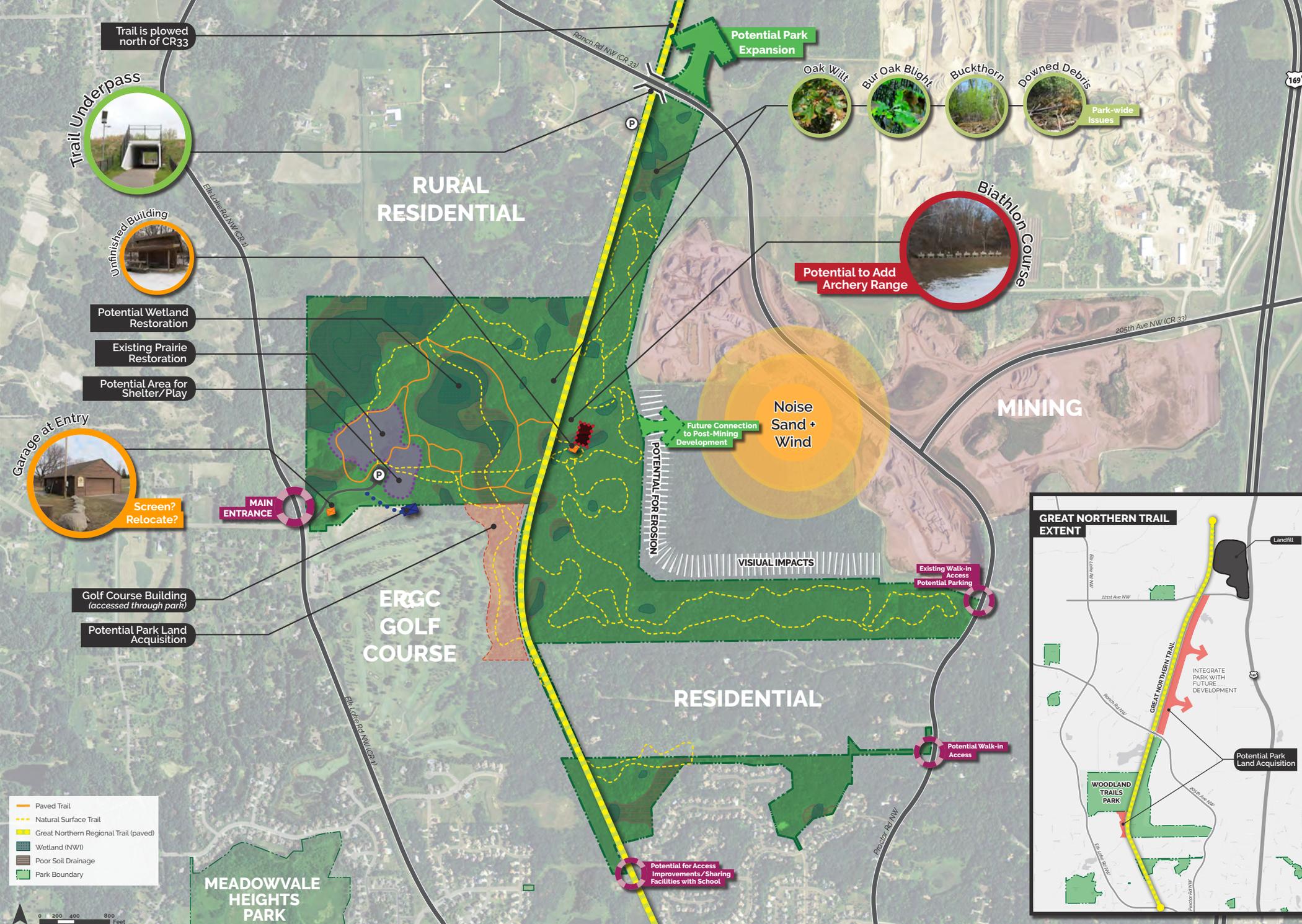


Figure 6: Issues + Opportunities



03 | VISION + PUBLIC INPUT

The 2015 City of Elk River Parks and Recreation Master Plan sets forth a vision for Woodland Trails Park to be a signature park in Elk River. The **vision** for the park is further articulated below:

Woodland Trails Park and the Great Northern Trail will serve the four-season recreational needs of the residents of Elk River and the surrounding region. High quality paved trails, natural surface trails, a nature center, nature play, and picnic facilities will provide park and trail users with a variety of natural resource based recreation and educational opportunities. Priority and emphasis will be placed on preserving, restoring, and interpreting the high quality natural resources and biodiversity located on the site.

As part of the city-wide master planning process, a statistically valid survey of residents was conducted. Part of the results of that survey indicated strong support for trails:

- » Residents are satisfied with trails, and trails were identified as the highest priorities for the future.
- » Trail improvements/additions had the highest level of support of any improvement with 58% of respondents answering "Great Support"

DEMOGRAPHIC INFORMATION INFLUENCING DEMAND

From 1990 to 2010 the population of Elk River doubled from 11,143 to 22,974. The community is growing rapidly, and the city anticipates adding nearly 13,000 more people by 2035. This places additional demands on the parks and recreation system in the city. Woodland Trails Park and the Great Northern Trail provide a large area of natural resource based recreation to serve these future citizens.



