

# Battle Creek Regional Park

DRAFT Master Plan



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# Planning Framework



## OVERVIEW

The purpose of the Battle Creek Regional Park Master Plan is to guide the long-term development, recreation and programming amenities, boundary expansion and acquisition, engagement, preservation, and management of Battle Creek Regional Park. Battle Creek Regional Park is 1,927.2 acres and is located in the southeast corner of Ramsey County. Battle Creek Regional Park is part of the Regional Parks System, supported by the Metropolitan Council in partnership with cities, counties, and special park districts that was established in 1974.

The Battle Creek Regional Park Master Plan will develop a long-range vision and recommendations for the park, built from input from the public and stakeholders. This was achieved by gathering information on issues and concerns from community members, stakeholders, engaging in design charrettes with the public, and ultimately refining a Master Plan that will guide future park improvements.

This master plan replaces and updates the 1981 Battle Creek Regional Park Joint Master Plan for Development. The 2021 Battle Creek Regional Park Master Plan is written to fulfill the requirements of the Metropolitan Council for regional park master plans as outlined in the 2040 Regional Parks Policy Plan.

The Pigs Eye Lake Master Plan Amendment has been developed to act as a separate natural resource guiding document for the Pigs Eye Lake segment of Battle Creek Regional Park and is written to fulfill the requirements of the Metropolitan Council for regional park master plan amendments as outlined in the 2040 Regional Parks and Trails Policy Plan.

## METROPOLITAN REGIONAL PARKS AND OPEN SPACE SYSTEM

Regional parks and trails are developed in the Twin Cities Metropolitan Area to preserve green space for wildlife habitat and provide a wide range of natural resource related recreational opportunities. Established in 1974, the Regional Parks and Open Space System is managed by the Metropolitan Council in partnership with cities, counties, and special park districts. While the operation of the system is the responsibility of cities, counties, and special park districts, the Metropolitan Council provides support with planning, funding, and advocacy. Each implementing agency, such as Ramsey County, is responsible for the development of a master plan for its regional park, regional trail, and open space components. In 2018 the metropolitan regional park and trail system included 56 regional parks and park preserves totaling more than 54,000 acres, nearly 400 miles of interconnected trails, and 8 special recreation features. The regional park system provides a wealth of opportunities for recreation, exercise, gatherings, and solitude. Our regional parks and park preserves also protect significant green space and wildlife habitat.

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Areas selected for regional parks should contain a diversity of nature-based resources, either naturally occurring or human-built. The recreational quality of a regional park is measured by the presence or absence of outstanding natural resources and the ability to provide adequately for a wide range of natural resource related recreational opportunities. Access to water bodies suitable for recreation such as swimming, boating, and fishing is particularly important and most regional parks are focused on lakes, rivers, or streams.

A regional park should be large enough to accommodate a variety of activities, preserve a pleasant natural aspect, and buffer activity areas from each other and from surrounding areas. This is interpreted as requiring 200 to 500 acres of land. Occasionally, because of the quality of the resource, an exception may be made, and a regional park may be as small as 100 acres.

Thrive MSP 2040 is the vision for our region over the next 30 years. Under state law, the Met Council prepares a long-range plan for the Twin Cities region every 10 years. The regional vision includes five desired outcomes: stewardship, prosperity, equity, livability, and sustainability. While each outcome is described below, it is important to note that the five outcomes reinforce and support one another to produce greater benefits than any single outcome alone. The outcomes provide policy direction for the 2040 Regional Parks Policy Plan.

### Stewardship

Stewardship advances the Council's longstanding mission of orderly and economical development by responsibly managing the region's natural and financial resources, and main strategic investments in our region's future. Stewardship means:

- Responsibly managing our region's finite resources, including natural resources – such as lakes, rivers, streams, wetlands, groundwater, high quality natural habitats, and agricultural soils – financial resources, and our existing investments in infrastructure
- Pivoting from expanding to maintaining our region's wastewater and highway infrastructure
- Leveraging transit investments with high expectations of land use

### Prosperity

Prosperity is fostered by investments in infrastructure and amenities that make our region competitive in attracting and retaining successful businesses, a talented workforce, and strong economic opportunities. Regional economic competitiveness results from our strategic, long-term public and private decisions that build on and grow our region's economic strengths relative to other regions. Advancing prosperity includes:

- Fostering conditions for shared economic vitality by balancing major investments across the region
- Protecting natural resources that are the foundation of prosperity
- Planning for and investing in infrastructure, amenities, and quality of life needed for economic competitiveness
- Encouraging redevelopment and infill development

### Equity

Equity means connecting all residents to opportunity and creates viable housing, transportation, and recreation options for people of all races, ethnicities, incomes, and abilities so that all communities share the opportunities and challenges of growth and change. For our region to reach its full economic potential, all our residents must be able to access opportunities. Our region is stronger when all people live in communities that provide opportunities for success, prosperity, and quality of life. Promoting equity includes:

- Using the council's influence and investments to build a more equitable region
- Creating real choices in where we live, how we travel, and where we recreate for all residents, across race, ethnicity, economic means, and ability
- Investing in a mix of housing affordability along the region's transit corridors
- Engaging a full cross-section of the public in decision-making

### Livability

Livability focuses on the quality of our residents' lives and experiences in the region, and how places and infrastructure create and enhance the quality of life that makes our region a great place to live. With abundant and beautiful open space, an active arts community, a range of housing options, and a reasonable cost of living, the Twin Cities region is widely recognized for its high quality of life. Enhancing livability means:

- Increasing access to nature and outdoor recreation through regional parks and trails
- Providing transportation choices for a range of demographic characteristics and economic means
- Supporting bicycle facilities to promote bicycling for transportation, recreation, and healthy lifestyles
- Aligning resources to support transit-oriented development and walkable places
- Promoting healthy communities and active living through land use, planning, and investments

### Sustainability

Sustainability means protecting our regional vitality for generations to come by preserving our capacity to maintain and support our region's well-being and productivity over the long term. The region's investments in prosperity, equity, and livability will fall short over the long term if the region exhausts its resources without investing in the future. Planning for sustainability means:

- Promoting the wise use of water through expanding water conservation and reuse, increasing groundwater recharge, and optimizing surface water and groundwater use
- Providing leadership, information, and technical assistance to support local governments' consideration of climate change mitigation, adaptation, and resilience

Additionally, Thrive identifies the principles of integration, collaboration, and accountability to carry out the Council's work. These three principles reflect the Council's efforts to integrate policy areas, support local governments and regional partners, and promote and implement the Thrive regional vision.

### Integration

Integration is the intentional combining of related activities to achieve more effective results and leveraging multiple policy tools to address complex regional challenges and opportunities. The Thrive outcomes described above are lofty ideals that cut across the Council's functions and responsibilities. Pursuing them demands that the Council use its full range of authorities and activities in more coordinated ways. Achieving integration involves moving beyond organizational silos and coordinating effectively with partners and stakeholders across and throughout the region.

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## Collaboration

Collaboration recognizes that shared efforts advance our region most effectively toward shared outcomes. Addressing the region's issues requires collaboration because no single entity has the capacity or authority to do the work alone. For the Council, acting collaboratively means being open to shared strategies, supportive partnerships, and reciprocal relationships. It also represents convening the region's best thinkers, experts, and stakeholders to address complex regional issues beyond the capacity or authority of any single jurisdiction or institution. Additionally, it involves providing technical assistance and enhanced information to support local planning and decision-making.

## Accountability

For the Council, accountability includes a commitment to monitor and evaluate the effectiveness of our policies and practices toward achieving shared outcomes and a willingness to adjust course to improve performance. Acting accountably means: a) adopting a data-driven approach to measure progress, b) creating and learning from Thrive indicators, c) providing clear, easily accessible information, and d) fulfilling the Council's mission.

Thrive articulates a long-range vision for the region. The vision aims to foster and contribute to the five desired outcomes through the use of the three principles described above. While the focus in Thrive is on the overarching vision for the regions, Thrive provides direction for the 2040 Regional Parks Policy Plan. Thrive specifies that the Council will collaborate with the Metropolitan Parks and Open Space Commission, regional park implementing agencies, and state partners to:

- Expand the Regional Parks System to conserve, maintain, and connect natural resources identified as being of high quality or having regional importance, as identified in the 2040 Regional Parks Policy Plan.
- Provide a comprehensive regional park and trail system that preserves high-quality natural resources, increases climate resiliency, fosters healthy outcomes, connects communities, and enhances quality of life in the region
- Promote expanded multimodal access to regional parks, regional trails, and the transit network, where appropriate
- Strengthen equitable usage of regional parks and trails by all our region's residents across age, race, ethnicity, income, national origin, and ability

The Battle Creek Regional Park Master Plan supports the desired outcomes, principles, and additional directives for the 2040 Regional Parks Policy Plan.

## RAMSEY COUNTY PARKS & RECREATION

Ramsey County is the most densely populated county in the State of Minnesota and the parks and open spaces held by Ramsey County Parks & Recreation represent the largest undeveloped land area in the county at nearly 8,000 acres. Within the system there are six regional parks, six regional trails, nine county parks, nine protected open spaces, five golf courses, and numerous recreation facilities. Ramsey County Parks & Recreation works in cooperation with the Metropolitan Council, the National Park Service, Saint Paul Regional Water Services, the Minnesota Department of Natural Resources, its municipalities, and other government units to advance park, recreation, and leisure opportunities for all Ramsey County residents.

The vision of Ramsey County is "a vibrant community where all are valued and thrive," and the county mission is to provide "a county of excellence working with you to enhance our quality of life." The Ramsey County Parks & Recreation department follows this mission by preserving, developing, maintaining, and managing a system of parks, open space, trail corridors, and special use areas as well as providing year-round recreational programs, services, and facilities which are responsive to changing needs, compatible with the resource base, and most effectively provided at the county level.



Ramsey County Parks & Recreation supports the county vision and mission through:

### Trail Services

Ramsey County Parks & Recreation coordinates the establishment of a Ramsey County trail network system that connects significant natural and cultural features and implements those segments of county or regional significance on Ramsey County and Open Space land.

### Open Space Preservation

Ramsey County Parks & Recreation acquires, protects, and manages unique, fragile, and aesthetically attractive natural resources that contribute positively to the urban landscape, and perform critical natural functions.

### Natural Interpretation

Ramsey County Parks & Recreation promotes positive environmental values through an increased awareness, knowledge, and appreciation of natural resources and natural processes.

### Outdoor Recreation Programming

Ramsey County Parks & Recreation sponsors or co-sponsors recreation programs that encourage development of resource oriented outdoor recreation skills and promote wellness. Special events are also organized that introduce people to recreation opportunities available within the system.

### Special Recreation Services

Ramsey County Parks & Recreation provides areas, facilities, and programs of significance county-wide to meet specialized indoor and outdoor recreation needs of Ramsey County residents.

### Park Services

Ramsey County Parks & Recreation provides diverse and accessible areas and facilities primarily for self-directed outdoor oriented recreation that complements the natural features of the site.

### Equitable Use

Ramsey County Parks & Recreation is working to strengthen equitable use of regional parks and trails, county parks, open spaces, and other recreation facilities across all ages, races, ethnicities, incomes, national origins, and abilities.

## PARK HISTORY

### PRE-SETTLEMENT HISTORY AND THE LANDSCAPE

The landscape of Battle Creek Park is the result of climatic patterns, hydrology, and activities of human inhabitants of the region. The glaciers formed the topography and mineral soils of the region; climate also influenced vegetation composition and patterns after the glaciers retreated; water shaped the landforms and vegetation patterns; and humans made further alterations in vegetation, soils and topography to produce the current landscape. These basic factors will continue to govern the landscape of the park.

Most of the geologic features and soils of the park were formed by the actions of glaciers over the past 20,000 years (Wovcha et al, 1995). This portion of Ramsey County was affected by the Superior lobe of the late Wisconsin glaciation, which advanced southward from the Lake Superior basin. The Superior lobe scoured rock from the Lake Superior basin, ground it into gravel, sand, and silt, and deposited it in this area along the melting margin of the

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glacier. As the glacier advanced and retreated several times, it formed a rugged moraine of sand and gravel till, the St. Croix Moraine complex. This till was reworked by weather and plants, forming coarse, droughty, and relatively infertile soils in upland areas of Ramsey County, with deposits of clay and denser soils in low areas where water collected to form lakes and wetlands.

The topography, soils, and pattern of streams, lakes, and wetlands that resulted from this glacial activity greatly influenced the pattern of vegetation communities that developed later. Existing plant communities in the park, such as dry oak forests and bluff savannas, are well-adapted to the climate, dry erodible soils, and rolling topography of the park.

Glacial meltwaters that pooled in the Red River Valley flowed south, as the Glacial River Warren, which cut deeply through glacial deposits and bedrock sedimentary layers formed 500 million years ago to form the Mississippi River valley and bluffs. Tributary streams like Battle Creek also cut down through these St. Peter Sandstone deposits, forming steep side channels, and depositing sediment in the Mississippi Valley. Since the formation of river valleys and lakes about 10,000 years ago, the geologic landscape has changed little. The Mississippi Valley has filled gradually with sediment, and lakes and wetlands have gradually filled with dead plant material or sediments eroded from surrounding uplands.

Immediately after the melting of the glaciers, spruce trees and tundra plants developed around the margins of glaciers, followed by pine barrens and forests with a bracken fern understory. As the climate warmed about 9,000 years ago, pines began to decline, and prairie herbs increased, along with elm and oak forests. The climate continued to warm until about 7,000 years ago, when midgrass prairie reached its maximum extent in Minnesota and covered most of the Twin Cities region.

Prairie and oak woodlands dominated the region until about 4,000 years ago, when the climate became cooler and wetter. Oak thickets spread, and oak woodland-brushland gradually dominated upland areas interspersed with marshes and wet prairies. White pines also migrated into this region as the climate cooled. About 300 years ago, the climate became especially cool and wet, and extensive forests of elm, sugar maple, and basswood developed in eastern Minnesota. The major patterns of vegetation of the Twin Cities area at the time of European settlement were then in place.

The history of American Indians and their influence on the local landscape are still evolving. American Indians have probably inhabited and hunted in the area for about 10,000 years. In addition to using a wide variety of plants and animals for food, American Indians altered the landscape and vegetation patterns by cultivation and by setting fire to vegetation. Indians (and European fur traders) used fire to hunt game, create desired game habitat, to clear the landscape for travel, communication, and defense, and to obtain firewood. While some fires in the region occurred naturally, the activities of American Indians probably greatly increased the frequency of fires. Prairies near the Mississippi River may have been burned annually. Prairies and savannas are fire-dependent plant communities, and would most likely not have been present in the Twin Cities area at the time of European settlement without these fires. (Wovcha, 1995)

At the time of settlement the landscape of Battle Creek Park probably included emergent wetlands, wet meadows, and prairies in low areas; oak woodlands and brushlands and sand/gravel savannas on drier uplands and bluffs; and denser forests of mixed species on cooler slopes that were not burned. Aerial photos from 1940s indicate that some oak woodlands in the park were once much more open than they are today, perhaps due to regular fires before European settlement, and grazing in the early part of this century. Pigs Eye Lake was more of a closed water body wetland with more vegetation prior.

As the St. Paul area developed after the mid-1800s, more intensive human activities began to change the landscape and natural communities. These alterations included the following:

- Road building began to clear and fragment forests and other communities, for example, dividing sections of the bluff lands from each other, and separating Mississippi River floodplain from upland areas and habitats, as they are today.
- Agriculture affected hydrology by draining wetlands and altering creeks. Within Battle Creek Park, farming also altered vegetation communities through clearing, plowing, cessation of regular fires, and grazing. These effects can be seen in the reduction of native vegetation in meadow and forest understory areas, and substitution of communities of lower diversity and dominated by non-native plants, such as smooth brome. Soil erosion increased where native cover was removed, adding sediment to creeks, wetlands, and lakes.
- Urbanization fragmented natural communities further with the addition of more roads, streets, and utilities. Construction of all types altered and compacted soils, and changed the local hydrology. Large areas of impervious surface and drainage of wetlands increased the amount of stormwater runoff and pollutants carried to local waters. Additional non-native, aggressive species like buckthorn were added as landscape materials.
- The development of the upper watershed of Battle Creek caused dramatic flooding and bluff erosion, and eventually led to major alterations to the creek and its floodplain to control flood damages.
- Changes in habitat and increasing presence of humans in the landscape brought changes in animals populations, decreasing or eliminated some species like eagles and bluebirds, favoring others such as white-tail deer and cardinals.
- The extensive lock and dam system built along the Mississippi river forever changed backwater wetlands, like what is now Pigs Eye Lake, by altering the river levels.

### History of the Park and Surrounding Area

In the mid-1800s, when European settlers were arriving in St. Paul, the area now called Battle Creek park was known as "Pine Coulie," named for the white pines around the creek. A battle between the Chippewa and Sioux that occurred in Pine Coulie in 1842 was remembered later when creek and park were named "Battle Creek." Early settlers reported that the Sioux village at Kaposia (South St. Paul) had a small farm plot at Pine Coulie, and white settlers were already farming near Pigs Eye Lake in the 1840s. Local histories report little additional information about the park until 1914.

In 1914, Dietrich Lange, the superintendent of St. Paul schools, suggested that Pine Coulie be acquired as a park. He noted that "The creek, Battle Creek, is the most limpid one imaginable, threading its shining way through a maze of fern and mossy stones, and making here, a waterfall, and there a placid pool, reflecting the deep blue of the sky. The creek is fed by ice cold, crystal clear springs. The water flows between green banks covered with a soft carpet of moss."

Lange also noted that the park included pine trees, which accounted for the name "Pine Coulie," but also had "the biggest variety of trees in any spot in the state. Tall pine, spruce, elm, maple, oak, basswood, cottonwood, willow, birch, and other trees that grow there abundantly, along with many varieties of shrubs." By 1921, however, this had changed—a team of surveyors working in the area noted that the trees around the creek had been cut back for a distance of 100 feet.

The first thirty acres of the park were donated to the city of St. Paul in 1922 by William McMurray, a St. Paul businessman, who purchased the acres around the creek a few months before in order to donate the area to the city as a park. McMurray suggested the name "Battle Creek Park." The city had also surveyed the 65 acres on the tops of the bluffs as potential parkland. McMurray later talked with other landowners near the park and suggested that they

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donate property for the park. In 1924, the city purchased an additional 34 acres from 5 landowners. By 1928, the city had constructed a caretaker's cottage, lights, parking spaces, a steel bridge and two dams in the Park. In 1941, 5,000 conifers were planted to reforest the creek area, including 500 white cedar, 1000 jack pines, 1500 Norway pines, and 2000 white pines from Northern Minnesota. By 1947, the St. Paul Pioneer press noted that erosion and vandalism were becoming major maintenance problems for the park.

Ramsey County made additional land purchases for the park in the 1950s and has continued to purchase land up to the present.

Much of the eastern side of St. Paul, including the area around Battle Creek Park, was in agricultural uses through World War II, including dairy farms, truck farms, and some croplands. The scattered farm homes and older homes in neighborhoods near Battle Creek Park are evidence of this era. The eastern side of St. Paul was much slower to develop urban land uses than the areas west of downtown. In part, this is due to steeper slopes and wetland areas that made this area more difficult to develop. Western areas of the city also developed faster due to the influence of transportation connections and economic activity in the Minneapolis and Midway areas. Most of the residential areas, schools, and commercial areas that dominate neighborhoods adjacent to the park today developed in the 1960s and later. Wooded areas along the bluffs in the Highwood neighborhood of St. Paul south of the park and in Maplewood are still being developed with new homes.

Prior to acquisition and development of the park, land use within the park boundaries was primarily agricultural. Uses included grazing, cropping, truck farming, and farm residences. (See map of Prior Land Uses on the following page.) Eastern portions of the park were part of the Ramsey County Work Farm. Aerial photos of the park from 1945 show an area dominated by agricultural uses with some scattered residences, existing parkland along Battle Creek, and generally more open woodlands and bluff areas than the current park landscape.

Northeastern portions of the park, including oak forest areas and the current picnic grounds, were formerly part of the Ramsey County Work Farm. The flat portions of this area were used for crops, pasture, and buildings. Old foundations and trash dumps were found in these areas when the creek and ponds were modified in the 1980s. Areas near the corner of Upper Afton Road and McKnight Road were briefly used for community garden plots in the 1970s. The steep, wooded areas may have been used for grazing, but have not been altered in other ways. Informal picnicking areas with a gravel parking lot were developed in the open areas in the 1960s, with current buildings and other improvements completed from 1984-85.

Most of the southeast area of the park was also part of the County Work Farm. Some lots in the southeast corner, lots along Upper Afton Road, and a 40-acre parcel at Upper Afton and McKnight were in private ownership until the 1980s, when they were purchased by the County. The "Jordan 40" and other private lots were in agricultural uses such as cropping, grazing, and farm buildings, but zoned for future commercial use. The County purchased these properties in the early 1980s and removed most of the buildings, though foundations and some fences remain. In the southeast corner, two lots are still in private ownership but undeveloped.

The open meadow southeast of Ruth Street and a strip of land along Lower Afton Road were also part of the County Work Farm and probably used for grazing. This area became part of Battle Creek Park before 1970.

Portions of the large woodland areas of the park east of McKnight Road and Battle Creek Road were once much more open than they are today, with wider spaces between canopy trees and an understory of grasses and herbaceous plant cover. These areas were part of the County Work Farm or private farms, and were probably used for grazing or as woodlots, with some scattered farm residences adjacent to the woodlands along roads. The City and County also owned undeveloped portions of the Creek corridor that connect the east and west areas of the park. City ownership was transferred to the County along with the lower portions of the creek corridor and bluffs.

The oak woodland and meadow areas between Ruth Street and Battle Creek Road included some property owned by the City of St. Paul and some private residential properties along Battle Creek Road. The woods were used for grazing. The old field area west of Battle Creek Road was used as a truck farm. The north end of this area was planted



as a tree nursery by the city and county in the 1970s, with some nursery stock still visible adjacent to the woods today. The County purchased properties in this area between 1972 and the present. The wetland depression in the open field area was formed when soil was taken for use in the Battle Creek flood control project. While it supports wetland vegetation now, it was a dry meadow similar to surrounding areas before soil removal activities.

As noted previously, the Battle Creek corridor and portions of the bluffs from Upper Afton Road to Highway 61 were owned by the City of St. Paul after 1922 and used as a park. The areas included a popular ski jump, picnic areas and shelters, and other park buildings. As the upper portion of the creek's watershed developed during this century, this area began to flood regularly from increased storm runoff. This flooding eroded the bluffs, washed out park buildings, and closed the park in 1971. In the early 1980's, the Ramsey-Washington Metro Watershed District completed a flood control project that put most of the creek flow underground, retained a managed flow above ground, and installed a series of stepped falls and bridges. St. Paul then exchanged the land around the Creek with the County for park lands in the Lilydale and Pigs Eye areas. Ramsey County installed the existing parking lot and trail near Highway 61 in 1991.

The County has gradually acquired private properties along what is now Park Entrance road and Point Douglas road to the north, since 1972. After 1996 the three homes in private use remaining along these roads were purchased, removed and converted to parkland. Since this time Point Douglas road has been an unserviced road with a lock gated access off of Highway 61, beyond the gate is a MET council lift station and a 9.82 acre parcel owned by the Minnesota Department of Transportation in the southwest corner. The Minnesota Department of Transportation also owns the land south of this parcel, between Park Entrance road and Highway 61. Ramsey county parkland abuts the road north along Point Douglas road. Northwest of county parkland the City of St. Paul owns an almost 4-acre parcel of parkland that adjoins the Minnesota Department of Transportation's historic Highway 61 overlook land. This overlook serves as an unofficial entrance to Battle Creek park for hikers and off-road cyclists. Since Point Douglas road has been abandoned it is slowly degrading over time, although live overhead utilities still run along the road. Two areas along Point Douglas road and two area along Park Entrance road were used as borrow pits during road construction of Highway 61. The County restored more gentle slopes and planted these areas in the 1970s with non-native seed mixes.

The City of St. Paul and Ramsey County have purchased numerous vacant residential lots along the bluffs between Battle Creek Park and Fish Creek. The plan is to purchase additional properties within this area to preserve the bluff line from development.

Pigs Eye Lake is located in a heavily industrialized area, close to the Metro Plant and other major air emissions sources. The land use designation for the metro plant and surrounding parcels is industrial, consistent with this designation noise, odors, emissions and traffic are present at levels that are consistent with industrial land use. The Pigs Eye Landfill has contributed to the presence of hazardous, toxic, and radioactive wastes in and surrounding Pigs Eye Lake. The Pigs Eye Lake Master Plan amendment provides further details on the contamination and proposed next steps in that area for natural resource and public safety planning in the Pigs Eye Lake segment of the park. Ramsey County is committed to working closely with neighboring landowners to create a compatible vision for the future of the Pigs Eye Lake segment of Battle Creek Regional Park.

## CITIZEN PARTICIPATION AND MUNICIPAL SUPPORT

The development of Battle Creek Regional Park has been evolving since 1974 when the state legislature established the Regional Parks System and Battle Creek Regional park was incorporated into the system. The original master plan for Battle Creek Regional Park was a joint effort between Ramsey County and the city of Saint Paul in 1981. Within the 1981 master plan several key development details were discussed including:

- A group picnic area northwest of the intersection of McKnight Road and Upper Afton Road
- Swimming area
- Trailhead and picnic area southeast of the intersection of McKnight Road and Upper Afton Road

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- A winter sports area located in the segment of Battle Creek Regional Park bounded by Upper Afton Road, Lower Afton Road, Winthrop Street, and Battle Creek Road
- A bluff picnic area located in the segment of Battle Creek Regional Park between Highway 61 and Battle Creek Road
- A trailhead/visitor center located on the bluff between Highway 61 and Battle Creek Road
- A lower creek picnic area located in the segment of Battle Creek Regional Park Between Highway 61 and Battle Creek Road with access from Lower Afton Road
- Pigs Eye Lake development
  - Additional planning would need to be done
  - Trail development through accessible areas
  - Pedestrian Bridge over Highway 61 and the railroad

In the time since the original master plan was developed for the park other plans have been developed which add context and have helped guide the development of the park as well as this master plan including:

- Ramsey County Off-Leash Dog Areas Master Plan
- Ramsey County Off-Road Cycling Master Plan
- The Great River Passage Master Plan
- Pigs Eye Lake Master Plan Amendment (See Pigs Eye Lake Master Plan Amendment for more detail)
- 2018 Ramsey County Parks & Recreation System Plan
- Green Spaces, Green Places An Energy Action Plan for Ramsey County Parks & Recreation
- 2016 Fish Creek Open Space Concept Plan, coordinated along with the city of Maplewood
- Suburban Pond Open Space Concept Plan
- Point Douglass Road Regional Trail Master Plan

## Goals of Communications and Public Engagement

In the Spring of 2019 Ramsey County Parks & Recreation began the process of developing a new master plan for Battle Creek Regional Park. To aid the county in the master planning effort SRF Consulting was contracted as a team member whose primary responsibility was to guide the public engagement phase. Based upon initial project discussions during the kickoff meeting, and an analysis of park stakeholders, it is recommended that this project engage in a “collaborate” level of engagement as described in the IAP2 spectrum of public engagement. At this level, the project team will partner with the public on key aspects, including identifying issues and needs, determining alternative options, and providing guidance on preferred alternative plans. Overall, the broad goals of our engagement approach are to:

- Work directly with the public throughout the process to ensure there is transparency and consistent communication of project information.
- Use an equity lens in amplifying the voices of communities traditionally left out of planning processes, including immigrants, people of color, LGBTQ communities, youth, and the elderly.
- Connect with a broad cross section of community stakeholders to provide ideas, guidance, and feedback.
- Deploy a defined communications and messaging strategy.

## Communications and Public Involvement Strategy Overview

Transparent, efficient, and equitable public engagement and communications will be achieved throughout the master planning process with the deployment of two key strategies – Consistent Communication and Tailored Involvement. Utilizing these strategies throughout all phases of the project will ensure a smooth public process that meets the overall goals of the project.

### Strategy 1: Consistent Communication

Consistent updates and opportunities for feedback will be used to keep the public informed and identify concerns and issues from an early point in the project. Community websites, newsletters, and other print, online, and in-

person communications will provide clear explanations of the project need, project timeline, and project impacts. Similar engagement methods will be used throughout the process to equip individuals with project information in a consistent format.

### Strategy 2: Tailored Involvement

Tailored involvement is necessary to connect with project stakeholder groups using methods and locations that work best for them. There will be a different approach for connecting with stakeholder agencies and organizations than there will be – for example – in connecting with recreational interest groups, passive park users, or the general public.

### Agency Involvement

Stakeholder agencies will be the key decision makers throughout the master planning process and will be primarily involved through the Project Management Team. The Project Management Team (PMT) is the decision-making body for the project. The Project Management Team helped guide the master planning effort, providing recommendations for approaches and decisions at key project points. Project Management Team members also participated in public meetings as needed.

### Communications Plan

The Communications Plan is a living document that provides a road map for how and when all external project communications will occur.

### Key Messaging Areas

Throughout the planning process, there are seven key messaging areas that should be specifically shared with the public. Communication efforts will ensure that the public is aware of the following components:

- Project need
- Getting involved in the planning process
- Project status, schedule, and other housekeeping items
- Design charrette goals & objectives
- Community impacts
- Opportunities for engagement and feedback
- Process (Issues and concerns engagement, Design Charrettes, Concept Graphic Review)

### Public Communications

To ensure impactful, cost-effective, and swift dissemination of information, the team will use the existing communication tools of Ramsey County, with support from the cities of Saint Paul and Maplewood. Communications tools include:

- Ramsey County Project Website
- Newsletters
- Mail
- Social Media platforms
  - Recreation groups were also encouraged to share information through their social media channels.
- In-Park Posters
  - Poster boards were laminated and posted at all park entrances announcing when major meetings were taking place along with information regarding the project website to encourage community members to stay involved

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- In-person engagement events
  - Pop-up engagement
  - At-Large meetings
  - Design charrettes

The project team worked with communications staff from each of the partner agencies to provide project updates and information.

In addition, community partners have their own communication outlets. Leveraging relationships with community organizations to spread the word to their members, clients, and audience is another low-cost, minimal-effort opportunity to reach the public.

At certain points in the project, especially prior to public events, the project team reached out to local media outlets to earn media coverage. Ramsey County produced a press release prior to each large public event for distribution to the following local media and for project partners to share.

### Local Media Outlets

Outlet	Type
Asian American Press	Newspaper/Website
East Side Review	Newspaper/Website
City of Saint Paul Website/Newsletters	Municipal
Ramsey County Project Page	County
KSTP, WCCO	Regional Television
Star Tribune	Newspaper/Website
Pioneer Press/TwinCities.com	Newspaper/Website
Facebook, Twitter, Instagram	Social Media

### Social Media

Ramsey County, the City of Saint Paul, and the City of Maplewood already have established collective audiences through their social media channels. Using these outlets (Facebook and Twitter) helped to share timely information and increase awareness about the project with local and regional audiences.

SRF assisted project management team staff in creating social media content to share key messages, promote upcoming engagement events, and direct users to the project website for additional information. Social media content included a balance of graphics and text, making it easy to understand as well as visually appealing.

### Outreach Methodology and Tools

A variety of methods and tools were employed to involve the public in the Battle Creek Regional Park Master Plan. These methods and tools were tailored in ways to ensure that a wide variety of community members and stakeholders were able to connect with the planning process.

### Stakeholder Meetings

Stakeholder meetings were planned events that connected with specific community groups. The purpose of stakeholder meetings is to connect deeply with a variety of communities who have perspectives on the future of Battle Creek Regional Park.



### Pop-Up Engagement Meetings

Pop-Up meetings were held at locations and events where people were already going. Locations for potential pop-ups included Battle Creek Park as well as other local event locations like the Ramsey County Fair.

### At-Large Meetings

These meetings allowed the community an opportunity to identify issues, discuss project materials with project team members, and be informed regarding next steps. They were formatted in an accessible, collaborative manner as determined by the Project Management Team.

### Design Charrette

The design charrette was open to the public and included opportunities for ideation, creativity, and collaboration.

### Virtual Design Charrette

A virtual design charrette and concept overview was provided in lieu of a second open house design charrette due to the Coronavirus Pandemic. Members of the public, stakeholder groups, recreation clubs, project management team members, and anyone interested in the master plan were invited to attend and give feedback on concept graphics for the regional park.

### Website and Online Involvement

Online engagement activities were impactful ways to find deep connections with community members. These opportunities augmented other in-person activities and provided an opportunity to provide specific comments. Online engagement tools included:

- **Project Website:** The project website was the primary repository of public-facing project information and opportunities for staying involved.
- **Social Media Updates:** Social media updates were provided at key points in the project process to keep the community apprised of milestones.
- **Wikimap:** A wikimap provided a platform for community members to identify specific issues, hopes, and concerns at key points within the park on an easy-to-use dynamic mapping platform.
- **Online Surveys:** Multiple online surveys were provided for community members to be involved and directly comment on the master plan as concepts progressed. These surveys were also an impactful tool for community members who were unable to attend in person events.

# Planning Framework

## Summary of Public Engagement and Outreach Tools

### Pop-Up Engagement Meetings

#### Hmongtown Marketplace

Ramsey County staff attended and hosted an informational kiosk at the Hmongtown Festival on Como Avenue in Saint Paul to gather initial feedback for the Battle Creek Master Plan. Ramsey County Parks & Recreation was interested in learning what types of amenities, programming, or other features community members were interested in. Ramsey County also sought out information on how people currently use the park, what attracts them to the park, and in the case that they had not visited Battle Creek Regional Park what may lead them to visiting in the future. Ramsey County also took any comments or concerns relating to the park that the community was interested in sharing. To gather feedback a number of voting boards and comment cards were provided. A summary of results can be found in the Appendix. The responses gathered came from a diverse audience in age, race, and gender.

Overall the most popular types of programming included nature education, beginner outdoor recreation programs such as off-road cycling and cross country skiing, summer camps and community events, and/or festivals. A majority of respondents would like to see a free splash pad located at Battle Creek Regional Park.

#### Ramsey County Fair

Ramsey County staff attended and hosted an informational kiosk at the Ramsey County Fair located on the Parks & Recreation campus at the corner of Frost and White Bear Avenue in Maplewood. Ramsey County Parks & Recreation was interested in learning what types of amenities, programming, or other features community members were interested in. Ramsey County also sought out information on how people currently use the park, what attracts them to the park, and in the case that they had not visited Battle Creek what may lead them to visiting in the future. Ramsey County also took any comments or concerns relating to the park that the community was interested in sharing. To gather feedback a number of voting boards and comment cards were provided. A summary of results can be found in the Appendix. The responses gathered came from a diverse audience in age, race, and gender.

The most popular types of programming included nature education, after school classes such as fishing, skiing and biking, summer camps, and community festivals. Respondents at the Ramsey County Fair indicated a desire for the development of a nature center, a splash pad, and archery range.

#### Battle Creek Pavilion Eritrean Muslim Council Event

Ramsey County staff attended and hosted an informational kiosk at an event hosted by the Eritrean Muslim Council with permission located at the Battle Creek Pavilion north of Lower Afton Road. Ramsey County Parks & Recreation was interested in learning what types of amenities, programming, or other features community members were interested in. Ramsey County also sought out information on how people currently use the park, what attracts them to the park, and in the case that they had not visited Battle Creek what may lead them to visiting in the future. Ramsey County also took any comments or concerns relating to the park that the community was interested in sharing. To gather feedback a number of voting boards and comment cards were provided. A summary of results can be found in the Appendix. The responses gathered came from a majority black demographic with a wide range of ages present.

The most popular types of programming included art education, summer camps, community events, and/or festivals. The respondents indicated a strong desire to see the development of a splash pad.

### Battle Creek Waterworks

Ramsey County staff attended and hosted an informational kiosk at Waterworks in Battle Creek Regional Park. Ramsey County Parks & Recreation was interested in learning what types of amenities, programming, or other features community members were interested in. Ramsey County also sought out information on how people currently use the park, and what attracts them to the park. Ramsey County also took any comments or concerns relating to the park that the community was interested in sharing. To gather feedback a number of voting boards and comment cards were provided. A summary of results can be found in the Appendix. Responses were limited as less than ideal weather kept many people from visiting Battle Creek Regional Park that day.

Most respondents indicated the need for the rehabilitation of Waterworks or the development of a splash pad.

### Southeast Community Organization Community Event

Ramsey County staff attended and hosted an informational kiosk at an event at Highwood Hills Elementary School hosted by the Southeast Community Organization located on Londin Lane East. Ramsey County Parks & Recreation was interested in learning what types of amenities, programming, or other features community members were interested in. Ramsey County also sought out information on how people currently use the park, what attracts them to the park, and in the case that they had not visited Battle Creek what may lead them to visiting in the future. Ramsey County also took any comments or concerns relating to the park that the community was interested in sharing. To gather feedback a number of voting boards and comment cards were provided. A summary of results can be found in the Appendix. The responses gathered came from a diverse audience in age, race, and gender.

Responses were varied but the most interest was in the development of a splash pad and more programming available for youth in Battle Creek Regional Park.

### Battle Creek Recreation Center Food Shelf Event

Ramsey County staff attended and hosted an informational kiosk at Battle Creek Recreation Center during a food shelf event. The county was interested in learning what types of amenities, programming, or other features community members were interested in. Ramsey County also sought out information on how people currently use the park, what attracts them to the park, and in the case that they had not visited Battle Creek what may lead them to visiting in the future. Ramsey County also took any comments or concerns relating to the park that the community was interested in sharing. To gather feedback a number of voting boards and comment cards were provided. Example boards can be found in the Appendix. The responses gathered came from a diverse audience in race, and gender.

The greatest concern was that Battle Creek Regional Park remain free of any type of admission cost to the public. General maintenance and a greater availability of restrooms and water were also indicated as a need.

# Planning Framework

## Community and Stakeholder Meetings

### **Battle Creek Recreation Stakeholder Meeting**

Ramsey County hosted the recreation stakeholder meeting to gather information and feedback from existing groups that are invested in Battle Creek Regional Park. Many community members representing different interests attended including off leash dog area users, off-road cyclists, running groups, cross country ski teams, hikers, and other interested parties shared their views. The county was interested in learning what types of amenities, programming, or other features community members were interested in. Ramsey County also sought out information on how people currently use the park, what attracts them to the park, and in the case that they had not visited Battle Creek Regional Park what may lead them to visiting in the future. Ramsey County also took any comments or concerns relating to the park that the community was interested in sharing. To gather feedback a number of voting boards and comment cards were provided. Example boards can be found in the Appendix. The responses gathered came from a predominantly white, middle to late age group of respondents.

Respondents were most interested in the expansion of existing infrastructure such as cross country ski/grass mowed walking trails, off road cycling/hiking trails, and the future development of the off leash dog area. Community members shared their thoughts on how these recreation amenities can continue to co-exist. The development of the winter recreation area and how Ramsey County would fund that infrastructure was also frequently mentioned.

### **Environmental Stakeholders Meeting**

Ramsey County invited members of the community and representatives of other government agencies that had an interest in the environmental protection and preservation of Battle Creek Regional Park to share their thoughts on the future of the park. The county also sought feedback regarding the concept development and what amenities or features they thought would be warranted in the development of the park.

Participants indicated the desire for further water and creek protection within the park which could also include community education, focusing on homes in the area whose land contributes to the Battle Creek Sub-Watershed. Interpretive signage and educational opportunities were also strongly desired.

### **Southeast Community Organization Council Meeting**

Ramsey County presented information from community engagement as well as park concepts with the Southeast Community Organization Council at their meeting held on Monday February 24, 2020. The county wanted to gather their feedback on both the process and what they thought was important in the development of the park.

Safe access was an important issue, Battle Creek Regional Park is a highly segmented area with major road intersections that can be difficult to cross. Expanded programming especially for community youth was also desired. Overall the council was interested and supportive of the improvements being proposed.

### **Carver Elementary Family Night**

Ramsey County staff attended the Carver Elementary School's Family Night event to gather additional feedback on park concepts that had been generated through community engagement. Overall community members were pleased with the improvements being proposed. Some of the community did not realize that Fish Creek and Pigs Eye Lake had public lands and would like for more information to be made available.

### **Battle Creek Middle School**

Ramsey County was invited to share information and gather feedback from a classroom of students at Battle Creek Middle School. The class had a diversity of ages and race. Students enrolled in the class were from households where english was not the primary language spoken.



The class had an interest in seeing more programming being made available including nature education, movies in the park, and community gatherings with food trucks. Students also would like to see more fishing opportunities, walking trails, and paved multi-use trails through the park.

Friends of the Mississippi River already performs in class programming with the school and takes groups down to the creek for course work. There was an expressed interest in improving the access site across from the school as well as the trail. Implementation of learning stations along the trail and creek are desirable outcomes.

### Carver Elementary School

Ramsey County Parks & Recreation has met with Carver Elementary Staff regarding the redevelopment of the school grounds which are currently in a design phase. Carver Elementary offers Science, Technology, Engineering, and Math (S.T.E.M) education. As a part of this education students go out into the park during various classes for their instruction. Carver Elementary and Ramsey County are interested in increasing access to the park from the school grounds and implementing learning trails and opportunities within the park close to Carver Elementary.

### Minnesota Department of Transportation

Ramsey County Parks & Recreation has had preliminary conversations with the Minnesota Department of Transportation regarding parcels of land along the east side of Highway 61. Ramsey County is interested in incorporating some of this land into Battle Creek Regional Park, the department of transportation has indicated that some land transfers may be possible in the future, additional planning and work will be needed to make this a reality.

### At-Large Meeting & Design Charrette

#### At-Large Community Meeting

The first at-large community meeting was held at the Battle Creek Recreation Center on Saturday August 3, 2019 to gather feedback on what future amenities are wanted, programming in the park, what features of Battle Creek are important to protect, and any other information that community members wanted to express. The event was advertised through local media, social media, in park posters, the county newsletter, the project website, and Ramsey County encouraged all partners to also share the information through their own networks.

Overall the turnout, while substantial, was not very diverse and was predominantly white, middle to older aged community members who were already active users of the park. Respondents emphasized existing uses as the most important aspects of the park to further develop with the implementation of the winter recreation area and man-made snow being the most important. Community members also communicated the desire for the protection of the park's natural areas as being a significant factor in the development of the master plan. Access into Pigs Eye and the protection of that area as a public resource was also noted.

### Community Design Charrette

Ramsey County held a community design workshop on Saturday November 2, 2019 at the Battle Creek Recreation Center. The event was advertised through local media, social media, in park posters, the county newsletter, the project website, and Ramsey County encouraged all partners to also share the information through their own networks.

The design workshop was held so that members of the community could come and take in what had been learned through community engagement to start placing amenities in the park to shape the development of the park concept. Ramsey County Parks & Recreation provided maps of the park overall, the Battle Creek segment and the Pigs Eye Lake segment for participants to annotate, draw on or in any other way express their views. Community members were broken into groups along with county and SRF staff to help facilitate or answer any questions.

# Planning Framework

## Themes that emerged from the community design charrette:

- Keep development clustered around areas that have already been developed such as parking lots, the community center, and existing trailheads.
- Acquire park inholdings, Minnesota Department of Transportation Parcels, and land within the Mississippi River Corridor Critical Area for protection and recreational use.

## Comments Regarding the Overall Park Map:

- Regional park is lacking signage along Highway 61
- Recreational amenity/viewing bluff (Totem Town)
- Land bridge across 61 from Lower Afton to Pigs Eye segment
- Access to Pigs Eye Lake
- Bluff trail connection from Battle Creek to Fish Creek
- Learning station/viewing area at Red Rock Road (Pigs Eye Lake)
- Future property acquisition (homes along fish creek)
- Acquisition of Burns Ave. Overlook
- Connect Pigs Eye Lake/ parking/expansion
- Boardwalk around Pigs Eye Lake to viewing areas
- Canoe/kayak/rowing at Pigs Eye Lake
- Rowing facility/kayak/canoe at Pigs Eye Lake
- Acquisition (totem town)

## Comments and notes from design workshop groups:

### Group 1

- Break park into 4 quadrants
- Collaborate between Ramsey County and municipalities
- Use facilities we already have
- Connections to Pigs Eye Lake
- Public safety concerns
- Skiing expansion
- Improved signage
- Permanent restroom at off-leash dog area
- Expand Waterworks (splash pad)
- Trail loops

### Group 2

- Water resources become part of a larger landscape
- Land bridge to connect Pigs Eye Lake
- Contiguous land
- Development should happen in existing locations
- Park reserve vs. regional park
- Wayfinding improvements
- Sustainability is important

### Group 3

- Adopt a trail to address trash
- Nature center supported
- Access point safety
- Connecting dense areas to park

- Satellite nature centers
- Bluff connection

### Group 4

- Focus on nature preservation
- Trail links into Pigs Eye Lake
- Boardwalks in Pigs Eye Lake
- Expand development within existing areas
- Wayfinding improvements
- Restrooms
- Add access points
- Close Battle Creek Road

### Group 5

- Centralize active development areas
- Internal park transit system
- Walking trails vs biking trails
- Wayfinding
- Need to reduce mowing in non-recreation use areas

### General Notes

- More trash cans
- Tamarack Nature Center as an example – bring kids into woods
- Connect to other cultures
- Signs
- Safer access points
- Friends of the park trash events
- Nature center with bike parking
- Nature kiosks/info boards distributed all over park
- Grass track course (flat area biking)

Note: maps and meeting material can be found in the Appendix.

### Virtual Community Meeting

A virtual design charrette and concept overview was held on Thursday July 23, 2020 in lieu of a second open house design charrette due to the Coronavirus Pandemic. Members of the public, stakeholder groups, recreation clubs, project management team members, and anyone interested in the master plan were invited to attend and give feedback on concept graphics for the regional park. The event was advertised through local media, social media, in park posters, the county newsletter, the project website, and Ramsey County encouraged all partners to also share the information through their own networks. The virtual meeting saw 76 attendees in addition to county and SRF staff members.

Ramsey County staff provided an overview of the project, community engagement to date, and park concepts for community members to ask questions, comment, and provide general feedback.

Prominent themes discussed:

- Land to be acquired
- Pigs Eye Island Building
- Additional trails, uses, and potential conflicts

## Planning Framework

A complete list of questions asked during this meeting can be found in the Appendix. In addition to the feedback received during the virtual meeting Ramsey County hosted a dedicated set of office hours to answer questions and take feedback on the proposed master plan and park concepts.

Overall the feedback was supportive of the concept plan, proposed amenities, and programming opportunities in consideration for Battle Creek Regional Park.

### Online Engagement

#### Survey #1 and Wiki-Map

The first online survey and Wiki-Map were created to get general feedback from the public on what they value about the park, how the park is currently used, what would make the park better in the future in terms of programming, recreational amenities, and any other thoughts on Battle Creek Regional Park. The Wiki-Map was created as an online tool that community members could go to and place comments, thoughts, conflict areas, or ideas for the future directly on a map of the park. In conjunction these two online tools allowed the public to clearly communicate their goals for the future of Battle Creek Regional Park. These tools were open and available to the public from June through September of 2019 during the first phase of community engagement. The Survey was also translated into Hmong and Somali in an effort to make the survey as accessible as possible.

Overall the respondents to these online tools were primarily white and middle aged from the demographics recorded through self reporting in the survey. The respondents were also predominantly active park users that were familiar with and invested in Battle Creek Regional Park.

Most respondents prioritized passive and natural space activities such as cross country skiing, hiking, off-road cycling, walking, and birdwatching among others. Man made snow and a nature center were identified as two recreation amenities that deserved consideration in the implementation of a master plan. Programming was also identified as a priority with many community members in favor of implementing nature education and beginner outdoor recreation programs for off-road cycling and cross-country skiing. To a lesser extent, community events and various outdoor classes were also mentioned.

The preservation and protection of natural space was a top priority for survey respondents. Community members indicated the importance of limiting development to areas that are already partially developed such as trailheads, the community center, and in areas of long term acquisition.

Survey results may be found in the Appendix.

#### Survey #2

The second online survey was launched to gain further insight into selected recreational amenities and park features that were identified through community engagement. The survey was open and available to the public from January through October of 2020.

Waterworks is an amenity that is in need of some type of redevelopment or repair. Survey respondents echoed what Ramsey County had heard from in person engagement. Waterworks is seen as an important aspect within Battle Creek Regional Park. What should be done is less certain with community members split between keeping it as a water park for younger children, converting the area to a free splash pad, and expanding the water park to support a wider range of ages.

The survey also found that lighting in select areas of the park should be a priority. Further planning and rules changes will be required for this amenity to be added within Battle Creek Regional Park.

Trailheads were an area that many community members believe need further development. Requested amenities at trailheads include:

- Restrooms
- Drinking fountains
- Lighting
- Bike repair stations
- Additional trash and recycling containers

Survey results can be found in the Appendix.

### Story Map and Survey

In addition to the virtual community meeting Ramsey County sought to make park concept maps available to the largest audience possible. Concept maps along with questions regarding recreational amenities as well as a general open comment and question section was made available for Battle Creek Regional Park. There are many existing and proposed amenities that were identified on the concept park plans, to make the maps as legible as possible different amenities, and segments of the park were separated into a number of maps including:

- Battle Creek Regional Park Master Plan Concept - Regional Connections
- Battle Creek Segment
- Battle Creek Segment Park Access
- Battle Creek Segment Trail System and Park Amenities
- Battle Creek Segment Learning Trails Corridors
- Battle Creek Segment Trailheads and Park Amenities
- Pigs Eye Segment
- Fish Creek Segment

Overall the feedback was supportive of the concept plan, proposed amenities, and programming opportunities in consideration for Battle Creek Regional Park.

Story Map and survey results can be found in the Appendix.

### Municipal Support

The Ramsey County Parks & Recreation Department will be seeking resolutions supporting the Battle Creek Regional Park Master plan from the municipalities of Saint Paul and Maplewood. These resolutions can be found in the Appendix.

\*MORE INFORMATION TO FOLLOW MEETING WITH MUNICIPALITIES\*

# Planning Framework

## Ramsey County Parks & Recreation Commission

Ramsey County Parks & Recreation has met with the Parks & Recreation Commission throughout all phases of engagement to keep them up to date and gather additional feedback and direction.

Ramsey County staff brought the plan to the Ramsey County Parks & Recreation commission on the following dates:

**February 13, 2019:** Ramsey County Parks & Recreation gave an overview of what a master plan is, why they are needed, how they are used and what specifics are included within them. Master plans are the mechanisms to get funding for parks. Regional Parks master planning is dictated by state statute, any funding for a regional park must follow the master plan. In addition the commission was informed of the process that a master plan follows from conception to Metropolitan Council adoption. The commission was given this information because Ramsey County Parks & Recreation had a number of master planning projects that were either in process or about to begin as was the case with the Battle Creek Master Plan. Questions from the commission along with answers included:

- Does a master plan address how pedestrian/bicycling is impacted around the parks especially considering the recent pedestrian deaths in the Battle Creek area?
  - Yes, multi-modal access and identifying if there is a need while working with Public Works and municipalities on adjacent roadways to make them safe is a part of the master planning process.
- Are master plans viewable and how is the public notified of their creation?
  - Ramsey County Parks & Recreation uses email, social media, and regular mail to notify the public of community engagement sessions. The community engagement action planning guide covered next will go into some of these challenges.

**March 13, 2019:** The commission was informed that the original Battle Creek Regional Park Master Plan was completed in 1981 and is in need of an update. SRF Consulting was hired to lead the community engagement process while Ramsey County would perform the writing and graphic development of the plan. Two rounds of community engagement as well as two rounds of design charrettes were expected to draw out ideas from the public.

**May 8, 2019:** The Ramsey County Parks & Recreation Commission received an update on the status of the Battle Creek Regional Park Master Plan. The group was informed of that the master plan is currently entering into the first phase of community engagement with pop-up engagement and stakeholder meetings scheduled from June through August. The second phase of engagement would follow to inform and develop the initial park concept. The third phase would include the introduction of the final park concept along with a public review. Questions from the commission along with answers included:

- How are stakeholders determined?
  - Ramsey County Parks & Recreation creates a list based on current users and also looks for other interested groups and stakeholders. Everyone is considered a stakeholder.
- What are the thoughts behind when parks cross a busy intersection?
  - To make them as safe as possible

**June 12, 2019:** An update on the status of the Battle Creek Master Plan was given to the parks commission. SRF consulting has been hired to assist with community engagement because of the complexity of the stakeholders and user groups involved. This will set the guide for future master plans on how the community can be fully engaged in the process. In addition the commission was informed that a pop-up meeting would take place at the end of June at the Hmong Town Market Place.

- Concern on reaching the high population of renters was expressed
  - Ramsey County will have meetings and pop-ups near the park. A list of events that the Southeast Community Organization is having will be provided to Ramsey County Parks & Recreation.
- Concern for safe access points to the park and access to a Somali translator was also expressed.



Community engagement opportunities were also reviewed as a part of this meeting. Staff gave the commission a list of engagement opportunities and were told that they are welcome to assist in staffing the pop-up booths for master planning community engagement.

**September 11, 2019:** Ramsey County staff updated the parks commission that SRF Consulting is heading the community engagement process for the Battle Creek Master Plan. Important notes from the update included:

- Ramsey County has already hosted several pop-up meetings
- An online survey has been launched
- Many community engagement events were held as a part of community/cultural events in and around the park
- At-large meetings were held during busy times at the Battle Creek Recreation center and Battle Creek Water park.
- Meetings with special interest and community groups
- The second phase of engagement is beginning with the purpose to analyze what has been collected, pinpoint groups/areas that have been missed, and engage those groups.
- Dates for the design workshops and stakeholder meetings are still being determined and will be communicated to the parks commission.

**October 9, 2019:** Ramsey County staff presented the parks commission with the Battle Creek Master Plan engagement results from the first round of online and in-person sessions. The commission was told that on November 2, 2019 the first design your park charrette would be held from 9 AM to 12 PM.

**November 13, 2019:** Ramsey County staff provided the parks commission with an update on the Battle Creek Master Plan. The first design charrette took place on November 2, 2019 at the Battle Creek Recreation Center. Themes explored and proposed by the community included:

- The addition of a nature center, partnerships with other municipalities
- Snow making for cross country skiing and future winter recreation activities
- Safer crossings/park access points
- Additional shelter/picnic opportunities and parking
- Archery
- Public art
- Open space possibilities and other inholdings of the park for acquisition
- Preservation of natural areas instead of development
- There is already an adequate amount of paved trails
- Links to Fish Creek Open Space

These themes will be shared with other stakeholders and community members for their input. Questions from the commission along with answers included:

- A commission member pointed out the very different demographics of two meetings they had attended and asked how that is balanced in creating the master plan.
  - The diversity of stakeholders that are sought out for input is important and all information is weighted equally. Going to large in person meetings is not the only way groups can be heard.
- How is summer vs. winter use balanced?
  - All uses are considered.
- When discussing the Battle Creek Winter Recreation Area, the parks commission wanted to be sure that Ramsey County is making sure that there is equitable input, especially in light of the euro-centric-ness of winter activities. How do we get people to come to more culturally diverse activities that may be added to parks?
  - Engagement has been conducted in a proactive way, for example visiting the Hmong Town Market and seeking input from other geographical and diverse socioeconomic areas that use Battle Creek Regional Park.

## Planning Framework

**August 12, 2020:** Ramsey County Parks & Recreation staff updated the parks commission on the Battle Creek Master Plan. Engagement had to be changed and tailored to fit Covid-19 regulations with much of the engagement being moved to a virtual presence. The parks commission was given an updated schedule for the remainder of the project.

**May 12, 2021:** Ramsey County Parks & Recreation staff provided an overview of the Battle Creek Regional Park Master Plan, including a comprehensive review of the community engagement performed for the creation of the plans as well as an equity analysis of the project.

Questions from the commission along with answers included:

- How was the priority list for implementation established?
  - A combination of measures including secured funding, community engagement, and a cost/benefit analysis.
- At what stage was an equity lens applied?
  - An equity lens was applied from the very beginning, starting with the Request for Proposals from consultants.
- Has qualitative and quantitative data been separated by users and nonpark users?
  - Ramsey County staff shared examples of both and how it has been documented.

**June 9, 2021:** Ramsey County Parks & Recreation staff provided an overview of the parks master planning process and the past decision-making process which has moved from director lead to the involvement of the community in the creation of parks plans. A summation of the previous meeting and the community engagement methods and outcomes obtained for the Battle Creek Regional Park Master plan was provided along with an overview of the plan concepts and desired outcomes was provided to the commission.

Ramsey County Parks & Recreation also informed the Ramsey County Parks & Recreation Commission that the department was seeking a Letter of Support from the commission. The commission made a motion to provide a letter of support for the Battle Creek Master Plan which was approved. The Letter of Support can be found in the Appendix.

### Project Management Team Meetings

The Project Management Team is the decision-making body for the project. Project Management team meetings were held throughout the master planning process. The team worked to guide the master planning effort, providing recommendations for approaches and decisions at key points. Team members were also invited to participate in public engagement. The project Management team consisted of representatives from:

- Ramsey County
- The City of Saint Paul
- The City of Maplewood
- The Minnesota Department of Natural Resources
- SRF Consulting Inc.
- The Lower Phalen Creek Project

An overview of Project Management Team Meetings includes:

**June 10, 2019:** The team met for the first time to discuss the Battle Creek Regional Park Master Plan to gather information on what the members knew about the park and to find out if there were any aspirations that were held for the future of the park.