The general population and the population in Elk River, specifically, is aging. The over-55 portion of the population is larger in Elk River than in other typical communities. Seniors are heavy users of recreational trails and there is high interest in more trail opportunities.

Youth are also a large portion of the population in Elk River, and providing more recreation opportunities for children in Woodland Trails Park will increase usership and create park stewards of the future.

RECREATIONAL TRENDS

Trails continue to be a high demand recreational amenity in Minnesota and the nation. According to the 2014 Parks and Recreation Survey, on 70% of Elk River residents identify trails as high priority, which mirrors state and national trends, where trails are consistently at the top of the list of desired amenities.

Increasing environmental issues in the news are attracting people to be more concerned about the natural environment surrounding them. Natural recreation experiences, such as birdwatching, hiking, nature study, and fishing, are more in demand in recent years. Woodland Trails Park provides these opportunities as well as a showcase location for natural resource interpretation and best management practices.

PUBLIC HEALTH VALUES

With the rise of obesity and health issues, being active and getting outside is increasingly recommended as a way to stay healthy.

ECONOMIC DEVELOPMENT/ TOURISM OPPORTUNITIES

The cross country ski trails at Woodland Trails Park are well known regionally for their high quality and condition. Park volunteers spend many hours maintaining these trails for skiers, walkers, runners, and bikers. The cross country ski trails and biathlon range in the park have been used by several current and former Olympic cross country skiers and biathletes. It is a unique and rare amenity that brings in skiers from the surrounding region.

With the addition of proposed park facilities, such as the nature center, children's nature play area, and picnic shelter, many more diverse park users will be attracted to Woodland Trails Park. There are plans for the Great Northern Trail to be extended south to downtown Elk River and north to Zimmerman and Princeton, which would offer a wider range of non-motorized, safe connections to the park and adjacent destinations for a broader population base.

No Development

DEVELOPMENT PREFERENCES

PARK PROGRAMMING BUILDING + NATURE CENTER



Look into private fundraising to complement Heritage funding for programming/nature center

LOW DEVELOPMENT

HIGH DEVELOPMENT

PICNIC SHELTERS



Start small with room / plans for future expansion

LOW DEVELOPMENT

HIGH DEVELOPMENT

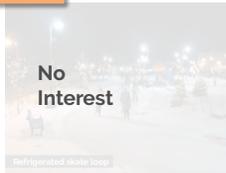
PLAYGROUNDS



TRADITIONAL MATERIALS

NATURAL MATERIALS

TRAILS



Lights on a small 1 km loop would be great.

Yes! Winter needs help!

LOW DEVELOPMENT

HIGH DEVELOPMENT

RESTORATION



Prefer minimal development, maybe restrooms. Love the way it is!

PUBLIC INPUT SUMMARY

May 11 Open House

- » 17 people signed in -- probably 20-25 attendees total
- » High interest in natural resource restoration and preservation
- » Low interest in physical development within the park