Among the favorite aspects of the park were:

- Diversity of uses

- Natural resource diversity
- Off-leash dog area
- Park diversity

Hopes for the master plan from team members included:

- Balance recreation with natural passive uses
- Improve bike and pedestrian connectivity
- Play area improvements
- Realize the goal of connecting people to the park
- Connecting to youth
- Improve wayfinding

Project Management Team Members were also presented an overview of the project as the planning effort had been defined to date through the Communications & Public Engagement Plan as well as the proposed timeline. The role of the Project Management Team was also defined as a part of this meeting along with an overview of existing park and regional conditions.

A stakeholder analysis activity was also facilitated by SRF staff through the use of an influence and interest lens. Insights from the Project Management Team were used to further define and develop ways to reach community members whom have traditionally been left out of master planning efforts.

The initial master plan survey was also reviewed and discussed by the Project Management Team. A variety of edits were suggested and incorporated into the survey.

**September 25, 2019:** The second Project Management Team meeting was held to review the findings from the first round of public engagement including pop-up meetings, stakeholder meetings, and a community survey. The in-person and online engagement findings of the first round were presented by SRF staff and found that in-person respondents tended to be more racially diverse and were supportive of active park uses such as splash pads, while online respondents tended to be white and were more supportive of passive park uses such as trails, dog parks, and passive space.

SRF staff also reviewed the general plan for the initial design charrette, which was planned for early November of 2019. The charrette would facilitate a discussion between community members and staff from the Project Management Team, Ramsey County, and SRF.

**December 9, 2019:** Project Management Team meeting #3 was held to review the initial concept plans for Battle Creek Regional Park and to discuss the next steps for community engagement. The feedback from the community in shaping the concepts was shared with the group and included:

- Protect the bluffs and acquire more of that land for the park
- Identification of areas for water fountains and restrooms
- Telling the story and history of the site
- Preserve natural areas, place any new development within already developed park areas.

Major features of the initial concepts for the park included:

- Recommendation to close Battle Creek Road
- Identification of an area for lighted trails and snow-making operations
- Discussions with Carver Elementary regarding field and educational needs
- What other potential infrastructure improvements should be included? Archery range? Takraw or Tuj Lub?

The Project management team also provided feedback and recommendations for the initial concept plans.

## Planning Framework

**April 21, 2020:** The Project Management Team met for a fourth time to discuss the next steps in the master planning effort for Battle Creek Regional Park, which had been altered due to the Covid-19 pandemic. In-person events surrounding phase 2 engagement needed to be postponed, eventually it was decided that the best way to proceed with community engagement would be to move everything to a virtual presence.

The team was also asked to provide guidance on a number of issues including:

- Pigs Eye access points
- Battle Creek Road
- Winter Recreation Trailhead Facility

**December 16, 2020:** The fifth Project Management Team meeting was held to discuss the Final Draft Concept and the public review that had taken place regarding the final concept maps. The team was reminded of the overall planning process and was informed on what was heard from the public, concept development considerations, and proposed major changes to the park. The Project Management Team was also given a draft version of the Battle Creek Master Plan for internal review ahead of the 45-Day Public Review Period.

All Project Management Team meeting notes can be found in the Appendix.

### 30 Day Preferred Concept Plan Review

A public review of the Battle Creek Regional Park Master Plan park concept plan was available for the public to view and submit comments to Ramsey County from November 1 through November 31, 2020.

Comments from the draft review period can be found in the Appendix.

### 45 Day Draft Report Review

A public review of the Battle Creek Regional Park Master Plan park concept plan was available for the public to view and submit comments to Ramsey County from September 15 through October 31, 2021.

Comments from the draft review period can be found in the Appendix.

## Supporting Plans and Documents

### System Plan

During the preparation of the 2018 Parks & Recreation System Plan, community engagement was a major component to allow residents, community organizations, local partners, and park staff to participate in the planning process. The Parks & Recreation department recognized the need to engage the community in reviewing current recreation trends, park use, and available recreation amenities through various methods to solicit input.

A comprehensive needs analysis was completed to emphasize community priorities and support a needs-based allocation of funding for parks and recreation services. The anticipated outcomes for this analysis included:

- Documenting existing park and recreation facilities, how they are used, who uses them, and where improvements can be made
- To aide county officials, park staff, and residents determine what steps to take to ensure all communities in Ramsey County have adequate access to our parks, trails, and open spaces
- Assist in determining the size, location, and number of future parks in Ramsey County.

The community engagement process for the System Plan was conducted using two methods:

- Online survey
- Pop-up meetings throughout Ramsey County

Social media, the Ramsey County Parks & Recreation website, and email communication were used to inform residents of upcoming engagement opportunities.

The online survey was launched in July of 2017 and remained open until February of 2018 and received almost 1,000 responses.

A series of nine informal pop-up meetings were conducted at various libraries, community centers, and ice arenas located throughout the county.

The following themes emerged from an analysis of the input received from the community engagement process:

### Gaps

- More trail connections to parks and open spaces needed
- Add facilities with food and/or concessions available
- Add facilities with recreation rentals such as watercraft, bikes, cross country skis, etc.
- Extend park hours

### Parks & Trails

- Additional off-road cycling and cross-country ski trails
- Develop a new nature center
- Trail development for more and better connection between parks and communities
- Add and improve to existing recreation amenities (playgrounds, picnic facilities, etc.)
- Develop recreation equipment rental facilities

### Programming

- Add programming throughout the Ramsey County parks system
- Nature programs
- Recreation programs

## Off-Leash Dog Areas Master Plan

In 2018 Ramsey County Parks & Recreation completed work on the Off-Leash Dog Areas Master Plan. The plan assesses the current state of off-leash dog areas within the Ramsey County Parks & Recreation system, including Battle Creek Regional Park. After meeting with stakeholders and conducting public engagement meetings throughout the county Ramsey County found that new standards were necessary regarding improvements to site amenities, park rules, and the maintenance and operations of off-leash dog areas within the system.

Improvements for the off-leash dog area at Battle Creek Regional Park includes:

- The addition of an accessible route for the inclusion of all park users as well as maintenance operations
- The accommodation of an area within the off-leash dog area for small dogs only by fencing off a portion of the site with a double gated entry
- Accessible concrete bench pads and trash receptacles
- Development of a multi-species drinking fountain and water line at off-leash dog area entrances
- Double gated entrances
- Removal of miscellaneous and duplicative signage on fences and relocate to a central bulletin board at main entrances

## Planning Framework

- Install a 10' maintenance gate
- Standardize rules boards at entrances, currently rules are not uniformly posted throughout the off-leash area
- Install trash receptacles throughout the off-leash dog area along with waste bag dispensers.

The full Off-Leash Dog Areas Master Plan can be found in the Appendix.

### Off-Road Cycling Master Plan

In 2018 Ramsey County Parks & Recreation completed work on the Off-Road Cycling Master Plan for Battle Creek. Off-road cycling has a long history in Battle Creek Regional Park with reports of cyclists using the area for recreation dating back to the park's inception. The county engaged with the public holding stakeholder meetings, community meetings, and posting an online survey to gather feedback on the improvement and development of off-road cycling within Battle Creek Regional Park.

Major themes that emerged from the master plan include:

- Implementation of looped trails, the current system is very disjointed and linear, if you are not familiar with the trails it is likely you would get lost
- Implementation of a skills area for developing the necessary ability to ride trails within the park
- Implementation of bike repair stations
- Improved wayfinding signage throughout the park

The master plan and subsequent summary of public engagement and off-road cycling history can be found in the Appendix.

### Green Spaces, Green Places An Energy Action Plan for Ramsey County Parks & Recreation

Ramsey County Parks & Recreation worked with Xcel Energy's Partners in Energy team to develop the Energy Action Plan. An eight-member Energy Action Team met in a series of five facilitated workshops to review energy data, establish an energy vision, prioritize areas of focus, set energy goals for the department, and establish a framework for implementation.

The Energy Action Team developed an energy vision statement to help guide decisions throughout development and implementation of the plan. The energy vision is "Ramsey County Parks & Recreation's programs, policies and practices will reflect a commitment to leadership in energy efficiency, conservation, education and renewable energy, to foster a vibrant community where all are valued and thrive."

Based on this vision, the Energy Action Team identified priority focus areas and set goals within each. The team then identified key strategies for achieving these goals, with a priority on short term and impactful action steps.

#### Energy Efficiency and Conservation

- Reduce the total energy use of Parks & Recreation facilities by 20 percent by 2020 and 35 percent by 2025 over a 2008 baseline

#### Renewable Energy

- Utilize 100 percent renewable energy on site at county parks facilities by 2019
- Utilize 50 percent renewable energy at regional parks facilities by 2020, and 100 percent by 2025
- Showcase to the public renewable energy technologies installed at arenas, golf courses, and the administration building by 2020



### Education and Outreach

- Increase awareness of parks' energy efficiency and renewable energy projects to 50 percent of users by 2018
- Engage at least 50 percent of parks employees in an employee energy conservation initiative by 2019

Individual facilities and recreational amenities proposed by the Battle Creek Regional Park Master Plan should be designed and constructed to net-zero standards to further support the goals of the Energy Action Plan.

A copy of the Energy Action Plan can be found in the Appendix.

### **Great River Passage Master Plan**

Planning for the Great River Passage Master Plan began in 2010 and was completed in 2012. The plan uses the vision and guiding principles established in prior plans as a framework to develop specific goals and recommendations to provide direction for future land uses and development in the river corridor. The master plan's vision for the corridor represents complex inter-relationships of urban and natural systems, new types of parks, and innovative means by which the natural qualities of the river corridor can be protected and enjoyed.

Battle Creek Regional Park falls within the area of the Great River Passage Master Plan labeled "The Floodplain." Recommendations from the Great River Passage Master Plan for this area include expanding park access, establishing buffers for natural areas, and improving connections to the lakes and river.

The Great River Passage Master Plan was reviewed by Ramsey County as a complementing plan and a continuation of community engagement. The Great River Passage Master Plan engages the entire 17-mile stretch of the Mississippi River along Saint Paul's borders, of which the Pigs Eye segment of Battle Creek Regional Park is only a portion of the land covered. Within the plan there are access and recreational amenities identified along and within the Pigs Eye segment. However, any access or recreational amenities within the Pigs Eye Lake segment of the park is a long-term goal of Ramsey County which can not be realized until all appropriate investigations into environmental contamination are complete and mitigation strategies concluded and verified. Ramsey County Parks & Recreation is committed to working with all stakeholders and neighboring landowners to address the environmental issues surrounding Pigs Eye Lake and to continue to develop concepts for future recreational activities that are safe and compatible with land uses in the area.

For the full report on the natural resources existing conditions and next steps in the Pigs Eye Lake segment of Battle Creek Regional Park, please see the Pigs Eye Lake Master Plan Amendment.

### **Fish Creek Concept**

Ramsey County and the city of Maplewood worked jointly in 2016 along with community members to develop a concept for Fish Creek Open Space. The concept plan included:

- Expanded trails within Fish Creek Open Space
- New trailheads and parking areas for expanded access
- Playground
- Gathering area
- Shelter and restrooms
- Interpretive programming shelters
- Observation and programming areas along Fish Creek.

Concept Boards that were developed can be found in the Appendix.

## Planning Framework

### Suburban Pond Open Space Concept

The original concept plan for Suburban Pond Open Space included:

- A path loop around the pond
- A small parking lot
- Three picnic shelters in a mowed area near the parking lot
- Native and natural landscape surrounding the pond

The original concept plan for Suburban Pond Open Space can be found in the Appendix.

### Point Douglass Road Regional Trail Master Plan

The city of Saint Paul is currently in the process of creating a master plan for the Point Douglas Regional Trail Corridor. The 4.5 mile corridor is located in the southeast region of the City of Saint Paul running along Highway 61 from Indian Mounds Regional Park (Burns Avenue) to Washington County (Bailey Road).

The trail has the potential for interaction with and Battle Creek Regional Park and would be an important access route for bicyclists, pedestrians, and other trail users into the area. Ramsey County will continue to work with the City of Saint Paul and support the plan as it progresses.

### Pigs Eye Lake Master Plan Amendment

In 2015, funding became available through the Army Corps of Engineers Continuing Authorities Program Section 204 Beneficial Use of Dredged Material to develop a feasibility study with an integrated environmental assessment worksheet for the implementation of islands within Pigs Eye Lake. The Army Corps of Engineers in collaboration with Ramsey County initiated an agency-wide planning effort comprised of federal, state, and local agencies to identify the project scope, objectives, coordination, stakeholders, and process for developing the feasibility study in compliance with National Environmental Protection Act (NEPA) and Minnesota Environmental Project Agency (MEPA). The feasibility study was completed in 2018 and identified the implementation of islands within Pigs Eye Lake was feasible and did not require an Environmental Impact Statement (EIS) under NEPA or MEPA guidelines.

A major planning effort was initiated in 2019 to better address specific needs to the Pigs Eye Lake segment of Battle Creek Regional Park.

#### Battle Creek Regional Park – Pigs Eye Master Plan Amendment

- Sequencing of natural resource and public safety improvements for Pigs Eye Lake.
- Does not address boundary adjustments, park acquisition, or recreational infrastructure and programming improvements which will be completed in a future master plan amendment/update process.
- Address Mississippi River Corridor Critical Area policy standards and criteria
- Public engagement process
- Anticipated completion in 2020.

#### Public Engagement:

Engagement for the master plan was completed on multiple levels for items identified within the master plan from 2015-2020. Both partner engagement for agency coordination and involvement, and community engagement for general participation by the general public was completed for feedback. Below is a high-level summary of public input options.

Partner and Community Engagement Options:

- Pigs Eye Feasibility Study – Prior to this master planning process, previous engagement was completed through planning activities for the Pigs Eye Lake Island feasibility study. As part of this process there was extensive partner engagement with federal, state, and local agencies for development of the feasibility study. Public engagement was completed with two concurrent 30-day public review periods for both the MEPA and NEPA process to allow general feedback from the public. See Master Plan Appendix - Pigs Eye Feasibility Study – Appendix A for additional information regarding correspondence and coordination.
- Master Plan Amendment -
  - Previous public engagement completed – Past engagement for development of the 2018 Park and Recreation System Plan, and the overall Battle Creek Regional Park master plan were utilized.
  - Additional public engagement - The Parks department launched a 45-day public review period from mid-August through the end of September 2020. Other steps taken for master plan public engagement consisted of numerous project information notifications, social media, and making information available through the County Parks project website.
- Agency support – Following the public engagement period, the Parks department initiated a process for agency support of the master plan amendment. Additional support and approval were requested from the City of Saint Paul, Ramsey County Parks & Recreation Commission, and the Ramsey County Board of Commissioners prior to submittal to the Metropolitan Council.

### Engagement Results:

The following themes emerged from analysis of input received through the community engagement process.

#### Community Participation Themes:

- Pigs Eye Island Building Project – these themes are discussed more in detail in the Conflict master plan section.
  - Project planning/intent – project understanding as a habitat restoration project and the need for additional public safety components related to long-term environmental clean-up
  - Constructability
    - Utilization of dredge material
    - Testing
    - Existing pollution
  - Timing for implementation – potential delay of the project until long-term cleanup activities have been completed.
  - Effectiveness
    - Benefits of islands in Pigs Eye Lake
    - Long-term clean-up efforts
    - Impact and/or benefits to existing wildlife
- Public safety – need for additional long-term planning
- Need for future access and recreation improvements
- Climate resilient vegetation
- Opportunity for partnerships and collaborations

#### Agency Participation Themes:

- Pigs Eye Island Building Project – extensive support from all levels of federal, state, and local agencies through benefits achieved from this project.
- Public safety – need for additional long-term planning
- Climate resilient vegetation
- Opportunity for partnerships and collaborations

Theme outcomes related to both community participation and agency participation have been analyzed and incorporated were feasible in the master plan for continued participation, and evaluation/completion of projects identified in the master plan.

## Planning Framework

### Equity Analysis:

Public engagement for the focused master plan amendment was intended to reach as wide of an audience as possible and focused on gathering information both from residents who live near the regional park and county-wide as well. Even though no recreational infrastructure improvements or programming amenities are proposed in this master plan amendment an equity analysis was still conducted to provide approximate values for areas within one mile of the Pigs Eye Lake area.

Comparing census blocks from 2010 data and approximate values in 2017 between tracts that fall within 1 mile of the Pigs Eye Lake area with Ramsey County overall provided some meaningful data. Ramsey County, as of 2017, had a population of 537,893. The median household income of the county was \$60,301, with a poverty rate of 15%. The subset of the population living in a census tract within 1-mile of Pigs Eye Lake had a population of 72,623, with a median income of \$53,911 and a poverty rate of approximately 20%. The area surrounding Pigs Eye Lake is very diverse with approximately 49.5% people of color comparing to Ramsey County overall with approximately 36.94% people of color. Additional data for neighborhoods within the immediate surrounding area shows a higher percentage of population in 25-64 age range with 25-34 age range with the highest.

The engagement process with the community consisted of numerous project information notifications through social media, website, newspaper in addition to making information available through the County Parks project website. The level of engagement as defined by the International Association for Public Participation's Public Participation Spectrum was "consult" for development of the focused master plan amendment.

### Development Plan:

The focused master plan amendment addresses natural resource and public safety improvements to the Ramsey County Pigs Eye section of Battle Creek Regional Park.

- Pigs Eye Island Lake Project (first step of improvements) - The selected plan includes six islands with sand benches totaling approximately 35.69 acres. Three of the islands would utilize a "split" design that would establish sheltered areas in the centers of the islands, allowing for the creation of approximately 17.6 acres of protected wetland habitat. Island vegetative cover will consist of native grass and shrub land plantings. The recommended plan was developed to address the following objectives in Pigs Eye Lake:
  - Improve aquatic habitat – create depth and habitat diversity in Pigs Eye Lake. Increase acreage of aquatic vegetation. Incorporate structural habitat features to promote fisheries.
  - Improve the quantity and quality of habitat for migratory bird species – create suitable habitat for migratory birds such as dabbling ducks within Pigs Eye Lake.
  - Maintain or enhance the quantity of shoreline habitat – protect existing floodplain forest and marsh habitat along the shoreline of Pigs Eye Lake from wind and wave erosion.
- Other Natural Resource Restoration activities and projects
  - Conversion of mixed woods to floodplain forest (i.e. reforestation of native floodplain tree species)
  - Continued enhancement of existing wetland
  - Removal of invasive species
  - Re-vegetation of the existing shoreline
- Pigs Eye Lake Public Protection

## Summary of Public Engagement and Outreach Themes

### Battle Creek Regional Park - Regional Connections

- Additional trails, both rustic and paved to connect regional park parcels including Battle Creek Regional Park, Fish Creek Open Space, and the Pigs Eye segment of Battle Creek Regional Park
- Acquire properties along the bluffs between Battle Creek Regional Park and Fish Creek Open Space when they become available and from a willing seller.
  - This connection would also provide space for recreational amenities such as overlooks, rest areas, picnicking, rustic trails, and trailheads in addition to the critical role of environmental preservation.

- Establish better public access into the Pigs Eye segment of Battle Creek Regional Park.
  - Grade separated crossings of Highway 61 and the railroad corridor
  - Trailhead development at the north end of Red Rock Road and at the north end of Pigs Eye Lake
- Regional Trail Corridors and Connections
  - Access to and between the regional system are an important aspect of the regional parks system. Ramsey County should continue to support and be involved in the planning of the Point Douglass Regional Trail Master Plan led by Saint Paul and the Afton Bluffs Regional Trail Search Corridor.
- Acquisitions
  - Expand the administrative boundary of Battle Creek Regional Park by including Suburban Pond Open Space, Fish Creek Open Space including city of Maplewood owned property, and select residential properties when they become available and from willing sellers.

### Battle Creek Park Segment

- Access and safety improvements
  - The Battle Creek segment of the regional park is a highly segmented area that has many road crossings. Community access into park areas should be a focus of the master plan. The employment of various strategies such as rapid flashing beacons, underpasses and/or overpasses where they are viable, crossing lights, and other methods should be strongly considered.
- Natural Resource Preservation and Management
  - Community input indicated an extremely strong desire to keep Battle Creek Regional Park as undeveloped and natural as possible. Every effort should be made to limit development to existing nodes of development such as existing trailheads and newly acquired land. Ramsey County and its partners shall continue to manage and preserve the natural quality and aesthetic of the park.
- Winter Recreation Area
  - The implementation of recreational amenities within the winter recreation area should continue to be a priority for Ramsey County. Amenities may include snow making, lighting, a skills and staging area, and a warming hut.
- Trailhead development
  - Existing trailheads should be standardized to the extent possible to include lighting, restrooms, drinking fountains, and bike fixing stations.
  - Select new trailheads located at Suburban Pond Open Space and along Battle Creek Road should be investigated as property is brought into Battle Creek Regional Park.
- Learning Trails
  - The addition of outdoor classrooms, messaging boards, and other learning opportunities should utilize exiting trails and trail corridors. The educational opportunities may include wildlife, plant species, park history, and Native American history.
- Waterworks Redevelopment
  - Waterworks redevelopment, expansion, or rehabilitation should be a priority of future development.
- Acquisitions
  - Suburban Pond Open Space
  - Select residential properties when they become available and from willing sellers.

# Planning Framework

## Pigs Eye Segment

- Trailhead development
  - Explore possible trailhead locations for access to Pigs Eye Lake
  - Trailhead development may include wayfinding signage, parking, canoe and kayak launches, restrooms, and picnicking opportunities.
- Recreational Development
  - Natural surface trail and boardwalk system for hiking, birdwatching, and fishing opportunities around the lake
- Pigs Eye Island Heron Rookery Scientific and Natural Area
  - Continue to preserve and protect the valuable resource
  - Acquire parcel that connects to the scientific and natural area owned by the Saint Paul Port Authority
- Access and safety improvements

The themes above are a result of community engagement and past planning efforts and are not proposed for development at this time. Ramsey County Parks & Recreation would like to acknowledge the results of community engagement and past planning efforts to present potential future access and recreational amenities. Ramsey County acknowledges that issues including environmental contamination and clean up, public safety, and compatibility of recreational use with surrounding land must be resolved before any new visitor access or recreational amenities can be provided. The Pigs Eye Lake Master Plan Amendment was produced to highlight this area and take a closer look at natural resource related projects and environmental clean up.

Additional coordination for necessary security steps will need to be considered for improvements within the Pigs Eye Lake segment of Battle Creek Regional Park. For example, the Metropolitan Wastewater Treatment Plant follows the strategic guidance laid out in the National Infrastructure Protection Plan for security of critical infrastructure. Additional coordination and necessary security steps will be needed to mitigate security concerns for implementation of projects within the Pigs Eye Lake area.

The Pigs Eye Lake Segment is located in a heavily industrialized area, close to the Metro Wastewater Treatment Plant and other major air emissions sources. Prior to planning and implementing recreational amenities, Ramsey County Parks & Recreation will need to evaluate the long-term health impacts of air quality on public users of proposed amenities. In addition, the land use designation for the Metro Plant is industrial and the plant is a highly industrialized facility with safety and use consistent with that designation. Noise, odors, emissions, and traffic are present at levels that are consistent with industrial land use and that meet the Metro Plant's permits but which raise concerns about conflicts between the proposed recreation and the current land use designation in the surrounding area. While the Metropolitan Council Environmental Services has invested in reducing odor generation at the Metro Plant, further reductions are unlikely to mitigate odors to a significant degree. Noise, traffic, and emissions from Metro Plant operations and maintenance activities may also negatively impact the public's ability to enjoy recreational activities.

In addition to the challenges posed by conflicting land uses near Pigs Eye Lake there are also contamination and public safety issues that need to be addressed prior to enabling future recreation development and safe public use of the Pigs Eye Lake Segment of Battle Creek Regional Park. The Pigs Eye Lake Master Plan Amendment was written to address the natural resources existing conditions and future plans for the Pigs Eye Lake Segment. Next steps for Public Safety Planning Activities include:

- Secure funding for planning activities
- Initiate an agency-wide planning team to determine project scope, objectives, coordination, stakeholders, agency and public engagement, funding strategy, and process for developing a long-range plan for remediation. Initiate an agency and public engagement process
- Initiate additional site assessments and testing to determine the extent of contaminants within Pigs Eye Lake and



surrounding areas

- Develop an agency-wide monitoring and stewardship plan
- Other required planning activities as required dependent on outcomes from long-term planning
- Secure funding for remediation

Recreation amenities that have been identified as a result of public engagement for the Battle Creek Regional Park Master plan such as fishing, canoe and kayak use/launches, and providing access to the shore of Pigs Eye Lake could bring park users into contact with water and soil that has been found to be contaminated. Access and recreational amenities within the Pigs Eye Lake segment of the park is a long-term goal of Ramsey County which can not be realized until all appropriate investigations into environmental contamination are complete and mitigation strategies concluded and verified. Ramsey County Parks & Recreation is committed to working with all stakeholders and neighboring landowners to address the environmental issues surrounding Pigs Eye Lake and to continue to develop concepts for future recreational activities that are safe and compatible with land uses in the area.

For the full report on the natural resources existing conditions and next steps in the Pigs Eye Lake segment of Battle Creek Regional Park, please see the Pigs Eye Lake Master Plan Amendment.

### Fish Creek Segment

- Trailhead development
  - Trailhead development may include wayfinding signage, improved and increased parking, restroom building(s), a playground, and picnicking or shelter opportunities.
- Recreational development
  - Passive recreation should be prioritized in the Fish Creek Segment of Battle Creek Regional Park.
  - Expand rustic hiking and walking trails in the area
  - Include a combination of outdoor classrooms, park signage, and learning opportunities along trail system to incorporate programming in the future that may be self-guided or teacher directed.
- Acquisitions
  - City of Maplewood Fish Creek property and select residential parcels when they become available and from willing sellers.

### Programming

Overall there was broad support for increased programming throughout Battle Creek regional Park. Recreation stakeholders and heavy users of off-road cycling and cross-country ski trails supported classes and learning opportunities to help expand their respective sports. Racially and economically diverse community members supported the inclusion of beginner courses in recreational sports, nature study, after school programs, art education, summer camps, and community festivals and events.

Throughout Public engagement Ramsey County has heard that the community would like greatly expanded programming opportunities in Battle Creek Regional Park. At pop-up engagement events more community members commented on and shared their desire in programming within the park than any other category. A study to detail the feasibility and which types of programming are offered and implemented should be a top priority coming out of the master plan.

Ramsey County has many options for partnering with other groups such as Friends of the Mississippi, the cities of Saint Paul and Maplewood, the Friends of Maplewood Nature Center and Preserves, the Minnesota Department of Natural Resources, and many others. A coalition should be formed to study and make park programming a reality.

## DEMAND FORECAST

Visits and use of the regional parks system increased by 6.3% from 2018 to 2019 to an estimated 63.3 million visits. Ramsey County facilities were the fourth most visited with 5.7 million estimated visits. In addition, Ramsey County had the largest percentage increase in visitation at 19%. Ramsey County regional facility visits have continually rose from 3.8 million in 2015 to the 5.7 million that were seen in 2019. Of the regional parks and trails that Ramsey County is responsible for as an implementing agency Battle Creek Regional Park was the most visited in 2019 with an estimated 887,744 visits. The expansion of Battle Creek Regional Park to include Suburban Pond Open Space, Fish Creek Open Space, Mississippi River Bluffs Open Space along with efforts to increase access and public awareness of the park while increasing recreational amenities and opportunities within Battle Creek will continue to promote a rise in visitors. The use of Battle Creek Regional Park is anticipated to continue to rise due to urban recreation trends, and anticipated population growth within the park service area. Population projections for surrounding communities are shown in the table below.

### Population Projections

County & City	2010 Census	2020	2030	2040	Percent Change
<b>Ramsey County</b>					
Saint Paul	285,068	315,000	329,000	344,100	20.7%
Maplewood	38,018	42,200	45,600	48,600	27.8%
North Saint Paul	11,460	12,000	12,000	12,000	4.7%
<b>Washington County</b>					
Woodbury	61,961	72,500	80,500	87,800	41.7%
Oakdale	27,401	29,600	35,300	36,000	31.4%
Newport	3,435	3,600	4,050	4,450	29.5%
<b>Dakota County</b>					
South Saint Paul	20,160	21,500	21,500	21,800	8.1%

# Existing Conditions



## REGIONAL PARK AND TRAIL SYSTEM CONTEXT

Battle Creek Regional Park is unique within the Ramsey County park and trail system, there are many local and regional connections that the park plays a vital role in. In addition to belonging to the Ramsey County and Metropolitan Regional Park and Trail System, a portion of Battle Creek Regional Park also lies within both the Mississippi National River and Recreation area and the Mississippi River Critical Corridor Area.

Battle Creek Regional Park is a part of the Regional Parks System established in 1974 which includes 64 regional parks, park preserves, and special recreation features, as well as more than 389 miles of regional trails open to the public. The park is adjacent to Indian Mounds Regional Park separated only by Highway 61. Regional trails both planned and existing further connect the park to the regional system including the Sam Morgan Regional Trail, Point Douglas Regional Trail, Mississippi River Regional Trail, and a regional search corridor for the Afton Bluffs Regional Trail.

The Mississippi National River and Recreation Area, a unit of the National Park Service, is a 72-mile long river park offering quiet stretches for fishing, boating, and canoeing. Other areas are excellent for birdwatching, bicycling, and hiking. Unlike most national parks, the Mississippi River and Recreation area is a “partnership park.” The National Park Service owns only 67 acres of the 54,000 acres within the park boundary. The rest is composed of city parks, regional parks, one state park, a national wildlife refuge, state scientific and natural areas, along with private businesses and homes including parts of Battle Creek Regional Park.

The Mississippi River Corridor Critical Area Program is a joint state, regional, and local program that provides coordinated land use planning and zoning regulations for the 72-mile stretch of the Mississippi River through the seven county metropolitan area covering 54,000 acres of land in 30 local jurisdictions. The Mississippi River Corridor Critical area shares a boundary with the Mississippi National River and Recreation Area. Any development within the Mississippi River Corridor Critical area in Battle Creek Regional Park would need to adhere to the standards and criteria for the preservation, protection, and management of the Mississippi River Corridor Critical Area under Minnesota Statute 6106.

The Mississippi River Corridor Critical Area was designated in 1976 to protect its many unique natural and cultural resources and values. These resources and values are protected through development standards and criteria implemented via local land use plans and zoning ordinances.

## Existing Conditions

The Mississippi River Corridor Critical Area is home to a full range of residential neighborhoods and parks, as well as river-related commerce, industry, and transportation. Though the river corridor has been extensively developed, many intact and remnant natural areas remain, including bluffs, islands, floodplains, wetlands, riparian zones, and native aquatic and terrestrial flora and fauna.

## LOCATION AND SIZE

Battle Creek Regional park is owned and operated by the Ramsey County Parks & Recreation department and is located in the southeast corner of Ramsey County within the cities of Saint Paul and Maplewood. The park can generally be divided into two main segments, the active recreation area of the park is bound by Interstate 94 to the north, Century Avenue to the east, Lower Afton Road to the south, Highway 61 to the west, and consists of 759.5 acres. The Pigs Eye Lake segment of the park is bound by Highway 61 to the east, the Mississippi River to the south and west, properties owned by the city of Saint Paul and Metropolitan Council Environmental Services to the north, and consists of 1,131.7 acres.

The park is composed of several tracts of land that are mostly connected, with most large sections only separated by roads. There is an area of private residential land in the middle of what is mostly a block of continuous land, with other narrow sections of residential land adjoining the park. The park has a relatively large amount of edge habitat that border mainly single-family residential and school properties, and few interior tracts of land that are unaffected by regular human activity. The north and west edges of the park are bounded by major roadways, Interstate 94 and US Highway 61. On the east, the park borders Ramsey County Corrections department property. The Pig's Eye lake section is separated from the main park by US Highway 61 and railroad yards.

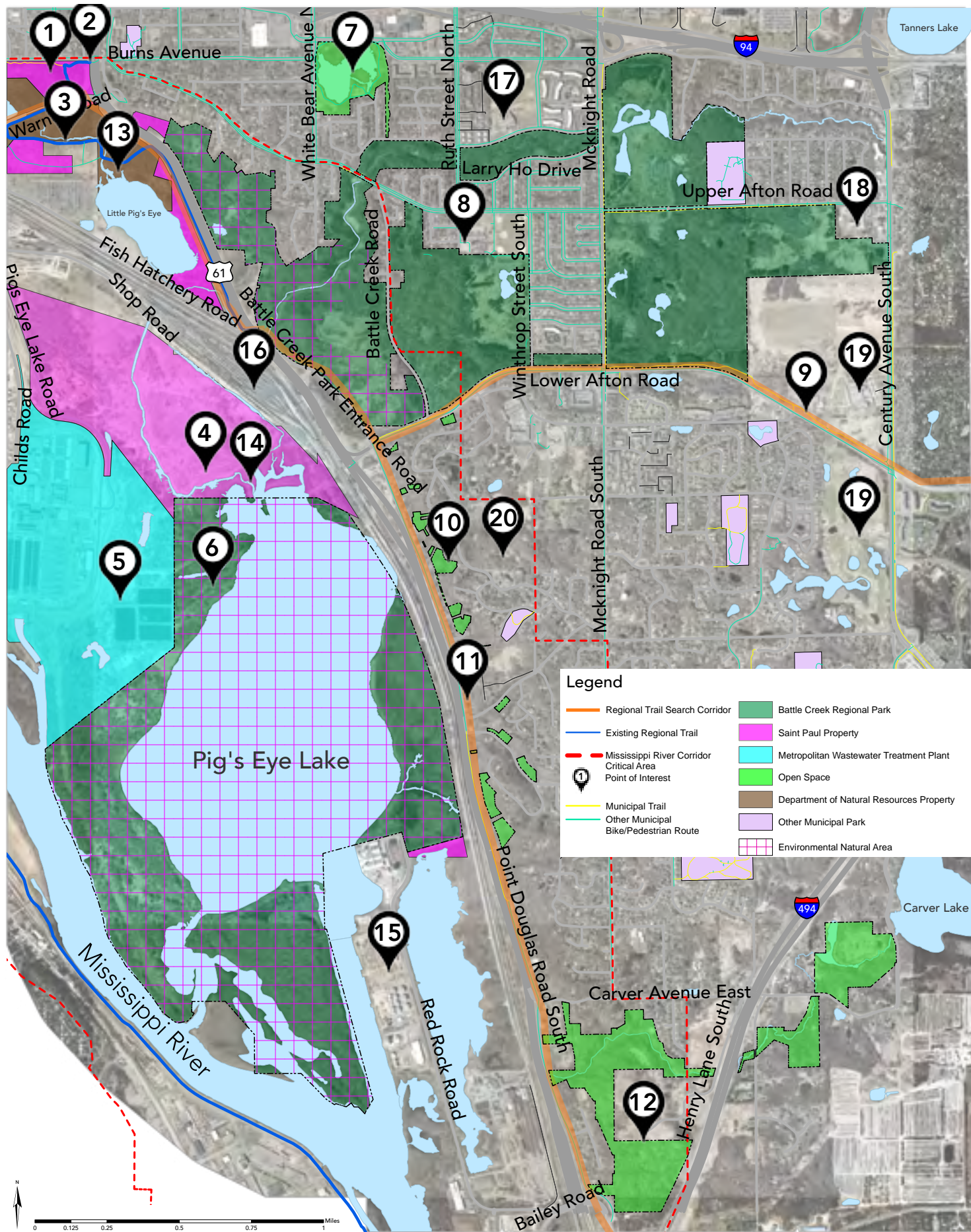
The natural resources of the park are intimately connected to surrounding areas in St. Paul, Oakdale, Maplewood, and Woodbury. The Mississippi River bluff terraces and open space that border the west side of the park continue to the northwest toward Mounds Bluff and St. Paul, and to the south, to Fish Creek open space, with some breaks in the bluff and canopy due to roads and homes. The oak woodlands and bluff prairies in the park continue along the bluffs into these adjacent areas as well. These connections are an important consideration for natural resources planning in the area. The river corridor, surrounding bluffs, park lands and areas to the north and surrounding the Pig's Eye Lake segment are part of an important migratory corridor for many species of birds.

The hydrology in and around Battle Creek Regional Park has mostly been manipulated to flow through storm sewer structures, with the exception of Battle Creek and Fish Creek, which runs on the surface.

Battle Creek, Fish Creek, Suburban Pond, and the Mississippi River bluffs are solely within the Ramsey-Washington Metro Watershed District. The Ramsey-Washington Metro Watershed District has jurisdiction over the surface waters, along with the state of Minnesota. There are four major sub watersheds that flow through the park, with the majority of the main park within the Battle Creek sub watershed and the Pig's Eye segment within the Mississippi river bottoms subwatershed. Both include large sections of urban runoff from the north and west. Battle Creek itself flows from Battle Creek Lake and consists of surface flow throughout most of the park until it outlets into a series of wetlands north of Pig's Eye lake.



REGIONAL POINTS OF INTEREST



Legend

- Regional Trail Search Corridor
- Existing Regional Trail
- Mississippi River Corridor Critical Area
- Point of Interest
- Municipal Trail
- Other Municipal Bike/Pedestrian Route
- Battle Creek Regional Park
- Saint Paul Property
- Metropolitan Wastewater Treatment Plant
- Open Space
- Department of Natural Resources Property
- Other Municipal Park
- Environmental Natural Area

## Existing Conditions

### SITE INVENTORY AND ANALYSIS

Battle Creek Regional park is situated within a complex network of residential, industrial, and municipal, state, and railroad owned properties. Due to the urban setting, the park is divided into two main segments separated by Highway 61 and the Soo Line and BNSF railroads. To the east of the divide is the developed Recreational Area Segment and the Pigs Eye Lake Segment lies to the west.

#### Regional Points of Interest

1. **Indian Mounds Regional Park:** located atop the bluffs of the Mississippi River near downtown Saint Paul, the 111-acre park consists of river bluffs, steep slopes, rolling hills, woodlands, and grasslands. The site is rich in history and is the site of Indian burial mounds which date to the Hopewell Indian Era of more than 2,000 years ago. The Metropolitan Council recognizes Battle Creek & Indian Mounds as a single regional park. Access between the sites is extremely limited, Highway 61 acts as a severe obstacle to pedestrians attempting to navigate between the two areas, and the Fish Hatchery Trail underpass is periodically damaged by erosion issues causing frequent closures.
2. **Sam Morgan Regional Trail:** follows Shepard and Warner Roads along the east side of the Mississippi River from Crosby Farm Regional Park to Indian Mounds Regional Park. Walkers, runners, and bikers enjoy beautiful views of the Mississippi River, the downtown Saint Paul skyline, the Cathedral, High Bridge, and more along this approximately nine-mile paved path. The trail ends at Highway 61 and this would seem to be an ideal location for an improved crossing in an attempt to connect the two regional parks
3. **Minnesota Department of Natural Resources and Fish Hatchery:** the first state run hatchery, established in 1877, was first called the Willow Brook Hatchery, then Mounds Park Hatchery, and finally Saint Paul Hatchery. The Department of Natural Resources owns approximately 60 acres of land located between land owned by the city of Saint Paul and north of the Pigs Eye segment of Battle Creek Regional Park.
4. **Saint Paul - Pigs Eye Regional Park:** the city of Saint Paul owns approximately 290 acres of land to the north of Pigs Eye Lake and the eastern edge of Little Pigs Eye separated by railroad tracks. The southern parcel covers a former landfill which was remediated and turned into a park featuring the 500-acre lake, hiking trails, and bird watching areas. Access to this site is limited, users must cross the railroad tracks on Childs and Pigs Eye Lake Roads and park near the Saint Paul wood chipping site.

Saint Paul also operates an archery range located at 1200 Warner Road; the hours of operation are from sunrise to sunset.

5. **Metropolitan Council Environmental Services - Metropolitan Wastewater Treatment Plant:** located on the Mississippi River in Saint Paul, this is the largest wastewater treatment facility in Minnesota. When it opened in 1938, it was the first plant in a metropolitan area on the Mississippi River. Today it is among the nation's largest. The Metro Plant treats an average of 172 million gallons of wastewater per day. The Metro Plant's excellent environmental record has resulted in it regularly earning state and national awards for operational excellence, including the National Association of Clean Water Agencies Platinum Peak Performance Award for perfect clean water discharge permit compliance for 5 consecutive years. Metropolitan Council Environmental Services' record of improving and protecting Mississippi River water quality is a pillar of its history, one of the most important aspects of its work, and a significant contribution to quality of life in the Twin Cities metropolitan area.

Metropolitan Council Environmental Services owns and maintains wastewater infrastructure in and around several areas of Battle Creek Regional Park, including wastewater conveyance pipes and the Metropolitan Wastewater Treatment Plant. To protect this infrastructure, Metropolitan Council Environmental Services follows the strategic guidance laid out in the National Infrastructure Protection Plan that was created by Homeland Security in response to Presidential Policy Directive 21 following the attacks of September 11, 2001. This plan designates water and wastewater infrastructure as an essential component of Critical Infrastructure and Key Resource (CIKR) protection and directs owners of such infrastructure to take an "all hazards" prevention and reduction approach,



which involves taking action to prevent, protect against, mitigate, respond to, and recover from all hazards. Goals developed under that guidance direct Metropolitan Council Environmental Services to sustain protection of public health and the environment by recognizing and reducing risks to and vulnerabilities of its infrastructure. The impacts on the security of the regional wastewater system will be fully addressed prior to Ramsey County Parks & Recreation moving forward with the master plan.

6. **Battle Creek Regional Park - Pigs Eye Segment:** The entire Pigs Eye Lake segment of the regional park lies within the floodplain of the Mississippi River. The lake is approximately 500 acres in size and is very shallow, the land surrounding the lake is approximately 610 acres. Access to this area of the regional park is extremely limited and has no recreational amenities available.

The Pigs Eye Lake segment contains one of the largest heron rookeries in the state of Minnesota and is designated as a State Scientific and Natural Area by the Minnesota Department of Natural Resources. Species that nest in the rookery include great blue heron, great egret, black-crowned night-heron, double-crested cormorants, and yellow crowned night heron. This is one of four places in the state where yellow-crowned night herons are known to nest.

Scientific research at this State Scientific and Natural Area has included the study of perflourinated compounds (PFCs) in migratory birds, based on chemical analysis of the eggs of great blue herons. Perflourinated compounds are a family of synthetic chemicals, which bio-accumulate in organisms and, according to the Minnesota Pollution Control Agency, have been found to have some health effects in animals. Studies in 1993 and again in 2010-2011 found perflourinated compound concentrations in some heron eggs collected from the island to be among the highest measured in bird eggs worldwide. As reported by the study Perflourinated Compound Concentrations in Great Blue Heron Eggs near Saint Paul, Minnesota, numerous manufacturing facilities and landfills for perflourinated compound related waste, as well as a wastewater treatment plant, are located within 12.42 miles of the colony: a distance great blue herons regularly travel from nest sites for daily feeding. Perflourinated compounds are a family of synthetic chemicals associated with harmful physiological and neurological effects in birds. Of particular and ongoing concern are certain "long chain" types – a reference to the number of carbons – which according to the Environmental Protection Agency are "persistent in the environment, bioaccumulative in wildlife and humans, and toxic to laboratory animals and wildlife."

7. **Suburban Pond Open Space:** a 32-acre site including a 20-acre pond and wetland complex as well as a 50 to 300-foot strip of upland around the entire pond. The pond consists of approximately 50% open water and 50% wetland vegetation and is a significant storm water pond for Battle Creek, located ¼ mile to the south. The area also has a one-half mile wood chip trail which circles the pond. An outlet structure controls the pond elevation.
8. **Battle Creek Recreation Center:** offers educational programs, after school activities, open gym, tot-times, family events, fitness center memberships, seasonal ice-skating, athletics fields, field rentals, and rental spaces. The recreation center is run by the city of Saint Paul and also serves as a major trailhead for off-road cycling, hiking, cross-country skiing, and many more activities that take place within Battle Creek Regional Park.
9. **Afton Bluffs Regional Trail Search Corridor:** the Afton Bluffs Regional Trail will be an approximately 17-mile long multiple-use trail that will run through Woodbury, Afton, Maplewood and Saint Paul. Once fully developed it will connect to regional destinations including the Central Greenway and Saint Croix Valley Regional Trails, Afton State Park, and Battle Creek Regional Park. The trail will also provide vital connections to local destinations including trails, parks, schools, and businesses.

The Afton Bluffs Regional Trail is not planned or fully developed. A master planning process may identify existing trails as part of the regional trail alignment.

## Existing Conditions

10. **Mississippi River Bluffs Open Space:** located in the southeast part of Ramsey County in the city of Saint Paul, the site is a 2-mile long narrow strip of steep sloped bluff line within the Mississippi Corridor Critical Area, paralleling the east side of Highway 61 between Battle Creek Regional Park and Fish Creek Open Space. Ramsey County currently owns 69 platted lots totaling 12 acres in the area. These lots constitute about 25% of the total site and are scattered without much continuity of owned space.

Currently there are no existing or proposed recreation improvements for the site.

11. **Point Douglass Regional Trail Search Corridor:** stretching 4 miles from the Bruce Vento Regional Trail to the Point Douglass Regional Trail in Washington County. The trail is located in the southeast region of the city of Saint Paul running along Highway 61 from Burns Avenue to Bailey Road. Saint Paul Parks and Recreation is in the process of preparing a master plan for the future Point Douglass Regional Trail which includes community engagement, assessing trail feasibility, and engineering testing.
12. **Fish Creek Open Space:** located in the southeast corner of Ramsey County and neighboring the cities of Saint Paul and Maplewood, the site is 130 acres in size. The defining characteristic of Fish Creek Open Space is Fish Creek, which flows for 1.5 miles from Carver Lake to Pigs Eye Lake on the west side of Highway 61.

The city of Maplewood owns land abutting Fish Creek Open Space that contains a short paved trail network sitting on a flatter area above the bluffs and creek valley. The city made improvements consisting of the paved trail and a parking lot development utilizing both the city and county owned property in 2016. Maplewood also completed improvements to the existing access road off of Carver Avenue entering Fish Creek Open Space. Maplewood and Ramsey County also completed a joint Master Plan Concept, which was adopted by both the city and Ramsey County. The concept plan included paved trails, turf trails, programming elements, parking and access points, and central gathering spaces. Ramsey County would like to explore the opportunity of including Suburban Pond Open Space into the boundary of Battle Creek Regional Park as well as any future recreational opportunities as a part of the Battle Creek master plan.

13. **Saint Paul Fish Hatchery Dump Site:** The following information was taken from the Minnesota Pollution Control Agency website. (<https://www.pca.state.mn.us/waste/st-paul-fish-hatchery-dump-site>) The Fish Hatchery Dump is located in the Mississippi River valley, south of the intersection of Warner Road and Highway 61 in Saint Paul. The dump is about 38 acres, mostly of wooded and grassy areas. A stream and a bicycle trail are other features of the dump site. Little Pigs Eye Lake and the Burlington Northern Santa Fe Railyard are located to the south and southeast of the site, and the Minnesota Department of Natural Resources Central Regional Office is located to the west.

The Fish Hatchery Dump operated from the mid-1930s to 1971. During the dump's operation, approximately 690,000 cubic yards of garbage and other wastes that can decay were disposed of. When the dump closed in 1971 the waste was covered with soil.

Over time, erosion, freezing/thawing cycles, and flooding have removed some of the cover soil, exposing the waste in spots. The dump was added to the Minnesota Superfund list in August 2007.

Pesticides, metals, volatile and semi-volatile organic compounds, polychlorinated biphenyls (PCBs) and polyfluoroalkyl substances (PFAS) exceeding Minnesota standards are found in soil, groundwater, surface water, and sediment.

Visitors who get off the bicycle trails could be exposed to contamination by walking or camping in the areas where landfill soil cover has been disturbed. Visitors could contact contaminated sediments in the lake and stream by wading and paddling in the area. Visitors can also consume contaminants while swimming or eating fish caught there.

The full extent of contamination at the site is not yet known. Visitors who stay on the bike trail have no or very little risk of being exposed to contamination.

## Existing Conditions

Additional soil, groundwater, surface water, and sediment testing are being done to determine the full extent of the contamination and outline which areas need to be cleaned up. The testing results will be used to design a cleanup plan for the area.

Various organizations have expressed interest in improving this area for future recreational use by the public. Throughout the investigation and cleanup process, the Minnesota Pollution Control Agency will continue to work cooperatively with project stakeholders and organizations regarding future Site Redevelopment. (<https://www.pca.state.mn.us/waste/st-paul-fish-hatchery-dump-site>)

### Fish Hatchery Superfund Site



14. **Saint Paul Pigs Eye Dump:** The following information was taken from the Minnesota Pollution Control Agency website. (<https://www.pca.state.mn.us/waste/st-paul-pigs-eye-dump-site>)

Pigs Eye Dump operated between 1956 and 1972, accepting waste from communities, businesses, and industry in the east metro area. Much of the waste was deposited in wetland areas on the property. Minnesota Pollution Control Agency records show that an estimated 8.3 million cubic yards of waste was disposed of on the approximately 230-acre site. (Waste from the Fish Hatchery Dump is not included in this estimate) This makes the Pigs Eye Dump the largest unpermitted dump site in the state.

From 1977 to 1985, the site also was used for the disposal of wastewater treatment sludge ash by the Metropolitan Council Wastewater Treatment Plant. An estimated 236,000 cubic yards of ash were placed on top of old garbage.

There are several ways that "hot spots" of contamination have been eliminated or minimized. Starting in 1999, remediation efforts have included:



## Existing Conditions

- Removing exposed drums of waste along Battle Creek
- Augmenting the shoreline of Pigs Eye Lake with organic rich soils that have slowed the migration of contaminants into it
- Stabilizing lead-contaminated soil in the battery disposal area by mixing it with a cement-like substance that fixes the lead, keeping it from running off the site or leaching into the groundwater
- Covering the entire site with at least two feet of clean soil and planting trees to prevent erosion and draw contaminants from the groundwater
- Filling in ponds in the southeast and southwest portions of the dump with organic rich soil and planting the areas with trees to prevent erosion and encourage biological removal of contaminants.

At this time, the Minnesota Pollution Control Agency wants to minimize the amount

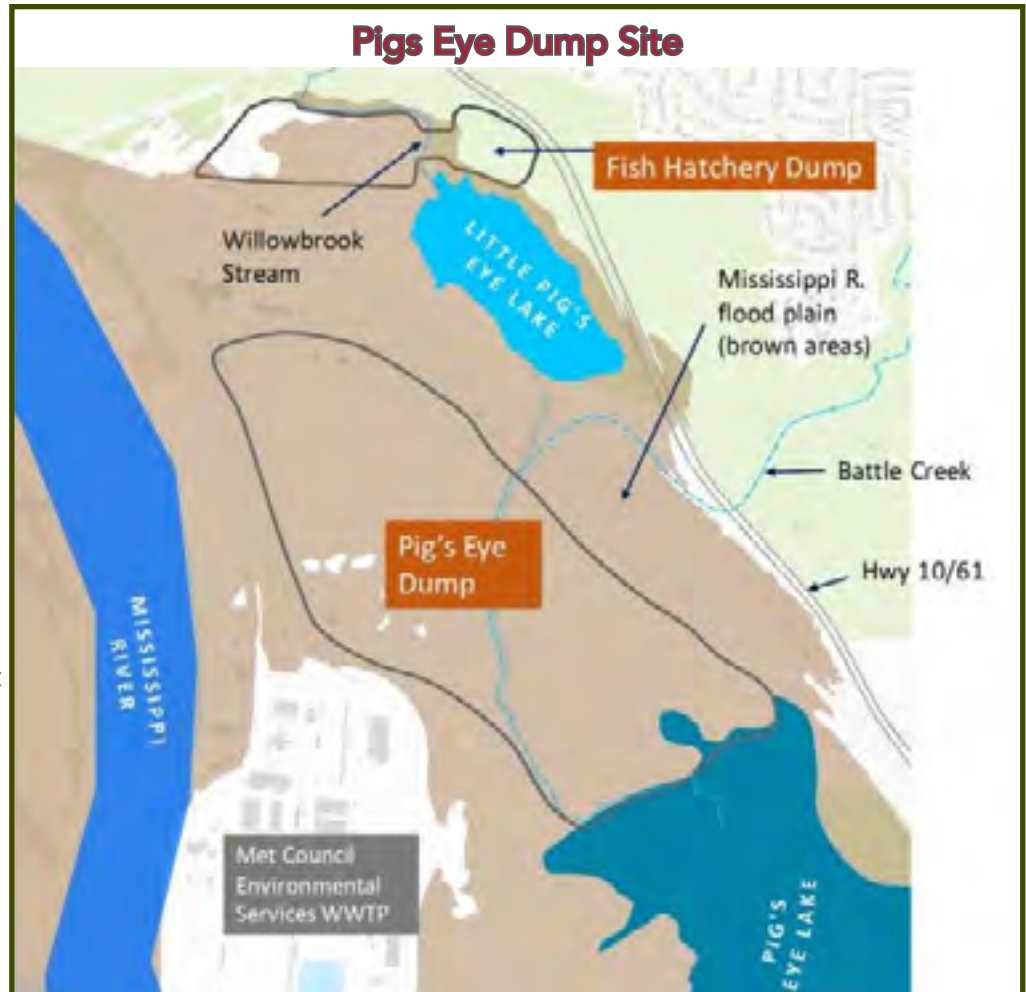
of contaminated leachate and groundwater that flows out of the site and into Battle Creek. To do this, the Minnesota Pollution Control Agency proposes to remove contaminated soil and waste from portions of the Battle Creek stream bank and replace it with organic rich soil. Contaminants leaching out of the dump bind to this type of soil and it reduces the amount of pollutants that reach the creek. The Area will be re-vegetated to prevent erosion and encourage additional biological removal of contaminants.

The soil and waste removed from the stream bank will be relocated elsewhere on the site and covered with clean soil. Groundwater will be monitored to determine impacts.

15. **Red Rock Terminal:** located near Pigs Eye Lake, the terminal is part of a larger portion of land the Saint Paul Port Authority acquired in the area, most of which has been dedicated for park use. Businesses at Red Rock Terminal include: AMG Resources, Barton Enterprises, Continental, Gavilon, Hawkins, Simcote, and Gerdau.

The Saint Paul Harbor is the northernmost port on the Mississippi River and the Red Rock Terminal accommodated more than 2.7 million tons of product in 2017. River shipping works in tandem with railroads as part of an intermodal transportation system connecting Minnesota farmers to the global market.

16. **Burlington Northern Santa Fe & Canadian Pacific Railroads:** multiple railroad tracks as well as Highway 61 bisect the two main segments of Battle Creek Regional Park. Access between the two parcels of land is difficult and many community members are unaware that the land surrounding Pigs Eye Lake is parkland.



17. **Battle Creek Middle School:** serving grades 6-8 Battle Creek Middle School has an enrollment of 750 students. Students receive a full array of arts, technology, science, social studies, and physical instruction. Monthly events bring students together to socialize and learn; everyone can participate in free after-school classes in the Panther Extended Program.
18. **Carver Elementary School:** Serving students in pre-kindergarten through fifth grade, Carver elementary has a student population of approximately 535. Ramsey County Parks & Recreation has had conversations with school administrators about blending the dividing lines between the school and park property to allow for an easy transition and use of the park by the school's Science, Technology, Engineering, and Math (S.T.E.M.) courses.
19. **Ramsey County Correctional Facility:** The Ramsey County Community Corrections Department owns approximately 256 acres of land to the east and south of Battle Creek Regional Park. The Ponds of Battle Creek Golf Course also sits on this land and is operated by Ramsey County Parks & Recreation. Ramsey County and the city of Maplewood are considering future potential uses for portions of this land.
20. **Boys Totem Town:** was a residential program for up to 36 adolescent boys from the ages of 14-18 who had been committed by the court to treatment for committing offenses and demonstrating risky behavior concerns in the community. Boys Totem Town served the Ramsey County community for more than 100 years.

Boys Totem town provided a safe, secure, and healthy environment for residents and helped facilitate community safety by providing specialized evidence-based services to youth and empowering families to prevent future out-of-home placements.

Ramsey County will work in partnership with the city of Saint Paul, the District 1 community and other stakeholders in a community-based process about potential future uses of the site. As part of the process, Ramsey County and Saint Paul will develop an engagement plan with the community to ensure there is equitable land use of the Boys Totem Town site.

### Battle Creek Regional Park Use Zones

Battle Creek Can generally be divided into two main segments, the Battle Creek segment which lies to the east of Highway 61 and the Pigs Eye Lake segment of the park which lies to the west of Highway 61. The Battle Creek segment can be further divided into 5 use zones which generally are split by major roads and intersections. Those use zones include the Picnic Area & Family Aquatic Center Zone, the Eastern Trails Zone, Battle Creek Connection, Winter Recreation & Recreation Center Zone, and the Battle Creek and Bluffs Corridor.

1. **Picnic Area & Family Aquatic Center Zone:** consisting of approximately 100 acres, the use zone is located to the northeast of the intersection of McKnight Road and Upper Afton Road and is a primary active recreation area within the park. The area includes a large picnic pavilion, medium picnic shelter, a general picnic area, 275-car parking lot, a destination play area, an open games field, and a 2.3 mile bituminous multi-use trail. Battle Creek Waterworks, a family aquatics center, is also located within this zone of the park and includes an interactive water play area, leisure pool, water slide, and sand play area. In addition to picnicking and water park activities, the area is also used as a venue for special events and cross-country running meets.
2. **Eastern Trails Zone:** consisting of approximately 245 acres, the zone is located to the southeast of the intersection of McKnight Road and Upper Afton Road. The area includes a 2.5-mile bituminous multi-use trail, and an additional 3 miles of unpaved hiking and cross-country ski trails. The bituminous trail corridors are also groomed for cross country skiing, providing approximately 5 miles of cross-country ski trails in the area. The trails are connected to the trail system located to the picnic area to the north. A 110-car parking lot is located south of Upper Afton Road to serve the area, as well as provide overflow parking for the Picnic Area and Family Aquatic zone. An additional 30-car parking lot is located on Lower Afton Road. A 44-acre fully fenced off-leash dog area is located in the southwest portion of the site. Trail access to the off-leash dog area is provided from both parking lots.



## BATTLE CREEK REGIONAL PARK USE ZONES & EXISTING CONDITIONS





3. **Battle Creek Connection:** Battle Creek flows from the picnic area in the northeast to the Battle Creek and Bluffs Corridor bounded to the north by North Park Drive and Larry Ho Drive to the South. A bituminous multi-use trail follows the creek bed to connect the two trail systems within the park. This segment provides a major in-park trail connecting the Picnic Area to the Bluffs Corridor.
4. **Winter Recreation Area & Battle Creek Recreation Center Zone:** consisting of approximately 144 acres, this area of the park is generally bound by Winthrop Street to the east, Lower Afton Road to the South, Battle Creek Road to the west, and Upper Afton Road to the north. The area has been developed primarily for trail use and more passive recreation. The Area includes 4 miles of combined us off-road cycling and hiking trails, and 4 miles of cross-country ski trails (including 2.4 miles of lighted ski trails) which are mowed in the summer months for hiking and walking. There is also a lighted sledding hill and recreation center. The primary access to the site is provided form a 180-car parking lot located off of Winthrop Street. The parking lot and adjacent recreation center were developed by the city of Saint Paul under a joint powers agreement. According to this agreement, the parking lot is available to all trail users and the recreation serves as a visitors center for trail and winter recreation area users. Ramsey County has priority rights to the use of the recreation center for interpretive programming.
5. **Battle Creek and Bluffs Corridor:** consisting of approximately 218 acres, this area of the park is generally bound by Battle Creek Road to the east, Upper Afton Road to the north, and Highway 61 to the south and west. There is a 1.7-mile bituminous multi-use trail reaching from the Battle Creek Connection zone in the north and heads south to the main trailhead for the area. The trailhead, which consists of a 36-car parking lot, provides parking for trail users, and a small general picnic area is located at the lower reaches of Battle Creek near the parking lot. An underpass of Highway 61 provides trail access to property owned by the city of Saint Paul and the Minnesota Department of Natural Resources surrounding Little Pigs Eye Lake and eventually the trail reaches Indian Mounds Regional Park and the Sam Morgan Regional Trail.

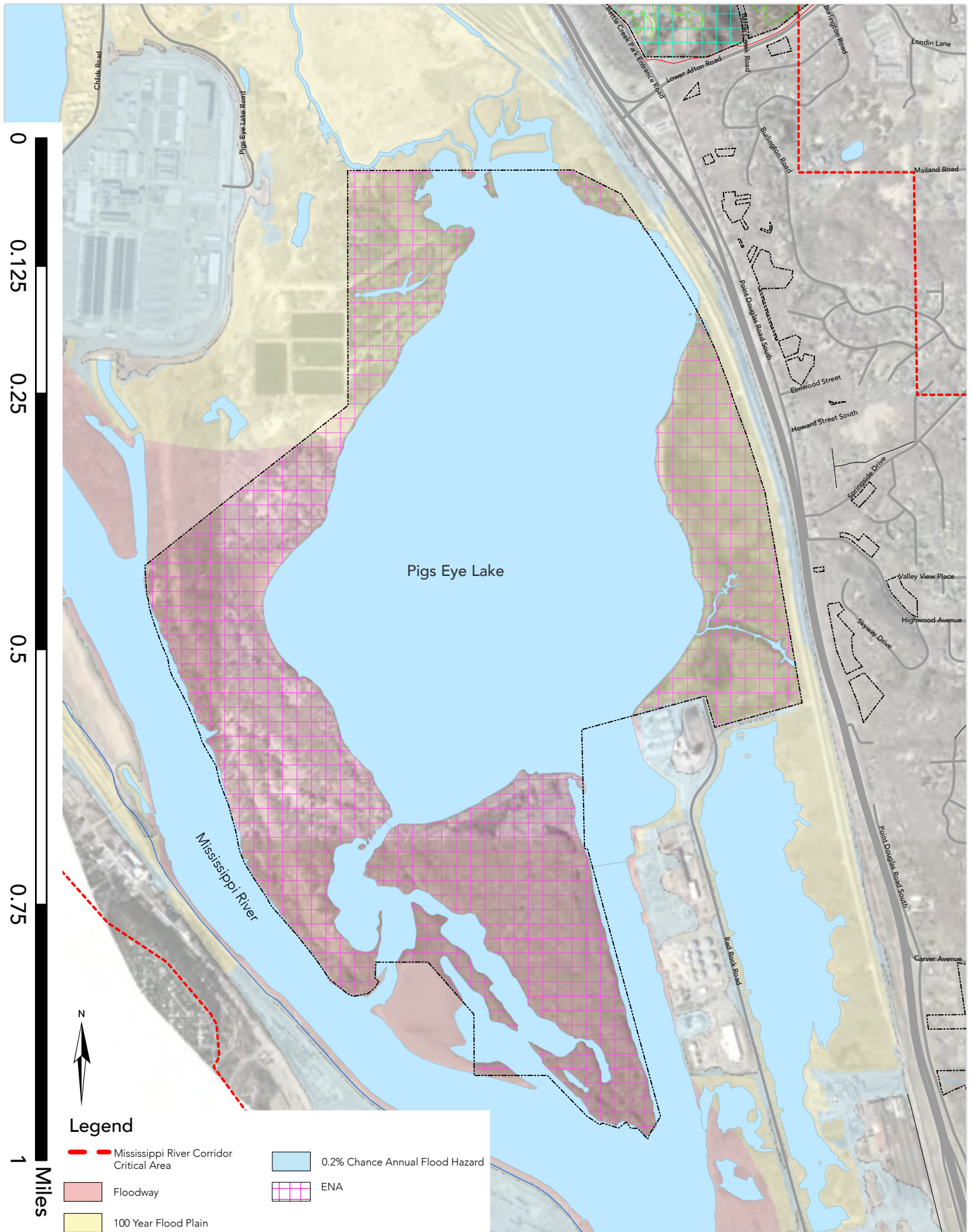
This area of the park is also largely classified as an Environmental Natural Area (ENA). Environmental Natural Areas have been defined by Ramsey County as areas within regional parks having significant, sensitive, and unique natural resources that warrant extended preservation. The habitat and vegetation within these areas is managed to support and enhance these natural communities. These areas are designated for increased habitat protection, ecological restoration, passive recreation, and environmental education. Any development or expansion within these areas is limited to trails only, with nature interpretation facilities allowed within planned development areas. Public access to these areas is restricted to designated trails and the use of these areas is limited to passive recreation such as hiking, skiing, and nature observation. Bicycles and off-road cycling is allowed on designated trails only. Dogs and off trail activities are not allowed.

The use zone also falls completely within the Mississippi River Corridor Critical Area. The Mississippi River Corridor Critical area is a joint state, regional, and local program that provides coordinated planning and management for the 72-mile stretch of the Mississippi River through the seven-county metropolitan area and 54,000 acres of surrounding land across 30 local jurisdictions. The Mississippi River Corridor Critical Area shares a boundary with the Mississippi National River and Recreation Area, a unit of the National Park Service.

6. **Pigs Eye Lake Segment:** The Pigs Eye Lake segment of Battle Creek Regional Park lies completely within the 100-year floodplain of the Mississippi River with portions of the land laying within the river's floodway. Floodway Areas are designated by the Federal Emergency Management Agency (FEMA) and adopted by communities to provide an area that will remain free of development to moderate increases in flood heights due to encroachments of the floodplain. The entire Pigs Eye segment also lies within the Mississippi River Corridor Critical Area. The land owned my Ramsey County is primarily seasonally flooded basins, shrub swamps, wooded swamp, and shallow marsh which are all types of wetlands. There is little to no upland available to develop on land owned by Ramsey County. This makes the utilization of partners and stakeholders to ensure access to the area absolutely vital. For reference please see the floodplain and landcover maps of the Pigs Eye Lake segment on pages 48-49.

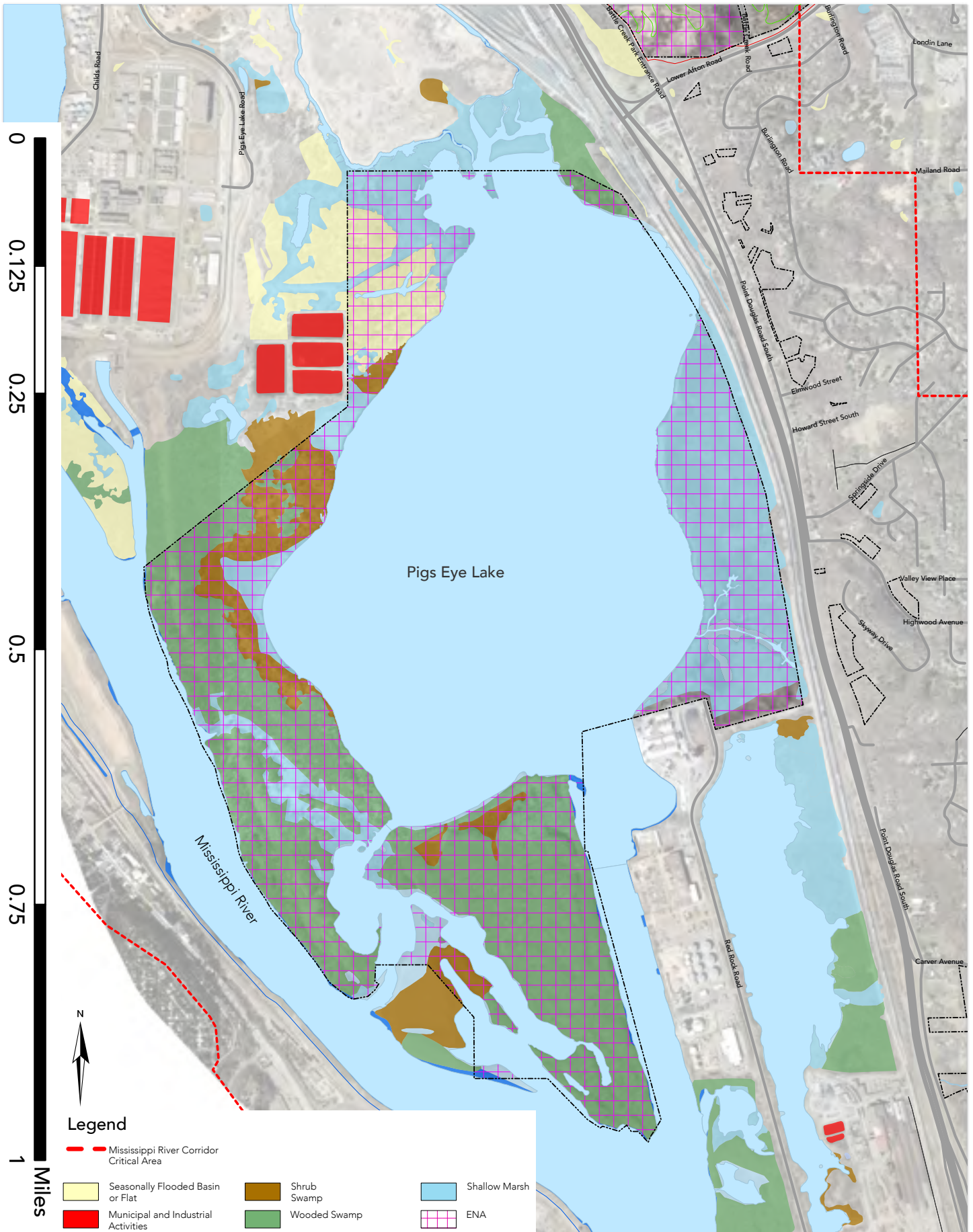
# Existing Conditions

## PIGS EYE LAKE FEMA FLOOD ZONES





# PIGS EYE LAKE LAND CLASSIFICATION



## Existing Conditions

The Pigs Eye Lake Segment is located in a heavily industrialized area, close to the Metro Wastewater Treatment Plant and other major air emissions sources. Prior to planning and implementing recreational amenities, Ramsey County Parks & Recreation will need to evaluate the long-term health impacts of air quality on public users of proposed amenities. In addition, the land use designation for the Metro Plant is industrial and the plant is a highly industrialized facility with safety and use consistent with that designation. Noise, odors, emissions, and traffic are present at levels that are consistent with industrial land use and that meet the Metro Plant's permits but which raise concerns about conflicts between the proposed recreation and the current land use designation in the surrounding area. While the Metropolitan Council Environmental Services has invested in reducing odor generation at the Metro Plant, further reductions are unlikely to mitigate odors to a significant degree. Noise, traffic, and emissions from Metro Plant operations and maintenance activities may also negatively impact the public's ability to enjoy recreational activities.

Currently there are no developed recreational features or site amenities within the Pigs Eye Lake segment of the park.

## Existing Site Amenities & Features

### Picnic Area and Family Aquatic Zone

- Upper Afton Road East Trailhead
  - 275-car parking lot
  - Drinking water fountain
  - General picnic area
  - Wayfinding signage
- Large picnic pavilion
  - Integrated restrooms
  - 2 kitchen areas
- Medium Picnic Shelter
- Destination Play Area
  - Standard play equipment
  - Swings
  - Nature play area
  - Zip line
  - Water stream nature play feature
  - Sand play water log
  - Accessible route throughout with accessible picnic tables
- Waterworks family aquatic center
  - Interactive water play area
  - Leisure pool
  - Water slide
  - Sand play area
- Open games and event staging field
- 2.3 mile bituminous multi-use trail
- 0.4 mile grass mowed walking and hiking trail

- Pedestrian access points
  - McKnight Road across from Villages on McKnight, pedestrian flashing beacon and crosswalk
  - Intersection of McKnight Road and Upper Afton Road
  - North side of Upper Afton Road next to vehicle entrance

### Eastern Trails Zone

- Upper Afton Road East Trailhead
  - 110 car parking lot
  - Trash and recycling bins
  - Wayfinding signage
- Lower Afton Road Trailhead
  - 30 car parking lot
  - Trash and recycling bins
  - Wayfinding signage
- Off leash dog area
  - Trash containers throughout
  - 3 gated entrances
  - Natural surface trails throughout
  - Approximately 44 acres in size
  - Picnic tables and benches located in an open field area
- 2.5 miles of bituminous multi-use trails
- 2.7 miles of grass mowed/cross-country ski trails
- Pedestrian access points
  - Intersection of McKnight Road and Lower Afton Road
  - Southwestern edge of the site from the Afton Bluffs Regional Trail search corridor
  - Intersection of McKnight Road and Upper Afton Road
  - Northeastern edge along Upper Afton Road near Carver Elementary

### Battle Creek Connection

- 1 mile of bituminous multi-use trail
- Pedestrian access points
  - Intersection of North Park Drive, Larry Ho Drive, and McKnight Road
  - North Park Drive Across from Battle Creek Middle School
  - Intersection of North Park Drive and Winthrop Street North
  - Intersection of Ruth Street North and North Park Drive
  - Upper Afton Road across from the Battle Creek Corridor and Bluffs zone's northeast arm

### Winter Recreation Area and Battle Creek Recreation Center Zone

- Recreation Center Trailhead
  - 180 car parking lot
  - Trash and recycling bins
  - Wayfinding signage

- Battle Creek Recreation Center
  - Benches
  - Basketball courts
  - Craft room
  - Fitness center
  - Gym
  - Restrooms
  - Warming facility
  - Meeting room
  - Offers educational programs, after school activities, open gym, tot-times, family events, fitness center memberships, field rentals, rental space for parties, meetings, events, and more.
- Sledding hill
- 5 miles of cross-country ski and grass mowed hiking and walking trails
- 3 miles of combined off-road cycling and hiking trails
- Cross-country ski trails in the Winter Recreation Area

The cross-country ski trails in the winter recreation area are recognized by the International Ski Federation as a homologated course. Homologation represents a system of evaluation that is designed to guide the development and upgrade of cross-country competition courses. It is not just a set of numbers and standards, but is a process for certification that provides a forum for constructive discussion between organizers, the International Ski Federation, and inspectors.

The homologation evaluation includes more than just the course design. The stadium layout and the infrastructure installations are also part of the overall evaluation. The resulting certification represents an International Ski Federation stamp of approval indicating that the site is physically capable of accommodating international competitions.

The end result of the process is to provide a varied and challenging course that requires competent skiing abilities, as well as stadiums that meet the requirements of new competition formats.

It should be emphasized that homologation should not be carried out in such a way that the course marginally fits the rules. Some of the cross-country ski centers will not be capable of having a homologated course if the physical characteristics of the terrain are below the required height difference limits.

Homologation is an important aspect of the cross-country ski trails in this area. The trails are of high quality and have the ability to offer competition and difficulty not easily found. The cross-country ski trails in this area of Battle Creek are one of 32 sites in the United States to receive homologation certification. The only other trail system in the state of Minnesota is located at Theodore Wirth Regional Park
- Pedestrian access points
  - Along Battle Creek Road
  - Intersection of Battle Creek Road and Lower Afton Road
  - Intersection of Battle Creek Road and Winthrop Street
  - Winthrop Street across from the Phoenix Apartments
  - Winthrop Street at Battle Creek Recreation Center trailhead



## Existing Conditions

### Battle Creek And Bluffs Corridor

- Park Entrance Road trailhead
  - 36 car parking lot
  - Trash and recycling bins
  - Wayfinding signage
- Small general picnic area
- 0.8 mile bituminous multi-use trail
- 2.4 miles of grass mowed walking and hiking, and cross-country ski trails
- 4.5 miles of combined hiking and off-road cycling trails
- Pedestrian access points
  - Intersection of White Bear Avenue South and C Street
  - Via the historic overlook at the intersection of Highway 61 and Burns Avenue
  - Upper Afton Road across from the Battle Creek Connection zone
  - Along Battle Creek Road
  - Underpass of Highway 61 from Minnesota Department of Natural Resources land and Indian Mounds Regional Park
  - Intersection of Battle Creek Road and Lower Afton Road

## NATURAL RESOURCES INVENTORY AND MANAGEMENT

The natural resources of Battle Creek Park include the soils, water, plants, animals, and people that are within the Park boundaries or connected with it. The particular resource elements present in the park and their landscape patterns are the result of historical processes, including climate, hydrology, plant and animal migrations and interactions, and human decisions and activities.

### Current Natural Resource Quality and Issues

Despite major alteration from agriculture and urbanization, the natural resources of Battle Creek Regional Park are still of significant quality. The park contains examples of many of the native plant communities that were present in Ramsey County at the time of European settlement, though these are poorer in plant and animal species than they were originally, and have been invaded by a number of aggressive, exotic species.

Based on the findings of the Minnesota County Biological Survey (MCBS), these are some of the highest quality natural communities remaining in Ramsey County, and include some species that are now rare in Minnesota. Rare communities in the park include dry oak forest, sand-gravel oak savanna. Less than 1 percent of the original dry savanna and few examples of mature dry oak forest remain in the Twin Cities Region. Sizable populations of Kittenails, an endangered plant in Minnesota, exist in the savanna areas of the park, and evidence of Fox snake were found by the MCBS surveyors. Within the park is nesting and wintering habitat for Bald Eagles and nesting habitat for colonial waterbirds in the river valley, and provides foraging habitat for these birds.

The quality of water and aquatic habitat in Battle Creek and some wetlands in the Park is still good. Finally, the Park has significant existing and potential connections to other important natural areas along the Mississippi River corridor and bluffs, and is part of an important wildlife migratory corridor and fishery along the River.

Plant, animal, and human communities and the landscapes they inhabit are in constant change. Just as the composition and patterns of native habitats in the park have changed, the processes that built and maintain these habitats especially hydrologic processes, fire disturbance, and activities of some native animals have changed dramatically. Since American Indians began to manage the local landscape with fire, human decisions and choices

## Existing Conditions

have determined much about how the landscape appears and will determine much of its future. In developing a management plan for the natural resources of the park, the composition and quality of its plant and animal communities, the landscape processes that can be used to maintain, enhance or restore them, and the values of people and institutions affecting the Park will all be important considerations.

Major issues for management of natural resources in the park identified in this planning process include the following:

1. Inventories of plant and animal communities living in and migrating through the park are inadequate for making management decisions.
2. Natural communities in the park are valuable but degraded by fragmentation, invasion by exotic species, and other changes since settlement. The park is located in a highly urban area where such processes will continue.
3. The deer population in and around the park often exceeds the carrying capacity of the land. A population of 15 to 20 deer per square mile of deer habitat is considered desirable to maintain the health and diversity of forests and to maintain or restore other plant communities in the park. The population needs to be managed, given the habitat needs of all species in the park, and the value and interest by park users and neighbors.
4. Along with landscape fragmentation, settlement, and urbanization have altered the landscape processes that maintained the natural resources of the park, and make these processes difficult to restore. These processes include fire that maintained some native plant communities like oak savanna and wet meadows; hydrologic processes that gradually infiltrate and clean storm water runoff and maintain creek flows; and soil-building processes. How far can natural processes be restored? What other options are available to maintain the quality of aquatic and terrestrial communities and habitats?
5. The need to serve a large urban population bring conflicts between maintaining the quality of natural resources and desires for recreational opportunities. Some species and communities are altered or eliminated by a high degree of human contact, trampling, or other activity. Activities also cause soil erosion and spread exotic species.
6. Conflicts concerning management of park areas adjacent to private homes, such as intrusion of neighbor's yards into park land, neighbors' objections to relaxed mowing regimes in the park, and dumping of trash and yard waste, etc. How should these conflicts be addressed?
7. These conflicts suggest that neighbors may have limited knowledge, interest or ownership of park lands. What strategies can be used to build community interest, values, and desire to care for the natural resources of the park and their own properties?
8. Funding and staff available to maintain, protect, or enhance the natural resources of the park are limited. Natural resource needs in this park need to be balanced with recreation needs and needs of other parks and open space areas.

### EXISTING EASEMENTS

#### **Metropolitan Council Environmental Services Sewage Interceptor Line 1-SP-200/201**

This sewer interceptor line roughly parallels the man-made Battle Creek and is an important piece of the Metropolitan Council Environmental Services infrastructure. The line receives sewage from the surrounding community and beyond taking waste to the Metropolitan Council Environmental Services Metro Plant on the Mississippi River bordering Pigs Eye Lake.

#### **Magellan Refined Products Pipeline**

A small portion of the approximately 9,800 mile pipeline covering a 15-state area across the central United States runs through Battle Creek Regional Park.

#### **Ramsey-Washington Metro Watershed District**

The Ramsey Washington Metro Watershed District has an access agreement with Ramsey County Parks & Recreation for the storm water line that runs underneath the man-made Battle Creek. The watershed district completed a significant restoration of the creek in 1982 and continues to conduct maintenance on the creek to sustain the project.

# The Plan



## FUTURE BOUNDARY AND EASEMENT ADJUSTMENTS

Future long-term acquisition is proposed for Battle Creek Regional Park when properties become available. Inholdings along Battle Creek Road, Suburban Pond Open Space, and properties held by the Minnesota Department of Transportation along Highway 61/10 constitute land that Ramsey County is interested in incorporating into the Battle Creek Segment. Properties falling within the Mississippi River Corridor Critical area between Fish Creek and Battle Creek, including properties held by Ramsey County that are considered the Mississippi River Bluffs Open Space are also of interest for inclusion into Battle Creek Regional Park. While some general uses and recreational amenities have been identified as a part of this master plan, additional master planning activities may be required as properties are acquired and included as a part of Battle Creek Regional Park. Acquisition of these parcels will only occur if the land becomes available and from willing sellers. The acquisition of land is a complex issue due to constraints such as property ownership and the existing conditions of the properties among other issues. Cost for these acquisitions will likely not be known until the property is ready to be acquired and all existing conditions are taken into account.

Expansion of the Battle Creek Regional Park boundary advances all four outcomes of the Thrive MSP 2040 Regional Park System Outcomes, which includes:

- Expand the regional parks system to conserve, maintain, and connect natural resources identified as being of high quality or having regional importance, thereby improving climate resilience and enhancing the quality of life for the region's residents.
  - A critical component of these boundary expansions is natural resource protection and restoration opportunities. Each acquisition has unique qualities and provides long-term natural resource benefits.
- Provide a comprehensive regional park and trail system that balances the conservation and restoration of natural resources (with the provision of nature-based recreational opportunities).
  - Battle Creek Regional Park has a diverse range of outdoor recreational amenities but is lacking nature based educational and programming opportunities and access to surrounding neighborhoods. The acquisitions will provide an opportunity to expand outdoor nature based programming and educational opportunities within Battle Creek Regional Park. Acquisition parcels have unique natural resources and will become an asset to provide a balance between protection of natural resources and provide outdoor nature-based recreational opportunities.
- Expand access to regional parks and trails by connecting them with local, state, and federal parks, trails, other lands, and transportation networks, including transit, bicycle, and pedestrian systems.
  - The boundary expansion acquisitions will provide an opportunity to expand outdoor recreational opportunities and will be critical for improved community access especially surrounding under-represented communities.

- Strengthen equitable usage of regional parks and trails by all our region's residents across age, race, ethnicity, income, national origin, and ability, inspiring a legacy of stewardship that also strengthens friendships, families, health, and spirit.
  - The proposed boundary expansion areas for Battle Creek Regional Park will not only provide more geographic balance to the regional park system in Ramsey County but will provide a localized geographic balance to surrounding communities. These areas will enable Battle Creek Regional Park to integrate into the surrounding communities, provide a balanced approach for parkland and increases community access especially surrounding under-represented communities.

A summary of properties includes:

### Properties owned by Ramsey County and within the County Parks System

#### Suburban Pond Open Space

Suburban Pond Open Space consists of 32 acres of primarily a wetland complex surrounded by an old field on the south and degraded mixed woods on the east side of the site. Suburban pond is located directly to the north of Battle Creek Regional Park, located across North Park Drive between Ruth Street North to the east and White Bear Avenue North to the west. Suburban Pond Open Space would provide the opportunity to expand the trails system along with another potential trailhead. Due to the parks' proximity to Battle Creek inclusion within the regional parks system makes sense as the general public does not differentiate the two parks.

The site includes the 20-acre pond and wetland complex, as well as a 50 to 300-foot strip of upland around the entire pond. The surrounding development consists of commercial, multi-family, and single family residential real estate. The pond consists of approximately 50% open water and 50% wetland vegetation and is a significant storm water pond for Battle Creek, located ¼ mile to the south. The natural upland area surrounding the pond provides critical vegetation buffers and offers a place for habitat in a highly urbanized area.

Suburban Pond Open Space will provide a critical access connection to Battle Creek Regional Park.

No acquisition cost will be required for this property since it is owned by Ramsey County. It is anticipated the timeline for implementation of recreational developments within Suburban Pond Open Space will vary between 0-20 years.

#### Mississippi River Bluffs Open Space

The Mississippi River Bluffs Open Space is a narrow 2 mile long strip of steep sloped bluff line paralleling the east side of Highway 61 between Battle Creek Regional Park to the north and Fish Creek Open Space to the south. Ramsey County Currently owns parcels totaling 19.55 acres in the area. Along with other properties within the Mississippi River Corridor Critical Area the inclusion of Mississippi River Bluffs Open Space would provide the opportunity to provide further natural resource management of the bluffs area as well as providing an unparalleled experience along the river corridor near a metropolitan downtown area. The inclusion of the bluffs would also provide for recreational amenities such as trails, trailheads, overlooks and educational opportunities along the river between Battle Creek Regional Park and Fish Creek Open Space.

This open space is all located within the Mississippi River Corridor Critical Area, which shares its boundary with the Mississippi National River and Recreation Area. The open space is subject to Mississippi River Corridor Critical Area regulations (state statute under Minnesota Rule 6106) which are in place to protect the unique natural and cultural resources and values within this corridor. The habitat within all parcels consists of mixed woods, dominated by oak trees.

Acquisition is proposed for adjacent properties for inclusion into Mississippi River Bluff Protection Open Space as they become available.



## The Plan

acquisition is required for parcels currently owned by Ramsey County. Approximately 224 acres is anticipated for full acquisition but is dependent on availability of properties along the bluff line with an anticipated timeline of 20+ years. Anticipated cost for full long-term acquisition is approximately \$57,512,000.

### Fish Creek Open Space

Fish Creek Open Space, located in the southeast corner of Ramsey County neighboring the cities of Saint Paul and Maplewood. The 130 acre site is composed of Fish creek which flows for 1.5 miles from Carver Lake on the east side of Interstate 494 to Pigs Eye Lake on the west side of Highway 61. From Carver Lake to Interstate 494 the creek has a flat gradient and passes through wetlands, wooded slopes, and grasslands. From Interstate 494 to Highway 61 the creek undergoes a large elevation drop and passes through a deep wooded valley with steep slopes. A wooded bluff runs parallel to the creek as it descends the Mississippi River Valley.

The city of Maplewood owns land abutting Fish Creek Open Space and made improvements consisting of a paved trail and parking lot development utilizing both city and county owned property in 2016.

A concept master plan was prepared in 2016 in coordination with the city of Maplewood for vehicular access, trails, access to fish creek, and programming activities throughout the open space. This plan was further defined as a part of community engagement for the Battle Creek Regional Park Master Plan. Due to the size and proximity to Battle Creek, Ramsey county has been interested in incorporating Fish Creek Open Space into the Regional Park System along with the land owned by the city of Maplewood.

Fish Creek Open Space has a diverse range of natural resource land components that need to be protected and have unlimited restoration opportunities. The diverse range of land habitat components make this area unique and is the bases for why this area should be included within the regional park system. The key feature is Fish Creek and associated bluff/ravine areas, which is located on the Ramsey County section but, this area provides key components for addressing natural resource protection. The Maplewood section has critical upland mixed woodland and prairie areas that are key buffers to Fish Creek and surrounding bluff and ravine areas. These unique land features advance the priority for establishing measures for improving climate resilience and stormwater management to surrounding areas.

Fish Creek Open Space will greatly enhance access to parkland for nature-based programming and education opportunities. Fish Creek is anticipated to be connected to Battle Creek Regional Park with long-term trail connections through the Mississippi River Bluff Protection Open Space Area. Additional long-term trail connections to Fish Creek could provide access to the Point Douglas Regional Trail and Mississippi River Trail along Point Douglas.

No acquisition cost will be required for this property since it is owned by Ramsey County. It is anticipated the timeline for implementation of recreational developments within Suburban Pond Open Space will vary between 0-20 years. It is anticipated that the Maplewood owned parcels of Fish Creek would be acquired through a land transfer and that there would be no acquisition costs for these properties. Future acquisition is proposed for adjacent residential properties and long-term expansion of Battle Creek Regional Park when properties become available from a willing seller. At this time the acreage and acquisition cost are undetermined and is dependent on availability of properties surrounding Fish Creek.

### Publicly Held Properties

#### Minnesota Department of Transportation Parcels

The Minnesota Department of Transportation owns several properties along the east side of Highway 61 which border Battle Creek Regional Park. Ramsey County is interested in including these properties as a part of Battle Creek Regional Park. Some access agreements will need to be secured as one of the properties holds a pumping station for sewer interceptor lines.



### Port Authority of Saint Paul

The Port Authority of Saint Paul owns a parcel which abuts the Pigs Eye Island Heron Rookery Scientific and Natural Area. Ramsey County is interested in acquiring this property to add to the total footprint of the scientific and natural area, further protecting the heron rookery.

### Residential Properties

There are many residential properties including inholdings within the Battle Creek Segment of the park along Battle Creek Road that Ramsey County is interested in acquiring. The inclusion of these properties would provide numerous benefits to Battle Creek Regional Park including trail connectivity, an additional trailhead space, and the possibility of closing Battle Creek Road and connecting two major park segments.

Additionally, there are many properties along the river bluffs within the Mississippi River Corridor Critical area surrounding the Mississippi River Bluffs Open Space and Fish Creek Open Space that the county would like to incorporate into the regional park. This is a far reaching and long term goal to connect the two park spaces. This connection would provide a vital link that would provide recreational and natural resource related amenities.

Residential properties would only be acquired when land becomes available and from willing sellers.

527 Battle Creek Road is a residential property of importance to the Battle Creek Regional Park Master Plan. This property would provide a critical access point and trailhead for the regional park. Acquisition cost for this property including stewardship costs is approximately \$1,062,945. It is anticipated that the timeline for implementation of recreational development on this property will vary between 0-20 years.

Please see the table on pages 53-54 and the Battle Creek Regional Park Acquisitions map on page 55 for an overview of proposed boundary adjustments.

## The Plan

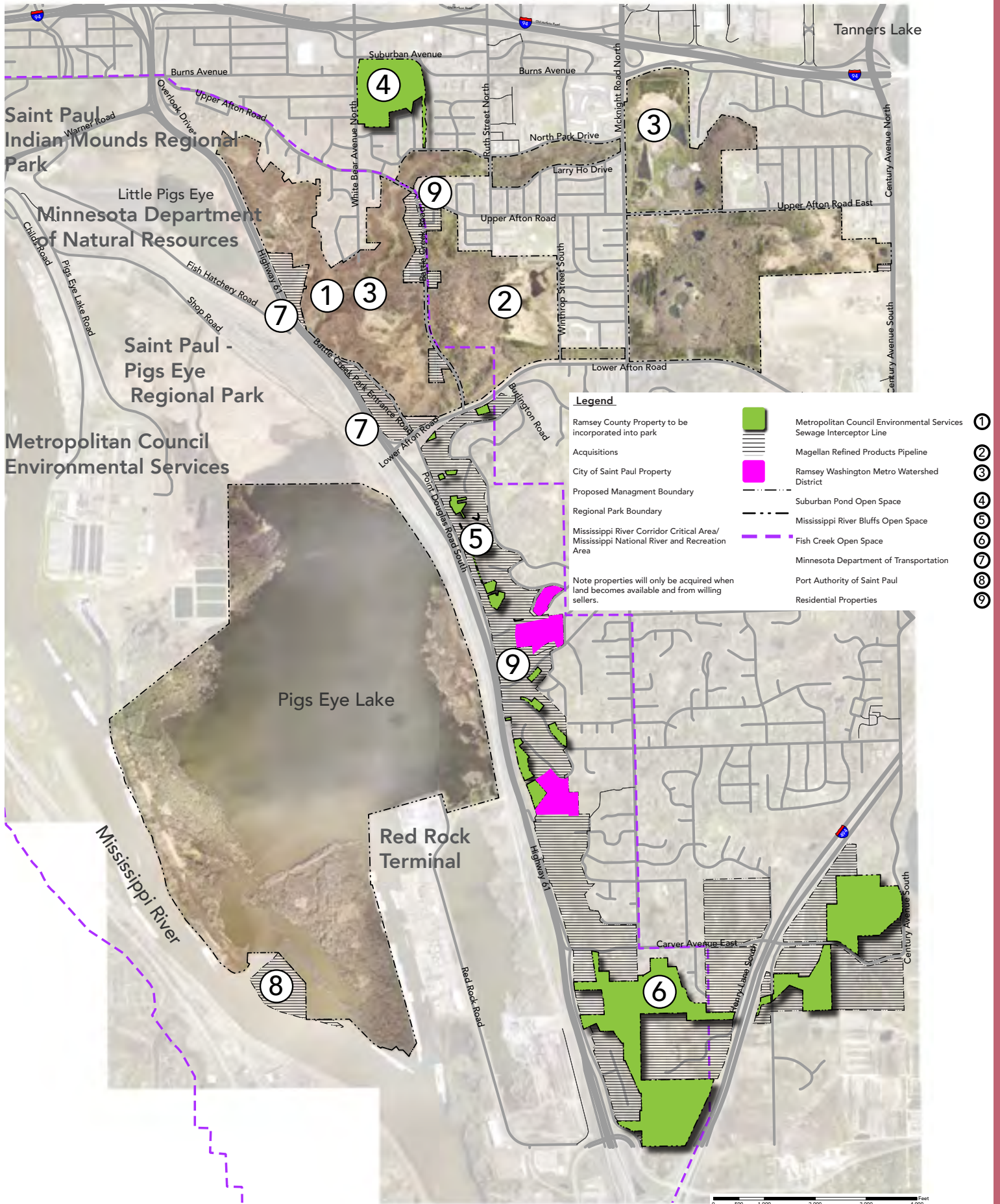
Parcel ID	Natural Resource Quality	Recreational Benefit	Acres
<b>Existing Administrative Boundary / Park Acreage</b>			1,891.23
<b>Proposed Management Boundary - Ramsey County Suburban Pond Open Space</b>			
#022822220072	Generally low with areas of moderate quality	Trails, trailhead, park connectivity	32.73
<b>Proposed Management Boundary - Ramsey County Mississippi River Bluffs Open Space</b>			
#112822210018	Low to moderate	Bluff preservation, trails, park connectivity	0.81
#112822240067	Low to moderate	Bluff preservation, trails, park connectivity	0.32
#112822240083	Low to moderate	Bluff preservation, trails, park connectivity	0.45
#112822240074	Low to moderate	Bluff preservation, trails, park connectivity	0.23
#112822310075	Low to moderate	Bluff preservation, trails, park connectivity	1.07
#112822310077	Low to moderate	Bluff preservation, trails, park connectivity	0.77
#112822310010	Low to moderate	Bluff preservation, trails, park connectivity	0.08
#112822310059	Low to moderate	Bluff preservation, trails, park connectivity	0.05
#112822310056	Low to moderate	Bluff preservation, trails, park connectivity	0.23
#112822310072	Low to moderate	Bluff preservation, trails, park connectivity	3.35
#112822340036	Low to moderate	Bluff preservation, trails, park connectivity	1.13
#112822430085	Low to moderate	Bluff preservation, trails, park connectivity	1.49
#142822120050	Low to moderate	Bluff preservation, trails, park connectivity	0.04
#142822120071	Low to moderate	Bluff preservation, trails, park connectivity	0.78
#142822130100	Low to moderate	Bluff preservation, trails, park connectivity	1.11
#142822130048	Low to moderate	Bluff preservation, trails, park connectivity	0.13
#142822130098	Low to moderate	Bluff preservation, trails, park connectivity	1.73
#142822130051	Low to moderate	Bluff preservation, trails, park connectivity	0.59
#142822420040	Low to moderate	Bluff preservation, trails, park connectivity	5.22

## The Plan

Subtotal			19.58
<b>Proposed Management Boundary - Ramsey County &amp; Maplewood Fish Creek Open Space</b>			
#232822140018	Moderate to high	Bluff preservation, trails, education opportunity	25.72
#242822330001	Moderate to high	Bluff and creek preservation, trails, education opportunity	34.84
#232822440053	Moderate to high	Bluff preservation, trails, education opportunity	1.5
#242822230041	Moderate to high	Bluff and creek preservation, trails, education opportunity	23.77
#242822240007	Moderate to high	Bluff and creek preservation, trails	0.91
#242822130003	Moderate to high	Bluff and creek preservation, trails	16.63
#242822120002	Moderate to high	Bluff and creek preservation, trails	2.97
#242822110006	Moderate to high	Bluff and creek preservation, trails	32.23
#242822320004	Moderate to high	Trails, prairie restoration, parking, trailhead, nature center, education opportunities	68.15
#242822210013	Moderate to high	Trails, natural resource preservation	26.57
Subtotal			233.29
<b>Proposed Management Boundary - Port Authority of Saint Paul</b>			
#222822410001	Moderate	Limited - abuts scientific and natural area	8.8
<b>Proposed Management Boundary - Minnesota Department of Transportation</b>			
#0328224200008	Low to moderate	Trails, education opportunities, natural resource protection	9.82
<b>Proposed Management Boundary - Miscellaneous Unplatted Property and Residential Properties</b>			
	Low to moderate	Bluff and creek preservation, trails, education opportunities, natural resource protection	357.54
<b>Proposed Management Boundary / Park Acreage</b>			2,552.99

# The Plan

## BATTLE CREEK REGIONAL PARK FUTURE BOUNDARY ADJUSTMENTS AND EASEMENTS





## DEVELOPMENT CONCEPT

Battle Creek Regional Park is the largest regional park under the care of Ramsey County Parks & Recreation. This master plan has a long-term goal of expanding the administrative boundary of the park to include areas of county open space as well as long-term acquisitions to link Battle Creek Regional Park and Fish Creek Open Space while preserving bluff habitat and developing recreational opportunities throughout. Battle Creek is in a rapidly growing and diverse area of Saint Paul and Maplewood, and is linked to the greater Metropolitan Park System through regional trails and parks adding to the overall connectivity of the system.

The park is also home to restored and remnant prairies, varied wildlife, and other unique vegetation types and ecosystems that should be maintained, preserved, and restored. The park's unique size and natural setting is one element that brings people to Battle Creek Regional Park and can not be easily found elsewhere in the metropolitan core area.

Many types of recreational users have all enjoyed and shared Battle Creek Regional Park and through thoughtful development of recreational infrastructure and amenities all park users will continue to find joy in Battle Creek Regional Park. Care and thoughtful planning of any new development within the park shall be practiced in order to preserve the park's natural beauty and unique features. Community members strongly advocated that new development be clustered at existing nodes of development.

### Regional Development

Long term development of the park has identified land connecting the Battle Creek and Fish Creek segments of the park for acquisition. Upon acquisition of this land amenities are proposed along the bluffs including:

- Additional park access
- Scenic overlooks
- Natural surface trails along with a major multi-use connecting trail between the Battle Creek and Fish Creek segments of the park
- A multi-use trail paved trail along the Interstate 494 and Century avenue corridor which would create a loop connecting the surrounding neighborhood
- Additional picnicking opportunities

As the corridor is acquired and developed the area has a very unique ability to provide trail connections to adjacent neighborhoods while protecting and preserving bluff landscapes and wildlife habitat. The long term development of the regional connections and corridor will require additional planning as land is acquired from willing sellers.

### Pigs Eye Lake Development

Development of recreational amenities and programming opportunities near Pigs Eye Lake are a long term goal of the master plan. Ramsey County acknowledges that issues including environmental contamination and clean up, public safety, and compatibility of recreational use with surrounding land use must be resolved before any new visitor access or recreational amenities can be provided. It will be important for Ramsey County to continue to work with adjacent land owners, stakeholders, and community members in developing recreational amenities.

Proposed recreational amenities in the Pigs Eye Lake segment of the park include:

- Pigs Eye Island Heron Rookery Scientific and Natural Area
  - The scientific and natural area should be left undisturbed in any new development proposed within the Pigs



## The Plan

### Eye Lake segment

- Acquire parcel of land currently owned by the Saint Paul Port Authority that abuts the island
- Grade separated crossing(s) of Highway 61 and the railroad corridor
  - Provide additional pedestrian and bicycle access into the Pigs Eye Lake segment of the park
  - Future planning will be required, and coordination with community members, adjacent land owners, stakeholders, the Minnesota Department of Transportation, the railroad entities, and others will be necessary.
  - Possible proposed future crossings located at:
    - ° The intersection of Lower Afton Road and Highway 61
    - ° Bailey Road
    - ° Carver Avenue
    - ° Highwood Avenue
- Individual facilities and recreational amenities should be designed and constructed to net-zero standards to further support the goals of the Ramsey County Parks & Recreation Energy Action Plan
- Island building project in coordination with the United States Army Corps of Engineers
  - A separate master plan amendment has been produced regarding the island building project which includes:
    - ° Sequencing of natural resource and public safety improvements for Pigs Eye Lake
    - ° Mississippi River Corridor Critical Area policy standards and criteria
    - ° A public engagement process

Proposed development for the Pigs Eye Lake segment of Battle Creek Park was informed through community engagement and past planning efforts to show potential future access points and recreational amenities. Ramsey County acknowledges that issues including environmental contamination and clean up, public safety, and compatibility of recreational use with surrounding land must be resolved before any new visitor access or recreational amenities can be provided. The Pigs Eye Lake Master Plan Amendment was produced to highlight this area and take a closer look at natural resource related projects and environmental clean up.

Additional coordination for necessary security steps will need to be considered for improvements within the Pigs Eye Lake segment of Battle Creek Regional Park. For example, the Metropolitan Wastewater Treatment Plant follows the strategic guidance laid out in the National Infrastructure Protection Plan for security of critical infrastructure. Additional coordination and necessary security steps will be needed to mitigate security concerns for implementation of projects within the Pigs Eye Lake area.

The Pigs Eye Lake Segment is located in a heavily industrialized area, close to the Metro Wastewater Treatment Plant and other major air emissions sources. Prior to planning and implementing recreational amenities, Ramsey County Parks & Recreation will need to evaluate the long-term health impacts of air quality on public users of proposed amenities. In addition, the land use designation for the Metro Plant is industrial and the plant is a highly industrialized facility with safety and use consistent with that designation. Noise, odors, emissions, and traffic are present at levels that are consistent with industrial land use and that meet the Metro Plant's permits but which raise concerns about conflicts between the proposed recreation and the current land use designation in the surrounding area. While the Metropolitan Council Environmental Services has invested in reducing odor generation at the Metro Plant, further reductions are unlikely to mitigate odors to a significant degree. Noise, traffic, and emissions from Metro Plant operations and maintenance activities may also negatively impact the public's ability to enjoy recreational activities.

In addition to the challenges posed by conflicting land uses near Pigs Eye Lake there are also contamination and public safety issues that need to be addressed prior to enabling future recreation development and safe public use of the Pigs Eye Lake Segment of Battle Creek Regional Park. The Pigs Eye Lake Master Plan Amendment was written to address the natural resources existing conditions and future plans for the Pigs Eye Lake Segment. Next steps for Public Safety Planning Activities include:

- Secure funding for planning activities
- Initiate an agency-wide planning team to determine project scope, objectives, coordination, stakeholders, agency and public engagement, funding strategy, and process for developing a long-range plan for remediation. Initiate an agency and public engagement process
- Initiate additional site assessments and testing to determine the extent of contaminants within Pigs Eye Lake and surrounding areas
- Develop an agency-wide monitoring and stewardship plan
- Other required planning activities as required dependent on outcomes from long-term planning
- Secure funding for remediation

Recreation amenities which have been identified as a result of public engagement for the Battle Creek Regional Park Master plan such as fishing, canoe and kayak use/launches, and providing access to the shore of Pigs Eye Lake could bring park users into contact with water and soil that has been found to be contaminated. Access to the Pigs Eye Lake Segment of the park is a long-term goal of Ramsey County which can not be realized until all appropriate investigations into environmental contamination are complete and mitigation strategies concluded and verified. Ramsey County Parks & Recreation is committed to working with all stakeholders and neighboring landowners to address the environmental issues surrounding Pigs Eye Lake and to continue to develop concepts for future recreational activities that are safe and compatible with land uses in the area.

For the full report on the natural resources existing conditions and next steps in the Pigs Eye Lake segment of Battle Creek Regional Park, please see the Pigs Eye Lake Master Plan Amendment.

### Recreation Development

Recreational Development for Battle Creek Regional Park includes a mixture of active and passive recreational opportunities including but not limited to walking, hiking, bicycling, off-road cycling, cross-country skiing, birdwatching, canoeing, kayaking, and interpretive and educational programming and amenities. Existing trailheads and pedestrian access points have planned enhancements to improve site amenities as well as safe access into the park. There is a desire to find a location for a community nature center and recreation center with improved amenities. Battle Creek Regional Park's unique and attractive setting along the Mississippi River bluffs and floodplain have provided the strong desire to expand the park and the many active and passive recreation opportunities and amenities that it currently provides. Some of the major amenities proposed to be enhanced or newly implemented in addition to current amenities in this master plan include:

- Gain additional access into the Pigs Eye Lake segment of the park
- New trailhead locations along Battle Creek Road, within the Fish Creek Segment of the park, and Suburban Pond
- 9.44 miles of paved multi-use trails
  - 7.41 miles existing
  - 2.03 miles proposed
- 4.49 miles of natural surface hiking and walking trails
  - 2.23 miles existing
  - 2.9 miles proposed
  - Note: select trails within the off leash dog area are proposed to be paved for accessibility
- 10.3 Miles of existing cross country ski trails which are mowed for hiking and walking in the summer months
- 12.14 miles of combined hiking and off road cycling trails
  - 7.92 miles existing
  - 4.22 miles proposed
- All trail systems are intended to be looped systems originating and returning to major trailheads, increasing the enjoyment and minimizing or removing dead end routes

## The Plan

- Safe pedestrian access points
- Interpretive and educational programming and signage to go along learning trail corridors
- Improvements to the off leash dog area
- Additional picnicking opportunities
- Working relationship with the Minnesota Department of Natural Resources to stock family friendly species within the storm ponds
- Site amenities including benches, trash and recycling bins, wayfinding signs, water fountains, etc.
- Nature, history, and recreation center redevelopment or a new building to house additional features not available at the current recreation center
- Waterworks redevelopment or reconstruction

## Multi-Season Trailhead and Nature Center

The most significant new development that was advocated for was the redevelopment of the recreation center to also include aspects commonly found in a nature center. This redevelopment would also include improved amenities for programming and recreation currently found in the Battle Creek Recreation Center. As a part of this redevelopment, additional parking should also be explored. The final size and use will need to be determined with an additional study and master plan amendment revolving around the specific needs and costs of implementation. Public engagement and input has helped to identify some possible uses including:

- Nature/History/Outdoor Recreation Center
- Restrooms
- Warming area for winter recreation
- Locker rooms for active recreation users such as off-road cyclists and cross-country skiers
- Programming and classroom space
- Recreation staging area
- Picnicking or shelter opportunities
- Wayfinding signage
- Enhanced trail access
- Staging and teaching area for cross-country skiing, off-road cycling, and other recreational sports
- Site amenities such as benches, trash and recycling bins, bicycle racks, enhanced stormwater and resilient site design, and safety measures such as cameras and lighting
- Individual facilities and recreational amenities should be designed and constructed to net-zero standards to further support the goals of the Ramsey County Parks & Recreation Energy Action Plan

As a part of any future study or master plan amendment launched to look at the viability of redevelopment of the Battle Creek Recreation Center further community engagement will be necessary. This study should include defining needs such as storage, parking, new programming needs, and programming partners. A refined concept will need to be created to understand building expansion, parking, conflicts, affects to other recreation facilities such as the play area, recreation fields, and building entrances. Community engagement shall again be stressed throughout this process.

Ramsey County has also located other areas within the park that may be options for a newly developed building to house some or all of the additional amenities identified through public engagement as a supplement to the existing recreation center. A history/nature/outdoor recreation center may also be located on acquired land along Battle Creek Road or within the Fish Creek segment of the park.

### Suburban Pond Trailhead

A new trailhead is proposed for Suburban Pond which would increase access to the park and provide additional recreational amenities within Battle Creek Regional Park. This trailhead was identified through community engagement and the existing concept plan for the open space. Amenities proposed for this trailhead would include:

- Limited parking
- Restrooms
- Picnicking opportunities, either open picnic tables or small shelter(s)
- Wayfinding signage
- Site amenities such as benches, trash and recycling bins, bicycle racks, enhanced stormwater design, resilient site design, and safety measures such as cameras and lighting
- The trailhead would provide connection to the trail encompassing Suburban Pond and south to the Battle Creek Corridor zone of Battle Creek Regional Park
- Individual facilities and recreational amenities should be designed and constructed to net-zero standards to further support the goals of the Ramsey County Parks & Recreation Energy Action Plan

### Upper Afton Road Active Recreation Area Trailhead

The existing trailhead serving the active recreation zone and associated water park, playground, pavilion, and shelter should be reassessed with any future redevelopment of the parking lot or site amenities. Additional parking should be investigated along with enhanced stormwater and resilient site design. Ramsey County should look to the Energy Action Plan to investigate the possibility of construction which would meet net-zero standards to further support the goals of the Energy Action Plan.

### Upper Afton Road Off-Leash Dog Area and Overflow Parking Trailhead

The trailhead located at the north entrance to the off-leash dog area is well utilized and would benefit from the addition of site amenities including:

- Additional parking spaces
- Restrooms
- Wayfinding signage

## The Plan

- Enhanced trail access
- Site amenities such as benches, trash and recycling bins, bicycle racks, enhanced stormwater and resilient site design, and safety measures such as cameras and lighting
- Individual facilities and recreational amenities should be designed and constructed to net-zero standards to further support the goals of the Ramsey County Parks & Recreation Energy Action Plan

### Lower Afton Road Off-Leash Dog Area Trailhead

The Trailhead located along Lower Afton Road at the entrance to the off-leash dog area would benefit from the addition of site amenities including:

- Additional parking spaces
- Restrooms
- Wayfinding signage
- Enhanced trail access
- Site amenities such as benches, trash and recycling bins, bicycle racks, enhanced stormwater and resilient site design, and safety measures such as cameras and lighting
- Individual facilities and recreational amenities should be designed and constructed to net-zero standards to further support the goals of the Ramsey County Parks & Recreation Energy Action Plan

### Park Entrance Road Trailhead

The Trailhead located at the lower reaches of Battle Creek has been a popular destination since Battle Creek Regional Park's earliest Days. The trailhead would greatly benefit from the addition of site amenities including:

- Additional parking spaces
- Restrooms
- Wayfinding signage
- Enhanced trail access
- Additional Picnicking opportunities which could include open picnic tables or small shelter(s) along the creek corridor
- Site amenities such as benches, trash and recycling bins, bicycle racks, enhanced stormwater and resilient site design, and safety measures such as cameras and lighting
- Individual facilities and recreational amenities should be designed and constructed to net-zero standards to further support the goals of the Ramsey County Parks & Recreation Energy Action Plan

In addition to the site amenities located at the trailhead, the access gate is proposed to be moved to near the intersection of Lower Afton Road and Park Entrance Road.



### Bluff Top Trailhead

527 Battle Creek Road is a park inholding and acquiring this property when it becomes available and from a willing seller would greatly improve access of Battle Creek Regional Park. Community engagement has indicated that development be thoughtful and whenever possible not encroach upon natural areas. This property provides the opportunity for an additional trailhead without compromising this goal. Any other trailhead development along the bluffs would injure native habitats, recreational facilities, and have an adverse effect on the aspects of Battle Creek Regional Park that so many community members have identified as important to them. Development of this trailhead would provide a space for:

- A possible location for the outdoor recreation/history/nature center
- A staging area for recreational sports such as off-road cycling and cross-country skiing
- Restrooms
- Picnicking or shelter opportunities
- Parking
- Enhanced trail access
- Staging and teaching area for cross-country skiing, off-road cycling, and other recreational sports
- Site amenities such as benches, trash and recycling bins, bicycle racks, enhanced stormwater and resilient site design, and safety measures such as cameras and lighting
- Individual facilities and recreational amenities should be designed and constructed to net-zero standards to further support the goals of the Ramsey County Parks & Recreation Energy Action Plan

### Fish Creek Trailhead at Carver Avenue East and Henry Lane South

A new trailhead is proposed for the Fish Creek segment of the park at the intersection of Carver Avenue East and Henry Lane South. The trailhead would include:

- Restrooms
- Parking
- Enhanced trail access
- Picnicking or shelter opportunities
- Wayfinding signage
- Playground

## The Plan

### Fish Creek Trailhead at Henry Lane South

The existing trailhead at the end of Henry Lane South currently requires community members to turn around and park along the side of the road. The trailhead would benefit from the following amenities:

- Restrooms
- Parking
- Enhanced trail access
- Picnicking or shelter opportunities
- Wayfinding signage
- Potential area for nature/history center development

### Park Access Points

Battle Creek Regional Park is very segmented, requiring community members who are walking, bicycling, or accessing the park by anything other than a vehicle to cross roads and intersections at grade. Ramsey County should take all necessary precautions to ensure that these access points are as safe as possible. Access points should include additional wayfinding signage to complement the physical access points.

Typical road crossing enhancements may include:

- Creative or unique painting schematic
- Rapid flashing beacons
- Additional signage
- Pedestrian refuges
- Speed Bumps
- Neckdowns
- Warning Signs
- Speed reductions
- A combination of strategies

Select intersections and crossing points warrant investigation of grade separated crossings including:

- The intersection of Lower Afton Road and Burlington Avenue
- Upper Afton Road separating the Battle Creek and Bluff Corridor from the Battle Creek Connection
  - Ramsey County has investigated the potential of an underpass here in the past, and while feasible may be cost prohibitive until such a time as road reconstruction takes place

- Ruth Street bisecting the Battle Creek Connection zone
  - Ramsey County has investigated the potential of an underpass here in the past, and while feasible may be cost prohibitive until such a time as road reconstruction takes place

Battle Creek Road between the Battle Creek and Bluff Corridor and the Winter Recreation Area is another area that needs further planning. Trails cross at a few locations and cars are coming around corners creating potential conflicts. In addition to the enhancements listed above grade separated crossing and closure of Battle Creek Road should be investigated. Closure of the road would allow for a seamless integration of the park while grade separated crossings are likely to be cost prohibitive.