Development preferences

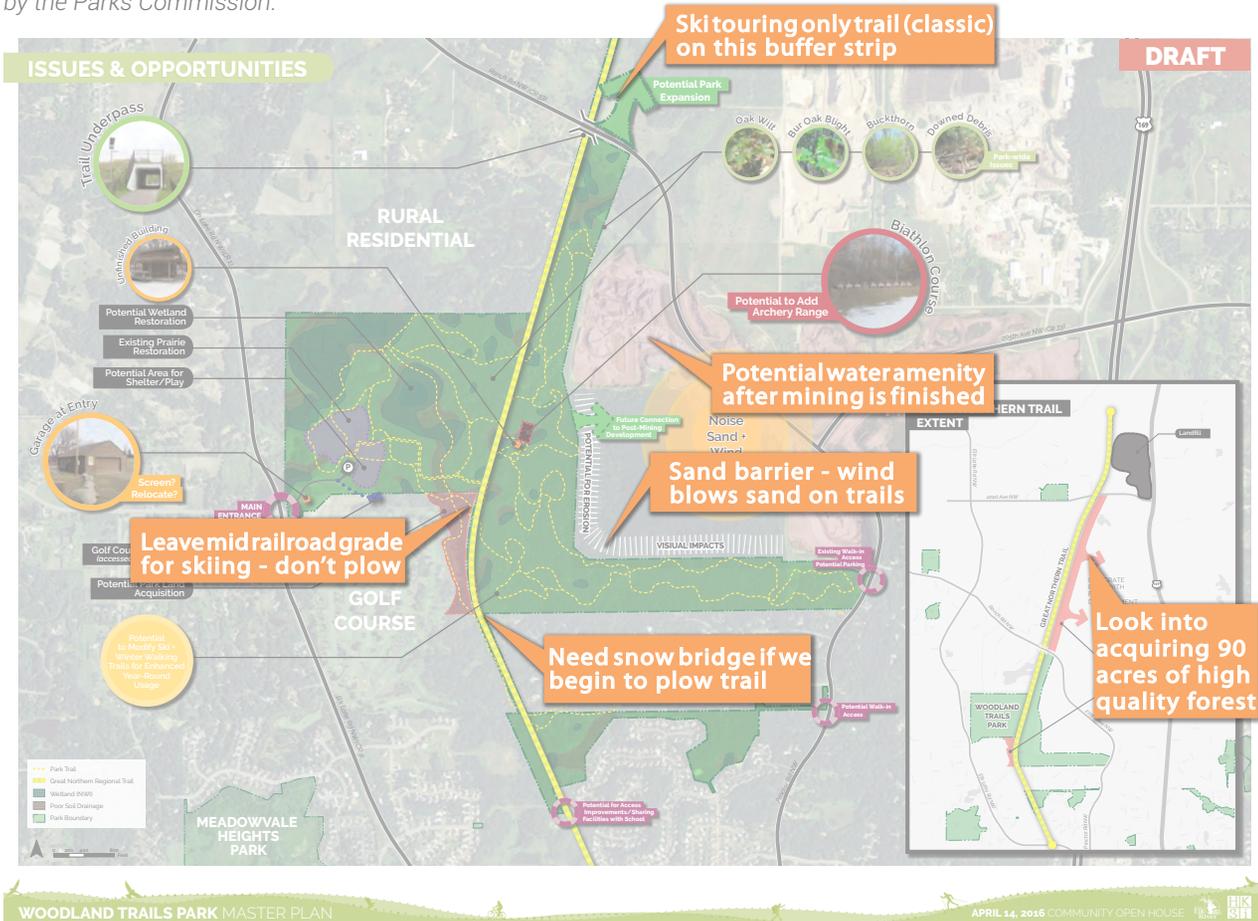
- » **Nature Center / Park Building:** Highest interest in Medium size nature center with moderate level of programming
- » **Picnic Shelter:** Highest interest in small enclosed picnic shelter with restrooms
- » **Playground:** Highest interest in large, nature based play area
- » **Trails:** Equal amount of interest in no additional trail development and a lit ski trail
- » **Restoration:** Highest amount of interest overall in restoration. High interest in buckthorn removal, wetland restoration, oak wilt, and clearing excessive debris.

Comment Cards & Board Comments

- » Woodland Trails Park is important resource for access to nature
- » **Best things about the park:** walking/running/hiking on trails, being in nature, skiing, and seeing wildlife
- » **Opportunities include:** park land expansion and acquisition, addition of a park building to support existing activities and education, wayfinding and interpretive signage, add park access on the east side, Great Northern Trail enhancement, and snowmaking and lit ski trail
- » **Issues include:** managing trail user conflicts, and buckthorn management



The notes on the graphic below include some of the comments received at the Public Open House. It is not possible for the master plan to address all the comments that were received. However, all comments were reviewed and considered by the Parks Commission.



Photos from Open House

04 | DEVELOPMENT MASTER PLAN

General development recommendations for Woodland Trails Park include facilities that would encourage and enhance natural resources recreation. The addition of a picnic shelter, a park facilities building/nature center, and a children's nature play area would all complement the existing features in the park and attract new visitors to the park.

PARK DEVELOPMENT

Park Entry Improvements & Signage

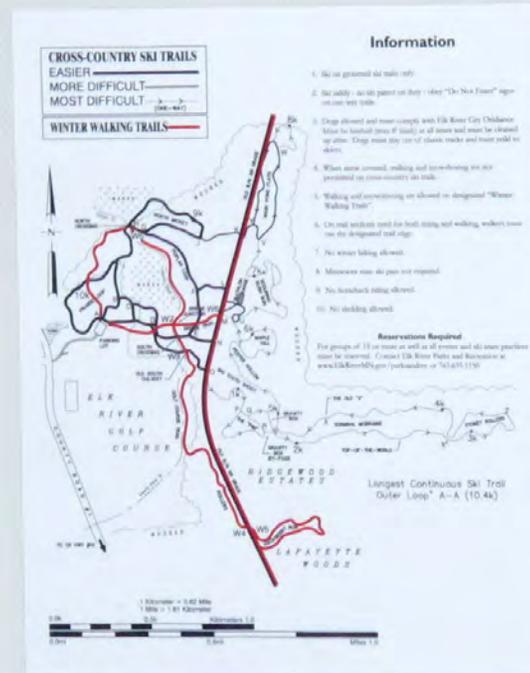
- » Add new park entry sign to follow guidelines in Elk River Wayfinding Plan
- » Add new wayfinding and interpretive kiosk at parking lot near trail access, follow guidelines in Elk River Wayfinding Plan
- » Relocate storage/maintenance garage to be near golf course maintenance building, screen it with plantings
- » Add improved trail access and wayfinding signs at park entrances on north, east, and south sides of the park

Nature Center / Park Building

- » Year-round, enclosed building with restrooms
- » Build small center (2,000–3,000 SF) in the short-term with the potential to expand the building footprint in the long-term.
- » Potential to be staffed on weekends and during events
- » Use as warming house for winter activities
- » Include rental space for meetings and small events
- » Locate to be accessible from the existing parking lot, with views focused toward the woods
- » Sustainable building materials and methods will be considered when the building is designed and constructed.