### Learning Trail Corridors

Learning trail corridors have been identified in 3 locations within the Battle Creek Segment of the park. One connects to the entrance across from Battle Creek Middle School, one from Carver Elementary School and the final location starts and ends at the Battle Creek Recreation Center. These corridors were identified through community engagement and meetings with various stakeholders and partner agencies. Battle Creek Middle School and Carver Elementary already utilize the park to take classrooms out for in field education. Friends of the Mississippi and Ramsey County also lead programming within Battle Creek Regional Park.

Learning trail corridors would utilize existing trails which would be enhanced through the implementation of additional interpretive and educational signage, as well as outdoor classrooms. Battle Creek Middle School has expressed the interest in a point along the trail to access the creek for classroom activities. Outdoor classrooms can be as simple as a space off to the side of the trail for a gathering space and some log benches. Interpretive and educational signage would also provide the opportunity for self-lead walks to learn about native vegetation, wildlife, park history, area history, and Native American history.

The trail corridors will require further planning to determine exact programming and educational needs, as well as the number and types of signs, outdoor classrooms, and related site amenities to support the goals of the individual corridors. Ramsey County will need to engage the public, community members, stakeholders, partnering agencies, the Native American community to determine the final information, locations, and types of education within the learning trail corridors.

### Waterworks

Through community engagement it is clear that Waterworks is a much loved and desirable asset to Battle Creek Regional Park. This was more apparent during pop up engagement sessions and among younger and more racially diverse community members. While the exact outcome for Waterworks was undecided redevelopment or reconstruction of waterworks, which is needed, includes:

- Destination water park for younger community members (replace as is)
- Destination water park for all ages
  - Small children area
  - Wading pool
  - Slides
  - Sand play
  - Deeper pool for older ages and lap swimming
- Free splash pad

## The Plan

Ramsey County will need to further examine the potential of the site for a water park and what the outcome will be. Community engagement will be essential along with a detailed study addressing the costs, community needs and final development of the water park. An amenity involving water play is desirable and Battle Creek Regional Park is the only park in the system without a beach or other natural water body suitable for interaction with water.

### Fishing

Fishing opportunities were indicated throughout community engagement, but were stressed more by racially diverse community members and at the Battle Creek Middle School engagement. Ramsey County has had preliminary discussions with the Minnesota Department of Natural Resources Fishing in the Neighborhood program. The program stocks is aimed at increasing angling opportunities, public awareness, and environmental stewardship within the seven-county metro region. As the state's population has become increasingly urbanized, it has become evident that there is a growing need for easily accessible fishing opportunities close to where people live. Fishing in the Neighborhood builds on existing urban fisheries management activities such as stocking, aeration and enhancement of shore-fishing and pier-fishing opportunities. By reaching out to a wider variety of interests, such as local parks departments, lake associations, and schools, Fishing in the Neighborhood promotes a greater awareness of aquatic habitat needs and the importance of good stewardship. By getting more people involved in angling, Fishing in the Neighborhood will assure that this family-oriented activity continues to be one of Minnesota's most popular pastimes. Stocking the storm ponds located in the active recreation area would allow Ramsey County to promote the shared goals of environmental stewardship and awareness of aquatic habitats. Recreational amenities and opportunities in addition to the stocking of fish would include:

- Fishing access
  - Fishing pier or boardwalk
  - Fishing nodes along the storm water ponds
- Programming introducing fishing to new and experienced audiences for a family friendly experience

### Cross-Country Skiing

Cross country skiing is an area of recreational demand that was greatly supported throughout public engagement. There has been a long term goal to turn the Winter Recreation Area into a destination for cross country skiing in the county. Battle Creek is unique for its ability to provide a space which is a homologated system, a rarity anywhere in the world. The trail system exists but there is a desire to add lighting, snowmaking, improved facilities, and a staging area for races and events. The staging area may include:

- Start gates
- A timing booth
- Ski repair and waxing stations, space for temporary outdoor seating
- Other components compatible with a premier cross country ski destination

There are 10.3 miles of cross country ski trails available when weather allows for the trails to be groomed, snow-making would make the trails at Battle Creek much more reliable. This reliability is paramount for the many schools, community members, recreation groups, and others who consistently rate Battle Creek as their favorite location for cross-country skiing.

### Off-Road Cycling

Off-road cycling and trail riding have continued to gain in popularity throughout the metropolitan region. In addition to adult riders, schools are creating more off road cycling clubs and leagues, such as the Minnesota High School League, to introduce riders of all abilities at a younger age. Statewide there are over 60 high school clubs in Minnesota, with around 25 clubs in the metropolitan area. In addition to feedback gathered as a part of this master plan process, there was also a demand placed on off road cycling heard during public outreach for the 2018 System Plan and Off-Road Cycling Master Plan.

Battle Creek Regional Park is currently the only county facility and the only park in Ramsey County to offer off-road cycling trails. Off-road cyclists and clubs such as Minnesota Off-Road Cyclists have been primarily responsible for the implementation and build-out of most of the combined hiking and off-road cycling trails within Battle Creek regional park and have been active since the earliest days of the park.

There are a number of trails that cross each other throughout the park, however these have been limited as much as possible. In the event that a vehicular road is crossed by a trail, additional signage or other enhanced crossing elements along the trail and road will notify drivers and trail users of the intersection and to use caution. In the event that two trails cross each other and on shared trails, faster moving recreational elements will be asked to stop for slower moving recreation elements. In areas where there may be crossing conflicts with cross-country ski trails, hiking trails, off-road cycling trails, and paved trails alternate crossing improvements should be considered to minimize conflicts, improve safety, and to allow through movement dependent on the location and activity.

There are 12.14 miles of combined hiking and off-road cycling trails proposed as a part of this plan. In addition to the trails themselves a number of recreational elements are also proposed including:

- Wayfinding signage at all trailheads
- Rules signs indicating proper etiquette on trails, when to ride, whom has the right of way, etc.
- Skills area
- Bike repair stations
- Mileage markers and associated trail signage and wayfinding throughout the trail system
- Winter use of trails is not allowed

The full Off-Road Cycling Master Plan and Summary of Engagement can be found in the Appendix.

### Hiking, Walking and Trail Running

Hiking and walking within Battle Creek remain some of the most common activities locally as well as regionally in parks. With a proposed 13.92 miles of combined hiking and off-road cycling trails, 10.3 miles of mowed grass trails, 9.45 miles of multi-use paved trails and 4.5 miles of dedicated natural surface hiking trails for a total walking and hiking system of 38.17 miles providing the most comprehensive access to the park of any recreation group. Within the Fish Creek segment of the park dedicated natural surface trails along the bluffs for hiking and walking are provided where there is no shared use of off-road cycling allowed.



## The Plan

### Winter Hiking and Snowshoeing

Throughout public engagement Ramsey County heard from residents who enjoy winter hiking and snowshoeing in Battle Creek Regional Park. Generally these users report enjoying the trails west of Battle Creek Road, however they prefer to park at the Battle Creek Recreation Center trailhead. The trails leading from the recreation center to the trails in the Battle Creek and Bluffs Corridor are all signed for cross-country skiing only for winter use. Generally this does not cause too much conflict if pedestrian traffic stays to the side of the groomed trails. Ramsey County shall further study the use of trails for winter use. Currently the park trails are dominated by a single sport, cross-country skiing. While the homologated trails should remain untouched other areas should be looked at for expanded use outside of the snow-making operations that are proposed.

The Trails west of Battle Creek would be a good area to look at for snowshoeing and hiking winter uses while maintaining some cross-country ski opportunities. Until the Bluff Top Trailhead is established a trail to the side, or new separated trail from the recreation center through the Winter Recreation area should be established to aid in accessibility of this area.

Ramsey County may need to further engage community members, stakeholders, partnering agencies and others in regards to the development of winter recreation trails in Battle Creek Regional Park to determine final uses, areas, and trail lengths for winter snowshoeing and hiking.

### Off-Leash Dog Area

Ramsey County finalized a plan for off-leash dog area in 2018. Improvements to the off-leash dog area should follow the findings of that plan and community engagement for the Battle Creek Regional Park Master Plan, which include:

- The addition of an accessible route for the inclusion of all park users as well as maintenance operations
- Accommodate an area within the off-leash dog area for small dogs only by fencing off a portion of the existing site with a double gated entry
- Accessible concrete bench pads and trash receptacles
- Bring a dog and human drinking fountain and water line up to the off-leash dog area entrances
- Double gated entry at the north and west entrances
- Removal of miscellaneous and duplicative signage on fences and relocate to a bulletin board/rules sign
- Standardize rules signs at entrances, currently not the same rules are posted at each entrance
- Install trash receptacles throughout the off-leash dog area along with waste bag dispensers.

A copy of the Off-Leash Dog Areas Master Plan can be found in the Appendix.





# The Plan

## BATTLE CREEK SEGMENT OVERALL CONCEPT MAP

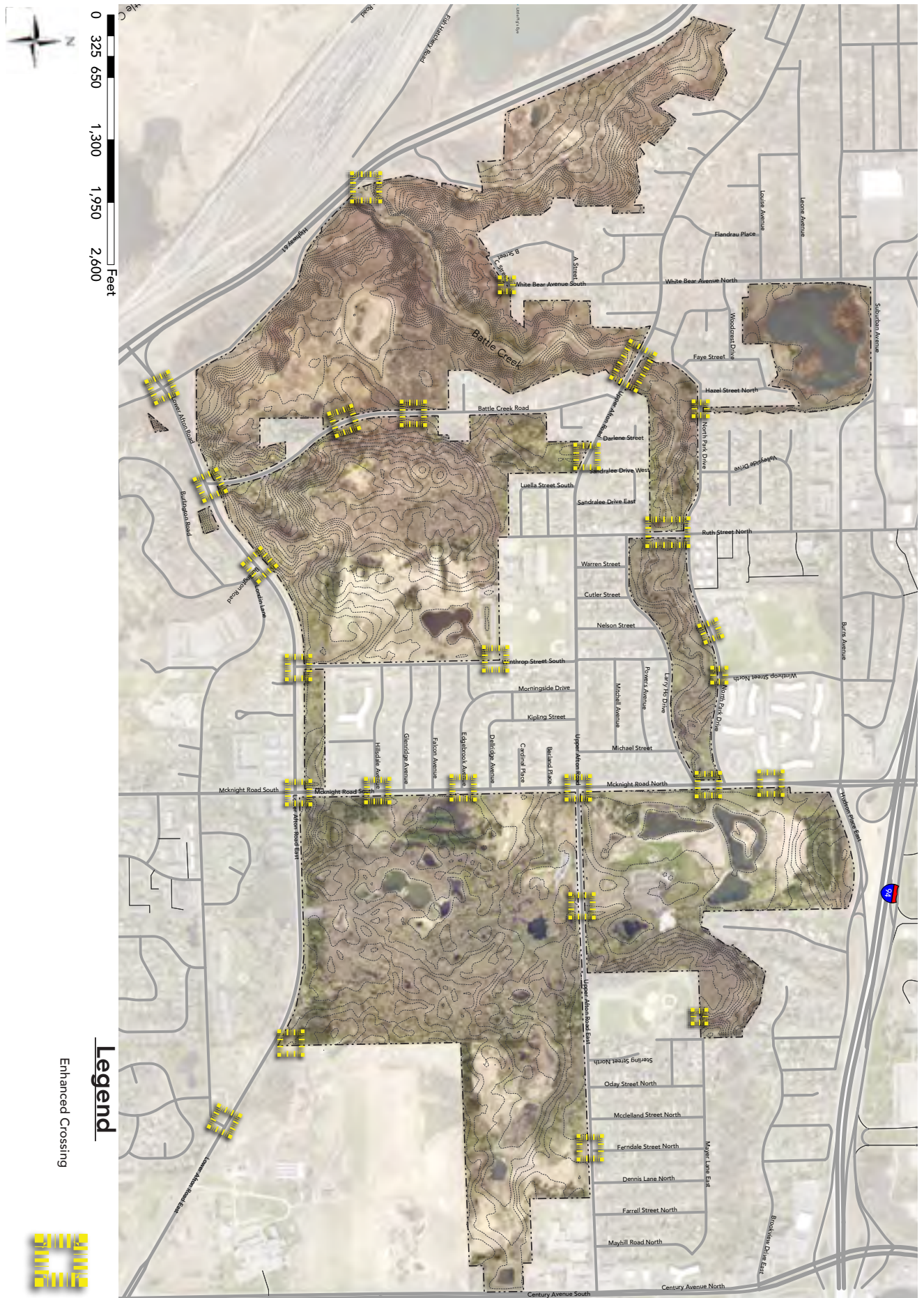


### Legend

- |  |  |  |                              |
|--|--|--|------------------------------|
|  | Paved Trail  |  | Site Amenities               |
|  | Existing Trail   |  | Pavilion                     |
|  | Proposed Trail   |  | Picnic Shelter               |
|  | Turf/AC Ski Trail  |  | Restrooms                    |
|  | Existing Trail   |  | Outdoor Nature Station       |
|  | Proposed Trail   |  | Parking Lot                  |
|  | Off Road Cycling/Hiking Trail  |  | Off Road Cycling Skills Area |
|  | Existing Trail   |  | Off Leash Dog Area           |
|  | Proposed Trail   |  | Playground                   |
|  | Nature Trail Corridor  |  | Water Park                   |
|  | Regional Trail Search Corridor   |  | Picnic Area                  |
|  | Proposed Acquisition   |  | Enhanced Crossing            |
|  | Education Opportunity  |  |                              |
|  | Mississippi River Corridor Critical Area / Mississippi National Park and Recreation Area |  |                              |



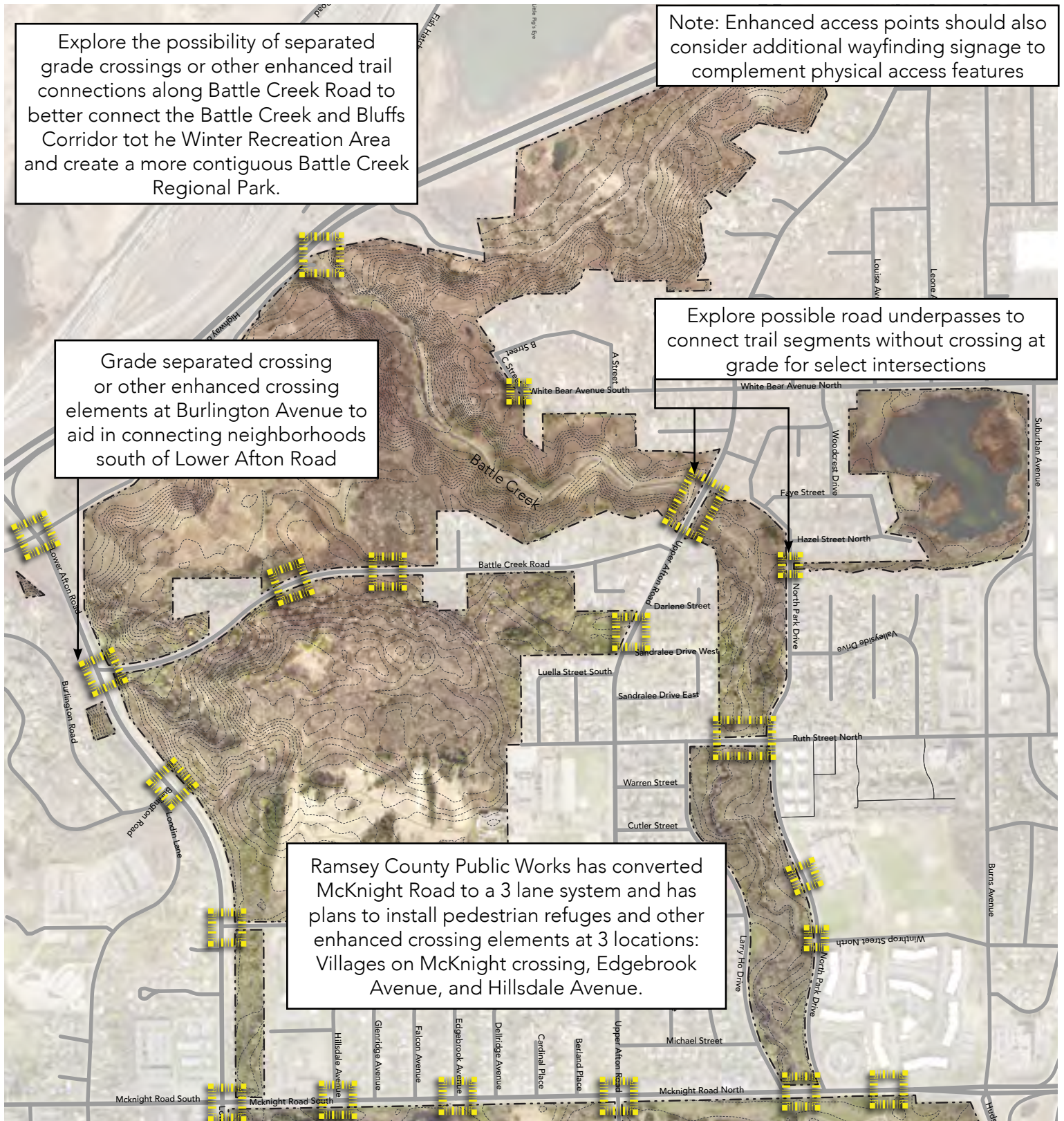
## BATTLE CREEK SEGMENT PEDESTRIAN ACCESS POINTS





# The Plan

## BATTLE CREEK SEGMENT PEDESTRIAN ACCESS POINTS



0 325 650 1,300 1,950 2,600 Feet

### Legend

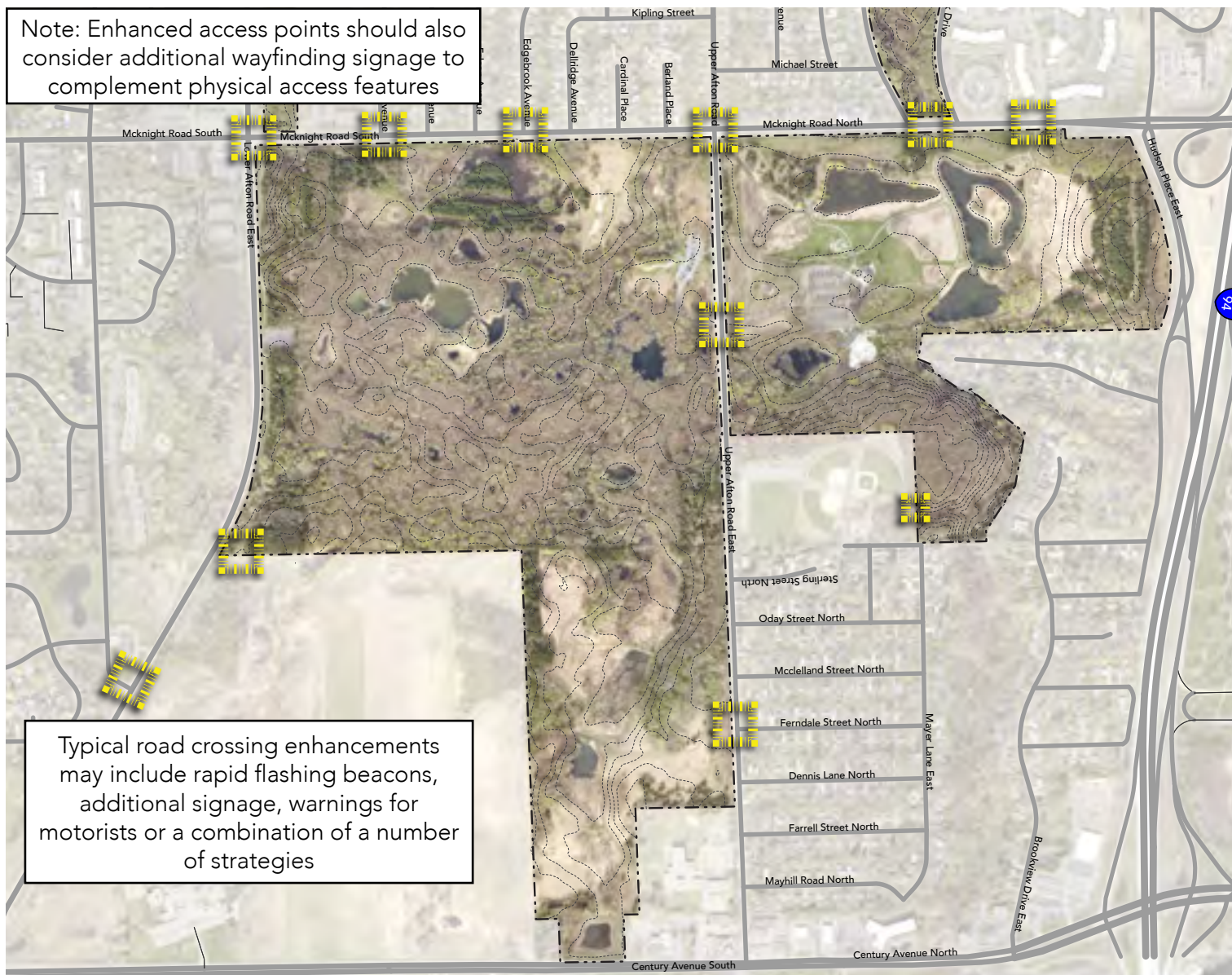
Enhanced Crossing





# BATTLE CREEK SEGMENT PEDESTRIAN ACCESS POINTS

Note: Enhanced access points should also consider additional wayfinding signage to complement physical access features



Typical road crossing enhancements may include rapid flashing beacons, additional signage, warnings for motorists or a combination of a number of strategies

## Legend

Enhanced Crossing





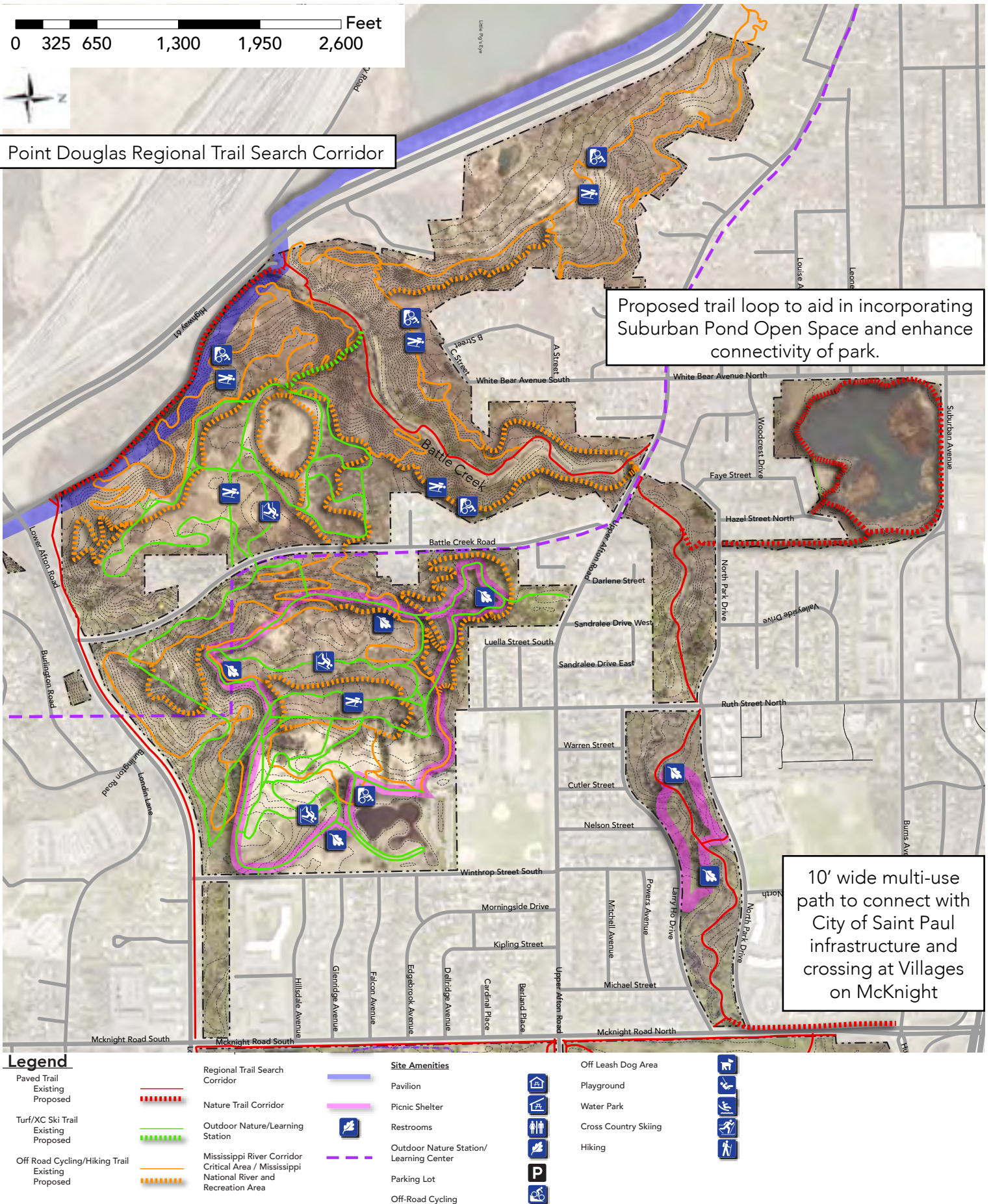
# The Plan

## BATTLE CREEK SEGMENT TRAIL SYSTEM AND AMENITIES





## BATTLE CREEK SEGMENT TRAIL SYSTEM AND AMENITIES





# The Plan

## BATTLE CREEK SEGMENT TRAIL SYSTEM AND AMENITIES

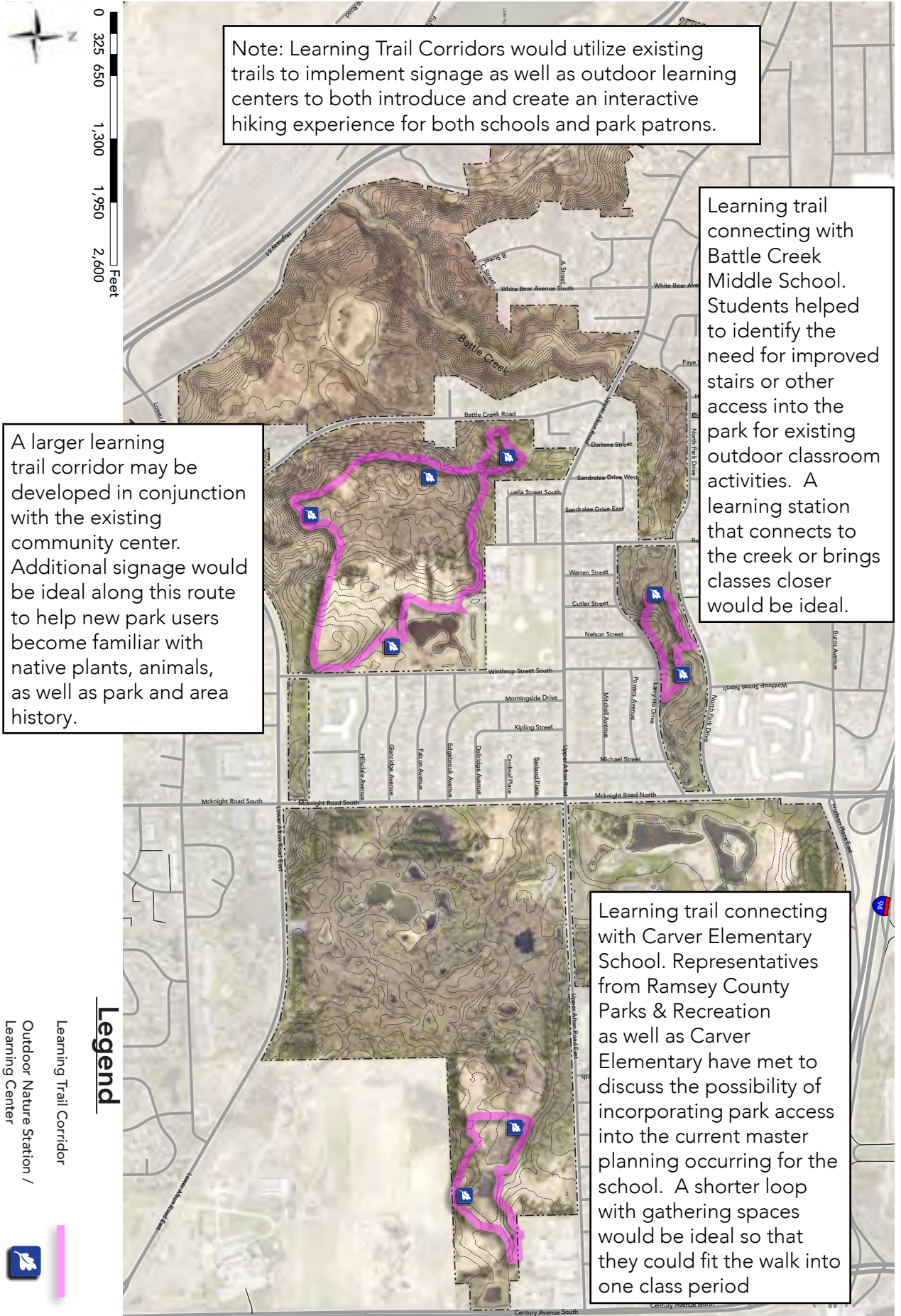


### Legend

- |   |   |  |  |
|---|---|--|--|
| <ul style="list-style-type: none"> <li>Paved Trail           <ul style="list-style-type: none"> <li>Existing</li> <li>Proposed</li> </ul> </li> <li>Turf/XC Ski Trail           <ul style="list-style-type: none"> <li>Existing</li> <li>Proposed</li> </ul> </li> <li>Off Road Cycling/Hiking Trail           <ul style="list-style-type: none"> <li>Existing</li> <li>Proposed</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>Regional Trail Search Corridor</li> <li>Nature Trail Corridor</li> <li>Outdoor Nature/Learning Station</li> <li>Mississippi River Corridor Critical Area / Mississippi National River and Recreation Area</li> </ul> | <ul style="list-style-type: none"> <li>Site Amenities           <ul style="list-style-type: none"> <li>Pavilion</li> <li>Picnic Shelter</li> <li>Restrooms</li> <li>Outdoor Nature Station/Learning Center</li> <li>Parking Lot</li> <li>Off-Road Cycling</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>Off Leash Dog Area</li> <li>Playground</li> <li>Water Park</li> <li>Cross Country Skiing</li> <li>Hiking</li> </ul> |
|---|---|--|--|



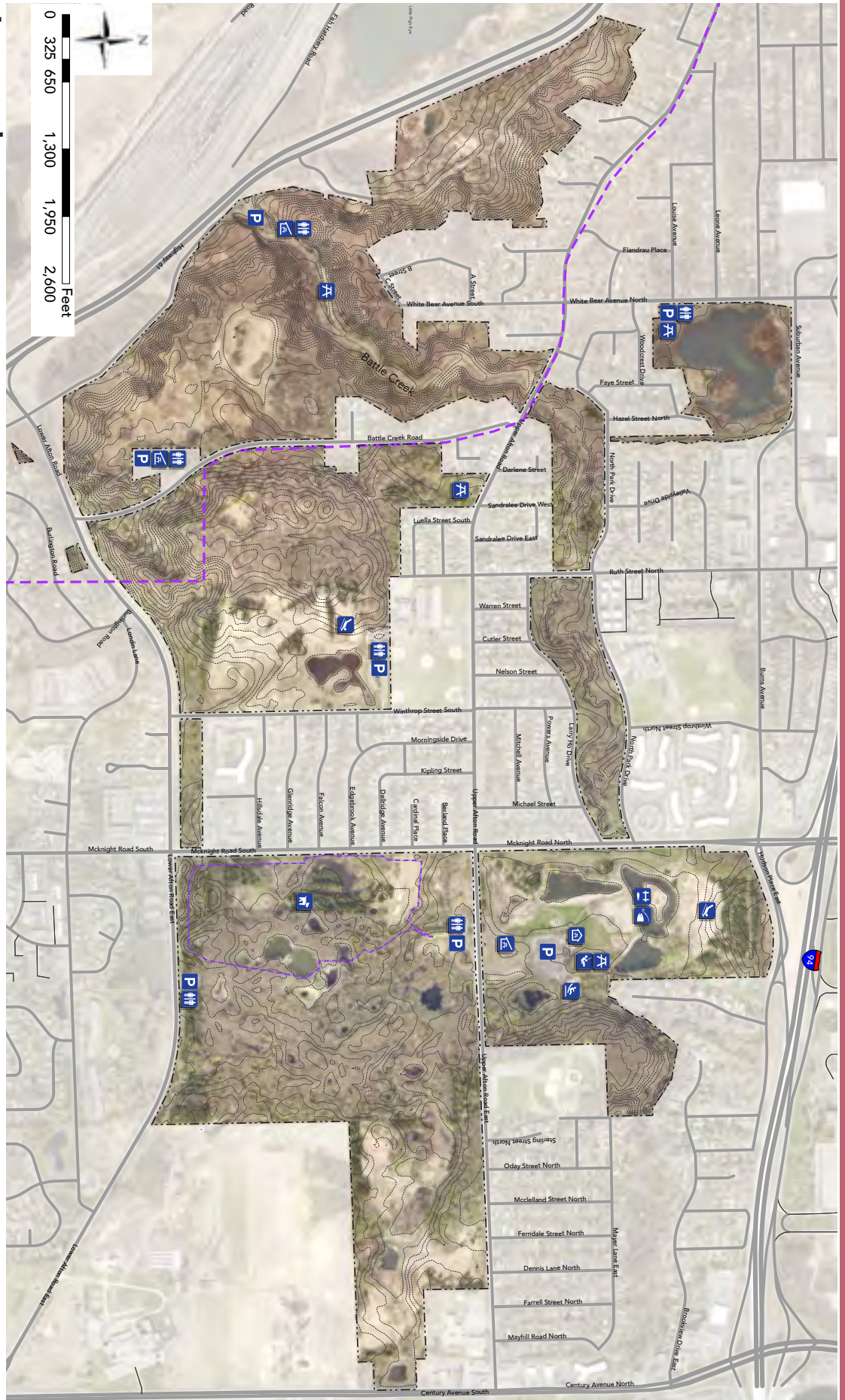
## BATTLE CREEK SEGMENT LEARNING TRAIL CORRIDORS





# The Plan

## BATTLE CREEK SEGMENT TRAILHEADS AND AMENITIES



### Legend

#### Site Amenities

- Pavilion
- Picnic Shelter
- Restrooms
- Outdoor Nature Station/  
Learning Center

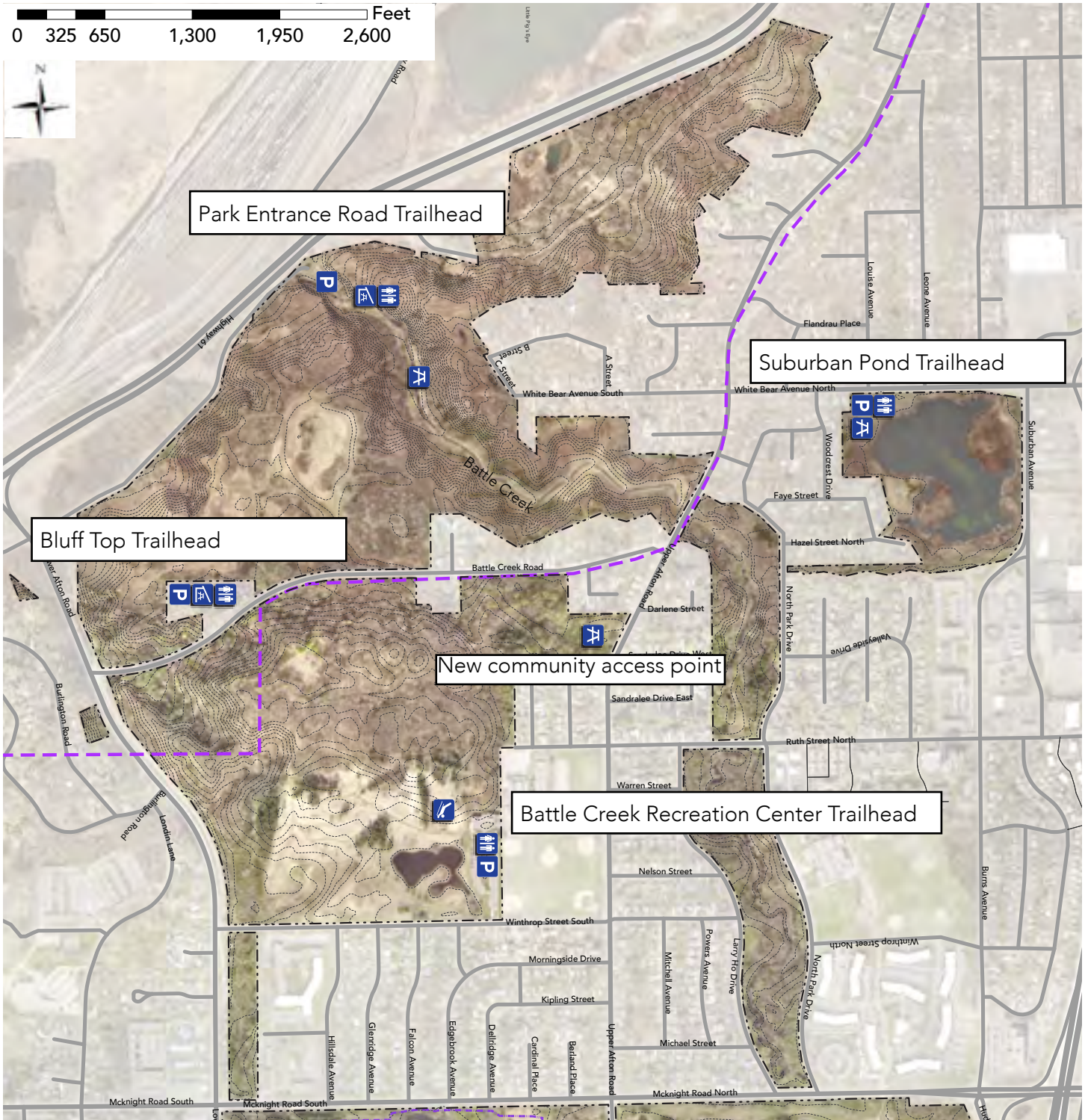
#### Parking Lot

- Off Road Cycling Skills Area
- Off Leash Dog Area
- Playground
- Water Park
- Fishing Opportunity / Pier

Mississippi River Corridor  
Critical Area / Mississippi  
National River and  
Recreation Area



## BATTLE CREEK SEGMENT TRAILHEADS AND AMENITIES



### Legend

#### Site Amenities

Pavilion



Picnic Shelter



Restrooms



Outdoor Nature Station/  
Learning Center



Parking Lot



Off Road Cycling  
Skills Area



Off Leash Dog Area



Playground



Water Park



Fishing Opportunity / Pier



Mississippi River Corridor  
Critical Area / Mississippi  
National River and  
Recreation Area





# The Plan

## BATTLE CREEK SEGMENT TRAILHEADS AND AMENITIES



### Legend

#### Site Amenities

Pavilion



Picnic Shelter



Restrooms



Outdoor Nature Station/  
Learning Center



Parking Lot



Off Road Cycling  
Skills Area



Off Leash Dog Area



Playground



Water Park



Fishing Opportunity / Pier



Mississippi River Corridor  
Critical Area / Mississippi  
National River and  
Recreation Area



# PIGS EYE LAKE SEGMENT CONCEPT

## Pigs Eye Lake Data

- Lake area of 629 acres
- Current Landcover Types
  - Mixed Woods 377.91 Acres
  - Wetland 124.66 Acres
- Proposed Landcover Types
  - Floodplain Forest 377.91 Acres
  - Wetland 124.66 Acres
- Proposed Island area of 35.69 Acres
- Proposed Island Wetlands area of 17.6 Acres

MCES DECOMMISSIONED  
ASH PONDS

METROPOLITAN  
WASTEWATER TREATMENT  
PLANT

Mississippi River

SAINT PAUL PARKS & RECREATION -  
SITE OF PIGS EYE LANDFILL

CP RAIL

Pig's Eye Lake

RED ROCK  
TERMINAL

SAINT PAUL PARKS  
& RECREATION

## Legend

- Regional Park Boundary — — — — —
- Heron Rookery Scientific and Natural Area - - - - -
- Pigs Eye Proposed Islands
- Proposed Land Cover Types
- Wetland
- Floodplain

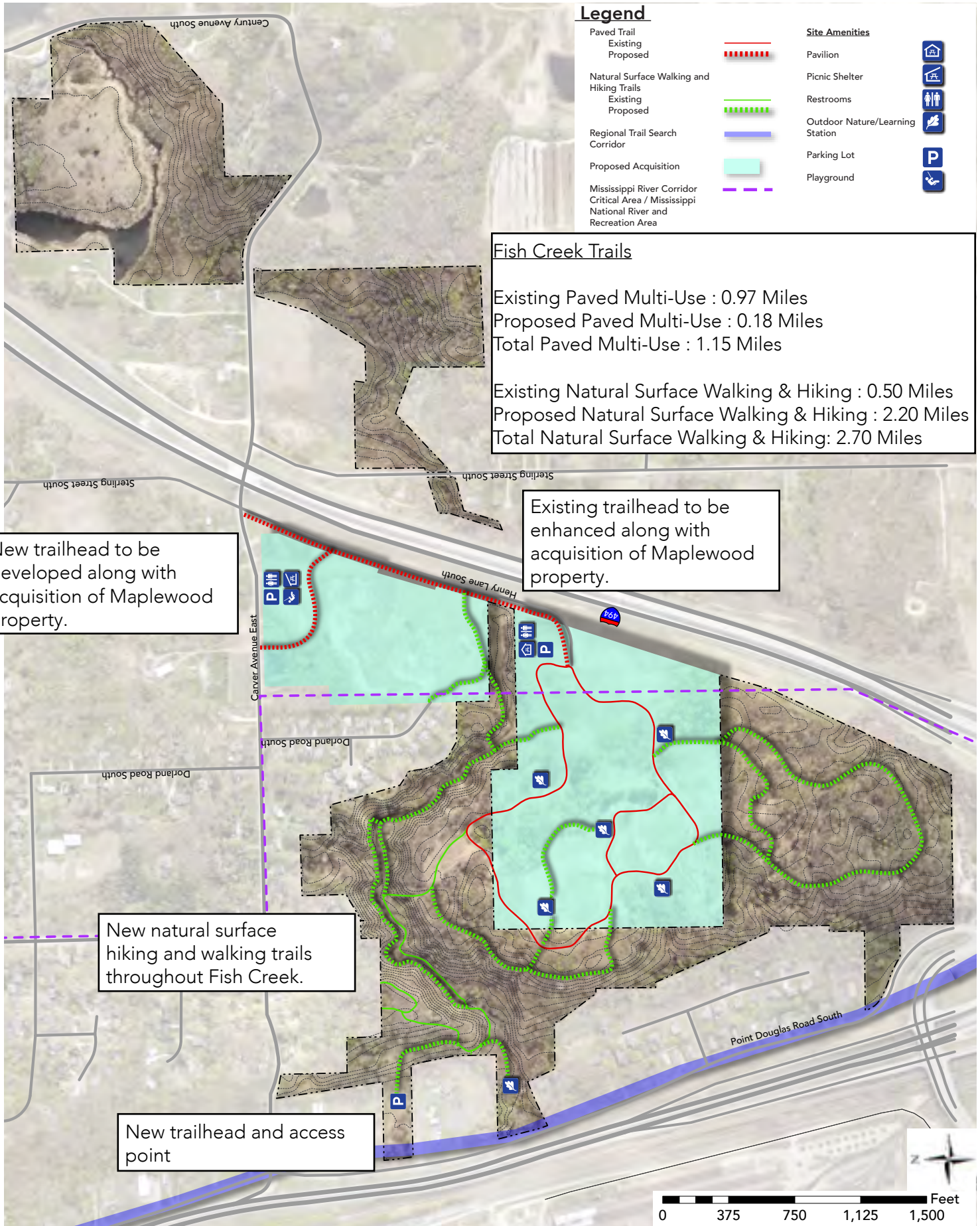


0 500 1,000 2,000 FEET



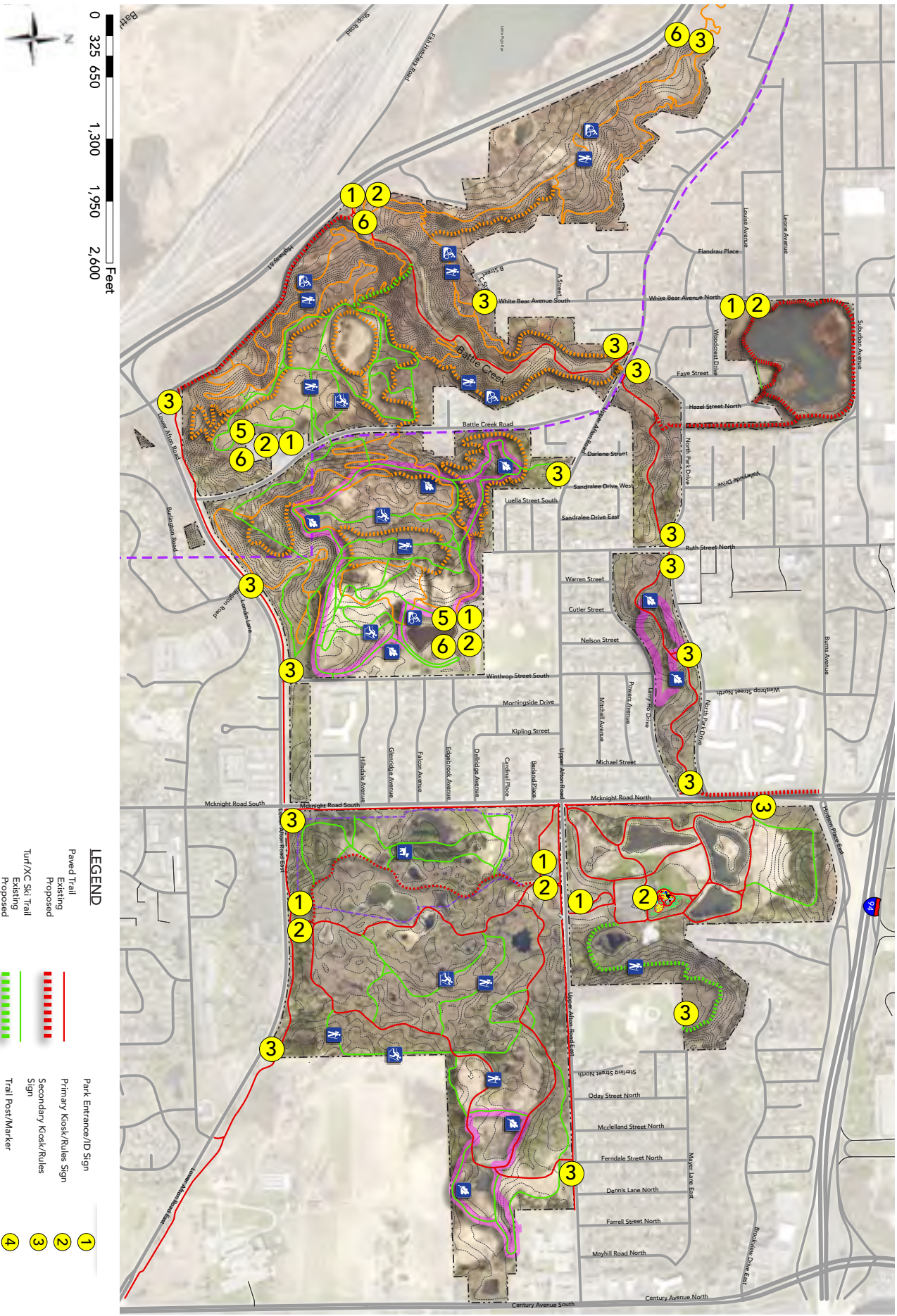
# The Plan

## FISH CREEK SEGMENT CONCEPT





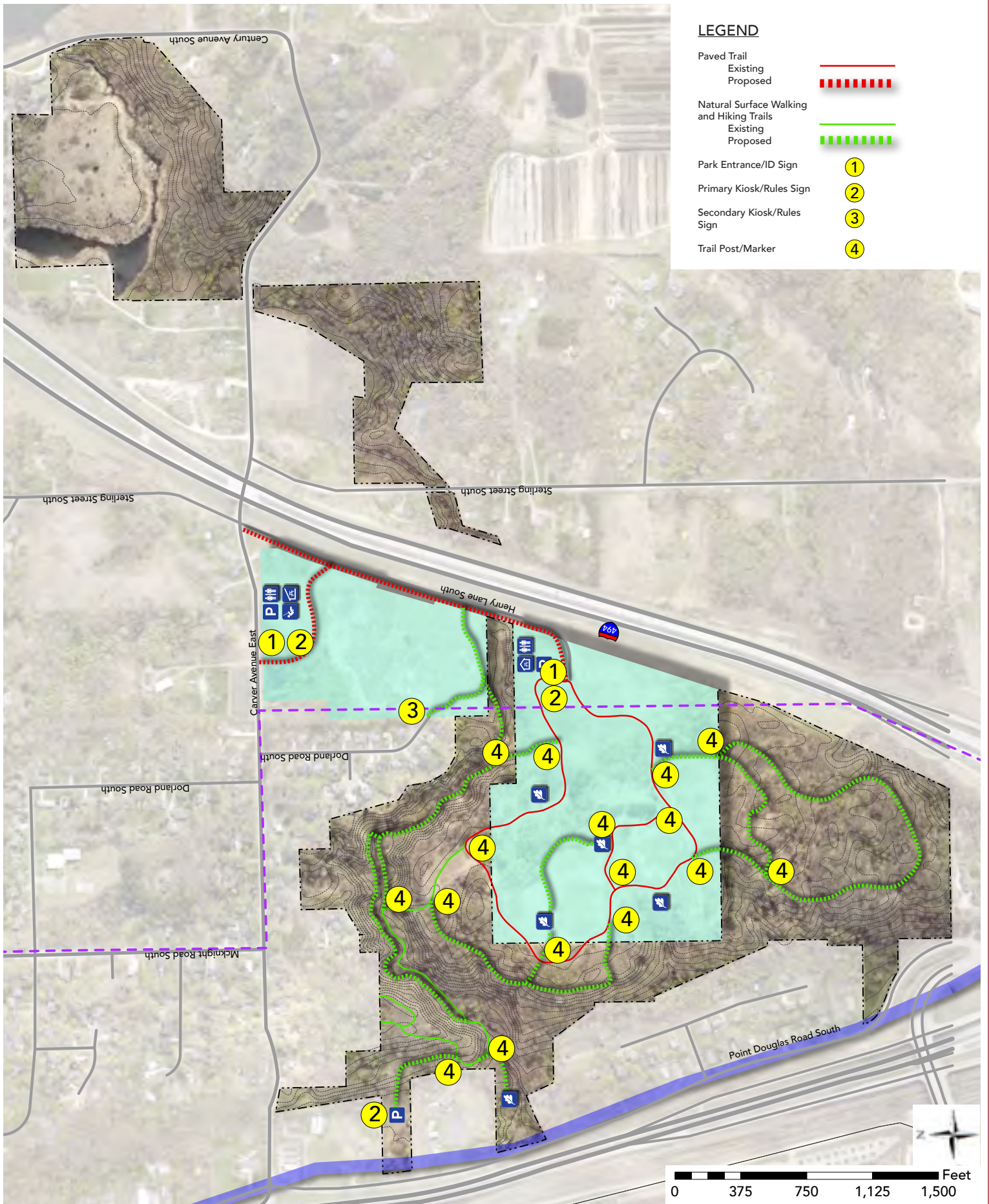
BATTLE CREEK WAYFINDING PLAN





# The Plan

## FISH CREEK WAYFINDING PLAN



## Wayfinding, Rules and Trail Signage

Wayfinding is the way people navigate from place to place. A consistent system is essential for orientation, navigation, and public safety. Signage should be consistent across the system and should guide trail corridor users to local services, cultural destinations, transportation connections, activity centers, recreational destinations, cities, neighborhoods, and other landmarks. Battle Creek Regional Park will utilize the existing Ramsey County Parks & Recreation Department Wayfinding Master Plan for consistency with other regional parks and trails. Ramsey County Parks & Recreation is currently starting to plan for an updated wayfinding and signage plan, the new plan upon completion would become the guiding document for wayfinding, rules, and trail signage within Battle Creek Regional Park.

All trailheads and parking lots should have standardized signage including park wayfinding and rules signs to aid in park accessibility and knowledge of where amenities are located. In Addition select trailheads and parking lots should have specialized signage for trail systems including:

- Battle Creek Recreation Center
  - Wayfinding and rules sign for cross-country ski system
  - Wayfinding and rules sign for off-road cycling system
  - Wayfinding and informational sign for learning trail corridor
- 527 Battle Creek Road Trailhead
  - Wayfinding and rules sign for cross-country ski system
  - Wayfinding and rules sign for off-road cycling system
- Park Entrance Road Trailhead
  - Wayfinding and rules sign for off-road cycling system
- Lower and Upper Afton Road Trailheads
  - Wayfinding and rules sign for cross-country ski system
  - Wayfinding and rules sign for off-road cycling system

Community access points where pedestrians, bicyclists and others enter the park will also require updated signage. Select access points should also have wayfinding signage. Please see the wayfinding plan on page xx for more information.

Park rules signs will also be posted at all trailheads. Rules for Battle Creek Regional Park include the following:

- General Park Rules
  - No alcoholic beverages except beer and wine
  - Park Hours: 1/2 hour before sunrise to 1/2 hour after sunset
  - Vehicles and trailers permitted only on roadways and parking lots
  - Leashed pets permitted on paved trails only. Owners must clean up pet feces. No pets allowed in picnic areas
  - Bikers and inline skaters must stay on paved trails and yield to pedestrians
  - No motorized vehicles allowed
  - Park ordinance in effect. Enforced by the Ramsey County Sheriff's Department. To report violations, please call 651-767-0640
- Nordic Ski Trails Winter Rules
  - Minnesota Department of Natural Resources ski pass required on all trails
  - Trails open 1/2 hour before sunrise to 1/2 hour after sunset
  - Groomed trails are for cross-country ski use only
  - No snowshoeing, skijoring, hiking, walking, biking, or sledding on groomed trails
  - Snowmobiles or other motorized vehicles are not allowed
  - Pets are not allowed on ski trails
  - All ski trails are one-way unless otherwise noted

## The Plan

- Please observe arrows and directional signs. Ski only on marked and groomed trails
- Park ordinance in effect. Enforced by the Ramsey County Sheriff's Department. To report violations, please call 651-767-0640
- Off Leash Dog Area Rules
  - Owners must clean up and dispose of feces
  - Dogs must be leashed prior to entering and upon leaving the off-leash dog area and in transition corridors
  - Owners must be in verbal command of their dogs at all times and prevent aggressive behavior, biting, fighting, or excessive barking. If a dog becomes aggressive, or gets into a fight is shall be leashed and escorted out of the park immediately
  - Owners must have a visible leash at all times
  - Owners are liable for damage or injury inflicted by their dogs
  - Dogs must stay within signed boundary
  - Dogs must be properly licensed and vaccinated
  - Dogs in heat are not allowed
  - For every handler there shall be a maximum of two dogs
  - Children under the age of 12 must be accompanied and supervised by an adult, and should be educated about safe behavior around dogs (do not run, scream, offer food, pet a strange dog without permission, etc.)
  - Owners must comply with all park rules and regulations
  - Park ordinance in effect. Enforced by the Ramsey County Sheriff's Department. To report violations, please call 651-767-0640
- Off-Road Cycling Rules
  - Trail hours 1/2 hour before sunrise to 1/2 hour after sunset
  - Ride only on marked trails
  - Observe: one way arrows, do not enter signs and trail closed signs
  - Yield to pedestrians
  - Control your speed pass with care
  - Maintain a safe distance when following another biker
  - Keep environmental impacts to a minimum
  - Stay off wet or snow covered trails
  - Wear a helmet
  - Respect Wildlife
  - Park ordinance in effect. Enforced by the Ramsey County Sheriff's Department. To report violations, please call 651-767-0640

Currently Ramsey County is taking a look at current park ordinances and along with any changes new rules signs shall be posted at all trailheads and parking lots.

Trail signage is also important for recreational users to find their way through the different systems. Cross-country skiing and off-road cycling both have trail markers stating direction of travel, trail number/letter, and difficulty. Trail markers shall be installed per the wayfinding plan and Off-Road Cycling Master Plan. Upon the completion of new trails or trail sections trail markers should be added.

There are connections to other public land and regional parks and trails that are important access points of Battle Creek Regional Park. Ramsey County should continue to work with the community and partnering agencies to ensure that proper wayfinding signage to these facilities is included in the park's signage and wayfinding plan. These facilities include land owned by the Minnesota Department of Natural Resources, Pigs Eye Regional Park, Indian Mounds Regional Park, the Point Douglas Regional Trail, the Afton Bluffs Regional Trail (currently a search corridor), and local facilities managed by the cities of Saint Paul and Maplewood.