Woodland Trails Cross Country Ski Trails



**When trails are snow covered,
walking and snowshoeing are
permitted only on designated
winter walking trails**





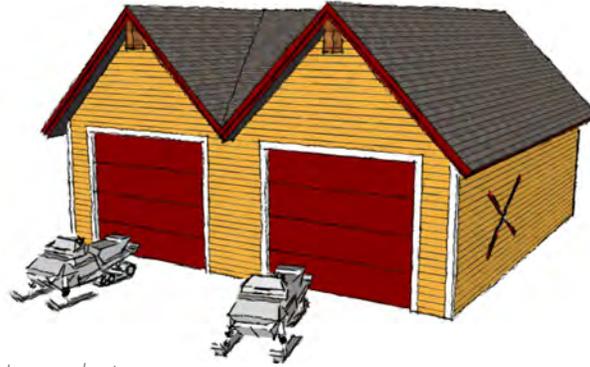
Medium nature center with moderate level of programming



Large nature based play area



Open air picnic shelter



New park storage garage

Picnic Shelter

- » Small to medium size picnic shelter for 25-50 people (1,000-1,200 SF)
- » Open air structure
- » Locate in the prairie, accessible from the existing parking lot

Children's Nature Play Area

- » Include large nature play area (.25 - .5 acre) close to nature center / park building
- » Use natural materials, such as logs, boulders, water features, and plants

Biathlon / Archery Course

- » Modify biathlon course to add archery targets (Include as high priority/potential CIP item)
- » Improve and finish the biathlon building interior

Park Land Acquisition

- » In the short-term future, work to acquire northeast corner of Elk River Golf Club for trails.
- » When opportunities arise in the short-term to long-term future, work to acquire land along the eastern edge of the Great Northern Trail, north of the park.
- » Based on purchasing opportunities, potential short-term or long-term acquisition includes existing mining areas to the east of the park, particularly for potential water feature.