### Park Amenities

Additional site amenities are proposed throughout Battle Creek Regional Park to provide a high-quality experience. These amenities may consist of benches, additional drinking fountains where feasible, pedestrian and bicycle amenities, additional wayfinding, and nature interpretation and educational signage. In park bridges should be widened when they are at the end of their life cycle so that more multi-use trails can be paved for winter use. Implementation of restroom buildings is proposed at trailhead locations.

### Lighting

Consistent with other Ramsey County Regional Parks, lighting is only provided at the trailhead and parking lot areas, with the exception of a short segment of cross-country ski trails. Currently, there is no lighting provided for other park areas, in-park trails, or regional trails per park and trail ordinances.

Through public engagement it became apparent that no additional lighting of in-park trails, or recreational amenities is needed or wanted by the community. The only exception to this would be lighted sections of cross-country ski trails in the winter recreation area.

### Utilities Required for New Development

New utility line extensions into Battle Creek Regional Park will be required to accommodate portions of new development for the park.

New restrooms, lighting, cameras, and drinking fountains are proposed for all trailheads. Trailheads that would require new water, sanitary sewer, and electrical services to be extended from the roadway into the site in the event of development include:

- Suburban Pond Trailhead
- Upper Afton Road Off-Leash Dog Area and Overflow Parking Trailhead
- Lower Afton Road Off-Leash Dog Area Trailhead
- Park Entrance Road Trailhead
- Bluff Top Trailhead
- Fish Creek at Carver Avenue East and Henry Lane South
- Fish Creek at Henry Lane South Termination

Dependant upon long-term improvements for cross-country skiing water and electrical service may be required in multiple locations.

### PROGRAMMING

Throughout public engagement it has become apparent that there is a lack of adequate programming in Battle Creek Regional Park. Community members expressed interest in a wide variety of programming from after school classes, summer camps, art education, nature education, outdoor recreation courses from beginner to advanced, among many others.

With the closure of the Maplewood Nature Center a void in education and programming may become more apparent in the area. The nature center was a gathering place for community members to learn about plants and animals as well as their relationships to each other. The Friends of the Maplewood Nature Center and Preserves have a desire to not only see a nature center reestablished somewhere in the area, they have also expressed an interest in partnering with Ramsey County in finding programming opportunities within Battle Creek Regional park.



## The Plan

Environmental groups such as Friends of the Mississippi River, Battle Creek Middle School, and Carver Elementary Middle School already utilize the park for education opportunities. Ramsey County should continue working with these groups as well as expand partners to local hiking, bird watching, and environmental groups to provide more educational opportunities throughout the park.

Recreation groups such as Minnesota Off-Road Cyclists, Endurance United, The Lopped Foundation, Friends of the Mississippi River, and others are an invaluable asset as well as stakeholders in the park. Ramsey County should continue to build strong relationships with these groups to expand recreational programming. These groups already have the expertise needed to design and implement programming in Battle Creek Regional Park. Through partnerships with these groups introducing new and experienced community members to new activities. Many members have already had good ideas on how to get new riders out and active in the park, as well as supply them with the necessary equipment to do so.

Ramsey County should both study and invest in the infrastructure to make park programming a reality. Parks & Recreation should launch a study into the programming needs of the park and use resources to make it a reality.

## FUTURE PLANNING

Ramsey County Parks & Recreation should increase awareness of the cultural and indigenous history present in the area and specifically within the boundary of Battle Creek Regional Park. An Indigenous peoples and cultural study of the area should be launched with the support and inclusion of all stakeholders and community members. This study could also be accomplished by requiring a study of specific areas of the park as they are developed and/or programmed.

## STEWARDSHIP PLAN

Battle Creek Park contains some of the highest quality natural resources remaining in Ramsey County. The goal for managing the resources of the park is to protect and improve the health and native diversity of these resources. Working toward this goal will accomplish a variety of worthy objectives to:

- Enhance the unique resources that the park was established to preserve for the community
- Provide attractive and interesting recreation areas for people
- Allow the living communities of the park to adapt to change and disturbance in the future

The plan considers the best in available scientific knowledge and the interests of people who care about and use the park in developing recommendations and action steps to protect and improve the health of the park for the long term.

The character of the park and resource have been influenced for thousands of years by climate, water patterns, and by the activities of people. Since the mid-1800s, agriculture and urban development in St. Paul and surrounding area have greatly changed the landscape of the parks. Many valuable natural resources remain, including resources now rare in the county and in the state. However, these resources are threatened by degradation that results from human activities in the landscape. In many places, these trends will not be reversed if the area is simply “left alone;” so much has changed that people must actively care for and manage the landscape to return it to health. The plan suggests ways to care for and restore the natural resources of Battle Creek Park to improve the long-term health of the park, and benefit park users and the natural communities of the park.

The key sections of the plan recommend management tasks and schedules for each of the Management Units of the park, of which many habitat areas traverse. These recommendations are made by prioritizing each of the habitat areas as high, medium, and low. While all resources of the park are important, this prioritization recognizes the limits of staff time and other resources available to the park, and tries to prioritize management activities based on several criteria:

## The Plan

1. Remaining habitats of the highest quality and native diversity should receive attention first. If these resources are lost, it may not be possible to replace them; and restoration of such resources, if possible, is generally more costly than protection.
2. Medium quality areas still have valuable resources, but will require much higher inputs than high quality areas to reverse degradation and improve habitat quality, and outcomes of management activities may be uncertain.
3. Low quality communities have been so changed that they exhibit little native diversity, and would need intensive management or virtual reconstruction to achieve the quality of high or medium areas. Some of these low quality areas have been developed for recreation activities that are not compatible with resources of higher quality habitat areas, but are important to park users, and can usefully remain dedicated to these activities.

Battle Creek Park is a valuable resource for the citizens of Ramsey County, and part of a significant ecological community associated with the Mississippi River Corridor and its bluff lands. The park was originally proposed for acquisition as a public resource based on the quality and beauty of natural resources there. This plan was developed in a spirit that hopes to protect and restore the resources of the park so that they will not diminish, but rather increase in value for future generations. Involvement of people in carefully considering and choosing management options, in learning about the park and its resources, in participating in recreation activities that are compatible with various habitat areas of the park, and in volunteer activities that care for and restore natural resources of the park will be key to the success of the park.

The goals are high, but hopefully achievable in the long term. Shorter term goals and actions compatible with these overall goals are provided for each proposed management area. In addition to prioritizing natural resources management based on the quality and native diversity of habitat areas in the park, and working to restore native diversity and habitats where possible, the plan suggests the following broad goals:

- Additional inventories of plants, animals, and trails should be completed to help guide future management
- Management should seek to control or eliminate exotic invasive species that are damaging the health of park habitats
- The white-tail deer population should be managed to protect existing plant communities and aid the success of restoration activities
- Restoration of native animals should be considered where appropriate when habitat has been improved
- Water resources should be protected using vegetative buffers and other methods
- New proposals for recreation should be evaluated in light of their effects on natural resources
- Efforts should be made to work with park users, surrounding landowners and other organizations to inform them about the natural resources in the park and management options, and identify and meet common goals in managing the park and resources connected to it, such as the bluff lands along the Mississippi River
- The effects of management activities should be monitored, to provide guidance for future efforts

## Ecologically-Based Management Principles

This plan suggests that the resources of Battle Creek Park be managed on an ecological basis. Simply put, an ecosystem (or habitat) is where things live--it is the interacting group of physical elements (soils, water, etc.), plants, animals, and human communities that inhabit a particular place. All of these elements and their interactions need to be considered in developing goals and plans for management. Ecosystem-based management suggests that people are part of the community, and that maintaining a healthy ecosystem is the best way to meet human needs as well as those of other organisms in the community for the long-term.

Managing on an ecosystem basis integrates scientific knowledge and human values toward a general goal of protecting the health of the ecosystem for the long term. (Grumbine, 1993) A key measure of the health of ecosystems is the level of diversity of plants and animals native to the area--a higher diversity of native plants and animals probably indicates a healthier ecosystem (or habitat). A healthy, diverse Battle Creek ecosystem is a desirable goal because it will provide for the basic needs of all living things, allow for successful adaptations to change and

## The Plan

disturbance, and allow long-term evolutionary processes to continue with as much genetic diversity as possible so that natural communities in the park can adapt to changing conditions.

The following are some overall ecosystem-based principles for managing Battle Creek park. They are paraphrased from current literature on ecologically-based management. Later sections of the plan use these principles to develop goals and objectives for managing the park as a whole, and for management of individual units within the park, but these principles should also be considered when new issues arise that have not been considered in this plan.

### Goal and Principles for Management

Management goal for the park: management should protect and enhance the ecosystem of the park and native biological diversity of its habitats. This is generally defined as giving first priority to protecting and restoring the native diversity (including species and communities), and the ecological patterns and processes needed to maintain that diversity. When the highest quality areas have been protected, next steps include buffering and connecting these areas, and restoring and maintaining healthy, diverse communities and habitats in surrounding areas.

Managing for ecosystem health in the park will include identifying and conserving viable populations of native species, using natural disturbances such as controlled fires to maintain and restore communities, and increasing native species diversity in the park and surrounding areas when possible. Recreation uses should be balanced with the ability of resources to sustain use without damage. Areas most sensitive to human use should be considered for the least intensive uses; areas that can sustain more use without negative impacts to plant and animal communities or natural systems should be considered for more intensive use.

While maintaining some native species and processes offers challenges in an urban setting, it is worth pursuing for a variety of reasons:

1. Native plant and animal species and communities have evolved together in the park area for a long time and are particularly suited to this environment. Over the long term, they will maintain a healthy system that can adapt to disease, weather, other natural disturbances, and should require less management inputs than species less suited to the environment of the park.
2. These species and communities offer human visitors a varied and interesting park environment that illustrates the ecological history of our region and provides diverse opportunities for recreation and education.
3. High quality natural communities are rare in Minnesota, and particularly in the Twin Cities Metro Area, and are worth protecting and enhancing because they are rare and difficult, if not impossible, to restore to natural condition. Such areas can serve as a source of native seed for restoration of other park areas and areas nearby and as habitat for unique species adapted to these environments.

Some ecological principles that are important components of this goal include the following:

1. Species are interdependent; planning should be focused on maintaining healthy communities and habitats, and the processes that sustain them, and saving all the parts, since we don't always understand how all components function.
2. Introductions of generalist species (exotic species not native to the area) reduces native diversity, the quality of habitat, and the health of communities, and therefore exotics should be excluded or controlled. Appropriate methods for controlling exotic species include cutting, burning, herbicide application, and biological controls.



3. The health of communities depends on their size, in general, smaller and more fragmented communities support fewer species, are more vulnerable to extinctions and invasions, and are less able to recover their diversity, particularly if other sources of native populations are not available nearby. Management therefore emphasizes improving connectivity, avoiding fragmentation of contiguous habitats, protecting natural waterways, and identifying and protecting critical habitats. Connections between communities along natural corridors may help to maintain diversity and health by allowing plants and animals to migrate and reproduce.
4. People are part of nature. The decisions and actions of humans have been a major force shaping the natural resources and processes of the park for a long time. Humans and their values must be an important factor in shaping park management. Recreation is an important goal of park management. Natural resources management needs to consider providing for appropriate active and passive recreation opportunities in the park.
5. Planning should be based on ecological boundaries and long time frames. Natural systems and communities that make up the park extend beyond political boundaries and influence the quality of resources in the park. For example, the natural communities of the park continue along bluff areas to the west and south; common management goals for these areas could improve long-term health and survival of plant and animal communities here, and their value for human residents and recreational users. Effective management needs to consider broader spatial areas that influence the park and be based on time frames that consider natural processes.
6. Management should be based on good data collection and monitoring. Baseline species and population assessments, habitat inventories and classification, and monitoring data are critical to evaluating the quality of the park's resources and determining appropriate management.
7. Management should be a learning process, and an ongoing experiment, based on the results of previous actions, allowing managers to be flexible and adapt to changing conditions.
8. Management should be based on inter-agency cooperation. All organizations that make decisions or take actions that affect the resources of the park should be involved as appropriate in developing management plans, implementing actions, and evaluating outcomes.
9. Management should provide for permanent protection of important natural resources, particularly those of county-wide, metro, or state significance.

### Natural Resources Management Objectives for Battle Creek Park

The following are park-wide management objectives that support the overall goal to improve the ecological health and diversity of the park. Detailed objectives for each of the Management Units in the park are detailed in sections that follow.

1. Identify and map existing plant communities in the park. Complete inventories of plants, birds, mammals, fish, amphibians, reptiles, and important habitat areas, beginning with high priority communities. Coordinate with other agencies to complete invertebrate and mussel surveys of Battle Creek and Pigs Eye Lake as part of water quality monitoring of the major water bodies. Collect any additional natural resources inventories and information available from other sources, such as the Minnesota Department of Natural Resources, Ramsey-Washington Metro Watershed District, local birdwatchers, other volunteers, etc.

A first step in natural resource management is identifying current plant and animals within the communities. These plant and animal surveys are necessary to help guide management decisions for wildlife habitat improvement. Existing data includes plant survey data collected for the 1996 natural resource management plan and general land cover data (current and future land cover types) created by park staff for the 2018 park system plan and state Geographic Information System data layers, such as the Minnesota Land Cover Classification System and the natural heritage information system. Beyond this, current survey information for each Management Unit is lacking and needs to be updated.

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Depending on funding, timeline, and ecological significance of each Management Unit, the method for gathering plant information could be as detailed as a plot survey to as general as a ground truth land cover update to delineate cover types no less than one acre in size. Ideally a baseline plant survey should be completed prior to and following a restoration project to determine wildlife habitat improvement succession.

Task: Baseline plant inventories of high and medium quality natural communities should be completed in 5 years. Quality ratings and management priorities given to these communities in sections that follow should be changed as needed to reflect the findings of the inventories.

2. Prioritize management of community/habitat areas based on ecological quality and issues. While all habitat areas may have some value, management resources are limited. Prioritizing communities based on ecological value suggest the following criteria for rankings:
  - Highest priority habitats are those with the highest native diversity, particularly with rare species or rare plant communities remaining. If these communities are lost, it may be impossible to replace them; if restoration is possible, it is generally more costly than protection. Lowest intensity recreational uses that will not compromise resource quality may be permitted in these habitat areas.
  - Medium priority habitats still have a good representation of native species but have been more degraded by past use or invasion by exotic species than high quality communities. They will require higher management inputs to reverse degradation and improve habitats, and outcomes of restoration activities may be uncertain. More intense recreational uses are allowed in these areas than in high priority habitats but are managed to ensure that use does not degrade these habitats or prevent restoration of these areas.
  - Low priority habitats have been changed so greatly that little native diversity remains, and these areas would need intensive management or virtual reconstruction to achieve the quality of native habitats. Some of these areas have been developed for recreation activities that are not compatible with resources of higher quality habitat areas, but are important to park users, and can usefully remain dedicated to these activities. Highest impact recreational activities are located in these areas.

Examples of management recommendations for these communities include the following:

- High priority/rare communities (such as Bluff prairie with Kittentails): Protection is a higher priority than recreational use. Initiate prescribed burns and removal of exotic species to enhance community diversity; ensure that the communities are monitored at least annually; limit recreational use to the limited number of existing paths for hiking use only; close paths where damage to natural communities is occurring. Foot traffic should be discouraged on steep slopes, and limited in other areas to just a few well-placed trails. Interpretive signage may be used to identify these communities and discuss management activities but should not identify rare species locations.
- Medium priority communities (such as Dry Oak Forest): Inventory the community to identify highest quality areas and pinpoint resource management problems such as exotic species. Manage to increase diversity by clearing exotic species from highest quality areas in this community first, and managing deer populations; replant with native trees, shrubs, and herbaceous plants. Remove or control exotics in additional areas as resources are available. Allow recreation and paths but provide erosion control. Carefully evaluate any new recreational activities for compatibility with resources and restoration activities. Add interpretive signage.
- Lower priority communities (such as turf or old field): No immediate management attention is needed. As funds and volunteers are available, remove groves of exotic species and/or begin prescribed burns to determine whether prairie or savanna restoration is possible. Allow a variety of recreational uses, including most intensive uses, but control erosion on paths.

3. Develop management goals and action recommendations for each habitat area based on the quality of the resource, landscape history, needs of park users, and management resources available. Areas where high quality resources remain or could be restored may be targeted for intensive management activities. For example, restoration of oak savanna communities may be a desired goal in areas where soils and topography are appropriate, and historic evidence suggests that this community once existed. Management for this plant community may also be desirable for human uses, providing open views and areas for hiking and picnicking.

In such areas, intensive management such as cutting invasive exotics, use of periodic fires to control exotic species, and use of herbicides may be needed to restore and maintain the desired plant communities.

4. Identify areas for special protection, such as the native communities identified by the County Biological Survey, and important habitat areas identified by animals surveys. Park maps should identify these areas as "Environmental Natural Areas." Management in these areas will be directed toward protecting and improving the natural communities and native plants and animals that inhabit them. The county should explore designation of these and additional areas as natural heritage registry sites, in coordination with the Minnesota Natural Heritage and Nongame Research Program. This could provide additional, ongoing stewardship assistance and help to ensure the continued protection of these areas.
5. Exotic species control, concentrating on highest quality natural communities first. Example of species to be controlled, but not limited to, include: leafy spurge, buckthorn, honeysuckle, black locust, purple loosestrife, Siberian elm, crown vetch, Japanese knotweed, narrowleaf bittercress, Japanese hedge parsley, and knapweed. For each area, determine appropriate methods of cutting, herbicide application, controlled burns, and biological controls (such as predatory insects) for initial control and for ongoing community maintenance.

Task: Presence of buckthorn, honeysuckle and black locust should be reduced by 80% throughout the park by 2030.

6. Manage white-tailed deer populations to levels that protect natural communities and allow success in plant community restoration activities and that minimize negative interaction between deer and humans. This is known as the biological and cultural carrying capacity of the park. To meet this objective a deer management plan is drafted annually that sets deer population goals and reduction methods. Currently, the plan strives to meet the Minnesota Department of Natural Resources recommendation of 20 deer per square miles of deer habitat. This equates to 25 deer within the Battle Creek park segment and around 10 deer in the immediate Pigs Eye segment. Deer habitat transcends park boundaries, so surrounding habitat and herd numbers have to be looked at on a larger scale when making management decisions. Currently, reduction methods have been completed through special permitted archery hunts within Battle Creek Regional Park, with some sharp shooting completed near the Fish Creek segment of the park to help reduce the herd in the area south of Battle Creek Regional Park.

Park managers may also experiment with deer exclosures to determine the effects of deer populations on plant communities and restoration efforts.

The cities of St. Paul and Maplewood both having ordinances prohibiting feeding deer. The general public and park neighbors need to be educated on the negative effects on feeding deer. Park staff and volunteers should also monitor for other herbivory problems.

Task: White-tailed deer populations should be controlled to less than 25 per square mile of deer habitat within and around county parkland by 2030, which comes from recommendations outlined within the annual deer management plan.

7. Begin plant community restoration and habitat enhancement, as described under each Management Unit. Where possible restore animals such as bluebirds, grassland birds, and amphibians, as indicated in individual plans.

Task: Number and diversity of native plant and animal species increase in high priority community areas by 2030.

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8. Maintain undeveloped/unmown buffers around wetlands and creeks. Re-establish buffers in areas where they have been mown or eliminated. Use the provisions in the Maplewood Wetland and Streams Buffer Ordinance or Ramsey-Washington Metro Watershed District Plan to determine recommended buffer sizes. Monitor water quality and plant and animal community response to determine appropriateness of buffer widths. Maintain or restore native wetland plants in wetlands and buffers.

Task: Buffers marked and maintained by 2025.

9. The Parks department does not have regulatory authority over water features within the park system, however, the department can coordinate with regulatory agencies, such as the Minnesota Pollution Control agency, Ramsey-Washington Metro Watershed District, and other agencies as needed, to get updated information on monitoring and protection of water quality of Battle Creek, Fish Creek, Pig's Eye lake, wetlands, other water resources of the park, and assist with the following: maintain current water quality and improve quality and aquatic habitats where possible, pursuant to watershed plans. Coordinate with Ramsey-Washington Metro Watershed District and Parks maintenance to determine a dredge plan for Battle Creek. The dredge plan will include timing, location, volume of sediment to be dredged within Battle Creek, as well as methods of execution.

Task: Meet with agencies that monitor water bodies annually to discuss agencies measurable objectives to reduce pollutants and loading. Determine if agencies are willing to help monitor additional in park wetlands and help with restoration decision making. Coordinate with agencies on planning for the following objectives: numbers and species of invertebrates, fish, and mussels in the creek remain the same or increase. Number and size of wetlands in the park remains the same or increases as wetlands are restored in appropriate areas. Wetland native vegetation diversity increases and purple loosestrife populations are maintained or decrease.

10. Inventory all existing trails and evaluate existing and proposed trails based on recreational need and impact to natural communities and rare species. Eliminate, relocate, or improve trails that are unnecessary or causing negative impacts (such as erosion and exotic species invasion in high quality natural communities).

Task. Complete trail inventory plan with timeline and cost to meet objective by 2025.

11. Evaluate future proposed development plans for the park and their impacts on natural resources. Consider eliminating or modifying those with significant impacts on natural resources, particularly those in high quality natural communities.
12. Increase knowledge and care for park resources among neighbors and surrounding communities using education activities and demonstrations of recommended practices in visible locations in the park. Coordinate volunteer events with partners or parks staff to complete management and restoration activities in the park and adjacent areas. Work with park neighbors to extend use of native species and restore natural communities in areas adjacent to the park. Coordinate with neighboring schools to restore native plant communities on school grounds. Work through community councils, city, and neighborhood associations to encourage elimination of exotic species from yards and planting native species and plants that provide bird and wildlife habitat.
13. Work with other organizations to extend linkages and management of natural communities outside the park. Participate in ecological inventory of Mississippi River and adjacent corridors, work on purchase and cooperative management of the bluffs, river bottoms, creek corridors, and other watershed areas with Cities of St. Paul and Maplewood, National Park Service, Minnesota Department of Natural Resources, non-profits, and other agencies, organizations and volunteers.

Establishment of a resource coordinator at Ramsey county parks to work to implement this plan with staff, volunteers, and other organizations would help to facilitate cooperative action.



14. Restore linkages among natural communities and reduce fragmentation within the park wherever possible to increase the size and diversity of native habitats. Activities could include closing of the lower section of Battle Creek Road and re-establishment of forest connections across this barrier, elimination of unneeded trails, use of low curbs, and large-size culverts that facilitate movement of animals as infrastructure is built or rebuilt, or other methods.
15. Monitor results of management activities. Use management as a learning process and base ongoing management on results of previous actions, new knowledge, and adapt to changing conditions. Maintain flexibility to take advantage of opportunities and resources that benefit the health and management of the park.

### Literature sources:

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Jones, Stephen B. "Getting from Here to There: Implementing Ecosystem Management on the Ground, Journal of Forestry. August, 1994.

Lanegran, David, in Phalen Chain of Lakes Watershed Project Natural Resources Management Plan, 1994.

Wovcha et al, Minnesota's St. Croix River Valley and Anoka Sandplain: A Guide to Native Habitats, University of Minnesota, 1995.

## Management Units

The following sections breakdown the stats, descriptions, management issues, objectives, and tasks for each Management Unit within Battle Creek Regional park. The Management Units were created to partition up the park in a manner that would allow for reasonable funding requests to complete restoration throughout a unit. Most unit boundaries were created using defining features such as roads, terrain, or land cover boundaries. The 1996 natural resource plan featured management areas consisting of general native plant communities and land cover types as boundaries. Since this plan, advanced digital data and field information has helped to define these communities and land cover types in greater detail. Refer to the map on the next page for the location of these Management Units in each park.

The stat data for each Management Unit includes:

- Dominant land cover, soils, and terrain types listed. This gives the reader a quick glance of the defining features of the unit beyond the description.
- Frances J. Marschner's original analysis of Public Land Survey notes and landscape patterns from 1895. Marschner compiled his results in map format, which was subsequently captured in digital format to show pre-settlement vegetation patterns for the purpose of determining natural community potential, productivity indexes, and patterns of natural disturbance. The Marschner Pre-settlement Vegetation of Minnesota based on the original vegetation from public land survey records indicates three major plant communities in the Battle Creek area:
  - Oak Openings and Barrens
  - Big Woods
  - Wet Prairies, Marshes and Sloughs

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- Government recognition and protection status lists plant communities or areas within the unit that are protected under statute or recognized by government entities, mostly the State of Minnesota Department of Natural Resources, as significant. These classifications are listed and defined below:
  - Mississippi River Corridor Critical Area Program: The Mississippi River Corridor Critical Area Program is a land corridor along the Mississippi River in the seven-county metro area in which special land use regulations guide development activity. The corridor extends 72 miles along the Mississippi River from the cities of Ramsey and Dayton in the north to the City of Hastings and Ravenna Township in the south. It includes 54,000 acres of land along both sides of the river. The State of Minnesota created the corridor and land use regulations in 1976. Local governments administer the regulations through their local plans and zoning ordinances. The Mississippi River Corridor Critical Area Program is home to a full range of residential neighborhoods and parks, as well as river-related commerce, industry, and transportation. Though the Mississippi River Corridor Critical Area Program has been extensively developed, many intact and remnant natural areas remain, including bluffs, islands, floodplains, wetlands, riparian zones, and native aquatic and terrestrial flora and fauna.
  - Mississippi National River and Recreation Area: this area is a federal national park administered by the National Park Service. The Mississippi National River and Recreation Area and Mississippi River Corridor Critical Area Program share the same boundary. This is the only national park dedicated exclusively to the Mississippi River. It is located in parts of Anoka, Dakota, Hennepin, Ramsey, and Washington counties, all within the Minneapolis–Saint Paul metropolitan area. The Mississippi National River and Recreation Area was established in 1988 as a new unique type of National Park known as a partnership park. Unlike traditional national parks, the federal government is not a major landowner and therefore does not have control over land use. The National Park Service works with dozens of “partners” (local, state, and federal governments, non-profits, businesses, educational institutions, and individuals) who own land along the river or who have an interest in the Mississippi River to achieve the National Park Service’s mission to protect and preserve for future generations.
  - Regionally Significant Ecological Areas and Regional Ecological Corridors. This is an analysis of regionally significant Terrestrial and Wetland Ecological Areas in the seven county metropolitan area. Individual forest, grassland, and wetland models were integrated to identify and rank the Terrestrial and Wetland Ecological Areas. The scores are determined by examining important ecological attributes of the ecological patches including size, shape, cover type diversity, and adjacent land use. The results represent a probability that the modeled conditions exist in any given area, due to limitations of the data layers. The ecological models were run on the most current Minnesota Land Cover Classification System (MLCCS) data available - currently spring 2008.
  - Minnesota Biological Survey. Native Plant communities. The Minnesota Biological Survey (MBS) systematically collects, interprets, monitors, and delivers data on plant and animal distribution as well as the ecology of native plant communities and functional landscapes. The Native Plant Communities dataset includes polygons representing the highest quality native plant communities remaining in surveyed areas (typically counties). These native plant communities are important areas for conservation.

Native plant communities (sometimes also referred to as “natural communities”) are groups of native plants that interact with each other and their surrounding environment in ways not greatly altered by modern human activity or by introduced plant or animal species. These groups of native species form recognizable units, such as an oak forest, a prairie, or a marsh, that tend to repeat across the landscape and over time.

Native plant communities are generally classified and described by considering vegetation, hydrology, land forms, soils, and natural disturbance regimes. The native plant community types and subtypes in this data layer are classified primarily by vegetation and major habitat features.

Native habitats (with the exception of calcareous seepage fens) have no legal protection in Minnesota. However, such communities are rare, and include the highest diversity and quality of natural resources

NATURAL RESOURCE MANAGEMENT UNITS



Legend

Management Unit Boundary

Management Unit Number

1

0 0.125 0.25 0.5 0.75 1 Miles

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remaining in the state and in our local area. Therefore, identification, consideration, protection, and management of these areas in planning for natural resources should be a high priority, and is a central focus of this plan for Battle Creek Park. Less than 1 percent of the original areas of these communities remain in the state, and the communities remaining at Battle Creek Park are among very few remaining in Ramsey County.

Native habitats are distinct groups of plants and animals that are “native or indigenous to a particular region.” (Wovcha, 1995) Native habitats are classified and described by considering vegetation, successional status, topography, hydrology, landforms, substrates, soils, and natural disturbance regimes (such as fire, flood cycles, and native insects and microorganisms). The Natural Heritage and Nongame Research Program of the Minnesota Department of Natural Resources has developed a classification of native habitats for the state that was used by the Minnesota County Biological Survey in evaluating natural areas in Battle Creek Park and is being used throughout the state.

These native habitats include: Dry and Mesic Oak Forests, Sand/Gravel Oak Savanna, Emergent, Shrub, and Forested Wetlands Wet meadow

- Minnesota Department of Natural Resources Scientific and Natural Areas: Scientific and natural areas are exceptional places where native plants and animals flourish; where rare species are protected; and where we can know, and study, Minnesota’s fascinating natural features. Scientific and natural areas are established to protect and perpetuate in an undisturbed natural state those lands and waters embracing natural features of exceptional scientific and educational value. The Scientific and Natural Areas Program’s goal is to ensure that no single rare feature is lost from any region of the state. This requires protection and management of each feature in sufficient quantity and distribution across the landscape.
- Environmental Natural Area: Ramsey County Park & Recreation department Environmental Natural Areas have been identified in Regional Parks having significant natural resources. Environmental Natural Areas (ENA) are defined within Regional Parks as having significant, sensitive, and unique natural resources to Ramsey County that warrant extended preservation. The habitat and vegetation within these areas is managed to support and enhance these natural communities. These areas are designated for increased habitat protection, ecological restoration, passive recreation, and environmental education. Any development expansion within these areas is limited to trails only, with nature interpretation facilities allowed within the planned development areas of Tamarack Nature Center only. Public access to these areas is restricted to designated trails and the use of these areas is limited to passive forms of recreation such as hiking, skiing, and nature viewing. Bicycles and off-road cycling is allowed only on designated trails. Dogs and off-trail activities are not allowed.
- Community Structure and Quality / Management Priority
  - Structure, quality, and management of a unit is categorized as high, medium, and low, with descriptions under section Natural Resources Management Objectives for Battle Creek Park, #2.



## Management Unit 1

### Unit Stats

Dominant land cover type: Oak woods

Dominant soil type: loamy sand

Dominant Terrain: steep hillsides

Marschner Pre-settlement Vegetation: Wet Prairie

Government recognition and protection status:

- The entire unit is within the state Mississippi River Corridor Critical Area Program and federal National Park Service, Mississippi National River and Recreation Area
- Regionally Significant Ecological Areas and Regional Ecological Corridors
- Environmental Natural Area: Ramsey County Park & Recreation department

Community Structure and Quality: High

Management Priority: High

### Unit Description

The forest that extends north and east from the creek along Upper Afton Road, becomes drier, and is dominated by mixed red and white oak canopy, grading to more bur oaks on south and west-facing areas near the Minnesota Department of Transportation overlook. The steep hillsides in this area historically consisted of more open savanna type canopy that were likely dominated by bur oak. This land cover type stretched southward along park entrance road and east along Lower Afton Road, along the bluffs in Management Units 2, 3, and 4. There are two large concave areas along the hillsides that were areas excavated for fill. At the base of the bluffs in this area, cottonwoods, boxelders, and green ash occupy wet areas, along with wetlands. The wetlands consist of a connected complex of freshwater emergent, forested, and open water wetlands located in the southwest corner of the site. There is a remnant of an old road, that was historically Highway 61, before becoming Point Douglas Road that runs along the base of the hill, separating the upland from the lowland areas. There were a number of homestead sites off of the road. Areas near existing homes or former home sites have the highest density of exotic species in the understory, but buckthorn is a consistent problem throughout the area. Near the end of this current remnant road is a series of wetland seeps emerging from the hillsides and flowing into the wetlands below. The wetland seeps contain high quality plants, including skunk cabbage, Joe-pye weed, swamp milkweed, amongst others. In 2015 – 2018 a restoration project was completed through this area, with a focus on invasive species removal, primarily buckthorn, and reestablishment of native ground and shrub vegetation. The upper woodlands and lowland areas were cleared of buckthorn and the excavated areas, previously dominated by invasive grasses, were seeded to native prairie. A prescribed burn was conducted through portions of the woodlands that had enough fuel to carry a burn and native woodland seed was spread throughout following the burn. Maintenance will be consistent and ongoing to control the buckthorn and other invasive species emerging, such as Japanese knotweed (which is located near the wetland seep) and narrowleaf bittercress, which is starting to spread throughout the unit. Deer are usually heard or seen in these areas, and deer evidence of deer browse is visible on forest forbs and small trees. There are a number of official and some unofficial trails, which are causing erosion, that are located within this unit. Recreation consists of hiking and off-road cycling.

### Management Issues

- The level of native ground and shrub cover establishment is unknown.
- Ongoing and continued maintenance, following initial restoration, will be extensive and costly to keep the invasive species controlled while establishing native ground and shrub cover throughout all land cover types. Maintenance such as foliar spraying of buckthorn and a prescribed burn has occurred, but further maintenance has yet to be defined.

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- It is unknown if clearing trees throughout the oak woodlands to open the canopy for conversion of a savanna system would be beneficial and cost effective.
- Unofficial trails are causing erosion problems.
- Encroachments and dumping from abutting neighbors are major issues that are causing negative impacts to surrounding parkland
- Deer browse will continue to be an issue within this unit. Control of the deer population is necessary to prevent over browsing of natural regeneration of shrubs and trees.

### Management Objectives, Tasks, Schedule, and Costs

#### Objective 1:

Complete observational surveys in each land cover type restored to determine location and level of native and invasive plant species re-emergence and new emerging exotics biannually.

#### Tasks:

- Complete biannual observation surveys and monitor areas that exhibit successful natural regeneration. Delineate areas needed for supplemental seeding and planting.
- Complete biannual observation surveys of exotic species that are spreading and create a distribution map of exotic invasive species
- Identify locations of emerging species, such as Japanese knotweed and narrowleaf bittercress.

#### Schedule and Costs:

Year 1: May and July - August, complete minimum surveys to capture the majority of invasive and native plant species.

Cost = parks staff time

Year 1: September, Develop maps of survey information

Cost = parks staff time

#### Objective 2:

Continue ongoing preservation of restored lands at a level equal to or greater following initial restoration, using surveys and Minnesota Department of Natural Resources native plant community fact sheets for guidance. Hire contractor, implement plan and revise after three years.

#### Tasks:

- Draft a three year maintenance plan detailing the specifications for each land cover type maintenance needs, including efforts to stabilize eroding seep area.
- Secure funding for three year plan through state grant program or county funds and hire contractor to complete ongoing maintenance on a three year contract. At a minimum include all listed below.

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- Continue maintenance by achieving a measureable reduction in exotics in restored areas of 80% or more, including buckthorn, honeysuckle, locust, Siberian Elm, and emerging exotics. Tools will include foliar spraying and prescribed burns.
- Monitor and eradicate new emerging invasive species.
- Increase diversity among the native shrub and herbaceous ground layer plants in the woodlands and prairie areas following the removal of exotics
- Foliar spray emerging buckthorn every fall following initial restoration for three years. Assess continued volume and timeline of foliar spraying following three year mark.
- Assess the need for an oak woodland burn after initial restoration. If woodland burn will be beneficial in setting back exotics and promoting native growth, complete burn in fuel rich areas every 3 to 5 years following initial restoration.
- If there is limited native regeneration of herbs and shrubs, observed after one season growth following restoration complete the following:
  - Increase diversity in the native herbaceous ground layer plants by casting an appropriate native seed mix in the spring or following a prescribed burn.
  - Obtain shrub saplings from Minnesota Department of Natural Resources forestry or other reliable source and plant throughout the unit at a rate that will meet the percent cover listed in native plant community fact sheet.

### Schedule and Costs:

Year 2 Jan - March: Draft maintenance plan and hire contractor  
Cost = park staff time

Year 2-5: maintenance to be completed  
Cost = \$40,000.00

Year 6 – 9 spring or fall, planting of native seed, shrubs, and oak trees  
Cost = To Be Determined

### Objective 3:

Complete assessment to determine benefit and cost of converting oak woodlands to a more open canopy savanna where appropriate

### Tasks:

- Survey bluff land oak woods to identify locations ecologically and economically beneficial for conversion to savanna.
- Determine, with county forester, trees for removal within identified savanna locations
- Draft a plan detailing the specifications for savanna conversion using the Minnesota Department of Natural Resources native plant community guidelines: Southern Dry Savanna

### Schedule and Costs:

Year 2, July, collect survey information  
Cost = parks staff time

## The Plan

Year 2, August – September, draft plan if warranted

Cost = parks staff time

### Objective 4:

Control encroachments and unofficial trails to prevent further impacts.

#### Tasks:

- Complete inventory of unofficial trails and encroachments throughout area
- Create plan to close and re-vegetate unofficial trails
- Reach out to neighbors encroaching on lands and have them stop and remove all infractions.

#### Schedule and Costs:

Year 1, April or October: inventory trails and encroachments

Cost = parks staff time

Year 2 Jan -March, April: draft trail restoration plan and encroachment letters

Cost = parks staff time

Year 2 April – May: contact/send letters to neighbors and restore and re-vegetate trails, using Minnesota Off-Road Cyclists volunteer efforts

Cost = parks staff time

### Objective 5:

Control deer population to levels that protect native vegetation and allow woodland regeneration pursuant to the annual deer management plan.

#### Tasks:

- Complete annual population survey of area to determine reduction needs and methods
- Continue with annual special archery hunt to maintain population
- Coordinate and contract sharp shooting removal service if population exceeds State standards

#### Schedule and Costs:

Annually: implement deer management plan

Cost = parks staff time



## Management Unit 2

### Unit Stats

Dominant land cover type: Oak woods

Dominant soil type: sandy loam

Dominant Terrain: steep hillsides

Marschner Pre-settlement Vegetation: Wet Prairie

Government recognition and protection status:

- The entire unit is within the state Mississippi River Corridor Critical Area Program and federal National Park Service, Mississippi National River and Recreation Area
- Regionally Significant Ecological Areas and Regional Ecological Corridors
- MN Native plant Community
  - Sites of biodiversity significance, moderate
  - MHs38c - Red Oak - Sugar Maple - Basswood - (Bitternut Hickory) Forest. 13 acres. Vulnerable to Extirpation
- Environmental Natural Area: Ramsey County Park & Recreation department

Community Structure and Quality: High

Management Priority: High

### Unit Description:

This area consists of mainly oak woods along south and west facing slopes and plateaus, from Upper Afton Road to the lower parking lot at the end of Park Entrance Road and adjacent to Highway 61. These woods have a wider variety of canopy and understory species than the dry oak forests to the east. White oaks dominate on the ridge tops. Large black cherry trees, basswood, and a few large white pines are also present in the canopy. There are sections of mesic woods within north facing aspects on both sides of the creek and with the section on the west side of the creek identified by the Minnesota Department of Natural Resources as a native plant community as a red oak, sugar maple, basswood and bitternut hickory forest, mesic hardwood forest system. Most bitternut hickory in this area have died out, with a few hickory trees remaining. Within coulees along the hillsides are remnant white pine along with some planted conifers as well. On the lower edge of the woodlands on the east side of the creek is a large wetland seep that abuts the paved trail. Growing within the seep are a number of hydrophytic plants, such as spotted joe-pye weed and skunk cabbage. While the understory of the woods is diverse, many areas are highly infested with buckthorn, particularly areas close to private homes that border the park. These areas have few or no ground layer forbs. Areas with less buckthorn are much more diverse and of good quality, include groves of ferns and a diversity of forest forbs such as, bloodroot and ginger, often seen on the north facing aspects. Deer are usually heard or seen in these areas, and deer evidence of deer browse is visible on forest forbs and small trees. The entire woodland area includes official and unofficial trails that are used for hiking and off-road cycling. Many of the unofficial trails have serious erosion problems.

Oak forest communities cover about half of the area of Battle Creek Park; these are mainly dry forest communities. Few mature dry oak forests with large diameter trees remain in the Metro Region; more remnant areas of mesic oak woodlands remain near wetlands, slopes, and in undeveloped portions of the Metro Region.

The immediate creek corridor serves as a recreational area with a paved path, numerous pedestrian bridges over the creek and picnic tables in small sections of turf mowed areas. Most of the creek consists of a buffer of invasive species of reed canary grass and cattails. This area was altered in the early 1980s when a flood control project was completed by the Ramsey-Washington Metro Watershed District which included an underground storm sewer pipe system installed beneath the creek. The creek overflow structures can be seen in the middle of the creek. This project left some hillsides exposed and covered with invasive grass. These hillsides are currently being converted to native prairie. In addition to the storm sewer a main sanitary sewer line runs within the creek corridor, with a section of the pipe, which was hand dug to place in the early 1900s, under the bluffs west of the creek and connecting to the pump station located off of Highway 61.

## The Plan

The southern portion of this unit includes large and small bur oaks above a diverse herbaceous ground layer on cliffs and slopes over Battle Creek and south-west facing bluffs over Highway 61. These west and south facing bluffs were historically sand/gravel oak savanna. There are unique steep limestone bluffs overlooking the creek on the most southern edge. Aerial photos from the 1940s and historic photos from earlier years suggest that south-facing slopes and forest areas adjacent to the oak savanna community were once more open woodlands than they are today, with north and east facing slopes historically occupied by more mesic, closed-canopy forest. The herbaceous openings are covered with a variety of grasses and diversity of prairie forbs. A large population of Kittentails (*Besseyia bullii*), a plant endangered in Minnesota, exists in one area and is reproducing, primarily on rocky cliffsides, overlooking the creek on the west side. Previous records identified Kittentails on the east side of the creek and with smaller populations scattered throughout the savanna openings on the west, however, a recent survey could not locate Kittentails in these areas. Larger populations on north-facing slopes above the creek were also identified by Morley in 1990, but no longer exist. The soil in south-facing areas is very loose, and much erosion is evident along the paths and cliffs due to trails and cliff climbing along bluff edge. The quality of the communities is being reduced by invasion of honeysuckle, crown vetch, black locust, and general spread of canopy with lack of fire. Deer browse is evident on prairie forbs. There was an old homestead east of the creeks east side bluff, that now grows with prairie grasses, a remnant representative of a more open canopy system. Limited areas of sand/gravel oak savanna exist in Battle Creek Park along bluffs above the river and creek. Few oak savannas survive in the Metro Region.

Over the past four years this unit, in conjunction with unit 3, has been being restored through funding provided by the Minnesota Department of Natural Resources conservation partners legacy and Ramsey County. The restoration so far has included the removal of buckthorn throughout the unit and conversion of hillsides along creek to native prairie. Other work has included foliar control of herbaceous weeds, such as garlic mustard, burdock, and narrow leaf bittercress. Ongoing maintenance will include foliar control of remerging species and prescribed burns.

### Management Issues

Ongoing and continued maintenance, following initial restoration, will be extensive and costly to keep the invasive species controlled while establishing native ground and shrub cover throughout all land cover types. Maintenance has yet to be defined.

Initial restoration did not include the conversion of blufflands to savanna with a more open canopy. Surveys should be completed to define the boundaries of these areas to prioritize for management and to determine what tree removal efforts will be needed to convert blufflands to savanna.

The preservation and propagation of the kitten tails within the area is not clearly defined. Surveys of other special species, specifically butternut hickory, need to be updated.

Numerous human factors are impacting this area, including:

- Encroachment from surrounding neighbors
- Pressure for more recreation
- Unofficial trails causing environmental damage throughout
- Rogue trails and hiking around bluffs surrounding southern part of creek is causing damage
- Education on the prevention of spread of emerging invasive, specifically along trail corridors, is lacking amongst the general public and users groups such as off-road cyclists and hikers.

Emerald ash borer is prevalent throughout this unit, with many ash trees infested and dying.

Deer browse will continue to be an issue within this unit. Control of the deer population is necessary to prevent over browsing of natural regeneration of shrubs and trees.

This area is a convergence of unique land cover types that warrant additional preservation. Pressure to expand trails and recreational amenities in this unit should be thoroughly assessed.

### Management Objectives, Tasks, Schedule, and Cost

#### Objective 1:

Complete observational surveys in each land cover type restored to determine location and level of native and invasive plant species re-emergence and new emerging exotics biannually.

#### Tasks:

- Complete biannual observation surveys and monitor areas that exhibit successful natural regeneration. Delineate areas needed for supplemental seeding and planting.
- Complete biannual observation surveys of exotic species that are spreading and create a distribution map of exotic invasive species
- Identify locations of emerging species, such as celandine (just south of Upper Afton Road on the east side of the creek) and narrowleaf bittercress (spotted throughout and concentrated along trails) to identify for eradication.

#### Schedule and Costs:

Year 1: May and July - August, complete minimum surveys to capture the majority of invasive and native plant species.

Cost = parks staff time

Year 1: September, Develop maps of survey information

Cost = parks staff time

#### Objective 2:

Improve condition of sand/gravel oak savanna community, indicated by an increase in native diversity of understory plants and complete continued restoration efforts by converting to a more open canopy savanna where appropriate.

#### Tasks:

- Survey bluff land oak woods to identify locations ecologically and economically beneficial for conversion to savanna.
- Determine, with county forester, trees for removal within identified savanna locations
- Draft a plan detailing the specifications for savanna conversion using the Minnesota Department of Natural Resources native plant community guidelines: Southern Dry Savanna
- Acquire funding through state grant programs and/ or county parks to fully fund restoration project.
- Complete restoration of savanna.
  - Draft project specifications detailing restoration requirements
  - Hire contractor to complete restoration of each land cover type within project specifications.
  - Oversee contractors completion of restoration project

## The Plan

### Schedule and Costs:

Year 2, July, collect survey information

Year 2, August – September, draft plan and apply for funding  
Cost = parks staff time

Year 2, Year 3 December – Jan, draft project specifications and hire contractor  
Cost = parks staff time

Year 3 – Year 6 Complete restoration  
Cost = \$70,000.00

### Objective 3:

Continue ongoing preservation of restored lands at a level equal to or greater following initial restoration, using surveys and Minnesota Department of Natural Resources native plant community fact sheets for guidance. Hire contractor, implement plan, and revise after three years.

### Tasks:

- Draft a three year maintenance plan detailing the specifications for each land cover type maintenance needs, including efforts to stabilize eroding seep area.
- Secure funding for three year plan through state grant program or county funds and hire contractor to complete ongoing maintenance on a three year contract. At a minimum include all listed below.
- Continue maintenance by achieving a measureable reduction in exotics in restored areas of 80% or more, including buckthorn, honeysuckle, locust, Siberian Elm, and emerging exotics. Tools will include foliar spraying and prescribed burns.
- Monitor and eradicate new emerging invasive species.
- Increase diversity among the native shrub and herbaceous ground layer plants in the woodlands and prairie areas following the removal of exotics
- Foliar spray emerging buckthorn every fall following initial restoration for three years. Assess continued volume and timeline of foliar spraying following three year mark.
- Assess the need for an oak woodland burn after initial restoration. If woodland burn will be beneficial in setting back exotics and promoting native growth, complete burn in fuel rich areas every 3 to 5 years following initial restoration.
- If there is limited native regeneration of herbs, shrubs and trees, observed after one season growth following restoration complete the following:
  - Increase diversity in the native herbaceous ground layer plants by casting an appropriate native seed mix in the spring or following a prescribed burn.
  - Obtain shrub saplings from Minnesota Department of Natural Resources forestry or other reliable source and plant throughout the unit at a rate that will meet the percent cover listed in native plant community fact sheet.
  - Achieve observable regeneration of oaks by planting saplings throughout the project site as specified in the objective. Stagger the years of planting oak saplings to prevent oak wilt transfer by differing age classes.



### Schedule and Costs:

Year 2 Jan - March: Draft maintenance plan and hire contractor

Cost = park staff time

Year 2-5: maintenance to be completed

Cost = \$51,260.00

Year 6 – 9 spring or fall, planting of native seed, shrubs, and oak trees

Cost = To Be Determined

### Objective 4:

Continue maintenance to ensure establishment and success of established native prairie areas along creek by eliminating 90% or more of invasives found within 3 years and maintain this level annually.

### Tasks:

- Inventory and map invasives encroaching in and on edges of prairies.
- Use contractor to treat and remove invasives from prairies
- Complete prescribed burns every 3 to 5 years

### Schedule and Costs:

Year 1, mid to late July: survey inventory info

Cost = parks staff time

Year 1-3: seasonal, maintenance to remove invasives

Cost = contractor cost \$3,000.00

Every 3 to 5 years, spring. Complete prescribed burn of prairies

Cost = contractor cost \$4000.00

### Objective 5:

Identify current locations and protect and improve health of kittentail populations. Increase numbers and locations of kittentails in the oak savanna areas of the park.

### Tasks:

- Complete desktop review of known locations given current data.
- Complete thorough field survey of kittentail populations and inventory human and exotic species impacts.
- Coordinate with Minnesota Department of Natural Resources Natural Heritage Program staff who have managed similar populations in southeast Minnesota to determine management requirements and propagation plan.
- Maintain and create a protection zone around known populations, to prevent impacts.

## The Plan

### Schedule and Costs:

Year 1, mid to late July: complete field survey

Cost = parks staff time

Year 1, August -September: review data with Minnesota Department of Natural Resources staff

Year 1-2, October – January: Draft protection and expansion plan

Year 3, June – October: Define protection zone and implement plan specifications

### Objective 6:

Control encroachments, unofficial trails, and hiking on sensitive limestone bluff areas to prevent further impacts.

### Tasks:

- Finish inventory of unofficial trails and encroachments throughout area
- Create plan to close and revegetate unofficial trails
- Reach out to neighbors encroaching on lands and have them stop and remove all infractions.
- Add interpretive sign near bluff entrances to educate park users on the importance of not climbing in and around bluffs and cave areas
- Communicate importance of sensitive areas being impacted through social media outlets

### Schedule and Costs:

Annually, Feb: plan volunteer events

Cost = parks staff time

Annually, April: post updates and info on restoration, maintenance and invasive species

Cost = parks staff time

### Objective 7:

Increase environmental education and outreach for park neighbors, general public, and user groups

### Tasks:

- Meet annually, prior to growing season, with special user groups (Minnesota Off-Road Cyclists (MORC), hiking groups) representatives:
  - Plan for a minimum of one volunteer event to take place within unit
  - Update and post information on current exotics and steps to prevent spread
- Annually update social media and website to better connect people to the parkland and include restoration and maintenance work update
- Send an annual post correspondence to park neighbors informing them of ongoing restoration efforts and to respect park boundaries.

### Schedule and Costs:

Annually, Feb: plan volunteer events

Cost = parks staff time

Annually, April: post updates and info on restoration, maintenance, and invasive species

Cost = parks staff time

### Objective 8:

Control deer population to levels that protect native vegetation and allow woodland regeneration pursuant to the annual deer management plan.

### Tasks:

- Complete annual population survey of area to determine reduction needs and methods
- Continue with annual special archery hunt to maintain population
- Coordinate and contract sharp shooting removal service if population exceeds state standards

### Schedule and Costs:

Annually: implement deer management plan

Cost = parks staff time

### Objective 9:

Continue current types of recreation uses to avoid impact of natural resources. Do not exceed more than 10% of land cover for recreational areas and trails.

### Tasks:

- Do not expand recreational amenities beyond what currently exists in this unit. Only unpaved trails will be considered for expansion.
- Complete thorough environmental impact review and preserve sensitive areas when considering any additional unpaved trails
- Any expansion of unpaved trails should follow specifications and implementation guidelines when being constructed.

### Schedule and Costs:

Ongoing as trail development is proposed

Cost = parks staff time

# The Plan

## Management Unit 3

### Unit Stats:

Dominant land cover type: Prairie

Dominant soil type: sandy loam

Dominant Terrain: flat plateau

Marschner Presettlement Vegetation: Wet Prairie

Government recognition and protection status:

- The entire unit is within the state Mississippi River Corridor Critical Area Program and federal National Park Service, Mississippi National River and Recreation Area
- Regionally Significant Ecological Areas and Regional Ecological Corridors
- Environmental Natural Area: Ramsey County Park & Recreation department

Community Structure and Quality: Medium

Management Priority: Medium

### Unit Description:

The bluff lands that exist on the southeast, south and west edge of this unit historically consisted of sand gravel prairie savannas that were connected to those in Management Unit 2 and 4. This community is similar in structure and species composition to communities that continue outside the park along the bluffs toward Mounds Park. Only a few such areas remain in the Twin Cities Region. Much of this bluff land fringe has transitioned into more closed canopy oak and mixed woodlands with overgrown understory of aspen, sumac, and buckthorn. Two sections of bluff land hillside on the west side, totaling 6 acres, were excavated for fill more than 30 years ago, which has left two concave impressions on the hillside that are now dominated by invasive grass and other species such as brome, crown vetch, garlic mustard, and burdock. These two excavated areas have left gaps in what was historically a connected oak savanna bluff side. On a steep slope with in the oak woodlands located in the south east corner, west of battle creek road and north of Lower Afton Road, the water table is high and flows consistently throughout the year creating a wetland seep. There are numerous hydrophytic plants growing along this hillside wetland seep, including spotted Joe-pye weed, skunk cabbage, and numerous rushes. This seep is causing erosion along the hillside. The flat plateau area overlooking the steep bluff lands was mostly cleared and farmed for the past 80 years. In the northeast corner is 13 acres of mixed woods, consisting of mostly invasive Siberian elm and black locust. An open field, being encroached by black locust, surrounds an excavated area. The open field area on the north consists of an excavated area where soil was borrowed for creek construction activities in the early 1980s, leaving a 4.3 acre depression. This rectangular bowl like depression is deep enough that the ground water table seeps through the surface, leaving standing water or saturated soil, depending on fluctuations in precipitation, throughout the footprint of the depression. This depression has now become an ephemeral wetland that exhibits hydrology, hydric soils, and hydrophytic plants, such as spotted Joe-pye weed, jewel weed, willows, cattails, bulrush, swamp milkweed, and a variety of sedge species. An overflow pipe near the base of the depression prevents water from accumulating in this area. The field area surrounding this depression is dominated by brome grass and is being encroached by black locust. The south section reverted to mixed woods and invasive grasses after farming had ceased. In early 2000s this area of around 12 acres was cleared of trees and converted to native prairie. This prairie is dominated by big blue stem and is being encroached by woody material, specifically buckthorn and black locust, mostly on the east and south edges.

A restoration project began in 2017 within unit 3 with funding provided by the Minnesota Department of Natural Resources Conservation partners Legacy grant program and Ramsey County. This project targeted clearing the buckthorn from all the woodlands within the unit. In addition to buckthorn removal, larger locusts, and Siberian Elm were girdled throughout the unit and removed within the southeast corner in an attempt to open the canopy. This project also included herbaceous invasive weed control, including garlic mustard, burdock, and narrowleaf bittercress. Maintenance and further tree removal throughout the unit will continue in the future to open the canopy along the bluffs, converting this area back into a savanna landscape. In addition, the invasive trees within the mixed woods in the northeast corner were girdled and will likely be cleared to convert to prairie.



### Management Issues

The initial restoration removed a massive amount of buckthorn and other invasives across the entire unit. A lot of work is being completed, however, there are standing issues that will need to be addressed:

- Native grasses, flowers, and oaks started emerging immediately after the first season of buckthorn removal in certain locations. Further information is lacking to determine if supplemental seeding and planting is required and where invasives are re-emerging.
- Ongoing and continued maintenance will be extensive and costly to keep the invasives controlled while establishing native ground and shrub cover.
- The mixed woodland in the northeast corner contains no desirable trees and is mainly invasive Siberian elm and black locust.
- Initial restoration did not include the removal of trees required to convert oak and mixed woodlands in to savanna with a more open canopy. An assessment is required to define which trees should be removed.
- The old field surrounding the depression consists of invasive species such as brome, locust, and other invasives.

Many new invasive exotics are emerging throughout this unit, specifically narrowleaf bittercress. Surveys of the area to locate and eradicate newly emerging invasives is required.

The planted native prairie areas contain herbaceous and encroaching woody invasives.

The wetland seep area is slowly eroding because of lack of natural vegetation throughout the seep and surrounding hillsides.

Can the wetland bowl be altered to provide more beneficial wildlife habitat? Can diversity of the wetland edges be increased with plantings or other management and would the cost of wetland management be worth the habitat benefits in this area?

Emerald ash borer is prevalent throughout this unit, with many ash trees infested and dying.

Deer browse will continue to be an issue within this unit. Control of the deer population is necessary to prevent over browsing of natural regeneration of shrubs and trees.

The trails in this unit are well established and include many off-road cycling and mowed turf trails used for skiing in the winter. The maintenance of these trails, mainly including the width and timing of flailing and mowing of trail edges needs to be defined to minimize impact on the resources.

Given heavy trail use, there are many opportunities in this area for interpretive signage, related to forest community, exotic species, wetland diversity, and prairie restoration.

Education on the prevention of spread of emerging invasive, specifically along trail corridors, is lacking amongst the general public and users groups such as off-road cyclists and hikers.

There is pressure to expand trails and recreational amenities in this unit.

# The Plan

## Management Objectives, Tasks, Schedule, and Cost

### Objective 1:

Complete observation surveys in each land cover type restored to determine location and level of native and invasive plant species re-emergence and new emerging exotics.