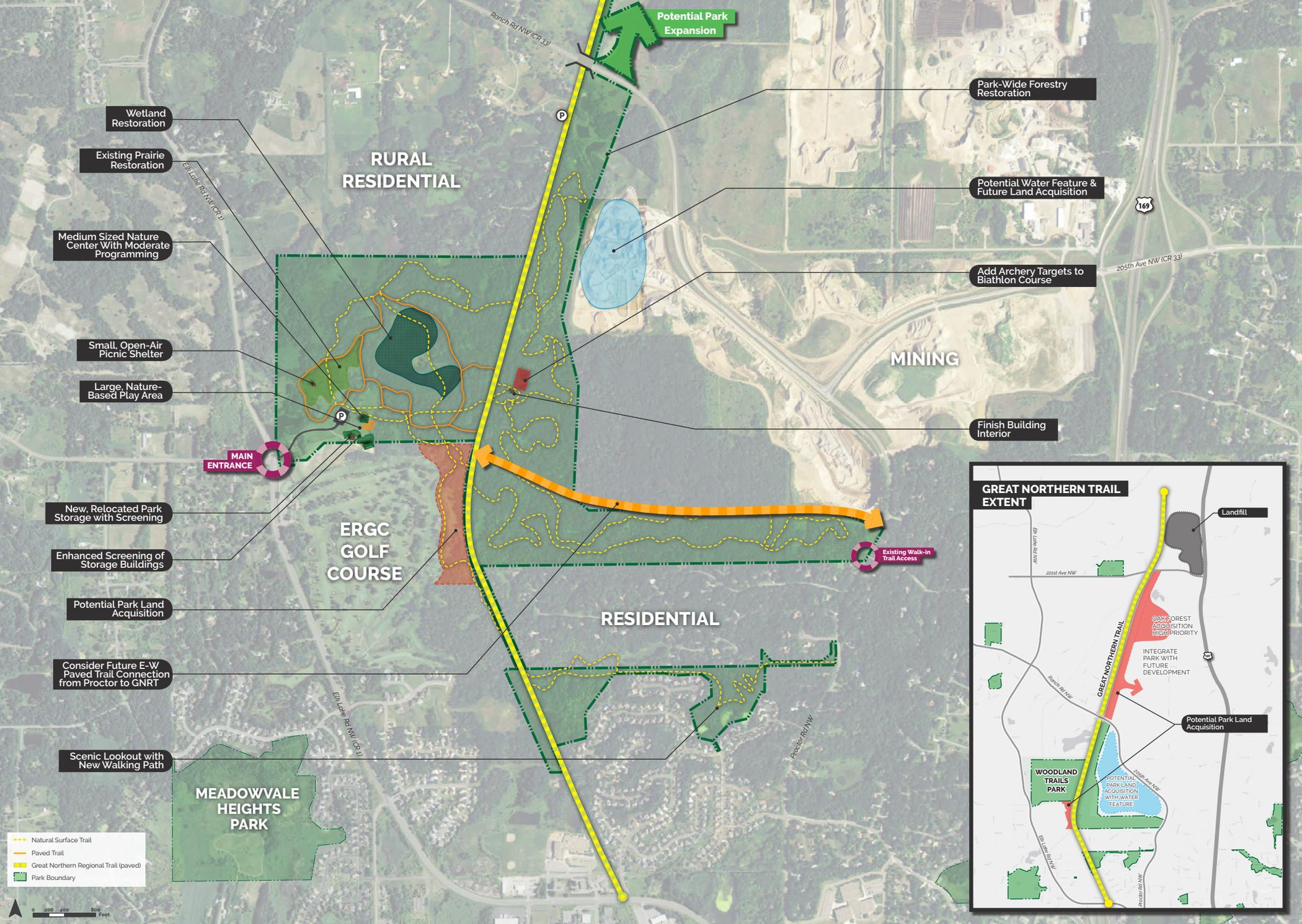


Figure 7: Concept Master Plan



Figure 8: Detailed Concept of Park Entrance Area*

*This concept graphic is not an actual site plan. Actual feature locations will be determined with a later planning project.

PROGRAMMING

The City of Elk River Parks and Recreation Department will manage and operate the following programs, along with school and volunteer partnerships, where applicable.

Environmental Education

- » In the long-term future, the parks department could partner with local schools to provide outdoor/environmental education programs. The parks department could also provide weekend and evening programming as well as home school programming during the week.
- » Provide natural resources interpretation displays and information in the nature center building.
- » Add short, interpretive trails surrounding the nature center

Archery / Biathlon training

- » Expand use of the biathlon course by providing archery and biathlon workshops/short training courses that are open to the public.

Concessions / Equipment Rental

- » Potential to include food/drink concessions in new park building
- » Rent equipment from the new park building, such as skis, snowshoes, compass, binoculars, and other trail use items.



Outdoor Classroom



Archery Targets



Equipment Rental

DETAILED CONCEPT PLAN

Parking

- » Maintain current number of parking spaces
- » Add stormwater management features
- » Re-configure to support angled parking + one-way traffic

Picnic Shelter

- » Locate on peak to overlook surrounding wetland
- » Open air
- » 50 - 100 person capacity

Nature Center

- » 2,500+ sq. ft., with room for future expansion
- » Configure building into hillside
- » Provide access to existing trails, parking lot, and adjacent nature play
- » Use as winter warming house, small rental facility, and maintenance in the short-term, with long-term plans for park programming, equipment rental, and concessions

Nature Play Area

- » Large, nature-based play equipment
- » Locate partially in forest

Kiosk

- » Locate at trail junction near parking lot for improved wayfinding and park interpretation/education



05 | ECOLOGICAL/LAND RESOURCES PLAN

The existing ecological and land resources and their continued protection and management are vital to the continuance of Woodland Trails Park as a natural resources based park. Today the park consists mostly of forest land, with some wetland and prairie/herbaceous areas. Historically, the land where the park is located was grassland and savanna with stands of aspen and oak openings. By prohibiting the natural occurrence of fire on the landscape, forest succession has turned the park into mostly woodland. By remembering the historical landscape, attempting to maintain some of aspen stands in the park, and emphasizing a diverse range of plant species, the City of Elk River hopes to keep Woodland Trails a unique ecological landscape and successful nature-based park.

The City of Elk River Forest Resource Management Plan, completed in 2016, identifies Woodland Trails Park's prairie and oak forest areas as moderate to high priority for management within the city. The following text and recommendations are taken from the Forest Resource Management Plan:

Forest management can be divided into two categories; active forest management and passive/reactive forest management. Active forest management entails a continuous assessment of forest resources, forest health, disease and invasive species management, habitat assessment and modification, and species composition; depending on the desired end product this process may be labor intensive. Passive/reactive forest management consists of managing hazards, invasive species, and diseases as time and resources permit; substantial resources may still be required; however significantly less time is required than active forest management.

In the City of Elk River, a combination of active and passive forest management techniques should be utilized to ensure the long term viability of the forest resources. Consideration should be given to minimize impact



to recreational activities; however impact may occur as a necessity to achieve forest health goals and objectives. The challenge to Elk River is to balance the needs of the forest with the available resources and the desire to provide recreation to its residents.

A comprehensive forest health management program helps to maintain and improve the health of forest habitats. Management strategies may vary depending on the desired outcome of the forest ecosystem and should be applied on a case by case basis with each land unit requiring thoughtful development of goals and objectives resulting in strategies to meet those objectives.

For instance, management of oak woodland consisting of large mature bur, red, and white oaks and mixed hardwood species that are suffering from extensive oak wilt may be managed in multiple different ways. Depending of the goal of the property, extensive oak wilt management including surveying, vibratory plowing, and removal of diseased trees followed by replanting of bur oak seedlings may be an effective strategy for sustaining oak woodland. Another strategy may involve allowing oak wilt to thin red oak species in an area while protecting healthy bur and white oak resulting in pockets of open space within a woodland. This strategy may be beneficial to creating savanna openings and require restoration of native prairie species followed by prescribed fire to maintain these openings.