#### Tasks:

- Complete biannual observation surveys and monitor areas that exhibit successful natural regeneration. Delineate areas needed for supplemental seeding and planting.
- Complete biannual observation surveys of exotic species that are spreading and create a distribution map of exotic invasive species

#### Schedule and Costs:

Year 1: May and July - August, complete minimum surveys to capture the majority of invasive and native plant species.

Cost = parks staff time

Year 1: September, Develop maps of survey information

Cost = parks staff time

### Objective 2:

Complete continued restoration efforts by converting oak woods (bluff lands) to a more open canopy savanna where appropriate and mixed woods (northeast corner) and old field (surrounding bowl depression) to native prairie

#### Tasks:

- Survey bluff land oak woods to identify locations ecologically and economically beneficial for conversion to savanna.
- Determine, with county forester, trees for removal within identified savanna locations
- Draft a plan detailing the specifications for prairie and savanna conversion using the MN Department of Natural Resources native plant community guidelines: Southern Dry Savanna
- Acquire funding through state grant programs and/ or county parks to fully fund restoration project.
- Complete restoration of land cover types.
  - Draft project specifications detailing restoration requirements
  - Hire contractor to complete restoration of each land cover type within project specifications.
  - Oversee contractors completion of restoration project

#### Schedule and Costs:

Year 2, July, collect survey information

Year 2, August – September, draft plan and apply for funding

Cost = parks staff time

Year 2, Year 3 December – Jan, draft project specifications and hire contractor

Cost = parks staff time

Year 3 – Year 6 Complete restoration

Cost = \$160,000.00

Objective 3:

Continue ongoing preservation of restored lands at a level equal to or greater following initial restoration, using surveys, and Minnesota Department of Natural Resources native plant community fact sheets for guidance. Hire contractor, implement, plan, and revise after three years.

Tasks:

- Draft a three year maintenance plan detailing the specifications for each land cover type maintenance needs, including efforts to stabilize eroding seep area.
- Secure funding for three year plan through state grant program or county funds and hire contractor to complete ongoing maintenance on a three year contract. At a minimum include all listed below.
- Continue maintenance by achieving a measureable reduction in exotics in restored areas of 80% or more, including buckthorn, honeysuckle, locust, Siberian Elm, and emerging exotics. Tools will include foliar spraying and prescribed burns.
- Monitor and eradicate new emerging invasive species.
- Increase diversity among the native shrub and herbaceous ground layer plants in the woodlands and grasses and flowers in the savanna and prairie areas following the removal of exotics
- Foliar spray emerging buckthorn every fall following initial restoration for three years. Assess continued volume and timeline of foliar spraying following three year mark.
- Assess the need for an oak woodland burn after initial restoration. If woodland burn will be beneficial in setting back exotics and promoting native growth, complete burn in fuel rich areas every 3 to 5 years following initial restoration.
- If there is limited native regeneration of herbs, shrubs, and trees, observed after one season growth following restoration complete the following:
  - Increase diversity in the native herbaceous ground layer plants by casting an appropriate native seed mix in the spring or following a prescribed burn.
  - Obtain shrub saplings from MN Department of Natural Resources forestry or other reliable source and plant throughout the unit at a rate that will meet the percent cover listed in native plant community fact sheet.
  - Achieve observable regeneration of oaks by planting saplings throughout the project site as specified in the objective. Stagger the years of planting oak saplings to prevent oak wilt transfer by differing age classes.

Schedule and Costs:

Year 2 Jan - March: Draft maintenance plan and hire contractor

Cost = park staff time

Year 2-5: maintenance to be completed

Cost = \$51,260.00

## The Plan

Year 6 – 9 spring or fall, planting of native seed, shrubs and oak trees

Cost = To Be Determined

### Objective 4:

Continue maintenance to ensure establishment and success of established native prairie areas and savanna area along Winthrop by eliminating 90% or more of invasives found within 3 years and maintain this level annually

### Tasks:

- Inventory and map invasives encroaching in and on edges of prairies.
- Use contractor to treat and remove invasives from prairies
- Complete prescribed burns every 3 to 5 years

### Schedule and Costs:

Year 1, mid to late July: survey inventory info

Cost = parks staff time

Year 1-3: seasonal, maintenance to remove invasives

Cost = contractor cost \$8,815.00

Every 3 to 5 years, spring. Complete prescribed burn of prairies

Cost = contractor cost \$4000.00

### Objective 5:

Complete inventory of wetland and buffer areas for restoration decision making

### Tasks:

- Coordinate with the local watershed district and parks soil and water division to complete a wetland assessment
- Assessment should identify problem areas and list wetland restoration options
- Contact state agencies to determine wetland status and option to use as a wetland bank

### Schedule and Costs:

Year 1: July – August, complete assessment of wetlands

Cost = parks staff time

Year 1: Sept, coordinate with state agencies

Cost = parks staff time



### Objective 6:

Increase environmental education and outreach for general public and user groups

#### Tasks:

- Maintain existing boot brush station for continued use and education
- Meet annually, prior to growing season, with special user groups (MN off-road cyclists (MORC) and ski group) representatives:
  - Plan for a minimum of one volunteer event to take place within unit
  - Update and post information on current exotics and steps to prevent spread
- Annually update social media and website to better connect people to the parkland and include restoration and maintenance work update
- Coordinate with a minimum of two volunteers per year to complete observational surveys or invasive species removal within the unit

#### Schedule and Costs:

Annually, Feb: plan volunteer events

Cost = parks staff time

Annually, April: post updates and info on restoration, maintenance and invasive species

Cost = parks staff time

### Objective 7:

Control deer population to levels that protect native vegetation and allow woodland regeneration pursuant to the annual deer management plan.

#### Tasks:

- Complete annual population survey of area to determine reduction needs and methods
- Continue with annual special archery hunt to maintain population
- Coordinate and contract sharp shooting removal service if population exceeds State standards

#### Schedule and Costs:

Annually: implement deer management plan

Cost = parks staff time

## The Plan

### Objective 8:

Complete thorough environmental impact review and preserve sensitive areas when considering any development in this area.

### Tasks:

- Coordinate with planning staff to determine locations and level of development acceptable within unit.
- Continue current types of recreation uses to avoid impact of natural resources.
- Ensure no more development (trails, amenities) are constructed within the bluff lands area or near the wetland seep. Any future recreational expansion should only be considered within the flat plateau area and follow Mississippi River Corridor Critical Area guidelines.
- Continue maintenance of existing off-road cycling trails to avoid environmental impacts

### Schedule and Costs:

Ongoing as development is proposed

Cost = parks staff time

## Management Unit 4

### Unit Stats:

Dominant land cover type: Oak woods

Dominant soil type: loamy sand

Dominant Terrain: steep hills

Marschner Presettlement Vegetation: Big Woods - Hardwoods (oak, maple, basswood, hickory)

Government recognition and protection status:

- The southwest corner of unit is within the state Mississippi River Corridor Critical Area Program and federal National Park Service, Mississippi National River and Recreation Area
- Regionally Significant Ecological Areas and Regional Ecological Corridors
- MN Native plant Community
  - Sites of biodiversity significance, moderate
  - MHs37a - Red Oak - White Oak Forest, Mesic Hardwood Forest System. Southern Dry-Mesic Oak Forest. 61.5 acres. Vulnerable to Extirpation
  - UPs13b - Dry Sand - Gravel Prairie (Southern), Upland Prairie System. 1.54 acres. Imperiled
- Environmental Natural Area: Ramsey County Park & Recreation department

Community Structure and Quality: Medium

Management Priority: High

### Unit Description:

The west central area of this unit includes seventy-five acres of dry oak forest, dominated by various oaks, including pin, red, white oak, and bur oak. Other native trees include large and small black cherry trees, cottonwoods, and aspen. Oak wilt is widespread among the red oaks in the forest, and removal of diseased trees is an ongoing management activity. There is a 1.5 acre open prairie area containing remnant native plants, located on a plateau in the middle of the oak forested area. Aerial photos indicate that in 1945 this area was a more open oak woodland, with only about half of the current forest canopy evident. Some of the woodland was used for haying and pasture. Buckthorn is widespread in the shrub layer, with high density throughout. Buckthorn and sumac are particularly numerous where the canopy has been opened by oak wilt; these are also the areas where small oaks are numerous.

The ground layer includes dry forest herbs, though diversity is much reduced in areas of heavy buckthorn infestation. Southern portions of this community area or south-facing slopes may be areas suitable for savanna or open woodland restoration. Northern parts of this area, and north and east-facing slopes may be more suitably left as forest. Dry oak forest communities cover about half of the area of Battle Creek Park. Mature forests of this type with large canopy trees are uncommon in the Metro Region; this area is recognized by the MN Department of Natural Resources as a native plant community of significance that warrants preservation and is vulnerable to extirpation. The area has wide trails, and is heavily used by hikers, joggers, bikers, and cross-country skiers. Off-road cycling trails exist in this unit, with additional tracks proposed.

The south portion of this unit consists of south and west facing bluff tops that are dominated by large bur oaks, with some white, red, and pin oaks. These areas were historically very open, with minimal tree cover. The understory is much overgrown with aspen, sumac, and buckthorn encroaching on the steep hillsides. Small openings of prairie grasses and forbs are scattered, though they are gradually being overgrown by aspen and sumac. Prairie forbs include spiderwort, flowering spurge, and grasses including little bluestem are scattered throughout under the canopy with concentrations in more open areas. This area includes a small, dry prairie opening dry prairie, sand-gravel subtype recognized by the MN Department of Natural Resources as a native plant community that is imperiled. In this area is a small but diverse collection of prairie grasses and forbs at opening in woods at south end of trail as it turns west below large bur oaks. Includes little bluestem, leadplant, coreopsis, and others. Needle grass and hoary puccoon were listed within the 1996 plan as being present in these areas, but have not been observed recently. Small patches of prairie forbs continue in woods along edge of bluff under heavy buckthorn and undergrowth to the east and west of this clearing. Aspen and sumac clones are also encroaching on the prairie opening and shading other prairie remnant areas along the bluff. This community is similar in structure and species composition to communities that continue outside the park along the bluffs toward Mounds Park. Limited areas of sand/gravel savanna exist in Battle Creek Park, along river and creek bluffs. Only a few such areas remain in the Twin Cities Region. Southwest, downslope, of this sand gravel prairie along the hillside north of Lower Afton Road and east of Battle Creek Road, the water table is high and flows consistently throughout the year creating a wetland seep. There are numerous hydrophytic plants growing along this hillside wetland seep, including spotted Joe-pye weed, skunk cabbage, and numerous rushes.

The eastern section of this unit consists of 24.72 acres of planted native prairie, with scattered oak trees and conifer plantations stands which were planted in the late 1980s. The native prairie areas are mostly flat and were historically farmed. There are wetlands on the northeast (freshwater pond and emergent) and southeast (freshwater forest/shrub and emergent) corners of the site that were never altered by previous farming activities. On the east edge, west of Winthrop St, is an area of open old growth oak woodlands, resembling a savanna, which was not historically farmed. The linear section east of Winthrop street is a mostly steep south facing slope that is mixed woods that is highly degraded with buckthorn. There is also planted conifers. This section was historically farmed and pastured in the steeper areas. On the west edge of this piece is an open area where some native prairie plants growing. This open area is being encroached by invasives and undesirable spreading trees, such as aspen.

The north end of this unit is flat and was historically one large farm field. The area now consists of mixed woods, consisting of quaking aspen, boxelder and the occasional oak and an open field that is currently mowed. There is also less than a half-acre forested/shrub wetland within this area.

### Management Issues

General plant and animal surveys are lacking for the entire unit. The MN county biological survey native plant community information defining the oak woods and sand gravel prairies was completed in 1990 and updated surveys are necessary to redefine boundaries and prioritize areas for management.

All of the woodland areas are heavily infested with exotic invasive species, primarily buckthorn. This is putting a strain on oak regeneration and native shrubs and herbaceous vegetation. The planted native prairies are being encroached by woody and herbaceous invasives. The conifer plantations conflict with the native landscapes open oak woods and native prairie. The conifer stands are overgrown and understory is high density buckthorn. The historically open

## The Plan

canopy areas, mostly the south and southwest facing hillsides, are being overgrown with tree species, such as aspen, black locust and Siberian elm, which is suppressing the native prairie grasses and forbs. The native plant community, sand gravel prairie is degrading from encroachment of invasive shrubs and trees. The mowed field north in unit provides little to no habitat. The restoration of this unit may have to be phased or partitioned to allow for adequate time and funding.

Oak wilt occurs in much of the woodland but the extent is unknown. A forest management plan for restoration and oak wilt remediation does not exist.

The wetlands health and level of habitat quality are unknown.

Overpopulation of deer can set back the natural succession of native shrubs and trees by over browsing.

There is pressure to expand trails and recreational amenities in this area that would impact the native prairies and oak woodlands.

Continued management of all land cover types following initial restoration will be extensive until regeneration of native vegetation is dominant

### Management Objectives, Tasks, Schedule, and Cost

#### Objective 1:

Complete surveys within each upland land cover type throughout unit prior to and following restoration planning and implementation. Determine which areas should be managed for prairie, open savanna or oak woodland given data on soils, slopes, and vegetation. Natural resource manager will determine which level of plant survey will be completed for each land cover type. Animal surveys will be completed following, given the tasks below.

#### Tasks:

- Identify areas with highest vegetation quality and areas where exotic species are a problem. At a minimum, create the following for entire area:
  - Distribution map of exotic invasive species
  - Delineation of vegetation of highest quality
  - General land cover data update
- Complete baseline plant plot survey or ecological assessment of the entire unit if funding and time allows. At a minimum complete plot survey and update boundaries of native plant communities (oak woodlands, savanna, and sand/ gravel prairies) prior to restoration.
- Complete annual plant community observational surveys after restoration to monitor invasives and determine success in oak and understory regeneration.
- Complete observational animal surveys, including insect, bird and amphibian/reptile following plant surveys.
- Monitor breeding and migrating bird populations after buckthorn removal activities to determine effects on populations.

#### Schedule and Costs:

Year 1: July – August, complete minimum surveys to capture the majority of invasive and native plant species.

Cost = parks staff time



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Year 1: Spring – summer of first season complete baseline plot survey or ecological assessment of native plant communities and other land covers within unit if funding allows.

Cost = contractor cost, native plant communities: \$8,000.00

Cost = contractor cost, for entire unit: \$15,000.00

Year 2: Summer, complete observational animal surveys

Cost = parks staff time

Annually: Summer: complete observational plant and animal surveys for each defined land cover type

Cost = parks staff time

Objective 2:

Use survey data to develop plan to restore and convert upland land cover to quality savanna, oak woodlands, or prairie. Use the following Minnesota Department of Natural Resources native plant community fact sheets for restoration requirements and metrics: Southern Dry-Mesic Oak Forest for the upland oak woodlands, Southern Dry Prairie for designated sand/gravel prairie areas, and Southern Dry Savanna for south, southwestern facing bluff areas. In addition to these communities, restore all other land cover types to reduce the amount of exotic species by 80% or more, and maintain control of exotic species so that there is an observable regeneration of canopy tree and native ground vegetation. Determine if conversion of planted conifers and mowed field to native prairie or oak woodlands is beneficial and cost effective.

Tasks:

- Draft two separate plans detailing the specifications for:
  - Project 1: Savanna conversion and sand gravel prairie restoration which will include:
    - A measureable reduction in woody understory plants, including buckthorn, sumac, and aspen to restore the oak savanna and prairie communities.
    - An increase in native diversity among the herbaceous community.
    - Observable regeneration of bur oaks.
  - Project 2: Oak and mixed woodland restoration which will include
    - Conversion of mowed turf and conifer plantations to prairie if warranted
    - Increase diversity in native shrub and herbaceous ground layer plants following removal of exotics
    - Achieve observable regeneration of oaks and black cherry
- Acquire funding through state grant programs and/ or county parks to fully fund restoration project.
- Complete restoration of land cover types.
  - Draft project specifications detailing restoration requirements
  - Hire contractor to complete restoration of each land cover type within project specifications.
  - Oversee contractors completion of restoration project

Schedule and Costs:

Year 3 August – September, draft plans and apply for funding for both projects.

Cost = parks staff time

Year 3, Year 4 December – Jan, draft project specifications and hire contractors for both projects

Cost = parks staff time

Year 4 – Year 6 Complete restoration of both projects within unit

Cost = \$400,000.00

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### Objective 3:

Continue maintenance to ensure establishment and success of established native prairie areas and savanna area along Winthrop by eliminating 90% or more of invasives found within 3 years and maintain this level annually

#### Tasks:

- Inventory and map invasives encroaching in and on edges of prairies.
- Use contractor to treat and remove invasives from prairies
- Complete prescribed burns every 3 to 5 years

#### Schedule and Costs:

Year 1, mid to late July: survey inventory info

Cost = parks staff time

Year 1-3: seasonal, maintenance to remove invasives

Cost = contractor cost \$52,816

Every 3 to 5 years, spring. Complete prescribed burn of prairies

Cost = contractor cost \$6800.00

### Objective 4:

Draft a three year maintenance plan that will include tasks and projected costs for oak woods, savanna, and native prairies, pursuant to associated MN Department of Natural Resources native plant community fact sheet. Implement plan and revise after three years.

#### Tasks:

- Draft a three year maintenance plan detailing the specifications for each land cover type maintenance needs
- Secure funding for three year plan through state grant program or county funds and hire contractor to complete ongoing maintenance on a three year contract. At a minimum include all listed below.
- Continue maintenance by achieving a measureable reduction in exotics in restored areas of 80% or more, including buckthorn, honeysuckle, locust, Siberian Elm, and emerging exotics. Tools will include foliar spraying and prescribed burns.
- Increase diversity among the native shrub and herbaceous ground layer plants in the woodlands and grasses and flowers in the savanna and prairie areas following the removal of exotics
- Foliar spray emerging buckthorn every fall following initial restoration for three years. Assess continued volume and timeline of foliar spraying following three year mark.
- Assess the need for an oak woodland burn after initial restoration. If woodland burn will be beneficial in setting back exotics and promoting native growth, complete burn in fuel rich areas every 3 to 5 years following initial restoration.

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- If there is limited native regeneration of herbs, shrubs and trees, observed after one season growth following restoration complete the following:
  - Increase diversity in the native herbaceous ground layer plants by casting an appropriate native seed mix in the spring or following a prescribed burn.
  - Obtain shrub saplings from MN Department of Natural Resources forestry or other reliable source and plant throughout the unit at a rate that will meet the percent cover listed in native plant community fact sheet.
  - Achieve observable regeneration of oaks by planting saplings throughout the project site as specified in the objective. Stagger the years of planting oak saplings to prevent oak wilt transfer by differing age classes.

### Schedule and Costs:

Year 5 July- August: Draft maintenance plan and hire contractor  
Cost = park staff time

Year 6 - 9 October: maintenance to be completed  
Cost = \$51,260.00

Year 7 – 9 spring or fall, planting of native seed, shrubs and oak trees  
Cost = To Be Determined

### Objective 5:

Work with forester to map current oak wilt and develop an oak wilt management plan for this unit

### Tasks:

- Survey the woodlands and GPS polygon boundaries around active oak wilt sites
- Survey for natural regeneration and determine if oak tree planting is required
- Draft plan including: sites, access, management methods and costs

### Schedule and Costs:

Year 6: July – Sept, map oak wilt, survey for natural regeneration  
Cost = parks staff time

Year 6: October – December, draft oak wilt management plan  
Cost = parks staff time

### Objective 6:

Gather wetland information and complete wetland surveys for restoration decision making

### Tasks:

- Gather existing State wetland data
- Complete plant surveys on wetlands that lack existing data
- Prioritize wetlands to determine if restoration is cost effective
- Work with local watershed district and state agencies to secure funding and coordinate restoration of wetlands

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### Schedule and Costs:

Year 6: July – August, complete assessment of wetlands

Cost = parks staff time

### Objective 7:

Control deer population to levels that protect native vegetation and allow woodland regeneration pursuant to the annual deer management plan.

### Tasks:

- Complete annual population survey of area to determine reduction needs and methods
- Continue with annual special archery hunt to maintain population
- Coordinate and contract sharp shooting removal service if population exceeds State standards

### Schedule and Costs:

Annually: implement deer management plan

Cost = parks staff time

### Objective 8:

Ensure the long term preservation of this unit, especially sensitive native plant communities.

### Tasks:

- No development within the designated native plant communities beyond approved unpaved trails
- Identify and remove rogue trails causing erosion or negative impact
- Draft a flail and mow plan that highlights cutting widths and time of year to complete activities
- Additional recreation uses, park features, trails should be assessed to determine environmental impact prior to implementation.
- Off-road cycling trails should follow implementation guidelines when proposed
- A public engagement process of park amenities should involve environmental groups

### Schedule and Costs:

Year 1 October - November: identify rogue trails, review mowing patterns

Year 1,2: December – Jan. : draft mowing plan for unit

Year 2. April – May: reestablish rogue trails, revegetate and regrade

Cost = parks staff time, conservation corp for trail establishment. \$3000.00 for vegetation materials.



## Management Unit 5

### Unit Stats:

Dominant land cover type: Oak woods

Dominant soil type: loamy sand

Dominant Terrain: steep banks, creek corridor

Marschner Presettlement Vegetation: Big Woods - Hardwoods (oak, maple, basswood, hickory)

Government recognition and protection status: N/A

Community Structure and Quality: Low

Management Priority: Medium

### Unit Description:

This is a relatively short, narrow creek corridor, with a mature forest canopy over Battle Creek. Upper slope areas are a dry oak woodland dominated by a mix of oaks, like other forest areas to the east, with river bottom species in low areas along the creek. Historically much of this corridor was not farmed likely due to the terrain and soils. The tree canopy was more open than it is presently, and many old growth oaks still exist throughout the woodlands. The understory has high density invasion of buckthorn; other shrub and ground species are sparse, and similar to those found in other dry oak woodland areas of the park. Battle Creek flows from the east to west through the site. The water quality of the creek is good, with reed canary grass, sedges, and other forbs along the meandering banks. Small fish, mussels, and amphibians are evident in the creek. Narrow dirt foot paths follow the creek and occasionally traverse the slopes. Deer and heron tracks are evident.

This area serves as a connecting corridor between larger tracts of land for wildlife.

Dry oak forest covers about half of Battle Creek Park, but mature forests are uncommon in the Metro Region. Creeks with mature forest canopy cover are rare habitat types in this watershed and the urbanized Twin Cities area.

### Management Issues

Plant and animal survey information for this entire unit is lacking and needs to be updated.

Riparian area and creek shoreline over health is unknown and survey information needs to be updated for future restoration decision making.

This unit is inundated by exotic invasive species, particularly highly dense stands of buckthorn. Extent of invasive trees within the woodlands is unknown.

Education and outreach with neighbors and adjacent school can be increased to promote the preservation and protection of this area.

### Management Objectives, Tasks, Schedule, and Cost

#### Objective 1:

Coordinate initial and ongoing surveys (annually) of plants, birds, and other animal species in this community area, and map areas with invasive species or other problems.

#### Tasks:

- Identify areas with highest vegetation quality and areas where exotic species are a problem. At a minimum, create the following:
  - Distribution map of exotic invasive species
  - Delineation of vegetation of highest quality

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- General land cover data update

- Complete baseline plant plot survey or ecological assessment of the entire unit if funding and time allows.
- Complete observational animal surveys, including insect, bird and amphibian/reptile following plant surveys.
- Annually complete observational plant community surveys after exotics removal to determine success in oak and understory regeneration and to locate reestablishing invasives.
- Annually monitor breeding and migrating bird populations after buckthorn removal activities to determine effects on populations.

### Schedule and Costs:

Year 1: July – August, complete minimum surveys to capture the majority of invasive and native plant species.  
Cost = parks staff time

Year 1: Spring – summer of first season complete baseline plot survey or ecological assessment of unit.  
Cost = contractor cost \$8,000.00

Annually, July: ongoing surveys to monitor area following restoration.

### Objective 2:

Complete inventory of riparian zone and creek shoreline for restoration decision making

#### Tasks:

- Coordinate with the local watershed district and parks soil and water division to complete a shoreline assessment
- Assessment should identify problem areas and list shoreline restoration options to be installed in the future.

### Schedule and Costs:

Year 2: July – August, complete minimum surveys to inventory the majority of invasive and native plant species following restoration.  
Cost = parks staff time

### Objective 3:

Restore and convert upland land cover types to native plant communities using the Minnesota DNR native plant community fact sheet for Southern Dry-Mesic Oak Forest to determine restoration requirements and metrics for the upland oak woodlands. Restore riparian areas to reduce the amount of exotic species by 80% or more and maintain control of exotic species so that there is an observable regeneration of canopy tree and native ground vegetation.

#### Tasks:

- Draft a plan detailing the specifications for each land cover type restoration and conversion.
  - Focus will be on restoration of the oak woodlands primarily and riparian areas secondary.
  - There is a stand of planted conifers and an area of old field that is currently mowed. Determine if the benefit to convert these areas to oak woodlands is cost effective.
- Acquire funding through state grant programs and/ or county parks to fully fund restoration project.

- Complete restoration of land cover types.
  - Draft project specifications detailing restoration requirements
  - Hire contractor to complete restoration of each land cover type within project specifications.
  - Oversee contractors completion of restoration project

### Schedule and Costs:

Year 3 August – September, draft plan and apply for funding

Cost = parks staff time

Year 3, Year 4 December – Jan, draft project specifications and hire contractor

Cost = parks staff time

Year 4 – Year 6 Complete restoration of unit

Cost = \$168,935.00

### Objective 4:

Connect parks education and communication staff with nearby school to determine interest in using parkland for projects or outdoor education and develop plan. School has completed buckthorn removal projects in the past and shown interest. Send information on restoration efforts to adjacent neighbors prior to the start of project.

### Schedule and Costs:

Year 1, 2 school year, connect with school staff and develop plan

Cost = parks staff time

Year 4, March – Provide information and educate neighbors on restoration project

Cost = parks staff time

## Management Unit 6

### Unit Stats

Dominant land cover type: Wetlands and active use  
Dominant soil type: silt loam  
Dominant Terrain: rolling hills  
Marschner Presettlement Vegetation: Oak openings and barrens  
Government recognition and protection status: N/A  
Community Structure and Quality: Low  
Management Priority: Medium

### Unit Description

This unit consist of a series of open water wetlands, in stream of Battle Creek, that were constructed by the Ramsey-Washington Metro Watershed District for flood control. These wetlands are surrounded by a mix of native shrubs, and exotics such as amur maple, reed canary grass and cattails. Active use area of around 15 acres consists of pavilions, picnic areas, open turf, and a water park feature within the center of the unit. One large section of turf that remains is on the west side of the site adjacent to McKnight Road. Within this turf are stands of conifers and amur maples. North within the site is a conifer plantation that was planted in the late 1980s surrounded by mixed woods to the east and west, with these sections of woods containing some old growth oak trees. There are also conifers that were planted on the west and southwest corner of the unit. There is a grove of old growth oak trees on the south side abutting Upper Afton Road and west of the park entrance road. In 2016, a restoration project began that successfully converted 7.47 acres of old field and 2.51 acres of unused turf grass areas into planted native prairie. The areas north of the pavilion were planted with Minnesota State Seed Mix 35-241 (Mesic Prairie General) and the areas to the south were planted with State Seed Mix 35-221 (Dry Prairie General).

Although this area is geared toward active use, there is quality wildlife habitat that is used by numerous grassland birds, insects, and mammals such as whitetail deer, fox, and coyotes.

### Management Issues

The planted native prairie areas contain herbaceous and encroaching woody invasives.

The conifer plantations conflict with the historic landscape of open oak barrens. The conifer stands are overgrown causing trees to die off.

The mixed woodlands are overgrown with invasives, mainly buckthorn and unwanted tree overgrowth, such as boxelder, Siberian Elm, and some locust.

The use of turf grass areas, mainly the section on the west side, is unknown. Unused turf grass areas provide little to no wildlife habitat benefit.

The health of the wetland buffer areas are unknown.

### Management Objectives, Tasks, Schedule, and Cost

#### Objective 1:

Continue maintenance to ensure establishment and success of native prairie areas ongoing by eliminating 90% or more of invasives found within 3 years and maintain this level annually



### Tasks:

- Inventory and map invasives encroaching in and on edges of prairies.
- Use contractor to treat and remove invasives from prairies
- Complete prescribed burns every 3 to 5 years
- Complete annual survey of prairie areas at the peak of growing season to determine:
  - Quality, ensure there is an appropriate mix of grasses and forbs pursuant to the Minnesota Department of Natural Resources seed mixes installed
  - Encroachment of invasives

### Schedule and Costs:

Year 1, mid to late July: survey inventory info

Cost = parks staff time

Year 1-3: seasonal, maintenance to remove invasives

Cost = contractor cost \$16,500

Every 3 to 5 years, spring. Complete prescribed burn of prairies

Cost = contractor cost \$2,500.00

### Objective 2:

Maintain health of conifer stands through selective harvest. Consider plan for removal of conifer stands, focusing on north stand, for conversion to native prairie or oak woodlands.

### Tasks:

- Survey conifer stand with county forester to determine volume of removal and projected cost
- Thin conifer stands as recommended.
- Start the planning process to determine cost/benefit of conifer conversion to native landscapes

### Schedule and Costs:

Year 1, summer: survey conifer stands

Cost = parks staff time

Year 2. Planning process to determine conversion

Cost = parks staff time

Year 2-4, winter: thinning or removal of conifer stands.

Cost = contractor cost \$15,000.00 – \$40,000.00

### Objective 3:

Complete the restoration of the woodlands on the north side of site to reduce 80% or more of invasive species and removal of unwanted tree species to preserve and improve oak woodlands.

## The Plan

### Tasks:

- Draft a plan detailing the specifications for each land cover type restoration and conversion. Focus will be on restoration of 3.35 mixed and 2.10 oak woodlands and conversion of 5.9 acres of mixed woods to oak woods
- Acquire funding through state grant programs and/ or county parks to fully fund restoration project.
- Complete restoration of land cover types.
  - Draft project specifications detailing restoration requirements
  - Hire contractor to complete restoration of each land cover type within project specifications.
  - Oversee contractor's completion of restoration project

### Schedule and Costs:

Year 1 August – September, draft plan and apply for funding  
Cost = parks staff time

Year 1, Year 2 December – Jan, draft project specifications and hire contractor  
Cost = parks staff time

Year 2 – Year 5 Complete restoration of unit  
Cost = \$31,573.76

### Objective 4:

Inventory the use of turf grass area, specifically the west side section, to determine which areas could be converted to native prairies.

### Tasks:

- Survey use and determine special interest groups that use existing turf
- Delineate turf grass areas that are unused
- Convert turf grass areas to native prairie

### Schedule and Costs:

Year 1, use communication and outreach staff to survey turf grass use  
Cost = parks staff time

Year 2. Delineate unused turf grass areas  
Cost = parks staff time

Year 2, August - September: draft plan and submit for funding to convert areas to native prairie  
Cost = parks staff time

### Objective 5:

Complete inventory of wetland buffer areas for restoration decision making

### Tasks:

- Coordinate with the local watershed district and parks soil and water division to complete a wetland buffer assessment
- Assessment should identify problem areas and list wetland restoration options

### Schedule and Costs:

Year 1: July – August, complete assessment of wetlands

Cost = parks staff time

## Management Unit 7

### Unit Stats

Dominant land cover type: Oak Woods. Dry Oak forest on well drained soils.

Dominant soil type: loamy sand

Dominant Terrain: steep hills

Marschner Presettlement Vegetation: Oak openings and barrens

Government recognition and protection status: N/A

Community Structure and Quality: High

Management Priority: High

### Unit Description

A deciduous forest community with a canopy dominated by large pin and white oaks. Mature trees are widely spaced, have single stems, and are of varying size. There are large black cherry in the canopy as well and a few bur oaks. Smaller trees include white birch, black cherry, slippery elm, and basswood. The shrub layer is dominated by chokecherry and elder. The ground layer is patchy, with north-facing slopes dominated by various fern species, and other areas with a variety of dry forest herbs and Virginia creeper. Battle Creek flows from east to west on the north edge of this unit.

The forest is in a little-used corner of the park, with large private residences adjacent across Battle Creek. A few narrow dirt paths and deer paths cross the area. Slopes are steep, and trails are narrower and appear to have less use than most areas of the park. The forest was once part of the Ramsey County Work Farm. There is an abutting City park in the southeast corner of the park that consists of stormwater features, oak forest, and planted native prairies.

This oak forest is small, but of high quality. Mature dry oak forest covers about half the area of Battle Creek Park, but mature forests, particularly of high quality, are rare in the Metro Region.

Park neighbors have been voluntarily removing buckthorn on the north east section of this unit, which has kept a few acres within this section cleared of buckthorn. A woodland restoration focused on invasive removal (buckthorn) began in 2019 and will continue into 2022. This restoration was funded through Minnesota Department of Natural Resources Conservation Partners Legacy grant and county funds. The restoration work completed includes the removal, treatment, and burning of buckthorn piles.

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## Management Issues

Though small, this is a high-quality oak forest. It can serve as a model and seed source for improvement of other forest areas in the park, both for forest structure and species composition. The forest and adjacent creek provide habitat for large raptors, migratory songbirds, and waterfowl, evident in spring field trips to the area. Removal and management of established exotics and complete eradication of emerging exotics should be a priority to maintain diversity of forest trees and ground vegetation. Reed canary grass has invaded the edges of the creek and wetland adjacent to the forest--it should be monitored and controlled if it begins to invade forest areas. Coordination with the City of Maplewood to complete work on abutting natural areas should be a priority.

The creek thorough this unit is a valuable resource, but serves as a corridor for emerging exotics and shows signs of shoreline degradation in many areas. Since 2015, newer invasive exotic species have been emerging along the creek corridor and include Japanese knotweed (*Polygonum cuspidatum*), Butterbur (*Petasites*), and bishop weed (*Aegopodium podagraria*). Known locations of these exotics are currently being treated in an attempt to eradicate within this area.

Invasive tree species such as black locust and Siberian elm have emerged on the edges of the woodlands, especially along the south edge abutting Upper Afton Road. Toward the south area of the forest and on south slopes, some disturbance has occurred, and invasion of nettles is evident along trails and areas where canopy has been disturbed.

Control of deer population may aid in maintaining the continuing health and diversity of the oak forest community. Deer activity is evident, and browse is occurring on small trees and forest herbs.

Homeowners across the creek have extensive perennial gardens consisting of many non-native species, with some non-native species like red monarda and ligularia planted along the edge of the forest. Invasion of the native community by aggressive non-natives from this source are a problem.

## Management Objectives, Tasks, Schedule, and Cost

### Objective 1:

Coordinate surveys of plants, birds, and other animal species in this community area, and map areas with invasive species or other problems.

### Tasks:

- Complete inventory and/ or ecological assessment to collect baseline plant vegetation data.
- Following plant inventory, parks staff will monitor plant communities annually to determine success in exotics removal, oak regeneration, and deer control.
- Staff and volunteers can be used to complete insect and breeding and migrating bird surveys to determine management effects on populations through observation surveys.

### Schedule and Costs:

Year 3: July – August, complete minimum surveys to capture the majority of invasive and native plant species following restoration.

Cost = parks staff time



### Objective 2:

Complete inventory of creek shoreline for restoration decision making

#### Tasks:

- Coordinate with the local watershed district and parks soil and water division to complete a shoreline assessment
- Assessment should identify problem areas and list shoreline restoration options to be installed in the future.

#### Schedule and Costs:

Year 3: July – August, complete minimum surveys to capture the majority of invasive and native plant species following restoration.

Cost = parks staff time

### Objective 3:

Complete restoration of entire unit, converting mixed woodlands to oak woods and placing emphasis on the restoration of understory within the upland oak woodlands.

#### Tasks:

- Continue coordination of contractors completion of restoration work pursuant to project specifications entitled "Battle Creek Forest Restoration" dated April 2019 and Conservation Partners Legacy grant program approved plan
- Add on project work as time and funding allows

#### Schedule and Costs:

Year 1-3: complete restoration.

Cost = \$150,000 of funding was secured for contractor services (Jan 2019)

### Objective 4:

Draft a three-year maintenance plan that will include ongoing maintenance tasks and projected costs. Implement plan and revise after three years.

#### Tasks:

- Continue maintenance by achieving a measureable reduction in exotics in restored areas of 80% or more, including buckthorn, honeysuckle, locust, Siberian elm, and emerging exotics. Tools will include foliar spraying and prescribed burns.
- Increase diversity among the native shrub and herbaceous ground layer plants in this area following the removal of exotics using the Minnesota DNR native plant community fact sheet for Southern Dry-Mesic Oak Forest as a guide for plant composition.
- Secure funding for three year plan through state grant program or county funds

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### Schedule and Costs:

Year 3-6: implement maintenance plan.

Cost = \$25,550 for contractor services

### Objective 5:

Control deer population to levels that protect native vegetation and allow woodland regeneration pursuant to the annual deer management plan.

### Tasks:

- Complete annual population survey of area to determine reduction needs and methods
- Continue with annual special archery hunt to maintain population
- Coordinate and contract sharp shooting removal service if population exceeds State standards

### Schedule and Costs:

Annually: implement deer management plan

Cost = parks staff time

### Objective 6:

Increase education and outreach for adjacent landowners and general public

### Tasks:

- Host an annual meeting with adjacent neighbors and general public to better connect people to the parkland and include the following topics:
  - Promote ecological awareness in an effort to expand restoration and the use of native plants on private lands
  - Talk with adjacent landowners to suggest control of non-native perennial plantings
  - Restoration and maintenance work update
- Send mailing update to neighbors on restoration work completed
- Coordinate with a minimum of two volunteers per year to complete observational surveys or invasive species removal within the unit

### Schedule and Costs:

Annually: implement outreach

Cost = parks staff time

### Objective 7:

Ensure the long term preservation of this unit

### Tasks:

- Limit recreation, development and encroachment by adjoining land uses, such as the water recreation features and picnic areas to the west.

- No increase in number or size of trails should be considered within this area and remove rogue trails, primarily those causing erosion issues.

### Schedule and Costs:

Ongoing coordination

Cost = parks staff time

## Management Unit 8

### Unit Stats

Dominant land cover type: Oak Woods.

Dominant soil type: silt loam

Dominant Terrain: flat with rolling hills

Marschner Presettlement Vegetation: Big Woods - Hardwoods (oak, maple, basswood, hickory)

Government recognition and protection status:

- Regionally Significant Ecological Areas and Regional Ecological Corridors
- MN Native plant Community
  - Sites of biodiversity significance, moderate
  - MHs37a - Red Oak - White Oak Forest, Mesic Hardwood Forest System. Southern Dry-Mesic Oak Forest. 72 acres. Vulnerable to Extirpation

Community Structure and Quality: Medium

Management Priority: Medium

### Unit Description

This is mainly a deciduous forest community, with large white and bur oaks dominant, and some large red oaks. Bur and white oaks with spreading canopies originally grew in a more open conditions. This is shown in historic aerial photos and pre-settlement data. Dry oak forest communities cover about half the area of Battle Creek Park, but mature forests of this type with large canopy trees are rare in the Metro Region. Subcanopy, shrub, and ground communities consisting of elderberry, ninebark, but with less diversity, and much invasion by buckthorn and honeysuckle, especially on south, southwest facing aspects. Sections of the unit have had buckthorn removal completed in the past decade with no follow up maintenance completed. The buckthorn through much of the area now consists of 2 -3 inch diameter at breast height and high density stands. There are numerous invasive tree species throughout the unit as well, consisting of Siberian elm and black locust. Plantations of white spruce and red pines have been planted in several areas within the forest, and are now mature in size. These plantations are overcrowded and should be thinned. Approximately 11 acres of these conifer plantations is slated for removal and conversion to oak woods. Several paved trails form loops through the woodland. A 35-acre fully fenced in off-leash dog area is located in the west portion of this unit.

Wildlife using of this area include migrating warblers, waterfowl, shorebirds, woodpeckers, raptors, turtles, and a variety of frog species. Diversity of wetland community, large oaks, and the adjacent old field contribute to diversity of wildlife in this area.

Numerous small, emergent wetlands are enclosed within the forest in low areas. Vegetation communities among these vary greatly in size, diversity, and quality. Some are dominated by sedges, others by cattails or reed canary grass, and some with forest canopy and understory fringing the wetland. Amphibian and bird use varies among the wetlands as indicated in species lists included in the Appendix.

# The Plan

## Management Issues

Plant and animal survey information for this entire unit is lacking and needs to be updated.

This unit is inundated by exotic invasive species, particularly highly dense stands of buckthorn, and needs to be restored. This unit is spatially large and there is a high projected cost for initial restoration targeting the removal of buckthorn and honeysuckle. Securing funding for initial restoration of the unit could pose a problem, especially if removal of invasive tree species is included in restoration. Parceling the unit into subsections for restoration phases may be required.

There are areas of quality habitat and wetlands within the off-leash dog area. An inventory of the off-leash dog area is required to determine size and quality of remaining habitat types. Once these habitats are identified the need for restoration and ongoing protection of these areas can be determined. This may include restricting areas of quality habitat from off-leash dog use temporarily or indefinitely.

The wetlands in this unit are very important as they provide habitat and improve surface and groundwater quality. Survey data is lacking and inventories of each wetland should be completed and include, at a minimum, vegetation transect surveys and observation surveys of birds, amphibians, and reptiles. The focus would be to determine management recommendations to protect or increase diversity. Other agencies, specifically the Minnesota Pollution Control Agency wetland monitoring program and the Ramsey Washington Metro Watershed District, may be available to help partner to complete surveys and restoration of the wetlands.

The trails in this unit are well established and include a paved loop and numerous grass trails that are mowed. The maintenance of these trails, mainly including the width and timing of flailing and mowing of trail edges needs to be defined to minimize impact on the resources.

Several pine and spruce plantations were planted within this unit. According to the historic aerial photos the first of the plantations were established in the late 1960s to early 1970s, with the other plantations planted following this time frame. All of these plantations understory are bare or consist of buckthorn. Management or conversion of the plantations is necessary.

Given heavy trail use, there are many opportunities in this area for interpretive signage, related to forest community, exotic species, wetland diversity, and prairie restoration.

Deer browse will continue to be an issue within this unit. Control of the deer population is necessary to prevent over browsing of natural regeneration of shrubs and trees.

Adjacent school may offer opportunities to expand prairie restoration or include students in management and interpretive activities in the Park.

## Management Objectives, Tasks, Schedule, and Cost

### Objective 1:

Complete plant and animal surveys within the upland portions of the entire unit prior to and following restoration planning and implementation. Natural resource manager will determine which level of plant survey will be completed, which will be heavily dictated by time and funding.

### Tasks:

- Identify areas with highest vegetation quality and areas where exotic species are a problem. At a minimum, create the following:
  - Distribution map of exotic invasive species



- Delineation of vegetation of highest quality
- General land cover data update
- Complete baseline plant plot survey or ecological assessment of the entire unit if funding and time allows.
- Complete observational animal surveys, including insect, bird and amphibian/reptile following plant surveys.
- Monitor plant community after exotics removal to determine success in oak and understory regeneration.
- Monitor breeding and migrating bird populations after buckthorn removal activities to determine effects on populations.

### Schedule and Costs:

Year 1: July – August, complete minimum surveys to capture the majority of invasive and native plant species.  
Cost = parks staff time

Year 1: Spring – summer of first season complete baseline plot survey or ecological assessment of unit.  
Cost = contractor cost \$15,000.00

### Objective 2:

Restore and convert upland land cover types to native plant communities using the Minnesota DNR native plant community fact sheet for Southern Dry-Mesic Oak Forest to determine restoration requirements and metrics for the oak woodlands.

### Tasks:

- Draft a plan detailing the specifications for each land cover type restoration and conversion. Restoration will likely be partitioned into phases in order to provide adequate funding and time to restore entire unit. If phased each project will follow the same schedule below.
  - Focus will be on restoration of the oak woodlands and conversion of around 11 acres of conifer plantation to oak woods.
  - Plan should include steps for public education and awareness of conifer to oak woods conversion areas and to thin remaining conifer stands by about half to improve stand health. As these plantations die, replace them with native species (this may be fifty years in the future.)
- Acquire funding through state grant programs and/ or county parks to fully fund restoration project.
- Complete restoration of land cover types.
  - Draft project specifications detailing restoration requirements
  - Hire contractor to complete restoration of each land cover type within project specifications.
  - Oversee contractors completion of restoration project

### Schedule and Costs:

Year 1 August – September, draft plan and apply for funding  
Cost = parks staff time

Year 1, Year 2 December – Jan, draft project specifications and hire contractor  
Cost = parks staff time

## The Plan

Year 2 – Year 5 Complete restoration of unit

Cost = \$399,880.00

### Objective 3:

Following initial restoration: complete ongoing maintenance of unit to control re-emerging exotic invasive vegetation specifically buckthorn, at an eradication level of 80% or more and increase diversity of native vegetation pursuant to native plant community fact sheet.

#### Tasks:

- Draft a 10-year maintenance plan detailing the specifications for each land cover type maintenance needs and hire contractor to complete ongoing maintenance on a three year contract. At a minimum include tasks listed below.
- Foliar spray emerging buckthorn every fall following initial restoration for three years. Assess continued volume and timeline of foliar spraying following three year mark.
- Assess the need for an oak woodland burn after initial restoration. If woodland burn will be beneficial in setting back exotics and promoting native growth, complete burn in fuel rich areas every 3 to 5 years following initial restoration.
- If there is limited native regeneration of herbs, shrubs and trees, observed after one season growth following restoration complete the following:
  - Increase diversity in the native herbaceous ground layer plants by casting an appropriate woodland seed mix in the spring or following a prescribed burn.
  - Obtain shrub saplings from Minnesota Department of Natural Resources forestry or other reliable source and plant throughout the unit at a rate that will meet the percent cover listed in native plant community fact sheet.
  - Achieve observable regeneration of oaks by planting saplings throughout the project site as specified in the objective. Stagger the years of planting oak saplings to prevent oak wilt transfer by differing age classes.

#### Schedule and Costs:

Year 5 July- August: Draft maintenance plan and hire contractor

Cost = park staff time

Year 6 - 9 October: maintenance to be completed, foliar spray and/or woodland burn

Cost = \$66,136.50

Year 7 – 9 spring or fall, planting of native seed, shrubs and oak trees

Cost = \$61,083.00

### Objective 4:

Gather wetland information to prioritize wetland survey and restoration needs.

#### Tasks:

- Gather existing State wetland data
- Complete plant surveys on wetlands that lack existing data
- Prioritize wetlands to determine if restoration is cost effective

- Work with local watershed district and state agencies to secure funding and coordinate restoration of wetlands

### Objective 5:

Control deer population

#### Tasks:

- Complete annual survey of area
- Continue with annual special archery hunt
- Coordinate and contract sharp shooting removal service if population exceeds State standards

### Objective 6:

Work with internal staff and dog park patrons to improve wildlife habitat within the off-leash dog park area

#### Tasks:

- Survey and prioritize habitats within the OLDA that warrant protection and restoration. An example would be to restore existing native wildflower areas to benefit insects
- Work to obtain funding for restoration and preservation of these areas
- Fence off areas to ensure preservation

### Objective 7:

Maintain trails to have the least impact on the natural habitat.

#### Tasks:

- Inventory unpaved trails and close and revegetate unneeded rogue trails.
- Draft a flail and mow plan that highlights cutting widths and time of year to complete activities
- Drive trails annually to determine trees to trim or remove to protect trails and park users

### Objective 8:

Continue current types of recreation uses to avoid impact of natural resources.

#### Tasks:

- Do not expand recreational amenities beyond what currently exists in this unit without a thorough review of environmental impacts.
- Off-road cycling trails should follow the implementation guidelines when proposed

## Management Unit 9

### Unit Stats

Dominant land cover type: Prairie and emergent wetlands

Dominant soil type: silt loam

Dominant Terrain: rolling hills

Marschner Presettlement Vegetation: Big Woods - Hardwoods (oak, maple, basswood, hickory)

Government recognition and protection status: N/A

Community Structure and Quality: Medium

Management Priority: Medium

### Unit Description

This unit consists of 62.79 acres, of which 20.3 acres of old field was converted to native prairie starting in 1996 and continuing into the early 2000s. These are now well established mesic prairies dominated by big blue stem grasses. A low central portion includes a linked group of emergent wetlands with sparse fringe vegetation and dominated by cattails in most incidences. These freshwater emergent wetlands overflow east to west. There are 4 plots of conifer plantations on the edges of the unit. In reviewing historical aerial photos, the three southern/western plantations were planted in the mid 70s and the plantations in the northeast corner were planted in the late to mid-1990s. There are 25.49 acres of mixed woodlands within the unit. The north and western most section of mixed woodlands are dominated by larger old growth oaks and were historically more of an open canopy oak dominated system.

Deer and a variety of open meadow and edge bird species are evident in these area, including white-throated and song sparrows, cardinals, finches, and others. Deer are seen frequently in the area, with many "bedding areas" close to tree groves. Raptors, woodpeckers, and songbirds such as warblers, white-throated sparrows, chickadees, and finches are part of this community.

Particularly if other nearby areas of the Ramsey County Work Farm can be managed for the same species.

### Management Issues

It has yet to be determined if the established prairies are providing quality grassland habitat for birds and insects.

The prairies are constantly being encroached by exotic invasive herbs and tree species, such as black locust, Siberian elm, spotted knapweed, and emerging tansy. The mixed woodlands are dominated by buckthorn and undesirable deciduous trees, such as boxelder, Siberian elm, and black locust.

Unwanted trees and shrubs, mainly buckthorn, Siberian elm, boxelder, black locust, etc. are high in density within the mixed woodlands area, choking out existing quality trees and preventing oak regeneration. The conifer plantations are out of place in this entire unit and separate naturally transitioning native land cover types. The conifer plantations provide little wildlife habitat and take up space where native landscapes could exist to better provide habitat for local wildlife.

Can diversity of the wetland edges be increased with plantings or other management and would the cost of wetland restoration be worth the habitat benefits in this area?

Invasive exotic species dominate surrounding lands, including landowners to the east and on adjacent Ramsey County correction lands to the south.



### Management Objectives, Tasks, Schedule, and Cost

#### Objective 1:

Determine and complete survey methods necessary to help define the diversity level and habitat quality of the prairies to help guide resource decision making.

#### Tasks:

- Coordinate with local and state agencies, such as the Minnesota Department of Natural Resources and Xerces Society, to help determine sound survey methods for plant and insect data collection
- Parks staff complete surveys if applicable or hire contractor to complete survey and draft restoration guide.

#### Schedule and Costs:

Year 1: Jan – Feb. determine survey method

Cost = parks staff time

Year 1: July – September, complete surveys of prairies

Cost = contractor cost \$15,000.00

#### Objective 2:

Maintain and preserve existing prairies by eliminating 90% or more of invasives found within 3 years and maintain this level annually

#### Tasks :

- Inventory and map invasives encroaching in and on edges of prairies.
- Use conservation corp crew or contractor to remove invasives from prairies
- Complete prescribed burns every 3 to 5 years
- Complete annual survey of prairie areas at the peak of growing season to determine encroachment of invasives

#### Schedule and Costs:

Year 2, mid to late July: inventory invasives

Cost = parks staff time

Year 3-6: seasonal, maintenance to remove invasives

Cost = contractor cost \$5,000.00

Every 3 to 5 years, spring. Complete prescribed burn of prairies

Cost = contractor cost \$5,150.11

## The Plan

### Objective 3:

Restore and convert uplands within this unit into a quality mix of converging native prairies and open oak woodlands with a canopy up to 50%.

#### Tasks:

- Draft a plan detailing the specifications for each land cover type conversion.
  - Plan should detail items necessary for the conversion of the 6.06 acres of conifer plantations to oak woods (1.44 acres) and native prairie (4.61 acres). The southernmost plantation of red oaks could remain if proven to provide some wildlife habitat, and conversion of 25.49 acres of mixed woods to native prairie and oak woods
  - Plan should include steps for public education and awareness of conifer to oak woods and prairie conversion and to thin remaining conifer stands by about half to improve stand health.
- Acquire funding through state grant programs and/ or county parks to fully fund conversion project.
- Complete conversion of land cover types.
  - Draft project specifications detailing conversion requirements
  - Hire contractor to complete conversion of each land cover type within project specifications.
  - Oversee contractors completion of restoration project

#### Schedule and Costs:

Year 3 August – September, draft plan and apply for funding to Minnesota Department of Natural Resources CPL grant program and/or county funds

Cost = parks staff time

Year 3, Year 4 December – Jan, draft project specifications and hire contractor

Cost = parks staff time

Year 4 – Year 7 Complete conversion of unit

Cost = \$114,345.27

### Objective 4:

Complete assessment of wetlands to determine wetland survey and restoration needs.

#### Tasks:

- Gather existing State wetland data
- Complete plant surveys on wetlands that lack existing data
- Prioritize wetlands to determine if restoration is cost effective
- Work with local watershed district and state agencies to plan restoration of wetlands if found to be beneficial

#### Schedule and Costs:

Year 5, April – September: Gather existing wetland data and coordinate vegetation surveys on priority wetlands.

Cost = parks staff time

Year 5-6, September – March: Draft wetland restoration plan for sites to be beneficial and cost effective  
Cost = parks staff time

### Objective 5:

Coordinate with adjacent landowner and Ramsey county corrections department to promote habitat improvement on lands

### Tasks:

- Coordinate with Ramsey county corrections department to determine if restoration on park land can be continued onto corrections adjacent property
- Host an annual meeting with adjacent neighbors and general public to better connect people to the parkland and include the following topics:
  - Promote ecological awareness in an effort to expand restoration and the use of native plants on private lands
  - Talk with adjacent landowners to suggest control of non-native perennial plantings
  - Restoration and maintenance work update
- Send mailing update to neighbors on restoration work completed
- Coordinate with a minimum of two volunteers per year to complete observational surveys or invasive species removal within the unit

## Management Unit 10

### Unit Stats

Dominant land cover type: floodplain forest

Dominant soil type: silt loam

Dominant Terrain: flat

Marschner Presettlement Vegetation: Wet Prairie

Government recognition and protection status:

- The entire unit is within the state Mississippi River Corridor Critical Area Program and federal National Park Service, Mississippi National River and Recreation Area
- Regionally Significant Ecological Areas and Regional Ecological Corridors
- Scientific and Natural Area: Pigs Eye Island Heron Rookery Scientific and Natural Area
- MN Native plant Community
  - Sites of biodiversity significance, moderate and outstanding
  - FFs68a - Silver Maple - (Virginia Creeper) Floodplain Forest. Southern Floodplain Forest. 107.7 acres. Vulnerable to Extirpation
  - MRn93 - Northern Bulrush-Spikerush Marsh. Southern Floodplain Forest. 13.3 acres. Vulnerable to Extirpation
  - WFn55b - Black Ash - Yellow Birch - Red Maple - Basswood Swamp (Eastcentral). 11.7 acres Northern Wet Ash Swamp. Vulnerable to Extirpation

Community Structure and Quality: Medium

Management Priority: High

### Unit Description

This unit is the Pigs Eye segment of Battle Creek Regional Park and consists of an open water lake (Pigs Eye Lake) of around 628 acres, which is connected to Pool 2 of the Mississippi River. Since this lake is connected to the river, the water level can fluctuate, with an average maximum depth of around 4 feet. Historically, this water body was a shallower wetland with vegetation throughout. After the lock and dam system along the Mississippi River was installed in the 1930s the water level rose along with the river, making Pigs Eye Lake an open water shallow lake. The lake is recognized as a public water by the Minnesota Department of Natural Resources, but since the water body is connected to the Mississippi River, the United States Army Corp of Engineers has regulatory jurisdiction over the water body. Another surface water contributor to Pigs Eye Lake is Battle Creek, which discharges through a series of wetlands on the north side of the lake. The lake has the longest section of natural shoreline in the park system. The lake edge, where vegetation grows, is prime habitat for waterfowl, shoreline birds, raptors, amphibians, and reptiles. The substrate of the lake is a soft bottom throughout. Within the open lake area there is very little structure or submerged aquatic vegetation, due to the water clarity, which is less than one meter and high turbidity. The open lake produces wind-induced shoreline erosion and provides little to no habitat for waterfowl, native fish or other aquatic species in its current condition. In 2014, the United States Army Corps of Engineers began working with the Ramsey County Parks & Recreation department to discuss the construction of islands within the lake to address some of the environmental concerns. Since this time, the United States Army Corps of Engineers completed a feasibility study for constructing island habitat enhancements and a portion of the funding was secured through a habitat grant approved by the Lessard Sam's outdoor heritage council through the Clean Water Land and Legacy amendments Outdoor Heritage Fund. A construction and design plan were completed by the United States Army Corps of Engineers and the island construction will begin in 2021 with additional funding provided by Ramsey County. The project will enhance and restore backwater habitat by creating island and wetland features. Project features include six islands, sand benches, marsh habitat, and land plantings. These enhancements will improve aquatic and land habitat as well as maintaining the shoreline of Pigs Eye Lake. This project will utilize clean dredged material from the Mississippi to construct the islands, similar to the numerous islands the United States Army Corps of Engineers has constructed in river pools to the south of the metro.



The majority of the Pigs Eye Lake segment land cover consists of mixed woods located on a peninsula of land that separates the lake from the main channel of the Mississippi River. This peninsula of land is historically a floodplain forest, but is presently defined as a mixed woods with moderate biodiversity significance, within the Ramsey County Parks & Recreation department system plan, due to a number of invasive and tree species that have encroached into the area, such as buckthorn and boxelder, however, the woods consists of typical floodplain trees such as cottonwood, silver maple, green ash, willows, American elm, and some swamp white oak. The constant flooding of the area creates an open understory with few shrubs or saplings. Ground cover can consist of forest pools, mucky depressions, bare silt or sand, and dense patches of wood nettle (*Laportea canadensis*) or impatiens (*Impatiens capensis* or *I. pallida*), which can all constantly shift due to movement of water. The wetlands within the park consist of native vegetation, such as prairie cord grass, and various rushes and sedges. Invasive cattails and reed canary grass also dominate a lot of the wetland edges. The east side of the lake has some cattail wetlands and patches of lotus. The island in the south portion of the park is of great significance, outstanding biodiversity and is a state protected scientific natural area: Pigs Eye Island Heron Rookery Scientific and Natural Area. This island, around 137 acres, is a floodplain forest of green ash, silver maple, cottonwood, and black willow which provides excellent nesting habitat for colonial waterbirds. The Pigs Eye Lake Island rookery is the largest and longest-occupied site for colonial nesting birds in the metro area, and among the largest in the state.

Floodplain forest systems as large as the Pigs Eye Lake segment are rare within the metro and additional preservation and protection, especially for the designated Scientific and Natural Area, should be ongoing. The Pigs Eye Lake segment is also within the Mississippi River Corridor Critical Area, which shares the boundary with the Mississippi National River and Recreation Area. This section of park is subject to Mississippi River Corridor Critical Area regulations (State statute under Minnesota Rule 6106) which is in place to protect the unique natural and cultural resources and values within this corridor. The Pigs Eye Lake segment is included in the "National Great River Park" and is also defined as an Environmental Natural Area, within the Ramsey County Parks & Recreation department system plan, which warrants additional protection and preservation.

Surrounding land use has had historic and current environmental impacts in this area. The open space, owned by the city of Saint Paul, abutting the Pigs Eye Lake segment to the north, was historically the largest unpermitted dump site in the state and was listed as a federal superfund site. Past remediation efforts continued cleanup and monitoring is being completed by the Minnesota Pollution Control Agency. The Met Council wastewater treatment facility is located to the northeast of the site and land use practices, such as abandoned pond holdings, previously used for containing ash sludge, are on the edge of the parkland. To the east is commercial and industrial land use consisting of railroad yards and shipping docks. Barges are docked and line the channel to Pigs Eye Lake throughout the shipping season. Recreation within the unit is minimal because of limited to no access from land due to surrounding land use. Kayakers and other small boats use the lake.

The wildlife diversity of the park is very high and includes a variety of nesting songbirds, waterfowl, raptors, and wild turkeys. Larger mammals include white-tailed deer, coyotes, red fox, raccoons, and river otters. The Pigs Eye Lake segment of the park is especially unique and contains the heron rookery, nesting area for bald eagles, and habitat for countless amphibian, reptiles, migratory waterfowl, and shorebirds. Fish species within the lake consist of common native river fish, such as black bullheads, crappie, bluegill, catfish, sunfish, and freshwater drum. Invasive fauna species within the lake include zebra mussels and carp.

### Management Issues

Continued coordination with the United States Army Corps of Engineers is required to ensure the island building project will be successful. A native planting plan and implementation is required, beyond the current willow and grass base design, to ensure quality wildlife habitat following island build.

The extent of survey work being completed by State and local agencies is unknown. Internal park surveys of the Pigs Eye Lake segment are severely lacking and will need to be completed to gather more information about the current state of the area prior to any restoration work.

## The Plan

There is pressure for increased access and recreation within the Pigs Eye Lake segment.

Coordination and communication with surrounding land use owners is lacking and knowledge of development or restoration on adjacent lands is unknown.

The deer population can exceed the carry capacity of the land in this area.

### Management Objectives, Tasks, Schedule, and Cost

#### Objective 1:

Communicate with United States Army Corps of Engineers monthly to review status and receive updates of island building progress until islands are established.

#### Tasks:

- Review current design, budget and plan and discuss any changes
- List stakeholders to involve in developing native planting plan
- Engagement with stakeholders to develop and implement plan following island build.

#### Schedule and Costs:

2020 - 2024, Monthly: meet with United States Army Corps of Engineers

Cost = parks staff time

#### Objective 2:

Review existing survey data and determine and complete survey methods necessary to define the diversity level and habitat quality to guide resource decision making.

#### Tasks:

- Connect with agencies, such as the Minnesota Pollution Control Agency, Minnesota Department of Natural Resources, and National Park Service, to find most current survey information completed in the area.
- Coordinate with local and state agencies, such as the Minnesota Department of Natural Resources, to help determine sound survey methods for plant and animal data collection
- Surveys will focus on determining restoration needs for shoreline erosion, invasive plant species removal, and reforestation of floodplain tree species, such as cottonwood.
- Parks staff complete surveys if applicable or hire contractor to complete survey and draft restoration guide.

#### Schedule and Costs:

Year 1: Jan – March. Complete review of existing survey data and determine required surveys and methods to meet objective

Cost = parks staff time

Year 1: April – October, complete surveys of Pigs Eye Lake segment and draft guide  
Cost = contractor cost \$20,000.00

### Objective 3:

Ensure that this unit exists foremost as natural land for wildlife habitat and that all proposed recreation and development will have minimal impact on resources and avoid sensitive areas

#### Tasks:

- Coordinate with all stakeholders, primarily environmental groups and government agencies, to review any proposed development plans.
- While reviewing plans, the following should be considered at a minimum, but not limited to:
  - No development or recreation will be considered on or around the south portion of the island and peninsula. This area will remain protected for the protection of the scientific natural area heron rookery and follow all state rules.
  - Natural phenomena, such as hydric soils, areas prone to flooding, water features, and wetlands, make up most of the park and will dictate which recreational amenities should be planned for the area. These entities will not be altered for development.
  - List and follow all federal and state regulations, including, but not limited to wetlands will remain protected under the State and Federal Wetland Conservation Act, county recognized Environmental Protection zone, Mississippi River Corridor Critical Area rules, national park rules, etc.

#### Schedule and Costs:

Ongoing: as development is proposed.  
Cost = parks staff time

### Objective 4:

Build stronger relationships with surrounding land use representatives to promote the environmental preservation and improvement of the area.

#### Tasks:

- Connect with surrounding landowners (St. Paul Parks, Railroad personnel, Met Council staff) annually to share work being completed by the parks department and learn about tasks being completed on surrounding lands.
- Share natural resource survey data and promote the importance of preserving unique features in and around the park

#### Schedule and Costs:

Annually: ongoing  
Cost = parks staff time

## The Plan

### Objective 5:

Control deer population

#### Tasks:

- Complete annual survey of area
- Continue with annual special archery hunt
- Coordinate and contract sharp shooting removal service if population exceeds State standards

### Suburban Pond Management Unit 11

#### Unit Stats

Dominant land cover type: wetland

Dominant soil type: silty clay loam

Dominant Terrain: flat

Marschner Presettlement Vegetation: Oak openings and barrens

Government recognition and protection status: N/A

Community Structure and Quality: Low

Management Priority: Low

#### Unit Description

The Suburban Pond Management Unit consists of a large shallow open water wetland complex consisting of freshwater emergent and pond wetland types surrounded by upland consisting of mowed turf on the southwest corner and mixed woods on the east. Suburban pond was historically a shallow water wetland that started to be used as a stormwater collection pond when the area was developed in the 1960s. The watershed draining to the pond consists of dense impervious urban land use. The wetland complex is inundated with invasive vegetation, consisting of cattails on the fringe and highly dense stands of purple loosestrife. The upland areas were historically wider open with larger trees likely consisting of oaks. The mixed woods presently consist of boxelder, some oak trees with an understory dominated by buckthorn and other invasives.

#### Management issues

Complete survey information of vegetation types is lacking throughout the unit to give a clear assessment of restoration needs.

The invasive species are prominent throughout the entire unit. Buckthorn dominates the understory throughout the mixed woods area and aquatic invasive, such as narrowleaf cattail and purple loosestrife dominate the wetland area, providing little room for native species.

Encroachments, litter, and dumping are a constant problem within this unit. A lot of trash accumulates on the north side of the unit, which is adjacent to numerous commercial and fast food restaurants. Dumping is often found on the east side adjacent to the large apartment complex.

The mowed turf area provides no to little natural resource habitat and only benefit neighbors for recreational opportunities.



### Management Objectives, Tasks, Schedule, and Cost

#### Objective 1:

Complete vegetation surveys and map invasive species or other problems to create general restoration plan.

#### Tasks:

- Identify areas with highest vegetation quality and areas where exotic species are a problem. At a minimum, create the following:
  - Distribution map of exotic invasive species
  - Delineation of vegetation of highest quality
  - General land cover data update
- Draft restoration plan for unit that will detail invasive species removal and costs

#### Schedule and Costs:

Year 1: July – August, complete minimum surveys to capture the majority of invasive and native plant species.

Cost = parks staff time

Year 1: September – December, draft general restoration plan for unit

Cost = parks staff time

#### Objective 2:

Work with parks staff to develop encroachment, littering and dumping prevention plan specifically for this unit.

#### Tasks:

- Catalog consistent littering, areas of dumping, and encroachments.
- Staff meeting to discuss option for prevention
- Draft prevention plan or implement objectives

#### Schedule and Costs:

Year 1: April, complete catalog

Cost = parks staff time

Year 1: May -August, meet with staff and draft prevention plan

Cost = parks staff time

#### Objective 3:

Determine appropriate use of areas that are being mowed for turf and other recreational areas within unit and manage these areas appropriately moving forward.

#### Tasks:

- Determine maintenance requirements and cost for area

## The Plan

- Complete neighborhood and public outreach to determine wants and needs of current area.
- Draft plan on land cover type for current area, considering factors of recreation, habitat, and maintenance of area.

### Schedule and Costs:

Year 1: Jan -Feb, determine maintenance of current area

Cost = parks staff time

Year 1: March -May, collect public input

Cost = parks staff time

Year 1: June -July, draft plan

Cost = parks staff time

## Mississippi River Bluffs Management Unit 12

### Unit Stats

Dominant land cover type: mixed woods

Dominant soil type: loamy sand

Dominant Terrain: steep

Marschner Presettlement Vegetation: Wet Prairie

Government recognition and protection status:

- The entire unit is within the state Mississippi River Corridor Critical Area Program and federal National Park Service, Mississippi National River and Recreation Area

Community Structure and Quality: Medium

Management Priority: High

### Unit Description

The Mississippi River Bluffs unit consists of 18 parcels, totaling 19.55 acres, scattered along the bluff line east of Highway 61, stretching from Battle Creek Regional Park to just north of the Fish Creek segment, within the city of Saint Paul. This greater bluff line, including these parcels, is an extension of the bluff lands starting near downtown Saint Paul and following the river corridor through Ramsey County, southward and beyond. These bluff lands are an extension of those found in Battle Creek Regional Park and the Fish Creek segment, which historically were more wide open canopy oak savanna, existing as Southern Dry Savanna. These were fire dependent plant communities thriving along the bluff sides. Development surrounding the bluff lines, the lack of fire and minimal restoration efforts has transformed these parcels into woodlands consisting of a mix of less desirable species, such as boxelder, invasive such as Siberian elm, black locust, and a shrub layer dominated by buckthorn, surrounding large old growth oak trees growing throughout. These woodland areas provide habitat for numerous migratory birds along the Mississippi flyway and larger mammals, such as white-tailed deer, fox, and coyote that inhabit these parcels and similar habitat that exists on adjacent private and city park parcels.

### Management Issues

Plant and animal survey information for this entire unit is lacking.

Determine restoration required to convert lands to oak savanna.

Overpopulation of deer can set back the natural succession of native shrubs and trees by over browsing. This area has a consistent overpopulation problem.

Encroachments and dumping from abutting neighbors are major issues that are causing negative impacts to parkland

Education and outreach with neighbors and adjacent landowners can be increased to promote the preservation and protection of this area.

Coordination with landowners and other agencies is necessary to maintain the health of the overall bluff lands throughout the corridor

### Management Objectives, Tasks, Schedule, and Cost

#### Objective 1:

Complete observational surveys in each parcel to determine level of native and invasive plant species

#### Tasks:

- Complete baseline observational surveys of native and exotic species
- Create a distribution map of native and exotic invasive species

#### Schedule and Costs:

Year 1: May and July - August, complete minimum surveys to capture the majority of invasive and native plant species.

Cost = parks staff time

Year 1: September, Develop maps of survey information

Cost = parks staff time

#### Objective 2:

Complete assessment to determine benefit and cost of converting woodlands to a more open canopy savanna where appropriate

#### Tasks:

- Survey bluff land oak woods to identify locations ecologically and economically beneficial for conversion to savanna.
- Determine, with county forester, trees for removal within identified savanna locations
- Draft a plan detailing the specifications for savanna conversion using the Minnesota Department of Natural Resources native plant community guidelines: Southern Dry Savanna

#### Objective 3:

Control deer population to levels that protect native vegetation and allow woodland regeneration pursuant to the annual deer management plan.

#### Tasks:

- Complete annual population survey of area to determine reduction needs and methods

## The Plan

- Continue with annual special archery hunt to maintain population
- Coordinate and contract sharp shooting removal service if population exceeds State standards

### Schedule and Costs:

Annually: implement deer management plan

Cost = parks staff time

### Objective 4:

Work with parks staff to develop encroachment, littering and dumping prevention plan specifically for this unit, control encroachments, and improve public education.

### Tasks:

- Catalog consistent littering, areas of dumping, and encroachments.
- Reach out to neighbors encroaching on lands and have them stop and remove all Infractions.
- Staff meeting to discuss option for continued education and prevention of encroachments and draft plan to implement objectives
- Communicate importance of sensitive areas being impacted through social media outlets

### Schedule and Costs:

Year 1: April, complete inventory of encroachments, send letters to neighbors in regard to infractions

Cost = parks staff time

Year 1: May -August, meet with staff and draft prevention and education plan

Cost = parks staff time

### Objective 5:

Continue coordination efforts with other involved agencies for the enhancement and preservation of the river corridor

### Tasks:

- Continue to be involved with Mississippi River Corridor Critical Area Program.
- Continue restoration planning with guidance from the Minnesota Department of Natural Resources

Annually, ongoing:

Cost = parks staff time



## Fish Creek Management Unit 13

### Unit Stats

Dominant land cover type: oak woods

Dominant soil type: loamy sand

Dominant Terrain: steep

Marschner Presettlement Vegetation: Big Woods - Hardwoods (oak, maple, basswood, hickory)

Government recognition and protection status:

- The entire unit is within the state Mississippi River Corridor Critical Area Program and federal National Park Service, Mississippi National River and Recreation Area
- Regionally Significant Ecological Areas and Regional Ecological Corridors
- MN Native plant Community
  - Sites of biodiversity significance, moderate
  - FDs37a - Oak - (Red Maple) Woodland

Community Structure and Quality: High

Management Priority: High

### Unit Description

This Management Unit of the park is dominated by oak woodlands along steep bluff sides, which are an extension of those that exist along Battle Creek and within the Mississippi River Bluffs segment of the park. Mature oak trees dominate the unit with more red oak growing in the flatter area south on site and white oak and bur oak along the steeper hillsides. There is a mix of other tree species throughout, consisting of maple, cherry, boxelder and ironwood on north facing slopes. Oak wilt persists throughout the site, especially affecting the red oak stands in the southern portion of this unit. North of the creek, oak trees dominate on the slopes and quaking aspen and large tooth aspen stands exist on the plateaus overlooking the creek. The understory is dominated by invasive buckthorn with very sparse native shrub and herbaceous growth on the south and west side of this unit. Garlic mustard is dense throughout the site and Japanese hedge parsley is scattered throughout, mostly existing along the creek corridor. Throughout the creek corridor and north of the creek, consists of the most diverse and abundant native herbaceous layer consists of all types of native ferns and numerous flowers such as ginger and bloodroot, predominately on north facing slopes. Native grasses and wildflowers exist along the creek corridor as well. In the years 2015 – 2018 a restoration project was completed throughout the woodlands in Management Unit 1. This project included removal of 90% of the buckthorn on site. Since this time the buckthorn regeneration has been aggressive and very dense. Foliar treatment of the site was completed unsuccessfully in 2018 and 2019. A treatment will occur again in the fall of 2020 in an effort to control the buckthorn regeneration. Two attempts to complete prescribed burns though the woodlands has occurred since the initial removal of buckthorn. A very small percentage of the woodlands was burned, mainly because of lack of fuel and weather conditions. Historically, this unit consisted of a fire dependent more open canopy system, especially along the western facing slopes, dominated by oaks. Mature forests of this type with large canopy trees are rare in the metro region and warrant further restoration and preservation. There are numerous unofficial foot trails that exist throughout this unit and a portion of the official paved trail that dips into this unit from the city owned property. Some of the unofficial trails are well established and could be converted to established turf trails, these consist of: a loop through the south woodlands, a trail that extends along the south side of the creek and transcends south east to the paved trail, this lies atop a service road that was created for the watershed district to be able to access creek infrastructure. There are several trails on the north side of the creek and within the corridor that have erosion issues. The wildlife diversity of the park is very high and includes a variety of nesting songbirds, waterfowl, raptors, and wild turkeys. Larger mammals include white-tailed deer, coyotes, red fox, raccoons, and river otters.

# The Plan

## Management Issues

Continued management of woodlands following initial restoration will be extensive and costly until regeneration of native vegetation is dominant and prescribed burns can be utilized for increased management.

Oak wilt occurs in much of the woodlands, but the extent is unknown. A forest management plan for restoration and oak wilt remediation does not exist.

Overpopulation of deer can set back the natural succession of native shrubs and trees by over browsing.

Recreation of area should not expand beyond what currently exists.

## Management Objectives, Tasks, Schedule, and Cost

### Objective 1:

Draft a three-year maintenance plan for continued restoration efforts of oak woodlands that will include tasks and projected costs for maintenance and establishment of oaks and native understory. Implement plan and revise after three years, using the Minnesota Department of Natural Resources Southern Dry-Mesic Oak (Maple) Woodland vegetation structure and composition as a guide for establishing native vegetation.

### Tasks:

- Draft a three-year maintenance plan detailing the specifications for maintenance needs
- Secure funding for three-year plan through state grant program or county funds and hire contractor to complete ongoing maintenance on a three-year contract. At a minimum include all listed below.
- Continue maintenance by achieving a measurable reduction in buckthorn of 80% or more in restored areas. Tools will include foliar spraying and prescribed burns.
- Increase diversity among the native shrub and herbaceous ground layer in the woodlands to allow for successful prescribed burns throughout 70% of the woodlands. Follow Minnesota Department of Natural Resources plant community guide for percent and types of vegetation to establish
- Foliar spray emerging buckthorn every fall following initial restoration for three years. Assess continued volume and timeline of foliar spraying following three-year mark.
- Assess the need for an oak woodland burn after initial restoration. If woodland burn will be beneficial in setting back exotics and promoting native growth, complete burn in fuel rich areas every 3 to 5 years following initial restoration.
- If there is limited native regeneration of herbs, shrubs and trees, observed after one season growth following restoration complete the following:
  - Increase diversity in the native herbaceous ground layer plants by casting an appropriate native seed mix in the spring or following a prescribed burn.
  - Obtain shrub saplings from Minnesota Department of Natural Resources forestry or other reliable source and plant throughout the unit at a rate that will meet the percent cover listed in native plant community fact sheet.
  - Achieve observable regeneration of oaks by planting saplings throughout the project site as specified in the objective. Stagger the years of planting oak saplings to prevent oak wilt transfer by differing age classes.

### Schedule and Costs:

Year 1 July- August: Draft maintenance plan and hire contractor

Cost = park staff time

Year 2 - 3 October: maintenance to be completed

Cost =

Year 4 – 6 spring or fall, planting of native seed, shrubs and oak trees

Cost = TBD

### Objective 2:

Work with forester to map current oak wilt and develop an oak wilt management plan for this unit

#### Tasks:

- Survey the woodlands and GPS polygon boundaries around active oak wilt sites
- Survey for natural regeneration and determine if oak tree planting is required
- Draft plan including: sites, access, management methods and costs

### Schedule and Costs:

Year 4: July – Sept, map oak wilt, survey for natural regeneration

Cost = parks staff time

Year 4: October – December, draft oak wilt management plan

Cost = parks staff time

### Objective 3:

Control deer population to levels that protect native vegetation and allow woodland regeneration pursuant to the annual deer management plan.

#### Tasks:

- Complete annual population survey of area to determine reduction needs and methods
- Continue with annual special archery hunt to maintain population
- Coordinate and contract sharp shooting removal service if population exceeds State standards

### Schedule and Costs:

Annually: implement deer management plan

Cost = parks staff time

## The Plan

### Objective 4:

Ensure the long-term preservation of this unit, especially sensitive native plant communities.

### Tasks:

- No development within the designated native plant communities beyond approved unpaved trails
- Identify and remove rogue trails causing erosion or negative impact
- Additional recreation uses, park features, and trails should be assessed to determine environmental impact prior to implementation.
- A public engagement process of park amenities should involve environmental groups

### Schedule and Costs:

Year 1 October - November: identify rogue trails

Year 2. April – May: reestablish rogue trails, revegetate and regrade

Cost = parks staff time, conservation corp for trail establishment. \$3000.00 for vegetation materials.

## Fish Creek Management Unit 14

### Unit Stats

Dominant land cover type: Maple / basswood mesic woods

Dominant soil type: loamy sand

Dominant Terrain: steep

Marschner Presettlement Vegetation: Big Woods - Hardwoods (oak, maple, basswood, hickory)

Government recognition and protection status:

- The entire unit is within the state Mississippi River Corridor Critical Area Program and federal National Park Service, Mississippi National River and Recreation Area
- Regionally Significant Ecological Areas and Regional Ecological Corridors
- MN Native plant Community
  - Sites of biodiversity significance, moderate
  - FDs37a - Oak - (Red Maple) Woodland

Community Structure and Quality: High

Management Priority: High

### Unit Description

This Management Unit consists of steep hillsides encompassing the Fish Creek segment of the park. The land cover on the south side of the creek is north facing slopes of mesic woods consisting of maple, basswood, ironwood, and some oaks. Ferns dominate the understory. Given the aspect there is minimal invasive buckthorn growing in this area. On the north side of the creek is a south facing slope that is mostly shaded because of the steepness of the adjacent slopes. The tree cover consists of maple, basswood and oaks, with more mixed woods, including ash and aspen near the top and plateau areas. The understory is thicker consisting of more shrubs and ground cover than the south side of the creek. The present and historic canopy cover is similar at around 80-100%. Buckthorn is more dominant on the south facing slope, especially near the top of the slope and in areas where it plateaus. Given the steepness and aspect of this section there has been minimal need and accessibility issues to remove invasives along the steep hillsides. Buckthorn removal in areas that are accessible was completed under the same project completed in Management Unit 1 around 2015. Areas like this consisting of steep terrain, dominated mostly by native vegetation, are very unique in the metro and warrant further preservation.

### Management Issues

A complete inventory of area is lacking

The area is steep, creating difficulty to access invasive species for removal

Recreation within this area should be prohibited to protect the steep hillsides

### Management Objectives, Tasks, Schedule, and Cost

#### Objective 1:

Complete observational surveys in throughout unit to determine level of native and invasive plant species

#### Tasks:

- Complete baseline observational surveys of native and exotic species
- Create a distribution map of native and exotic invasive species

#### Schedule and Costs:

Year 1: May and July - August, complete minimum surveys to capture the majority of invasive and native plant species.

Cost = parks staff time

Year 1: September, Develop maps of survey information

Cost = parks staff time

#### Objective 2:

Draft a three-year maintenance plan in conjunction with Management Unit 1 maintenance plan, Objective 1, to include tasks and projected costs for control of invasive species in accessible areas.

#### Tasks:

- Include Management Unit 2 within Management Unit 1 maintenance plan tasks listed under Objective 1

#### Schedule and Costs:

Follow schedule and costs listed under Management Unit 1, Objective 1

#### Objective 3:

Limit recreational use of this unit

#### Tasks:

- Review the need for steep hillsides along the creek within Management Unit 1 and 2 to be defined as county Environmental Natural Areas.



## The Plan

### Schedule and Costs:

Year 1: May and July - August, while completing surveys of area, define boundaries for environmental natural areas designation.

Year 1: September, Develop maps of survey information

Cost = parks staff time

### Fish Creek Management Unit 15

#### Unit Stats

Dominant land cover type: mixed woods

Dominant soil type: loamy sand

Dominant Terrain: rolling hills

Marschner Presettlement Vegetation: Big Woods - Hardwoods (oak, maple, basswood, hickory)

Government recognition and protection status: N/A

Community Structure and Quality: low

Management Priority: Medium

#### Unit Description

This unit consists of rolling hills surrounding the Fish Creek segment of the park. Due to the gradual grade, the creek moves slower throughout this unit as compared to Management Unit 1 and 2. The land cover is 80%-100% tree cover of mixed woods, including aspen, boxelder, and ash. Historically this unit was completely cleared, as seen in 1940 aerial photos, and was used for farming up to the creek edge. Invasive species dominate the understory and include mainly buckthorn and honey suckle, along with invasive tree species such as black locust and Siberian elm. White-tailed deer and other mammals, such as coyote and fox are prominent throughout the landscape. This area is also essential for woodland birds use. Recreation within the area is limited. There are very little to no walking trails and no parking access exists.

#### Management Issues

The extent of native and exotic plant communities is not well defined throughout the Management Unit.

#### Management Objectives, Tasks, Schedule, and Cost

##### Objective 1:

Complete observational surveys in throughout unit to determine level of native and invasive plant species so that management decisions can be defined.

##### Tasks:

- Complete baseline observational surveys of native and exotic species
- Create a distribution map of native and exotic invasive species

##### Schedule and Costs:

Year 1: May and July - August, complete minimum surveys to capture the majority of invasive and native plant species.

Cost = parks staff time

Year 1: September, Develop maps of survey information  
Cost = parks staff time

### Fish Creek Management Unit 16

#### Unit Stats

Dominant land cover type: mixed woods

Dominant soil type: loamy sand

Dominant Terrain: rolling hills

Marschner Presettlement Vegetation: Big Woods - Hardwoods (oak, maple, basswood, hickory)

Government recognition and protection status: N/A

Community Structure and Quality: Medium

Management Priority: High

#### Unit Description

In this Management Unit Fish Creek runs through a wetland complex consisting of freshwater emergent and freshwater pond wetlands. The land to the north of the creek is flat and consist of brome and reed canary grass. This area is often too wet for trees to establish and was historically farmed up the wetland edge. There are some mixed woods on the north side of the open brome field area. South of the creek is rolling hills dominated by oak woods and a small section of lowland forest surrounding the creek in the southeast corner of the site. The oaks woods also contain cherry, ash, and ironwood, amongst other hardwoods. Historically, the woodland canopy was wider open with mature oaks and fewer other species that are growing today. This hillside is predominantly north facing aspect, which prevents invasive buckthorn from becoming dense within the understory. Buckthorn is more dominant on the few western facing aspects. Oak woodlands, like contained in this unit, are rare in the metro and warrant further preservation. Recreation within the area is limited. There are very little to no walking trails and no parking access exists. White-tailed deer and other mammals, such as coyote and fox are prominent throughout the landscape. This area is also essential for woodland birds use.

#### Management Issues

The extent of native and exotic plant communities is not well defined throughout the unit.

Recreation of area should not expand beyond what currently exists.

In the past surrounding neighbors use all-terrain vehicles in this area

#### Management Objectives, Tasks, Schedule, and Cost

##### Objective 1:

Complete observational surveys in throughout unit to determine level of native and invasive plant species so that management decisions can be defined.

##### Tasks:

- Complete baseline observational surveys of native and exotic species
- Create a distribution map of native and exotic invasive species

## The Plan

### Schedule and Costs:

Year 1: May and July - August, complete minimum surveys to capture the majority of invasive and native plant species.

Cost = parks staff time

Year 1: September, Develop maps of survey information

Cost = parks staff time

### Objective 2:

Limit recreational use of this unit and ensure the long-term preservation of this unit, especially sensitive native plant communities

### Tasks:

- No development within the designated oak woodland communities beyond approved unpaved trails
- Additional recreation uses, park features, and trails should be assessed to determine environmental impact prior to implementation.
- A public engagement process of park amenities should involve environmental groups

### Schedule and Costs:

As recreation is proposed

### Objective 3:

Work with parks staff to develop encroachment and park misuse prevention plan specifically for this unit, control encroachments and improve public education.

### Tasks:

- Catalog consistent littering, areas of dumping, and encroachments and misuse of parkland.
- Share park rules with surrounding neighbors
- Staff meeting to discuss option for continued education and prevention of encroachments and draft plan to implement objectives
- Communicate importance of sensitive areas being impacted through social media outlets

### Schedule and Costs:

Year 1: April, complete inventory of encroachments and misuse and send letters to neighbors in regard to infractions

Cost = parks staff time

Year 1: May -August, meet with staff and draft prevention and education plan

Cost = parks staff time

## Fish Creek Management Unit 17

### Unit Stats

Dominant land cover type: oak woods

Dominant soil type: loamy sand

Dominant Terrain: rolling hills

Marschner Presettlement Vegetation: Big Woods - Hardwoods (oak, maple, basswood, hickory)

Government recognition and protection status: N/A

Community Structure and Quality: Medium

Management Priority: High

### Unit Description

In this Management Unit Fish Creek runs through a wetland complex consisting of freshwater emergent and freshwater pond wetlands. The land to the north of the creek is flat and consist of brome and reed canary grass. This area is often too wet for trees to establish and was historically farmed up the wetland edge. There are some mixed woods on the north side of the open brome field area. South of the creek is rolling hills dominated by oak woods and a small section of lowland forest surrounding the creek in the southeast corner of the site. The oaks woods also contain cherry, ash, and ironwood, amongst other hardwoods. Historically, the woodland canopy was wider open with mature oaks and fewer other species that are growing today. This hillside is predominantly north facing aspect, which prevents invasive buckthorn from becoming dense within the understory. Buckthorn is more dominant on the few western facing aspects. Oak woodlands, like those contained in this Managemetn Unit, are rare in the metro and warrant further preservation. Recreation within the area is limited. There are very little to no walking trails and no parking access exists. White-tailed deer and other mammals, such as coyote and fox are prominent throughout the landscape. This area is also essential for woodland birds use.

### Management Issues

The extent of native and exotic plant communities is not well defined throughout the unit.

Recreation of area should not expand beyond what currently exists.

In the past surrounding neighbors use all-terrain vehicles in this area

### Management Objectives, Tasks, Schedule, and Cost

#### Objective 1:

Complete observational surveys in throughout unit to determine level of native and invasive plant species so that management decisions can be defined.

#### Tasks:

- Complete baseline observational surveys of native and exotic species
- Create a distribution map of native and exotic invasive species

#### Schedule and Costs:

Year 1: May and July - August, complete minimum surveys to capture the majority of invasive and native plant species.

Cost = parks staff time

## The Plan

Year 1: September, Develop maps of survey information

Cost = parks staff time

Objective 2:

Limit recreational use of this unit and ensure the long-term preservation of this unit, especially sensitive native plant communities

Tasks:

- No development within the designated oak woodland communities beyond approved unpaved trails
- Additional recreation uses, park features, trails should be assessed to determine environmental impact prior to implementation.
- A public engagement process of park amenities should involve environmental groups

Schedule and Costs:

As recreation is proposed

Objective 3:

Work with parks staff to develop encroachment and park misuse prevention plan specifically for this Management Unit, control encroachments, and improve public education.

Tasks:

- Catalog consistent littering, areas of dumping, encroachments, and misuse of parkland
- Share park rules with surrounding neighbors
- Staff meeting to discuss option for continued education and prevention of encroachments and draft plan to implement objectives
- Communicate importance of sensitive areas being impacted through social media outlets

Schedule and Costs:

Year 1: April, complete inventory of encroachments and misuse and send letters to neighbors in regard to infractions

Cost = parks staff time

Year 1: May -August, meet with staff and draft prevention and education plan

Cost = parks staff time



## Fish Creek Management Unit 18

### Unit Stats

Dominant land cover type: Prairie

Dominant soil type: sandy loam

Dominant Terrain: rolling hills

Marschner Presettlement Vegetation: Big Woods - Hardwoods (oak, maple, basswood, hickory)

Government recognition and protection status:

- The entire unit is within the state Mississippi River Corridor Critical Area Program and federal National Park Service, Mississippi National River and Recreation Area

Community Structure and Quality: Medium

Management Priority: Medium

### Unit Description

The land in this Management Unit was historically homesteads and farm fields until the early 2000s. In 2013, this Fish Creek natural area was purchased by the city of Maplewood, through assistance from numerous partners. Recently after the purchase the city converted the open fields to native prairie of mostly mesic and dry short grass prairie mix. There were some remnant prairie grasses on site along hillsides that were to steep for farming. These consisted of porcupine grass and mostly little bluestem. There are also mixed woods of boxelder, cottonwood, aspen, ash, and some oak that run through the middle of the site. The management of the land is currently overseen by the city, however, the city partners closely with the Ramsey County Parks & Recreation department to manage the prairie and surrounding woodlands together. Currently there are multiple oak tree research plots throughout the prairie area that are being overseen by various university researchers. This area sees the most recreation throughout the Fish Creek open space, as there is a paved trail loop and small parking area within the unit.

### Management Issues

- Partnership between city and county should continue and be strengthened
- Prairie is continued to be encroached by herbaceous and woody invasive vegetation
- Passive recreation use should continue throughout unit

### Management Objectives, Tasks, Schedule, and Cost

#### Objective 1:

City and county staff meet annually, prior to growing season, to discuss site plans for the year.

#### Tasks:

- Discuss annual restoration and maintenance items and how these could be combined over the landscape to save money
- Share volunteer opportunities on site
- Discuss education and outreach opportunities

## The Plan

### Schedule and Costs:

Annually: April, staff meeting

Cost = parks staff time

### Objective 2:

City will continue to maintain prairies on city land. Maintenance should ensure establishment and success of established native prairie by eliminating 90% or more of invasive found within 3 years and maintain this level annually

### Tasks:

- Inventory and map invasives encroaching in and on edges of prairies.
- Use contractor to treat and remove invasives from prairies
- Complete prescribed burns every 3 to 5 years

### Schedule and Costs:

Year 1, mid to late July: survey inventory info

Cost = parks staff time

Year 1-3: seasonal, maintenance to remove invasives

Cost = contractor cost \$4,000

Every 3 to 5 years, spring. Complete prescribed burn of prairies

Cost = contractor cost \$10,000

### Objective 3:

Complete thorough environmental review and preserve sensitive areas when considering any development in this area.

### Tasks:

- Coordinate with planning staff to determine locations and level of development acceptable within unit.
- Continue current types of passive recreation uses to avoid impact of natural resources.

### Schedule and Costs:

Ongoing as development is proposed

Cost = parks staff time

## Fish Creek Management Unit 19

### Unit Stats

Dominant land cover type: wet meadow

Dominant soil type: loamy sand

Dominant Terrain: flat

Marschner Presettlement Vegetation: Big Woods - Hardwoods (oak, maple, basswood, hickory)

Government recognition and protection status:

- The entire unit is within the state Mississippi River Corridor Critical Area Program and federal National Park Service, Mississippi National River and Recreation Area

Community Structure and Quality: low

Management Priority: Low

### Unit Description

This area consists of wetlands surrounded by low lying brome/reed canary grass dominated fields and a small area of mixed woodlands in the northeast corner. The wetlands are classified as freshwater emergent wetlands. The vegetation within and around the wetlands is dominated by invasive, cattails, reed canary grass, and purple loosestrife. The city of Maplewood currently owns this parcel. Archaeological digs occurred in the southern section of this parcel, closer to the creek and artifacts were discovered. The majority of the site, with the exception of the immediate wetland areas, was historically cleared and farmed in the early 1900s.

### Management Issues

The extent of native and exotic plant communities is not well defined throughout the unit.

### Management Objectives, Tasks, Schedule, and Cost

#### Objective 1:

Complete observational surveys in throughout unit to determine level of native and invasive plant species so that management decisions can be defined.

#### Tasks:

- Complete baseline observational surveys of native and exotic species
- Create a distribution map of native and exotic invasive species

#### Schedule and Costs:

Year 1: May and July - August, complete minimum surveys to capture the majority of invasive and native plant species.

Cost = parks staff time

Year 1: September, Develop maps of survey information

Cost = parks staff time

### PUBLIC SERVICES

New public services may be needed to accommodate the history/nature/recreation center dependent upon the final location of the development. It is anticipated that additional development within existing trailhead sites and for the history/nature/recreation center will require new services for gas, water, sanitary sewer, and for communications. Once the history/nature/recreation center is established and visitor use increases, intersections and road will need to be reviewed regularly to determine whether intersection or road improvements are necessary to accommodate traffic volumes and preserve motorized and non-motorized transportation safety.

### ACCESSIBILITY

The Ramsey County park system was originally designed for vehicular access. Ramsey County is still vehicle oriented, but public transportation options have expanded, and bicycling has grown in popularity. The All Abilities Transportation Program will lead to a more accessible transportation network. Since parks and recreation facilities and services contribute to public health, economic accessibility will remain an important consideration. Parks and trails are generally free of charge, while other department recreation options, such as golf and arena use, are fee-based.

Ramsey County Parks & Recreation is committed to providing universal accessibility at all park and trail facilities. Ramsey County is part of the Ramsey County Active Living Communities partnership which works to bring about and sustain changes in design, transportation, and public/private policies to cultivate and support a way of life that makes physical activity in our neighborhoods and communities safer and easier. Ramsey County uses the following to assess and implement these changes:

#### ADA Transition & Implementation Plan

The department is implementing a plan to bring its sites and facilities into compliance with the requirements of Title II of the Americans with Disabilities Act of 1990, and updated 2010 standards.

#### Ramsey County Pedestrian & Bicycle Plan

The Ramsey County Pedestrian & Bicycle Plan, developed through a collaboration between Active Living Ramsey Communities, Parks & Recreation, and other county departments, municipalities, state agencies, residents, and other organizations, establishes a vision and strategy for providing safe and comfortable facilities for pedestrians and bicyclists throughout the county.

#### All Abilities Transportation Network

The all abilities Transportation Network unifies regional transportation efforts under a shared vision and implementation strategy to realize an integrated and fully interconnected multi-modal transportation system providing safety, health, mobility, and connectivity for residents of all abilities.

### CONFLICTS

Adjacent land uses of Battle Creek Regional Park are overwhelmingly residential and commercial near the Battle Creek, Fish Creek, and Mississippi River Bluffs segments of the park. The Pigs Eye segment of the park is surrounded by park space, industrial, and public services. Bisecting the two sites is Highway 61 and a major railroad corridor. Due to the surrounding uses Pigs Eye Lake is largely cut off from the surrounding community.

The Battle Creek segment of the regional park has numerous points of conflicts that arise from the segmented nature of the park causing community members to have to cross busy roads and intersections to enter the park if they are not traveling by vehicle. Along with the recommendations made in this plan, Ramsey County should continue to monitor traffic in order to adapt.

Crossing the railroad and Highway 61 corridor for one or more pedestrian access points into the Pigs Eye Lake segment of the park will be a challenge. Ramsey County, the surrounding community and other shareholders need to continually engage the railroad and the Minnesota Department of Transportation to move the conversation along in order to secure the proper rights and easements to make a crossing(s) a possibility. Ramsey County shall continue to engage and plan for these pedestrian access points.

Land use surrounding Pigs Eye Lake will also make accessing the surrounding land and establishing trailheads difficult. On the north end of the lake Saint Paul and The Metropolitan Wastewater Treatment Plant border property owned by Ramsey County. Access through the Land owned by Saint Paul causes any future infrastructure to disturb the Pigs Eye Dump, while any access through the treatment plant is also difficult due to the plant being a secure site. On the south end of the lake the Saint Paul Port Authority operates the Red Rock Terminal. This terminal is a very busy port with trucks, barges, and rail cars constantly entering and exiting. At times vehicles can be trapped by rail cars for up to an hour. Accessing and utilizing the public land surrounding the terminal will require further planning for any type of trailhead to be established at this site.

Ramsey County heard through engagement concerns raised by members of the public about the island building project in Pigs Eye Lake, including concerns that the dredge materials could contaminate the lake further. Please see the Pigs Eye Lake Master Plan Amendment for public engagement results and Ramsey County's preferred vision for the island building project.

Proposed development, access points and recreational amenities within the Pigs Eye Lake segment of the park were developed based upon public input and prior planning efforts. Ramsey County acknowledges that issues including environmental clean up, public safety, and compatibility of recreational use with surrounding land use must be resolved before any new visitor access or recreational amenities can be provided.



# Implementation



## PHASING AND PRIORITIES

Implementation of proposed improvements is anticipated to take place in several phases for completion and will likely require alternate sources of funding from partners depending on the development project. Improvements are planned within a high, medium, low, and long-term priority to implement over time and better plan for the long-term capital improvement funding. Depending on the project need and/or demand, there may be a need to shift projects into different priority levels.

### High Priority Items

High priority items will focus on projects that have been identified as high need, or focused on improving safety, or are currently funded, or projects in process.

#### Battle Creek Segment

- Winter Recreation Area development: Ramsey County has secured funding to begin improving cross country ski facilities in the Winter Recreation Area.
- Battle Creek Recreation/Nature Center redevelopment including community engagement and planning for the exact location, size, amenities, and other needs of the building.
- Programming: Ramsey County should identify park programming and begin implementation of more in park activities for community members.
- Wayfinding and park entrance signage to be standardized, with signage directed at community access points as well as vehicular entrances.
- The erosion occurring from pedestrian traffic leading from the multi-use trail to the bluff prairie in the Battle Creek and Bluffs Corridor should be stabilized.
- The natural surface hiking/walking trail and entrance from Afton Heights Park to be restored with wayfinding signage appropriately placed at the entrance.
- Acquisition of 527 Battle Creek Road inholding so that planning for the Bluff Top Trailhead can begin to increase park access

## Implementation

- Learning Trail Corridor and signage/outdoor spaces should be programmed and installed along with cooperation from community members, stakeholders, Indigenous community members, and the local schools (Carver Elementary and Battle Creek Middle School)
- Continue to engage the Minnesota Department of Natural Resources Fishing in the Neighborhood program to begin family centered fishing opportunities in Battle Creek Regional Park
- Waterworks study to inform the future use and amenities of the water park
- Significant maintenance or redevelopment of waterworks

### Fish Creek Segment

- Learning stations and outdoor classrooms should be prioritized in this segment of the park

### Pigs Eye Lake Segment

- Island building project in coordination with the Army Corps of Engineers (see Pigs Eye Lake Master Plan Amendment)

## Medium Priority Items

Medium priority items will focus on important projects that have need but should not be a priority until higher priority items are completed.

### Battle Creek Segment

- Trail Development: continue to work towards the build-out of the trail system, wayfinding signage, trail improvements, and invasive species control measures already in place.
- Improvements of pedestrian and community access points: wayfinding signage should continue to be improved at community and pedestrian access points along with roadway crossing improvements.
- Staging and skills development areas for cross country-skiing and off-road cycling
- Trail development encircling and connecting the Suburban Pond area of the park to the rest of the Battle Creek Trail system
- Access Trail and associated amenities connecting Battle Creek Middle School with the multi-use trail and learning corridor.
- Educational programming and community education surrounding Battle Creek and local water resources.
- Trailhead improvements at existing trailheads

### Fish Creek Segment

- Natural surface walking and hiking trail development
- Engage with Maplewood for acquisition of property for incorporation into Battle Creek Regional Park.

## Implementation

### Low Priority Items

Low priority items will focus on projects that do have need, but increased demand, use, or environmental planning may be required prior to implementation.

#### Battle Creek Segment

- Existing trailhead redevelopment
- Suburban Pond trailhead development
- Bluff Top trailhead development
- Battle Creek Road closure and/or trail connectivity improvements
- Grade separated crossings at Burlington Road, Lower Afton Road, and Ruth Street
- New community access point along Lower Afton Road

#### Fish Creek Segment

- Trailhead development at the intersection of Carver Avenue and Henry Lane
- Trailhead redevelopment at terminus of Henry Lane
- Trailhead/access point development along Point Douglas Road

#### Mississippi River Bluffs Segment

- Planning for future site amenities, recreational facilities, and bluff preservation
- Implementation of planned items as land is acquired

#### Pigs Eye Lake Segment

- Planning and Development for the Pigs Eye Lake segment along with partnering agencies, stakeholders, and community members in accordance with the Pigs Eye Lake Master Plan

## IMPLEMENTATION COST ESTIMATE

## Master Plan Implementation Cost Estimate

Activity	Cost
Pigs Eye Access & Development Studies	\$300,000
Regional Development Studies	\$300,000
Multi-Season Trailhead and/or Nature Center Study	\$300,000
Waterworks Improvement or Redevelopment Study	\$200,000
Suburban Pont Trailhead and Recreational Amenities	\$2,500,000
Upper Afton Road Active Recreation Area Trailhead Redevelopment	\$2,000,000
Upper Afton Road Active Recreation Area Trailhead Redevelopment	\$1,000,000
Lower Afton Road Off-Leash Dog Area Trailhead Redevelopment	\$1,000,000
Park Entrance Road Trailhead Redevelopment	\$1,500,000
Bluff Top Trailhead Development	\$1,750,000
Fish Creek Trailhead at along Carver Avenue Development	\$2,000,000
Fish Creek Trailhead Redevelopment	\$2,000,000
Park Access Improvements	\$2,550,000
Burlington Road Access Study	\$150,000
Ruth Street & Upper Afton Road Underpasses	\$2,500,000
Learning Trail Corridor Study	\$200,000
Fishing Access and Programming	\$500,000
Cross Country Skiing Staging Area & Winter Recreation Area Development Study	\$1,000,000
Off-Road Cycling Skills Area, Site Amenities, and Wayfinding/Signage	\$1,100,000
Off-Road Cycling and Hiking Trail Development	\$250,000
Off-Leash Dog Area Improvements	\$500,000
Picnic Area Development & Site Amenities	\$1,000,000
Wayfinding Rules & Trail Signage	\$1,000,000
New Bituminous Trail Development	\$400,000
Indigenous Peoples Cultural and Historical Study	\$300,000
<b>Total Budget</b>	<b>\$38,300,000</b>

## Implementation

### OPERATIONS

Operations and maintenance of the regional park will be the responsibility of the Ramsey County Parks & Recreation department. Operations and maintenance services will be provided at a level that is appropriate for the designated use and consistent with proposed development. The level of services will be directly influenced by demand, type use, budget limitations, and the county's operation and maintenance policies. Funding for regional park maintenance and operation is appropriated from county tax revenue, supplemented by state appropriation for Regional Parks Operation and Maintenance Funding.

#### Annual Operations & Maintenance Costs Estimate

Activity	Cost
Bathrooms Facilities Maintenance and Cleaning	\$25,000
Trash and Recycling Collection	\$21,000
Spring Cleanup	\$10,000
Mowing and Turf Maintenance	\$30,000
Brush Cutting and Tree Trimming	\$20,000
Parking Lot Maintenance	\$25,000
Amenities (Benches, Signs, Picnic Tables, Etc.) Maintenance	\$17,000
Snow Removal	\$20,000
Paved Trail Maintenance	\$10,000
Recreation & Nature Center Maintenance	\$20,000
Snow Making and Grooming *	\$50,000
Recreation & Nature Center Staff	\$300,000
Waterworks Maintenance	\$50,000
Waterworks Staff	\$150,000
Total Annual Operating Budget	\$748,000

#### Operating Hours

Park and trail operating hours are defined within the Ramsey County Parks & Recreation Ordinance. Currently, regional parks and trails have general operating hours from 1/2 hour before sunrise to 1/2 hour after sunset. Operating hours may vary at high-use areas dependent on the recreation program and/or park use. It is anticipated that operating hours will change in the future to designated hours for consistency with other local and regional park systems and seasonal use.



### Ordinances

Public use and enjoyment of the county park system is controlled by “An Ordinance for the Control and Management of Park, Recreation and Open Space Areas and Facilities under the Jurisdiction of the Ramsey County Board of Commissioners.” This ordinance, adopted in 1992 and amended in 2007, will govern the conduct of the public during the use of the regional park, its facilities, and resources. The ordinance, provided in the Appendix, incorporates pertinent Minnesota statutes and includes the following sections:

- Purpose/Definitions
- Regulations of Public Use
- General Conduct
- Regulation of Recreation Activity
- Regulation of Motorized Vehicles, Traffic, and Parking
- Enforcement
- Miscellaneous
- Effective Date

### Operations and Maintenance Cost

Operations and maintenance costs are based on a combination of past practice, work done in other park systems, and expert opinion. Operations and maintenance cost may require additional evaluation after implementation of new infrastructure. Operations and maintenance costs may vary from year to year depending on economic, climatic, development, and demand of infrastructure, as many variables can influence the actual cost of operation and maintenance.

### Enforcement and Safety

The Ramsey County Parks & Recreation Department, in conjunction with the Ramsey County Sheriff’s Department, will educate and direct the public in appropriate use, provide ordinance enforcement, assist with first aid, and ensure security in the regional park. The Ramsey County Sheriff will be responsible for enforcement of park hours.

### PUBLIC AWARENESS

Ramsey County will use a variety of tools to promote awareness and use of the regional park system. This includes electronic and print communication methods such as websites, park maps, brochures, email notification, Twitter, Facebook, and press releases. The Parks and Recreation department will provide necessary information and updates to the department’s website.

Ramsey County will also collaborate with the cities of Saint Paul and Maplewood, and the Metropolitan Council to promote the park through their websites, newsletters, brochures, and social media. Wayfinding signage throughout the park will be updated as needed following the Ramsey County Parks & Recreation Department Wayfinding Master Plan for consistency with other regional park and trail facilities.

### PROJECT DATA

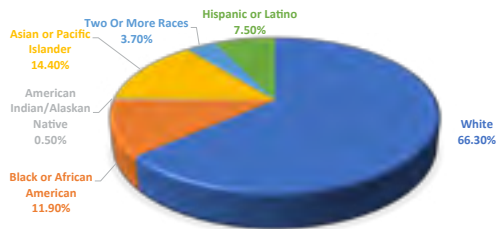
#### Scope

Public engagement for the Battle Creek Regional Park Master Plan was intended to reach as wide of an audience as possible, while also focusing on an equitable approach through the thoughtful selection of engagement sessions in order to reach as racially diverse audience as possible at the same time. Ramsey County Parks & Recreation focused on gathering information both from community members who live near the regional park as well as county-wide.

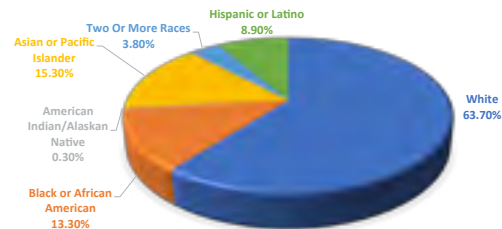
Comparing census blocks from 2010 data extrapolated to reflect the approximate values in 2019 between tracts that fall within 1 mile of the regional park with those of Ramsey County overall may provide some meaningful data. Ramsey County as of 2019, had a population of 544,442. The median household income of the county was \$64,660, with a poverty rate of 14%. The subset of the population living in a census tract within 1/2 mile of the regional park had a population of 84,604, with a median income of \$57,341 and a poverty rate of 12.6%

The following graphs reflect the race, education and age of the respective areas:

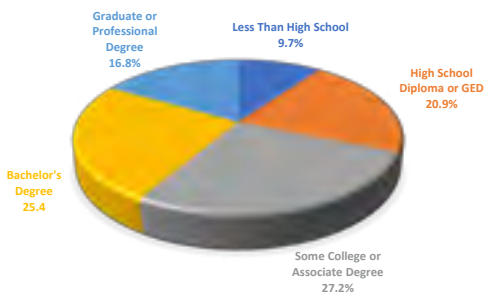
Ramsey County Demographics - Race



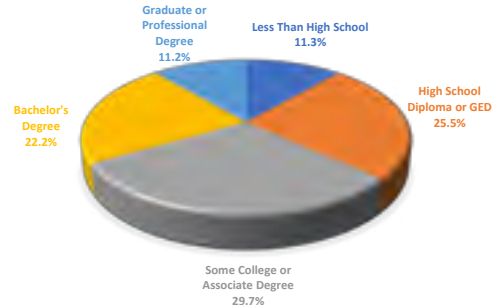
Focus Area Demographics - Race



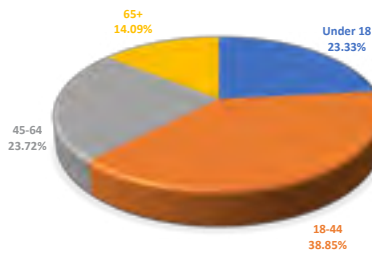
Ramsey County Demographics - Education



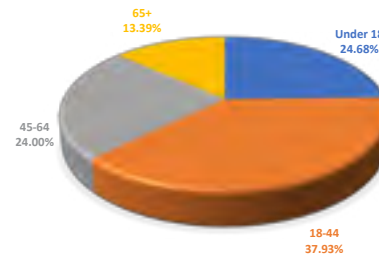
Focus Area Demographics - Education



Ramsey County Demographics - Age



Focus Area Demographics - Age



The area surrounding Battle Creek Regional Park is largely representative of Ramsey County as a whole, with a slightly higher racial diversity. Additional data for neighborhoods within the immediate surrounding focus area shows a higher percentage of home ownership and a lower percentage of renter-occupied housing than Ramsey County as a whole. Transportation is another area of difference, residents in the focus area near Battle Creek Regional Park have a higher percentage of households with multiple vehicles and use public transportation less than Ramsey County as a whole, but their travel times to and from work are extremely similar. The full reports from Minnesota Compass, which draws its data from the United States Census can be found in the Appendix.

## PUBLIC ENGAGEMENT AND PARTICIPATION

Relative to the rest of Ramsey County, the area surrounding Battle Creek Regional Park is a more racially diverse area with a population that also skews slightly younger. The focus area looked at census tracts within 1/2 mile of Battle Creek Regional Park and has larger populations of Asian or Pacific Islanders, black or African Americans, and Hispanic or Latino peoples.

Ramsey County Parks & Recreation along with SRF made conscience decisions, along with the project management team, which consisted of partnering agencies, to formulate community engagement that would target these populations. In addition to online engagement that was available to all through the use of translation services, postings about upcoming community meetings and design charrettes were posted throughout the park with translations in a few prominent languages. To ensure that the opinions of a racially diverse audience were included in the master plan, Ramsey County Parks & Recreation held pop-up meetings at various community festivals, events, and at reservations made at the Battle Creek Regional Park pavilion including:

- Hmongtown Marketplace
- Battle Creek Pavilion Eritrean Muslim Council Event
- Southeast Community Organization Community Event
- Battle Creek Recreation Center Food Shelf Night
- Southeast Community Organization Council Meeting
- Carver Elementary Family Night
- Battle Creek Middle School English as a Second Language Classroom

The events listed above saw participation among racially diverse community members in proportions far greater than their representative numbers when compared to the focus area demographics. Through engagement with Battle Creek Middle School and Carver Middle School Ramsey County was able to specifically focus on gathering feedback from younger community members.

## Implementation

In prioritizing community engagement events which were intended to target community members who were from racially diverse backgrounds as well as a number of events that looked at younger audiences the themes that Ramsey County heard included:

- Prioritize programming which would include beginner to intermediate outdoor programs
- Prioritize programming which would introduce community members to new forms of outdoor recreation such as off-road cycling, hiking, and cross country-skiing while keeping fees to a minimum or free
- Prioritize the redevelopment of waterworks or the implementation of a free splash pad
- Built park uses such as picnic facilities, shelters, playgrounds, and trails are important features that are heavily used and in demand
- Trailhead amenities such as water fountains, restrooms, and security cameras are important for access and to feel safe
- Support for the addition of a nature center
- Increase fishing opportunities
- Safe access to park

## Evaluation Summary

Public participation from racially diverse and younger audiences provided Ramsey County with valuable feedback from this segment of the population. Overall the desires and wants of these community members is in line with the rest of Ramsey County. The themes that were brought forward strengthened the need for trail development, trailhead improvements, and the addition of a nature center. Ramsey County has also heard very strongly that programming needs to be an essential and integral part of Battle Creek Regional Park as the master plan is implemented. The programming that is developed needs to continue to explore ways to involve the community and keep costs low while providing access to community members who may not be able to afford fees and also should explore ways to transport community members to events to increase accessibility of the programming.

Input from younger and racially diverse community members also helped to shape the plan and influenced the way in which Ramsey County decided to prioritize implementation strategies. Waterworks redevelopment, programming, and the addition of a nature center are all high priority items that have been identified.

## GOVERNMENT ALLIANCE ON RACE & EQUITY

An additional tool that Ramsey County Parks & Recreation has decided to use in the evaluation of the equity of the Battle Creek Master Plan is the Government Alliance on Race & Equity Toolkit. This toolkit asks a variety of questions that are designed to integrate explicit consideration of racial equity in decisions, including policies, practices, programs, and budgets.

The Battle Creek Regional Park Master Plan has looked at and used the toolkit to evaluate the plan from an equity lens and answers to the questions posed by the Government Alliance on Race & Equity follow.