Considerations for each management unit

should include the goal or endstate for each unit, availability of resources (people and equipment), time required to implement, funding for implementation, public perception, and sustainability. Public perception is a critical aspect that is often overlooked when conducting forest health management. Trees and forests are highly valued by residents, especially in urban areas where pockets of natural woodlands may be scarce and in urban forests where shade and aesthetics are highly valued. Often sharing the goals of the project, educating the public on the process, and establishing expectations upfront are critical in gaining public support.

Sustainability of any forest management or restoration project is vital to ensure resources are properly allocated and public funding is properly utilized. Forest management and restoration is a long term commitment that may span generations of volunteers and staff. Determining the goal of the management unit and the feasibility of the restoration includes identifying funding sources and allocating staff and equipment resources. Efforts to halt succession of forest ecosystems often result in failure, and thus the land manager should attempt to work with nature instead of fighting nature. For instance, oak woodland transitioning to northern hardwood forest may require more resources than those that are available, thus allowing the transition to occur may be the most effective option.

With the warming of climates over the past

century, movement of species is also certain to occur (evidence suggests this is already in the process of occurring) and the forests of today may not be suitable for the climate of tomorrow. While the land manager may see species composition beginning to shift from one woodland type to another and be tempted to halt that shift, his efforts may result in failure because the current forest cannot be sustained in its new climatic environment. Special consideration should be given to successional species from southern Minnesota and northern Iowa as these species are likely to inhabit central Minnesota's woodlands in the future.

ELK RIVER WOODLAND MANAGEMENT

The City of Elk River should take an active approach to woodland management. Current site conditions throughout the city show forests in stages of decline due to oak wilt and Dutch elm disease as well as infestation from invasive species; specifically buckthorn, honeysuckle, Siberian elm and garlic mustard. Human impacts through development of trails and facilities have likely influenced the presence of these forest diseases and pests as well as degraded the quality of the forests by increasing the volume of fuel on the forest floor inhibiting growth and reducing aesthetics.

Developed parks with large acreage of natural woodlands such as Woodland Trails, Bailey Point,

Hillside City Park, Camp Cozy and the William H. Houlton Conservation Area should be priority areas for forest health management. Strategies should focus on invasive species control, fuel load reduction, and abatement of tree diseases.

Woodland Trails Park - Woodland Management

Woodland Trails is the largest of the city parks and is a destination park consisting of multipurpose bituminous trails and natural surface trails with future plans for development of additional facilities. Due to historic trail construction and maintenance, fuel loads within the park have greatly exceeded the forests ability to recycle the nutrients and piles of brush and logs line most trails. Effort should be made to reduce fuel loads by burning brush piles and hauling logs to an offsite disposal site. Additionally, oak wilt and Dutch elm disease are highly prevalent in the park and need to be actively managed to limit the spread and impact on the remaining forest. Active removal of invasive species should be continued with follow-up treatments conducted in successive years.

Flora and Fauna Management & Harvesting

Efforts will continue to be made by the City of Elk River Parks Department to annually track a maintainable population and harvest fauna, especially deer. This will be done through controlled hunting events in the park and the surrounding public land.

As much as possible, harvested wood and other flora species in the park will be reused for other purposes.





Oak Wilt



Bur Oak Blight



Buckthorn Removal



Downed Debris



Prairie Restoration



Wetland Restoration

NATURAL RESOURCES RECOMMENDATIONS

Control and Remove Buckthorn and Other Invasive Species

- » Invasive species compete with native plants for water, sun, and nutrients
- » It's important to protect native plant species to maintain habitat and ecosystem functionality
- » Invasive species to manage include buckthorn, honeysuckle, and Siberian elm
- » Particular attention and efforts should be directed toward removal of buckthorn
- » Primary dispersal of seeds is through birds, thus landscape level treatments are necessary to prevent dispersion
- » Treatments include foliar spraying of seedlings with glyphosate, cut and stump treatment with a tricloper based herbicide (Garlon 3A or Garlon 4), basal treatments with a tricloper based herbicide mixed with a bark penetrating oil (Garlon 4 w/ Bark Oil Blue), or mechanical removal (mowing or hand pulling) however mechanical is the least effective method and often requires years of follow-up treatments (also causes vast soil disturbance which can result in better germination in the seed bank resulting in secondary infestations)

Manage and Treat Oak Wilt

- » Treatments include vibratory plowing to sever root grafts, pruning only during the dormant period (November-March), and fungicide treatments (however these are not cost effective in a natural forest environment).

Manage and Treat Bur Oak Blight

- » Treatments include fungicide treatments (however these are not cost effective in a natural forest environment).
 - » Bur Oak Blight does not generally kill the tree outright, however stress caused by Bur Oak Blight can lead to other infections resulting in the death of the tree.
- » Important for filtering sediment and contamination due to agricultural practices and manmade features such as roads and parking lots.
 - » Restoration of the central wetland complex would assist in filtering water prior to it entering the Elk River and Lake Orono thus improving water quality of these two bodies of water.

Continue to Maintain Prairie Restoration Areas

- » Increase species diversity to a site, mature reconstructed prairies can contain up to 40 species of native plants
- » Vital for pollinator species and monarch butterfly reproduction
- » Vital for stabilizing soils and retaining moisture on the landscape
- » Important habitat for many species of wildlife providing nesting cover for waterfowl, upland game birds (turkey, grouse, pheasant), and songbird species; also important cover for many mammal species, reptiles (Blanding's turtles, eastern and western hognose snakes, bull snakes) and amphibians.
- » Emphasize biodiversity in the prairie by maintaining and making an effort to add a variety of grassland species.

Explore Wetland Restoration Potential

- » Part of County ditch system to control flooding
- » Vital for controlling flooding by capturing water from the landscape and slowly recharging the aquifers
- » Rich in species diversity providing habitat for numerous species of reptiles, amphibians, waterfowl, and an important water source for other wildlife species.



06 | IMPLEMENTATION, MANAGEMENT, AND SUSTAINABILITY PLAN

The elements in the Woodland Trails Park Master Plan will be implemented according to the phasing and priorities listed in this chapter, but it will remain flexible to accommodate for funding changes and availability that may occur in the following years.

Phasing indicates when the project will be implemented. The action items have been organized into three phases:

- » Short-term indicates that the project should be started in the next 1 to 5 years due to sensitive resources, desire for use, or it needs to happen before another project.
- » Mid-term indicates that the project should be started in the next 6 to 15 years. These projects may be just as important as Short-term projects, but they may be more expensive or more planning needs to be completed before they can be implemented.
- » Long-term or Vision projects are those that will be completed after 16 years. These are projects that may be difficult to complete due to land ownership, funding, or community support. More planning will need to be done in the next decade in order to determine if these projects will become reality.

The priority level of each project is determined by how important it is for the future of Woodland Trails Park. The projects have been categorized into high, medium, and low priority projects based on input from the Parks and Recreation Commission, City staff, and the public. Projects with higher priority levels are typically identified as short-term projects, but there could be a mix of high, medium, and low priority projects in each phase level. The projects that are identified as high priority and short-term phasing will be sought after as the first projects to implement.

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Table 1: Project Priority, Phasing, and Estimated Costs

TASK	PRIORITY	PHASE	ESTIMATED COST
Consider opening the Great Northern Trail for winter fat tire biking.	High	Short-term	\$0
Address natural resource issues (Oak Wilt, Bur Oak Blight, Buckthorn, Downed Debris, etc.)	High	Short-term	\$30,000+/year <i>coordinated with volunteer efforts</i>
Add park building / nature center / chalet <i>*\$2.5m cost taken from Elk River Parks and Recreation Master Plan; cost could be lower in the short-term with the potential to expand the building in the long-term</i>	High	Short-term	\$400,000 - short-term \$2,500,000* - long-term
Add children's nature play area	High	Short-term	\$50,000-\$200,000 <i>cost depends on if volunteer-built or contracted</i>
Acquire additional park land along the Great Northern Trail corridor <i>*Dependent upon willing sellers. If there are opportunities to purchase land in the near term, they should be considered.</i>	High	Short-term*	\$1,000,000+
Make trailhead improvements and add general site amenities (benches, picnic tables, trash cans, bike racks) - project listed in Elk River Parks and Recreation Master Plan	Medium	Short-term	\$25,000
Relocate and build new storage garage for maintenance equipment	Medium	Short-term	\$100,000
Enhance trail connections to the east	Medium	Short-term	\$5,000 - \$50,000
Add archery range to biathlon course	Low	Short-term	\$2,000
Finish building interior adjacent to biathlon course	Low	Short-term	\$5,000
Add picnic shelter	Medium	Mid-term	\$100,000
Add new wayfinding and interpretive signage in the park (entry sign, kiosk at parking lot, signs at other park entrances)	Medium	Mid-term	\$50,000
Restore wetland	Medium	Long-term	\$100,000-\$200,000
Add .5 mile lit ski trail and snowmaking equipment	Low	Long-term	\$275,000
Add remote locking gate to park entrance	Low	Long-term	\$25,000
TOTAL SHORT-TERM			\$1,617,000+
TOTAL MID-TERM			\$150,000+
TOTAL LONG-TERM			\$2,900,000+

The highest priority projects in the park are ongoing efforts to address the natural resources issues. High priority has also been placed on adding facilities and amenities that would bring more diverse users, families, and groups to the park. A nature center/park building and a children's nature play area are listed as high priority, short-term phase items. Other items that are categorized as short-term, but low priority, are low cost improvements, such as adding archery targets to the biathlon range and finishing the interior of the building at the biathlon range.

RESEARCH PLAN

The City of Elk River will participate in the Greater Minnesota Regional Parks and Trails Commission research initiatives (visitation counts, use profiles, recreation demands, and trends surveys, etc.) as these programs are developed over time. The City may continue to monitor park use and conduct more surveys or questionnaires in line with the physical development of elements within this park master plan.

OPERATIONS AND MANAGEMENT

It is envisioned that management and operations will be primarily the responsibility of the City of Elk River Parks and Recreation Department, in coordination with several existing and future volunteers.

Management

The Elk River Parks and Recreation Commission establishes policies and goals for its park system and through an annual budget provides capital and operating funds for parks and trails.

General Operations

The City of Elk River Parks and Recreation Department staff will be responsible for the operation of Woodland Trails Park and the Great Northern Trail corridor.

Where there are opportunities for operational partnerships, particularly where the trail will continue north of the city boundary, Elk River will enter a joint powers agreement with partner agencies. When possible, the city will encourage and advocate for volunteers to assist with outdoor education programs, patrol, park clean-ups and special events. Elk River recognizes that as facilities expand, it may need to increase staffing.

Operating Hours

The regional trail hours will be open according to Elk River park ordinances or policies.

Maintenance

Regular maintenance activities for the park and trail will include:

- » Mowing
- » Sweeping and blowing
- » Trash collection
- » Tree trimming
- » Winter trail clearing

- » Trail repair
- » Bridge repair
- » Sign maintenance
- » Trailhead facility repair and maintenance

Pavement Management

There are over six miles of paved trails in Woodland Trails Park, including the Great Northern Trail extent. Pavement deteriorates as it ages. Regular pavement maintenance can prolong the trail's lifespan in a cost effective manner.

Enforcement and Security

Visitors will be informed of park and trail rules and regulations through strategically located kiosks and signs that address specific information about hours, trails, permitted and prohibited activities, and directions. Local law enforcement and public safety agencies will be responsible for emergency and criminal complaints within the trail.

A proposed remote locking gate at the park entrance would be a convenient way for Park staff to manage the park open and close times and keep the park secure.

Public Awareness

Elk River will promote use of the park and trail through their websites, wayfinding signage, direct mail, and public events and meetings. Partnerships with local institutions, such as schools, the Elk River YMCA, and the Sherburne County Health and Human Services Department will encourage local residents to engage in healthy activities by using the park and trails.

Conflicts

The existing park location and trail alignment is compatible with surrounding land uses, including residential neighborhoods, the golf course, gravel mining, and rural agricultural land. The gravel mining area to the east of the park produces noise, air quality, and visual impacts to trail users, especially in the winter when tree cover is thin. Overall, there was broad support and high value of the park and trail corridor conveyed by public meeting attendees. Minor conflicts will occasionally arise from private property owners' or neighboring residents' sensitivity to park and trail recreation or maintenance uses. The City of Elk River will work with individual landowners to resolve these issues case by case as the park is developed and expanded.

Public Services

There may be a need for increased public services when development of park facilities occurs. In order to use sustainable building materials and methods, options such as solar powered lighting, self-composting toilets or wells will be considered. Stormwater will be treated on site.

Programming

Generally Woodland Trails Park and the Great Northern Trail are passive recreational amenities that allow users to choose how and when to access the park and trails, when to access the trail, and for how long users recreate in the park or on the trail. Potential programming of the park and

trails include the following:

- » Fun runs/walks
- » Distance races
- » Senior walking groups
- » Nature walks
- » Athletic group practices and events

In order to fully realize the above programming options, in addition to the city of Elk River providing programming, the city will seek to partner with the following groups:

- » ISD 728 - public school district
- » Sherburne County
- » Elk River YMCA
- » Woodland Trails Park volunteers
- » Elk River Senior Activity Center

FUNDING

Funding for initial capital cost and ongoing operations and maintenance costs is essential for a successful regional park. Funding will be primarily the responsibility of the City of Elk River, with the potential to acquire donations from local businesses and land owners. There will be an emphasis on seeking outside funding in the form of grants. Costshare roles will be determined by the strengths of each agency and circumstances of each project. In-kind contributions of land, easement, design, engineering, construction and maintenance and operations are encouraged and will be outlined in joint powers agreements among agencies.

It is anticipated that most future capital projects

will be well positioned to secure regional, state and federal funds for recreation, transportation, water and habitat and that these sources will account for a majority of capital construction costs. Examples of outside funding sources include:

- » Park dedication funds
- » Minnesota Department of Natural Resources
- » Clean Water, Land and Legacy Amendment funds
- » Foundations and nonprofits
- » Statewide Health Improvement Program

Funding for operating and maintaining the park and trail facilities will be the city's responsibility. Annual operating costs will be funded through Elk River's annual budget.

Partnerships

In some cases the City of Elk River will seek to partner with Sherburne County, in order to secure funding for the park. Other partnerships, where applicable, will be sought, mainly for programming purposes.



ADOPTED BY THE ELK RIVER CITY COUNCIL JULY 2016

WOODLAND TRAILS PARK

MASTER PLAN