### What Is Your Proposal and the Desired Results and Outcomes?

The Battle Creek Regional Park Master Plan will develop a long-range vision and recommendations for the park, built from input from the public and stakeholders. This will be achieved by gathering information on issues and concerns from community members and stakeholders, engaging in design charrettes with the public, and ultimately refining a master plan that will guide future park improvements.

This proposal will have the ability to impact:

- Children and Youth
- Community engagement
- Education
- Environment
- Community members from Ramsey County and beyond

### What's the Data? What Does the Data Tell Us?

Relative to the rest of Ramsey County, the area surrounding Battle Creek Regional Park is a more racially diverse area with a population that also skews slightly younger. The focus area looked at census tracts within 1/2 mile of Battle Creek Regional Park and has larger populations of Asian or Pacific Islanders, Black or African Americans, and Hispanic or Latino Peoples.

The plan has the potential to impact the neighborhoods surrounding the park directly. A major component of the plan is park access and making road crossings, which are abundant, safer, and built to serve the surrounding community. Park programming is also a top priority to bring new or novice users into the park and teach about a variety of subjects which is yet to be determined.

### How Have Communities Been Engaged? Are There Opportunities to Expand Engagement?

Ramsey County has engaged communities in a variety of ways including:

- Pop-Up Meetings
- Stakeholder Meetings
- Community Meetings
- Design Charrettes
- Online Surveys
- Draft Concept and Plan Reviews

The Battle Creek Regional Park Master Plan is the guiding document for the development of the park in the future. As such there will be many more opportunities as development of the area occurs to expand and increase engagement opportunities as the plan is implemented and carried out. Ramsey County shall continue to use engagement best practices as they are understood at the time of future engagement.



## Implementation

### Who Benefits From Or Will Be Burdened By Your Proposal? What Are Your Strategies for Advancing Racial Equity or Mitigating Unintended Consequences?

Ramsey County hopes that the proposals for Battle Creek Regional Park will ultimately increase racial equity and benefit all community members. From community engagement that has been targeted at diverse audiences Ramsey County Parks & Recreation has learned that these communities desire:

- Safer park access points
- Park programming in a variety of subjects and disciplines such as beginner outdoor recreation courses, nature courses, after school programming, and community events
- Trailhead and park amenities such as water fountains, restrooms, benches, and picnicking infrastructure
- Implementation of a free splash pad or the redevelopment of waterworks
- Educational programming in the park
- Nature center development
- Playgrounds

Many of these desired outcomes were shared among all communities and stakeholder groups and have been incorporated into the planning and implementation strategy for Battle Creek Regional Park.

Diverse community members have advocated for the implementation of park programming and it is evident that Ramsey County needs to develop a robust and varied catalog of programs for the community to participate in. Ramsey County has also heard through engagement that this programming needs to be available to all and to do this fees must be low or non-existent for entry into programs. Racially diverse segments of the population could be burdened by the proposal if Ramsey County does not continue to engage these community members and ensure they have access to and knowledge of future park programming and proposed infrastructure.

Throughout engagement it has become apparent that there are many public and private agencies that share the desire to develop programming within Battle Creek Regional Park increasing access and opportunity for racially diverse communities. Ramsey County should continue to engage with these agencies to produce lasting partnerships that may help to shape park programming. Agencies that Ramsey County could partner with to develop programming include but are not limited to:

- Endurance United
- Minnesota Off-Road Cyclists
- Audubon Society
- National Park Service
- Minnesota Department of Natural Resources
- The Loppet Foundation
- The Sanneh Foundation
- High School Cross-Country Ski Teams
- Friends of the Mississippi River
- Carver Elementary School
- Battle Creek Middle School
- City of Saint Paul
- City of Maplewood
- Friends of the Maplewood Nature Center
- Lower Phalen Creek Project
- Indigenous/Native American Groups

An unintended consequence of the plan includes an inequitable distribution of recreational opportunities. A large part of the plan is also focused on completing the infrastructure needed to make recreational programming a reality such as trails, wayfinding and signage improvements, and trailhead improvements. These amenities support recreational users such as hikers, off-road cyclists, cross-country skiers, trail runners, in-line skaters, bird watchers, and many other groups. Programming and introducing community members who are not already active users of Battle Creek Regional park will be vital in the success of the plan from an equity lens.

### What is Your Plan For Implementation?

Implementation of proposed improvements are anticipated to take place in several phases for completion and will likely require alternate sources of funding from partners depending on the development project. Improvements are planned within a high, medium, low, and long-term priority to implement over time and better plan for the long-term capital improvement funding. Depending on the project need and/or demand, there may be a need to shift projects into different priority levels. Please see the implementation plan starting on page 157 for more detail.

# Appendix

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## Battle Creek Regional Park - Pigs Eye Lake Master Plan Amendment

May 4, 2021

# PREFACE

Ramsey County is requesting a focused master plan amendment to the 1981 Battle Creek Regional Park Master Plan to address natural resource and public safety improvements to the Battle Creek Regional Park – Pigs Eye section consisting of:

- Pigs Eye Island Lake Project (first step of improvements).
- Other Natural Resource Restoration activities and projects.
- Pigs Eye Lake Public Protection (may include as a future amendment or agency-wide planning study).

This master plan amendment does not address boundary adjustments, park acquisition, recreational infrastructure and programming improvements, or access within the Pigs Eye section of Battle Creek Regional Park. These components will be addressed in a later amendment/update to the overall Battle Creek Regional Park Master Plan. Please refer to the overall Battle Creek Regional Park Master Plan for information relating to boundary adjustments, park acquisition, long-term recreational infrastructure and programming improvements.

This master plan amendment is intended to act as a separate natural resource guiding document for the Pigs Eye Lake section of Battle Creek Regional Park and is written to fulfill the requirements of the Metropolitan Council for regional park master plan amendment as outlined in the 2040 Regional Parks and Trails Policy Plan. The main unit of Battle Creek Regional Park is at a different level of development than the Pigs Eye Lake unit. The main Battle Creek unit is moderately developed with maintained trail systems, signage and other recreation facilities. Pigs Eye Lake remains undeveloped. The entire Pigs Eye section is within the Mississippi River Corridor Critical Area (MRCCA), which shares a boundary with the Mississippi National River and Recreation Area. This section of park is subject to MRCCA regulations (State statute under Minnesota Rule 6106) which is in place to protect the unique natural and cultural resources and values within this corridor.

### Background:

Battle Creek Regional Park is in the southeast corner of Ramsey County in the cities of Saint Paul and Maplewood. The Pigs Eye section of Battle Creek Regional Park is within the City of Saint Paul and consists of Pigs Eye Lake, which is a back water of the Mississippi river and is surrounded by a mixture of upland and floodplain areas.

In 2015, funding became available through the United States Army Corps of Engineers (Corps) Continuing Authorities Program Section 204 Beneficial Use of Dredged Material to develop a feasibility study with an integrated environmental assessment worksheet for the implementation of islands within Pigs Eye Lake. The Corps in collaboration with Ramsey County initiated an agency-wide planning effort comprised of federal, state, and local agencies to identify the project scope, objectives, coordination, stakeholders and process for developing the feasibility study in compliance with the National Environmental Policy Act (NEPA) and Minnesota Environmental Policy Act (MEPA). The feasibility study was completed in 2018 and identified the implementation of islands within Pigs Eye Lake was feasible and did not require an Environmental Impact Statement (EIS) under NEPA or MEPA guidelines.

In 2019, Park staff initiated a focused master plan amendment process to better address natural resource needs for Pigs Eye Lake. The focus master plan amendment includes:

- Sequencing of natural resource improvements for Pigs Eye Lake.
  - Pigs Eye Island Lake Project (first step of improvements).
  - Other natural resource preservation projects.
  - Pigs Eye Lake Public Protection (may include as a future amendment or agency-wide planning study).
- Address MRCCA policy standards and criteria.
- Public engagement process.



## Public Engagement:

A multi-level engagement process was utilized for the development of the master plan amendment from 2015-2020. Both partner engagement for agency coordination and involvement, and community engagement for general participation by the general public was completed for feedback. Below is a summary of public input options.

- Pigs Eye Feasibility Study – There was extensive agency coordination consisting of local, state, and federal agencies throughout this study such as Ramsey County, St. Paul, Ramsey Washington Metro Watershed District (RWMWD), Metropolitan Council, Minnesota Department of Natural Resources (MNDNR), Minnesota Pollution Control Agency (MPCA), Minnesota Department of Transportation (MNDOT), Corps, National Park Service (NPS), and U.S. Fish and Wildlife. These agencies had direct involvement in the development and approval of this feasibility study. Additionally, non-governmental agencies and organizations such as the Friends of Pool 2, Friends of the Mississippi River (FMR) and the Friends of Parks and Trails were also included in the review and approval process of the feasibility study. Public engagement was completed with two concurrent 30-day public review periods from March 12, 2018 to April 12, 2018 for both the MEPA and NEPA process to allow general feedback from the public.
- Lessard Sam's Outdoor Heritage Council (LSOHC) Funds – The island building feasibility study was presented to the LSOHC in an effort to obtain \$4.3 million in local funding. The LSOHC is comprised of 12 members made up by the State Legislature (House and Senate) and public appointees by the Governor, House and Senate. Due to high project significance and benefit received, the LSOHC and State Legislature approved project funding and a grant agreement for the implementation of islands in Pigs Eye Lake.
- Master Plan Amendment -
  - Previous public engagement completed – Past engagement for development of the 2018 Park and Recreation System Plan, and the overall Battle Creek Regional Park master plan amendment process that was initiated in 2019.
  - Additional public engagement - The Parks department launched a 45-day public review period from August 17, 2020 through September 30, 2020. A virtual public meeting was hosted on September 17, 2020 to allow additional public comment. Notification of the public review period consisted of multiple notifications through social media, email blasts, and the County Parks website, in addition to a press release in the Pioneer Press. The Parks department also sent out email notifications to the City of Saint Paul, other Federal and State agencies, in addition to non-profit organizations such as FMR.
- Agency support – Following the public engagement period, the Parks department initiated a process for agency support of the master plan amendment from the City of Saint Paul, Ramsey County Parks and Recreation Commission and the Ramsey County Board of Commissioners. There was broad agency support including federal, state, local, and non-profit organizations. Supporting letters received and included in the document from the NPS, Saint Paul Parks and Recreation, and FMR.

## Engagement Results:

The following themes emerged from analysis of input received through the community engagement process.

### Community Participation Themes:

- Pigs Eye Island Building Project – These themes are discussed more in detail in the Conflicts section of the plan.
  - Project planning/intent – Project understanding as a habitat restoration project and the need for additional public safety components related to long-term environmental clean-up.
  - Constructability.
    - ° Utilization of dredge material.
    - ° Testing.
    - ° Existing pollution.

# PREFACE

Ramsey County is requesting a focused master plan amendment to the 1981 Battle Creek Regional Park Master Plan to address natural resource and public safety improvements to the Battle Creek Regional Park – Pigs Eye section consisting of:

- Pigs Eye Island Lake Project (first step of improvements).
- Other Natural Resource Restoration activities and projects.
- Pigs Eye Lake Public Protection (may include as a future amendment or agency-wide planning study).

This master plan amendment does not address boundary adjustments, park acquisition, recreational infrastructure and programming improvements, or access within the Pigs Eye section of Battle Creek Regional Park. These components will be addressed in a later amendment/update to the overall Battle Creek Regional Park Master Plan. Please refer to the overall Battle Creek Regional Park Master Plan for information relating to boundary adjustments, park acquisition, long-term recreational infrastructure and programming improvements.

This master plan amendment is intended to act as a separate natural resource guiding document for the Pigs Eye Lake section of Battle Creek Regional Park and is written to fulfill the requirements of the Metropolitan Council for regional park master plan amendment as outlined in the 2040 Regional Parks and Trails Policy Plan. The main unit of Battle Creek Regional Park is at a different level of development than the Pigs Eye Lake unit. The main Battle Creek unit is moderately developed with maintained trail systems, signage and other recreation facilities. Pigs Eye Lake remains undeveloped. The entire Pigs Eye section is within the Mississippi River Corridor Critical Area (MRCCA), which shares a boundary with the Mississippi National River and Recreation Area. This section of park is subject to MRCCA regulations (State statute under Minnesota Rule 6106) which is in place to protect the unique natural and cultural resources and values within this corridor.

### Background:

Battle Creek Regional Park is in the southeast corner of Ramsey County in the cities of Saint Paul and Maplewood. The Pigs Eye section of Battle Creek Regional Park is within the City of Saint Paul and consists of Pigs Eye Lake, which is a back water of the Mississippi river and is surrounded by a mixture of upland and floodplain areas.

In 2015, funding became available through the United States Army Corps of Engineers (Corps) Continuing Authorities Program Section 204 Beneficial Use of Dredged Material to develop a feasibility study with an integrated environmental assessment worksheet for the implementation of islands within Pigs Eye Lake. The Corps in collaboration with Ramsey County initiated an agency-wide planning effort comprised of federal, state, and local agencies to identify the project scope, objectives, coordination, stakeholders and process for developing the feasibility study in compliance with the National Environmental Policy Act (NEPA) and Minnesota Environmental Policy Act (MEPA). The feasibility study was completed in 2018 and identified the implementation of islands within Pigs Eye Lake was feasible and did not require an Environmental Impact Statement (EIS) under NEPA or MEPA guidelines.

In 2019, Park staff initiated a focused master plan amendment process to better address natural resource needs for Pigs Eye Lake. The focus master plan amendment includes:

- Sequencing of natural resource improvements for Pigs Eye Lake.
  - Pigs Eye Island Lake Project (first step of improvements).
  - Other natural resource preservation projects.
  - Pigs Eye Lake Public Protection (may include as a future amendment or agency-wide planning study).
- Address MRCCA policy standards and criteria.
- Public engagement process.

## Public Engagement:

A multi-level engagement process was utilized for the development of the master plan amendment from 2015-2020. Both partner engagement for agency coordination and involvement, and community engagement for general participation by the general public was completed for feedback. Below is a summary of public input options.

- Pigs Eye Feasibility Study – There was extensive agency coordination consisting of local, state, and federal agencies throughout this study such as Ramsey County, St. Paul, Ramsey Washington Metro Watershed District (RWMWD), Metropolitan Council, Minnesota Department of Natural Resources (MNDNR), Minnesota Pollution Control Agency (MPCA), Minnesota Department of Transportation (MNDOT), Corps, National Park Service (NPS), and U.S. Fish and Wildlife. These agencies had direct involvement in the development and approval of this feasibility study. Additionally, non-governmental agencies and organizations such as the Friends of Pool 2, Friends of the Mississippi River (FMR) and the Friends of Parks and Trails were also included in the review and approval process of the feasibility study. Public engagement was completed with two concurrent 30-day public review periods from March 12, 2018 to April 12, 2018 for both the MEPA and NEPA process to allow general feedback from the public.
- Lessard Sam's Outdoor Heritage Council (LSOHC) Funds – The island building feasibility study was presented to the LSOHC in an effort to obtain \$4.3 million in local funding. The LSOHC is comprised of 12 members made up by the State Legislature (House and Senate) and public appointees by the Governor, House and Senate. Due to high project significance and benefit received, the LSOHC and State Legislature approved project funding and a grant agreement for the implementation of islands in Pigs Eye Lake.
- Master Plan Amendment -
  - Previous public engagement completed – Past engagement for development of the 2018 Park and Recreation System Plan, and the overall Battle Creek Regional Park master plan amendment process that was initiated in 2019.
  - Additional public engagement - The Parks department launched a 45-day public review period from August 17, 2020 through September 30, 2020. A virtual public meeting was hosted on September 17, 2020 to allow additional public comment. Notification of the public review period consisted of multiple notifications through social media, email blasts, and the County Parks website, in addition to a press release in the Pioneer Press. The Parks department also sent out email notifications to the City of Saint Paul, other Federal and State agencies, in addition to non-profit organizations such as FMR.
- Agency support – Following the public engagement period, the Parks department initiated a process for agency support of the master plan amendment from the City of Saint Paul, Ramsey County Parks and Recreation Commission and the Ramsey County Board of Commissioners. There was broad agency support including federal, state, local, and non-profit organizations. Supporting letters received and included in the document from the NPS, Saint Paul Parks and Recreation, and FMR.

## Engagement Results:

The following themes emerged from analysis of input received through the community engagement process.

### Community Participation Themes:

- Pigs Eye Island Building Project – These themes are discussed more in detail in the Conflicts section of the plan.
  - Project planning/intent – Project understanding as a habitat restoration project and the need for additional public safety components related to long-term environmental clean-up.
  - Constructability.
    - ° Utilization of dredge material.
    - ° Testing.
    - ° Existing pollution.

- Timing for implementation – potential delay of the project until long-term cleanup activities have been completed.
- Effectiveness.
  - ° Benefits of islands in Pigs Eye Lake.
  - ° Long-term clean-up efforts.
  - ° Impact and or benefits to existing wildlife.
- Public Safety – need for additional long-term planning.
- Need for future access and recreation improvements.
- Climate resilient vegetation.
- Opportunity for partnerships and collaborations

#### Agency Participation Themes:

- Pigs Eye Island Building Project – Extensive support from all levels of federal, state, and local agencies through benefits achieved from this project.
- Public Safety – need for additional long-term planning.
- Climate resilient vegetation.
- Opportunity for partnerships and collaborations.

Theme outcomes related to both community participation and agency participation have been analyzed and incorporated were feasible in the master plan for continued participation, and evaluation/completion of projects identified in the master plan.

#### Equity Analysis:

Public engagement for the focused master plan amendment was intended to reach as wide of an audience as possible and focused on gathering information both from residents who live near the regional park and county-wide as well. Even though no recreational infrastructure improvements or programming amenities are proposed in this master plan amendment an equity analysis was still conducted to provide approximate values for areas within one mile of the Pigs Eye Lake area.

Comparing census blocks from 2010 data and approximate values in 2017 between tracts that fall within 1 mile of the Pigs Eye Lake area with Ramsey County overall provided some meaningful data. Ramsey County, as of 2017, had a population of 537,893. The median household income of the county was \$60,301, with a poverty rate of 15%. The subset of the population living in a census tract within 1-mile of Pigs Eye Lake had a population of 72,623, with a median income of \$53,911 and a poverty rate of approximately 20%. The area surrounding Pigs Eye Lake is very diverse with approximately 49.5% people of color comparing to Ramsey County overall with approximately 36.94% people of color. Additional data for neighborhoods within the immediate surrounding area shows a higher percentage of population in 25-64 age range with 25-34 age range with the highest.

The engagement process with the community consisted of numerous project information notifications through social media, website, newspaper in addition to making information available through the County Parks project website. The level of engagement as defined by the International Association for Public Participation's Public Participation Spectrum was "consult" for development of the focused master plan amendment.

#### Development Plan:

This focused master plan amendment addresses natural resource and public safety improvements to the Ramsey County Pigs Eye section of Battle Creek Regional Park.

- Pigs Eye Island Lake Project (first step of improvements) - The selected plan includes six islands with sand benches totaling approximately 35.69 acres. Three of the islands would utilize a "split" design that would establish sheltered areas in the centers of the islands, allowing for the creation of approximately 17.6 acres of protected wetland habitat. Island vegetative cover will consist of native grass and shrub land plantings. The recommended plan was developed to address the following objectives in Pigs Eye Lake:

- Improve aquatic habitat – Create depth and habitat diversity in Pigs Eye Lake. Increase acreage of aquatic vegetation. Incorporate structural habitat features to promote fisheries.
- Improve the quantity and quality of habitat for migratory bird species – Create suitable habitat for migratory birds such as dabbling ducks within Pigs Eye Lake.
- Maintain or enhance the quantity of shoreline habitat – Protect existing floodplain forest and marsh habitat along the shoreline of Pigs Eye Lake from wind and wave erosion.
- Other Natural Resource Restoration activities and projects
  - Conversion of mixed woods to floodplain forest (i.e. reforestation of native floodplain tree species).
  - Continued enhancement of existing wetland.
  - Removal of invasive species.
  - Revegetation of the existing shoreline.
- Pigs Eye Lake Public Protection
  - Initiate an agency-wide planning process for public safety planning activities.



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# EXECUTIVE SUMMARY

## OVERVIEW

Ramsey County is requesting a focused master plan amendment to the 1981 Battle Creek Regional Park Master Plan to address sequencing of natural resource and public safety improvements to the Battle Creek Regional Park – Pigs Eye section.

Sequencing of Pigs Eye Lake Master Plan Amendment Improvements consist of:

- Pigs Eye Island Lake Project (first step of improvements).
- Other natural resource preservation projects.
- Pigs Eye Lake Public Protection (may include as a future amendment or agency-wide planning study).

This master plan amendment does not address boundary adjustments, park acquisition, recreational infrastructure and programming improvements, or access within the Pigs Eye section of Battle Creek Regional Park. These components will be addressed in a later amendment/update to the overall Battle Creek Regional Park Master Plan. Please refer the overall Battle Creek Regional Plan master plan for information relating to boundary adjustments, park acquisition, long-term recreational infrastructure and programming improvements.

This master plan amendment is intended to act as a separate natural resource guiding document for the Pigs Eye Lake section of Battle Creek Regional Park and is written to fulfill the requirements of the Metropolitan Council for regional park master plan amendment as outlined in the 2040 Regional Parks and Trails Policy Plan. The main unit of Battle Creek Regional Park is at a different level of development than the Pigs Eye Lake unit. The main Battle Creek unit is moderately developed with maintained trail systems, signage and other recreation facilities. Pigs Eye Lake remains undeveloped. The Pigs Eye Lake segment of Battle Creek Regional Park is located within the MRCCA.

## BATTLE CREEK REGIONAL PARK – PIGS EYE SECTION BACKGROUND

Battle Creek Regional Park is located in the southeast corner of Ramsey County in the cities of Saint Paul and Maplewood. The park is comprised of four regional segments: Indian Mounds (97 acres); Fish Hatchery (105 acres); Pigs Eye (610 acres); and Battle Creek (846 acres). In accordance with the 1981 joint master plan, the city of Saint Paul owns and operates the Indian Mounds and Fish Hatchery segments of the park. Ramsey County owns and operates the Battle Creek and Pigs Eye segments, consisting of 1,456 acres.

The Pigs Eye section of Battle Creek Regional Park consists of Pigs Eye Lake, which is a back water of the Mississippi River, surrounded predominately by mixed woods to the west and wetlands to the east and northwest of the lake, which is in the floodplain wetland.

See appendix page 109, Battle Creek System Plan section, for additional information regarding habitat land types and acreage.

## PIGS EYE LAKE ISLAND BUILDING BACKGROUND

The Corps, in close collaboration with Parks & Recreation, completed a Feasibility Study for constructing habitat enhancements in Pigs Eye Lake. The project will enhance and restore backwater habitat by creating island and wetland features. Project features include six islands, sand benches, marsh habitat and land plantings. These enhancements will improve aquatic and land habitat as well as maintaining the shoreline of Pigs Eye Lake. This project will utilize clean material that was dredged from navigation channels from the Mississippi River Pool 2 in an environmentally beneficial way. Dredged material was tested per MPCA standards and was approved to be utilized for placement within public water. The benefit for utilizing this material allows for cost effective (i.e.



Pigs Eye Lake - Island Building Graphic  
U.S Army Corps of Engineers

free material) to be used for the construction of islands to help increase the size of a project allowing for higher aquatic ecosystem benefits than if the project had to pay for construction material.

See Page 2 for Corps Island Building Graphic

See appendix page 107 for Dredge Material Testing Data.

### Feasibility Study

In 2015, funding became available through the Corps Continuing Authorities Program Section 204 Beneficial Use of Dredged Material. This authority for the island building project was strictly for the construction of a project with the goal of enhancement of aquatic ecosystem. The authority is provided to give local Corps Districts, like the Saint Paul District, the opportunity to utilize dredged material (i.e., sand fill) for positive use in the community by helping pay extra costs above and beyond routine material management incurred for building something beneficial.

The Corps in collaboration with Ramsey County initiated an agency-wide planning effort comprised of federal, state, and local agencies (study team) to identify the project scope, objectives, coordination, stakeholders and process for developing the feasibility study with an integrated Environmental Assessment to comply with NEPA and MEPA requirements. The feasibility study was developed by the Corps and investigated the feasibility of alternative measures to address problems and opportunities associated with Pigs Eye Lake including habitat within and immediately around Pigs Eye Lake. Specific investigative components within the feasibility study included:

- Physical setting.
- Problem identification.
- Plan formation.
- Evaluation and comparison of alternative solutions.
- Recommended Plan.
- Environmental effects.
- Plan implementation.

The study team developed three project objectives as a basis for development of the feasibility study, which consisted of improve aquatic habitat, improve the quantity and quality of habitat for migratory bird species, and maintain or enhance the quantity of shoreline habitat. In addition, the study team identified a variety of measures that could be taken to achieve project objectives, including full and split island designs, sand benches, and the creation of wetland (marsh) habitat. The measures were combined in various logical combinations to form alternative project plans. The habitat concerns within the project area primarily include high levels of turbidity, wind-induced shoreline erosion, lack of depth diversity, and lack of shoreline habitat for birds and aquatic plants.

The study team also considered pollution and Pigs Eye Lake's history as part of the feasibility study. The study included contaminant testing, past data analysis, and formation of an interagency group of experts to evaluate the project from a contaminant's perspective. Specifically, the Corps and interagency team determined that: (1) The low levels of contaminants within the lake in the proposed project area would not pose a large risk of bioavailability or uptake of contaminants in wildlife, (2) Constructing the proposed ecosystem restoration features within the lake would have positive environmental benefits to the lake and surrounding areas, and (3) Constructing the proposed project would not interfere with any ongoing or future cleanup actions associated with the Pigs Eye Dump site.

Additionally, the study also concluded the Pigs Eye Island building project would not have an adverse impact to the Pigs Eye Island Heron Rookery Scientific and Natural Area (SNA). The introduction of islands within Pigs Eye Lake will create additional habitats that will support other waterfowl species. This would ultimately provide a long-term benefit for reducing congested upland areas for nesting habitats with the creation of areas more unique to specific species.

Outcomes of the feasibility study concluded island building was the most beneficial method for achieving overall project objectives. The islands will greatly reduce the wind fetch allowing for turbidity to improve, aquatic vegetation to establish, depth diversity to increase and shoreline erosion to decrease. All these outcomes will improve the habitat quality on the lake. Without action, it is estimated that a loss of .75 acre per year of valuable wetland vegetation and habitat will occur on the shoreline of the lake. This equals approximately 37.5 acres over 50 years.

Implementation of a restoration plan in this area will directly benefit the entire Pigs Eye Lake ecosystem and restoration efforts are essential for restoring aquatic habitat in the lake.

The feasibility study was prepared in accordance to NEPA and MEPA requirements and consisted of:

- Extensive coordination between local, state, and federal agencies.
- Additional coordination efforts with local advisory groups/organizations.
- A 30-day public review for both the State and Federal from March 12, 2018 to April 12, 2018.
- Environmental Assessment Worksheet (EAW) Record of Decision in April 2018.

### Project Plan

The selected plan includes six islands with sand benches totaling approximately 35.69 acres. Three of the islands would utilize a split design that would establish sheltered areas in the centers of the islands, allowing for the creation of approximately 17.6 acres of protected wetland habitat. Island vegetative cover will consist of native grass and shrubland plantings. Were feasible, there may be opportunities to either experiment and or implement climate adapted native vegetation to provide greater diversity in a changing climate. In efforts to advance the utilization of climate resilient vegetation, it is likely partnerships may be created with other governmental agencies and/or non-profit organizations like FMR and the University of Minnesota, providing the opportunity to apply different habitat restoration approaches within Pigs Eye Lake.

The Corps has constructed many habitat islands on the Upper Mississippi over the past few decades. Many of the features and recommendations have been denoted in the Corps Upper Mississippi River Restoration Program - Environmental Design Handbook, December 2012. Several features of the proposed island layout have varied from more typical sections. This has been done in part to provide a better design for construction on very soft sediments. Changes have also been proposed to improve the island and lake habitat value.

One of the main features that differ from the more traditional island design is the 'submerged berm'. The submerged berm would function as a significant step toward creation of a beach zone around the islands. The beach zone helps dissipate wave energy as waves approach and break on the islands. This reduces the wave's erosive action on the higher island portions. Over time the beach material is regularly rearranged by the waves and the bank material becomes more stable.

Three of the project's islands would be constructed as 'split' islands. Conceptually these islands evolved from the full section island. The thought was that if one of the berms was split off of the island and separated from it by a short distance, the island should still have little risk of erosion along the split since the fetch would be very small. This gap between the two sides could be enlarged further as long as the interior remains very sheltered. These islands are generally constructed in pairs where a portion of one section that has the higher island elevation and another island that is similar to an independent split off berm.

The alternative plans incorporate varying island designs. The northern three islands show a split design with two narrower sections and provides sheltered interior embayment's for protected wetland areas. The southern three islands are most like traditional Habitat Restoration and Enhancement Project (HREP) islands with the addition of a perpetually submerged berm.

See page 2 for the island building graphic.



## Island Construction Material and Placement

A variety of fill material including rock, sand, and topsoil will be utilized for the habitat island construction in Pigs Eye Lake. The rock would be clean and sourced from a quarry, however the sand and topsoil material will consist primarily of material generated from dredging in the southern portion of Pool 2. Material dredged in lower Pool 2 is placed on one of three temporary placement islands (Pine Bend, Upper Boulanger, and Lower Boulanger) to be later moved to a permanent location. The material utilized for the Pigs Eye Islands project will come from one of these temporary placement islands.

The Corps has had great success using dredge material from the Mississippi River on past island construction projects. Dredged material is often used for habitat enhancement projects. Reuse of this material can provide substantial cost savings and is an environmentally beneficial way for island construction. Approximately 413,329 cubic yards (CY) of sand and topsoil material is anticipated for island construction. The Corps tested all dredged material for this project per MPCA guidelines. This material was approved per MPCA testing standards for placement in water for habitat creation. MPCA guidelines have been developed specifically to protect the creatures that use these habitats.

### Island Construction Steps



The Corps collects sediment samples annually from the parts of the river that are dredged. Sediment samples are sent to independent chemical testing labs. The material is tested for pollutants such as metals, pesticides, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and cyanide. Per- and polyfluoroalkyl substances (PFAS) (or perfluorinated chemicals (PFCs)) are sampled separately and sent to specialized labs because only a few labs perform these tests. MPCA guidelines were followed for testing locations, amounts, and test types. MPCA standards were used to evaluate material safety - the "Soil Reference Values" for upland uses and the "Sediment Quality Targets" for in-water placement. New sampling at dredge cuts and dredged material placement sites was performed and analyzed with all past dredging data to ensure the material was safe for island building. Similarly, sampling was conducted within Pigs Eye Lake for the project and combined with published sediment studies to make sure the site of the islands and lake access were safe for construction. All

## Appendix - Pigs Eye Lake Master Plan



results were coordinated with the MPCA and other local agencies who participated in a specially formed work group which resulted in agreement that the project would be safe.

See appendix page 107 for Dredge Material Testing Data.

After offloading material from a temporary placement island, material will be transported via barge approximately 12 river miles up the main channel of the Mississippi River through the access channel of the Red Rock Terminal to a staging location at the southern end of Pigs Eye Lake. Analysis has concluded that the southern end of the lake can be reached through the access channel for the Red Rock Barge Terminal (8-9+ ft draft). Additional coordination will continue with businesses utilizing the Red Rock Terminal prior to project construction.

The typical construction process of habitat island building on the Mississippi River starts with the placement of a sand base via the use of either hydraulic or mechanical dredging equipment. Following the sand base construction, rock vanes will be placed at locations along the outer edges of the islands to prevent erosion. After rock vanes are in place topsoil material will be spread on top of the sand bases, followed lastly by seeding and planting of natural vegetations.

### Island Construction Steps



Sand Placement

Stabilize with Rock

Topsoil Placement

Planting and Seeding

### Project Schedule – Next Steps

1. Final Design - September 2019 – Summer/Fall 2020
2. Anticipated Project Construction – Spring 2021- Fall 2024
3. Complete Construction –Fall 2024

## OTHER NATURAL RESOURCE ACTIVITIES AND PROJECTS BACKGROUND

The Pigs Eye section of Battle Creek is within natural resource management Unit 10 as defined within the 2018 Park and Recreation System Plan – Battle Creek Regional Park section (see appendix page 102). Management of Pigs Eye natural resources will be coordinated by the Ramsey County Parks & Recreation Department and will include ongoing protection in coordination with partnering agencies, site inventories, and restoration of the land and lake resources.

### Current State

The entire Pigs Eye section is within the MRCCA, which shares a boundary with the Mississippi National River and Recreation Area. This section of park is subject to MRCCA regulations (State statute under Minnesota Rule

6106) which is in place to protect the unique natural and cultural resources and values within this corridor. Much of the existing landcover within the Pigs Eye section of the park consist of mixed forest and wetland habitats. In order to provide and increase healthy aquatic, land and wildlife habitats it is critical that these environments are maintained, protected and restored. Primary habitat concerns for the Pigs Eye section of the park include:

- Protection of the Pigs Eye Island Heron Rookery SNA.
- Lack of wildlife and vegetation diversity.
- Invasive vegetation
- Lack of nesting area for migratory birds.
- Lack of aquatic depth diversity in Pigs Eye Lake for aquatic invertebrates, aquatic vegetation, and fish species.
- High levels of wind-fetch and turbidity in Pigs Eye Lake
- Shoreline erosion.
- Lack of shoreline habitat for birds and aquatic plants.

## Need and Long-term Outcome

Pigs Eye natural resources projects and activities will be coordinated by the Ramsey County Parks & Recreation Department and will include ongoing protection in coordination with partnering agencies, site inventories, and restoration of the land and lake resources. Natural resource projects and activities within the Pigs Eye section will be implemented in accordance with MRCCA regulations, which shares a boundary with the Mississippi National River and Recreation Area.

Additional natural resource preservation projects include:

- Conversion of mixed woods to floodplain forest (i.e. reforestation of native floodplain tree species).
- Continued enhancement of existing wetland
- Removal of invasive species
- Revegetation of the existing shoreline.
- Introduction of climate resilient vegetation

It is likely additional site surveys will need to be completed within the Pigs Eye Lake area prior to any restoration work to gather more information about the current state of the area. Inventory information will include wildlife, plant and shoreline surveys and will focus on determining restoration needs for shoreline erosion, invasive plant species removal, and reforestation of floodplain tree species, such as cottonwood. Habitat restoration for upland and flood zone areas includes transition of the mixed forest to floodplain forest, through mainly removal of invasive species.

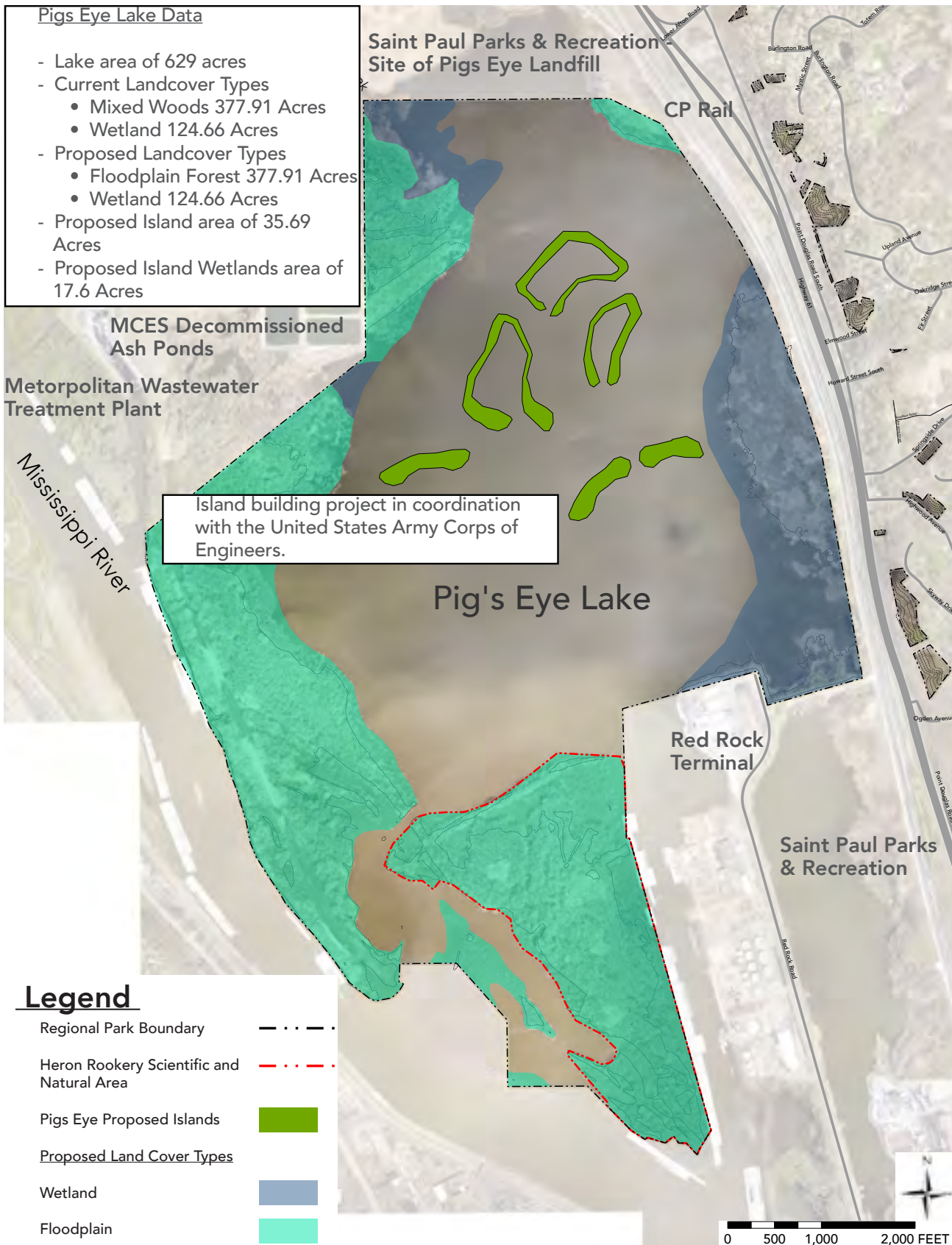
The Pigs Eye island building project will provide much needed wildlife habitat within the lake itself, prevent further erosion to the lakeshore, compliment the surrounding natural resources, and will directly benefit the entire Pigs Eye Lake ecosystem. These restoration efforts are essential to restoring aquatic habitat within Pigs Eye lake and for providing greater diversity of other vegetation and wildlife habitats.

Where feasible within the island building project or other natural resource projects there may be opportunities to either experiment and or implement climate adapted native vegetation to provide greater diversity in a changing climate. In efforts to advance the utilization of climate resilient vegetation, it is likely partnerships may be created with other governmental agencies and or non-profit organizations like FMR and the University of Minnesota, providing the opportunity to apply different habitat restoration approaches within Pigs Eye Lake.

See appendix page 109, Battle Creek System Plan section, for additional information regarding habitat land types and acreage.



# Appendix - Pigs Eye Lake Master Plan



## PIGS EYE LAKE PUBLIC PROTECTION BACKGROUND

Public protection identified in the master plan is meant to provide a high-level summary of public safety components for Pigs Eye Lake and surrounding areas within the regional park boundary. Ramsey County Parks & Recreation acknowledges there is a need to address public health protection for the Pigs Eye Lake area due to surrounding past and current land uses, existing land conditions and potential contamination. Public safety components will need to be addressed before recreational and access improvements can be implemented into the Pigs Eye Lake area. Please refer to the overall Battle Creek Regional Plan master plan for long-term recreational and access improvements for the Pigs Eye Lake section of Battle Creek Regional Park.

Public Safety components covered:

- Existing site and environmental conditions.
- Past testing and environmental studies.
- Additional planning required for long-term contamination cleanup activities.

Overall, the majority of Pigs Eye lake and riparian area is owned by Ramsey County. Adjacent land to the regional park consists of park and industrial land uses. The north end of the lake and adjacent riparian land is owned by the City of Saint Paul. Land northwest of the lake is owned by Metropolitan Council Environmental Services (MCES). A portion of MCES land contains four decommissioned wastewater ash ponds from which MCES has removed ash sludge. The Saint Paul Port Authority owns portions of the lake and riparian land on the southern tip of the lake around the outlet of Pigs Eye Lake into the Mississippi River. The Canadian Pacific Railway, or CP Rail System, is near highway 61 and the east edge of Pigs Eye Lake. Saint Paul Port Authority maintains Red Rock Terminal on the south end of Pigs Eye Lake.

### Pigs Eye Landfill

To the north is the 300-acre site of the former Pigs Eye Landfill on City of Saint Paul property, which was used for the disposal of mixed municipal, commercial, and industrial waste beginning in the mid-1950s until 1972, and for disposal of incinerated sludge ash from 1977 to 1985. According to the Minnesota Department of Health, although commonly referred to as a landfill, the site did not operate according to MPCA landfill rules, which were not yet in place when the site was in operation. Therefore, the site is more accurately described as a dump where refuse of various types was disposed of with minimal control (Minnesota Department of Health, 2000).

As a result of the various types of waste dumped at the site over the years, it is currently listed on the United States Environmental Protection Agency's (EPA) Comprehensive Response, Compensation, and Liability Information System (CERCLIS) and is a Minnesota Superfund site addressed by the MPCA Superfund Program.

Currently, the MPCA is coordinating cleanup activities at the dump site, as required by the Minnesota Superfund Program.

### Hazardous, Toxic, Radioactive Waste

Environmental studies by several agencies, including the Corps, have been conducted in the project vicinity of Pigs Eye Lake. Because there are known sources of hazardous, toxic, and radioactive wastes (HTRW) in the project area, a Phase I HTRW analysis was conducted in June 2016, in accordance with ER-1165-2-132, Water Resource Policies and Authorities HTRW Guidance for Civil Works Projects. The Phase I analysis identified the primary sites with the highest potential for soil and water contamination, which are the Pigs Eye Landfill, a 350-acre site immediately north of the lake, and the Metropolitan Wastewater Treatment Plant property boundary which is approximately 150-feet from the shoreline. As a result of the Phase I report, a Phase II investigation with additional sampling at the proposed project locations was conducted in order to better quantify any potential chemical or environmental contamination that may exist and thereby impact the proposed project. The results of the tests conducted are summarized in Section 2.3.4 of the Island Building Feasibility Report, while full results are included in Appendix E - Sediment Report (see appendix page 303). Section 7.1.6 presents a discussion and



conclusion about the results in regard to the proposed alternative.

### Pigs Eye Lake Sediment Contaminant Testing Summary

The Corps collected sediment samples throughout Pigs Eye Lake and analyzed them for a suite of routinely-tested physical and chemical parameters as part of the Feasibility Study that was completed in 2018. The Corps also collected and incorporated results of tests previously conducted by other entities in Pigs Eye Lake. Contaminant levels found in the tests were compared with several sets of reference values developed by the MPCA to evaluate the acceptability of constructing potential project measures within the lake. The results were coordinated and discussed with local and regional resource agencies. The analysis and coordination led to the conclusions that: (1) The northernmost portion of the lake near the former Pigs Eye Landfill should be avoided as part of this project (incorporated as a planning constraint, see Section 4.2 and Figure 15), and (2) of the Island Building Feasibility Study). Construction of habitat features in the remainder of the lake are not expected to pose an unacceptable risk to wildlife and therefore, overall project planning should continue.

Targets used to interpret the degree of contamination are divided into Sediment Quality Targets (SQTs) and Soil Reference Values (SRVs). The SQTs consist of level I guidance for a high level of protection for benthic invertebrates and level II guidance for the moderate level of protection for benthic invertebrates. The MPCA's SRVs were also compared to the results to determine if the material is suitable for upland placement.

The MPCA oversaw and/or conducted sediment sampling in the northernmost portion of Pigs Eye Lake between 1992 and 2007. Results of the various investigations conducted in the lake indicate that cadmium, copper, lead, zinc, and PCBs are present in Pigs Eye Lake sediments at concentrations that exceed respective level I and level II SQTs. Additionally, perfluorinated chemicals (PFCs), including perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) have been detected in lake sediments. However, PFCs are ubiquitous throughout Mississippi River Pool 2, and with the exception of the area directly around the landfill, PFC levels within Pigs Eye Lake do not appear to be significantly elevated compared to the general region.

The Corps conducted two sediment surveys; 3 boreholes were tested in 2015 and 10 boreholes were tested in 2016. The samples were analyzed for grain size, metals, PCBs, pesticides, PAHs, cyanide, total organic carbon, percent moisture, percent solids and percent total volatile solids. In addition, PFCs were analyzed for 6 of the 10 2016 boreholes. Under MPCA's current SQT and SRV levels, the only exceedances detected in the 2015 sampling were for SQTs and only for the borehole closest to the former landfill (15-1M), except for cadmium which exceeded the SQT I in all three boreholes. Under the proposed changes to the SRVs, cadmium levels from boreholes 15-1M and 15-2M and benzo(a)pyrene from 15-1M exceeded the Residential/Recreational limit but were below the Commercial/Industrial SRVs.

The 2016 results showed similar results as the 2015 survey, with a large number of SQT exceedances, but again there were no SRV exceedances under the current MPCA guidance. Similar to the 2015 results, however, several boreholes showed recreational/residential use exceedances for cadmium and benzo(a)pyrene under the proposed MPCA SRV values.

As an outcome of the Corps surveys, it is believed that the highest levels of contamination are limited to the area adjacent to the landfill. The rest of the lake shows contamination of PFCs, widespread low level (SQT I) exceedances for heavy metals and PAHs, limited locations with higher exceedances for cadmium and PAHs (SQT II and proposed Recreational/Residential SRVs) and no recent detection of PCBs. A detailed discussion of the sediment analysis conducted for the project is identified in the Feasibility Study Appendix E section on page 310.

### Per- and Poly-Flouro Alkyl Substances (PFAS)

The MPCA, Minnesota Department of Health (MDH), and MNDNR have been working to understand the presence and levels of PFAS in Minnesota's environment, especially surface and groundwater. PFAS in Pigs Eye Lake is a concern from a recent discovery of PFAS foam. The extent of PFAS in Pigs Eye or sources of PFAS entering Pigs Eye Lake is unknown at this time however, a site assessment is being conducted by the MPCA, to identify the source of the chemicals and potential clean-up options. This is concerning for Pigs Eye Lake, surrounding areas, and other downstream locations for this pollutant. PFAS are understood to have impacts on human health and environments. Additional planning activities and assessments should be conducted, especially in Pigs Eye Lake to determine the extent of PFAS, sources, remediation efforts, and to implement long-term goals and outcomes to protect the environment and human health.

### Canadian Pacific Railway

The CP Railway, or CP Rail System, is near highway 61 and the east edge of Pigs Eye Lake. The rail yard was built in the 1950s, and currently more than 110 trains pass through this area daily.

### Metropolitan Wastewater Treatment Plant

To the west of Pigs Eye Lake is an upland area, including the Metropolitan Wastewater Plan. The Plant, the largest wastewater plant in Minnesota, is a heavily developed, secure industrial site. The site operates 24 hours per day, 365 days per year treating wastewater and solids from the seven-county metropolitan area as well as receiving some waste from beyond the metropolitan area. Four decommissioned ash ponds, from which MCES has removed the ash, are located to the east of the treatment facilities.

### Saint Paul Port Authority

Red Rock Terminal is located on the south end of Pigs Eye Lake which encompasses a variety of industrial businesses for land and barge access.

### Public Safety Planning Activities

Additional planning and agency coordination will be required to develop a plan for long-term environmental cleanup for Pigs Eye Lake. It is anticipated that Ramsey County would likely take a lead role within the Pigs Eye Lake segment for engaging a multi-agency planning study to identify the project scope, objectives, coordination, stakeholders, agency and public engagement, funding strategy, and process for developing a long-range plan. Outcomes of planning activities will determine the extent and actions required, but for successful outcomes it is anticipated remediation activities and funding will need to be a coordinated effort across agencies and include public interests.

Next steps:

- Secure funding for planning activities
- Initiate an agency-wide planning team to determine project scope, objectives, coordination, stakeholders, agency and public engagement, funding strategy, and process for developing a long-range plan for remediation.
- Initiate an agency and public engagement process
- Initiate additional site assessments and testing to determine the extent of contaminants within Pigs Eye Lake and surrounding areas.
- Develop an agency wide monitoring and stewardship plan.
- Other required planning activities as required dependent on outcomes from long-term planning.
- Secure funding for remediation.

Even though the initial focus for Pigs Eye Lake is for natural resource improvement and public safety improvements, an additional public safety component that may be included within the agency-wide public safety planning process or initiated as a separate planning process following remediation should be considered for required safe public use of Pigs Eye. This process will be a critical step for additional planning, evaluation, and coordinating potential long-term recreational and access improvements after remediation is completed. Please refer to the overall Battle Creek Regional Park Master Plan for potential long-term recreational and access improvements in Pigs Eye Lake.

## MASTER PLANNING CONSIDERATIONS

The following information responds to 6 of the 11-master plan requirements identified in the 2040 Regional Parks Policy Plan with a focus on the Pigs Eye Lake Island building project, and other natural resource activities.

### ACQUISITION COSTS

No Acquisition is proposed in this focused master plan amendment. Potential future access easements may be required by other governmental agency partners related to long-term natural resource improvements for the Pigs Eye islands, other natural resource projects, and environmental cleanup activities.

### STEWARDSHIP PLAN

The natural resources within the Pigs Eye section of the regional park will be restored and managed according to the 2018 system plan. Restoration and maintenance of restored areas will be a priority throughout the Pigs Eye Lake area to carry out the mission of providing adequate sustainable habitats to support populations of native wildlife species. Future restoration projects are listed in the appendix. This list shows the current land cover and proposed land cover changes with associated restoration efforts, ongoing maintenance practices, and costs. Some examples of projects listed include the conversion of mixed woodland to floodplain forest, mainly through the removal of invasive species.

The Pigs Eye island building project will provide much needed wildlife habitat within the lake itself, prevent further erosion to the lake shore, compliment the surrounding natural resources, and will directly benefit the entire Pigs Eye Lake ecosystem.

There is a need to develop a long-term agency wide monitoring and stewardship plan in Pigs Eye Lake as part of public safety planning activities for assessment and restoration of Pigs Eye Lake and the surrounding area after remediation is completed. It is anticipated that Ramsey County would likely take a lead role within the Pigs Eye Lake segment, but this will likely require a coordinated effort across agencies for ongoing maintenance obligations and funding for successful outcomes.

### DEVELOPMENT CONCEPT

This focused master plan amendment addresses natural resource improvements to the Ramsey County Pigs Eye section of Battle Creek Regional Park. This master plan request does not address recreational improvements but will address sequencing of natural resource improvements for the Pigs Eye Lake Island building project, other natural resource activities, and public protection for the Ramsey County section of Pigs Eye Lake and surrounding land area. Recreation improvements for the Pigs Eye Lake section will be addressed in conjunction with long-term improvements in the overall Battle Creek Regional Park Master Plan.

### Sequencing of Natural Resource Improvements

- Pigs Eye Lake Island Building Project (first step of improvements)

- Other Natural Resource Restoration activities and projects
- Pigs Eye Lake Public Protection (may include as a future amendment or agency-wide planning study)

See page 8 for the Pigs Eye Lake Development Graphic

### Pigs Eye Lake Island Building

The development design features include six islands with sand benches with the objective of improving aquatic habitat, terrestrial habitat, and reduction of shoreline erosion by reducing lake wind fetch and water turbulence. Three of the islands would utilize a “split” design that would establish sheltered areas in the centers of the islands, allowing for the creation of approximately 17.6 acres of protected wetland habitat. The other three islands will be constructed as full islands with the addition of a perpetually submerged berm for improved wind fetch and water turbulence control. The recommended plan was developed to address the following objectives in Pigs Eye Lake:

1. Improve aquatic habitat – Create depth and habitat diversity in Pigs Eye Lake. Increase acreage of aquatic vegetation. Incorporate structural habitat features to promote fisheries.
2. Improve the quantity and quality of habitat for migratory bird species – Create suitable habitat for migratory birds such as dabbling ducks within Pigs Eye Lake.
3. Maintain or enhance the quantity of shoreline habitat – Protect existing floodplain forest and marsh habitat along the shoreline of Pigs Eye Lake from wind and wave erosion.

The total estimated cost for constructing the project is \$15.6 million. The Corps Operation and Maintenance budget would provide \$3.2 million toward the project. The remaining \$11.3 million would be cost-shared by the Section 204 program (\$8.1 million) and the local sponsor, Ramsey County (\$4.3 million). In efforts to off-set the local share cost, Ramsey County submitted a LSOHC application for the Pigs Eye Lake Island Building project. In September 2018, Ramsey County received preliminary LSOHC grant approval in the amount of \$4,377,200 and in the 2019 Minnesota Legislative session, Ramsey County received final approval.

### Other Natural Resource Projects

The Pigs Eye section of Battle Creek is within natural resource management Unit 10 as defined within the 2018 Parks & Recreation System Plan – Battle Creek Regional Park section (see appendix page 102). Natural resource projects and activities within the Pigs Eye section will be implemented in accordance with MRCCA regulations, which shares a boundary with the Mississippi National River and Recreation Area. Pigs Eye natural resources projects and activities will be coordinated by Ramsey County Parks & Recreation and will include ongoing protection in coordination with partnering agencies, site inventories, and restoration of the land and lake resources.

Additional natural resource preservation projects include:

- Conversion of mixed woods to floodplain forest (i.e. reforestation of native floodplain tree species).
- Continued enhancement of existing wetland
- Removal of invasive species
- Revegetation of the existing shoreline.
- Introduction of climate resilient vegetation

Surveys of the Pigs Eye area will need to be completed prior to any restoration work to gather more information about the current state of the area. Additional natural resource survey will include wildlife, plant and shoreline surveys and will focus on determining restoration needs for shoreline erosion, invasive plant species removal, and transition of landcover habitats. Anticipated natural resource preservation project costs are estimated at

\$380,000 however, additional project cost may increase depending on outcomes of surveys completed within the Pigs Eye Lake area.

### CONFLICTS

There are a number of items that may be a conflict for implementation of projects and or components addressed in this master plan.

#### Pigs Eye Lake Island Building Project

During the Pigs Eye Lake Master Plan Amendment process some questions and concerns were raised by members of the public regarding the island building project. To adequately address these questions and concerns the Corps and Ramsey County synthesized this information into frequently asked questions and responses found below.

##### Project Planning/Intent

- What is the island building project intent?
  - The island building project is a natural resource habitat project designed to preserve and enhance the aquatic ecosystem. The intention of this project is not environmental clean-up for Pigs Eye Lake.
- Who was involved in developing the feasibility study?
  - There was extensive agency coordination consisting of local, state and federal agencies throughout this study including Ramsey County, the City of Saint Paul, RWMWD, Metropolitan Council, MNDOT, MPCA, Corps, NPS, and U.S. Fish and Wildlife. These agencies had direct involvement in the development and approval of this project. Additionally, groups including Friends of Pool 2, FMR and the Friends of Parks and Trails were included within the development of the feasibility study process. Coordination notices seeking engagement were also sent out to the Shakopee Mdewakanton Sioux Community of Minnesota.
- What public outreach has been done as a part of the project?
  - The project feasibility report was made available for public review and was open for comment from March 12, 2018 through April 12, 2018. A public comment period was conducted by the Corps in accordance with NEPA requirements and Section 404 of the Clean Water Act. Ramsey County published and requested comments concurrently as part of MEPA requirements and the project was published in the Minnesota Environmental Quality Board (EQB) Monitor. Public notices for this review were listed on the EQB website and were also sent out to the public through press releases and identified in the local newspaper, Ramsey County website, and on Ramsey County social media outlets regarding public feedback. All comments received from both the 30-day public comment periods were reviewed, and responses were prepared for development of an EAW Record of Decision (ROD).
- Why was an Environmental Impact Statement (EIS) not completed?
  - During the development of the feasibility study environmental impacts were reviewed. A mandatory EAW was prepared according to NEPA and MEPA Administrative Rules and was submitted to the Minnesota Environmental Quality Board for review and public comment. All comments received were reviewed based on criteria specified in NEPA and MEPA rules and statutes to determine if the project had the potential for significant environmental effects. Based on federal, state and local agency review of these findings, an EIS was not required for the project. These findings were identified in an EAW ROD and submitted to the Minnesota Environmental Quality Board under law.



## Constructability

- What is dredged material?
  - Dredged material is sediment removed from below the surface of a water. The Corps' dredged material is removed from the Mississippi River, and is mostly sand. River currents continuously move sand downstream, and the sand builds up in similar locations each year. The Corps removes material that builds up in the navigation channel so that barges and large boats can travel between Minneapolis and New Orleans.
- Isn't dredged material just waste?
  - All sediments removed from a water body in Minnesota are defined as a "waste" and "other waste material" by Minn. Stat. § 115.01. The statute does not indicate safety or usefulness of the material. All dredged material utilized for this project was tested by independent chemical testing labs in accordance with MPCA standards and was approved for placement in public waters under MPCA standards for habitat creation.
- Is dredged material safe for wildlife?
  - The Army Corps orders tests of dredged material to ensure whether material can be utilized. The dredged material for this project must meet the MPCA guidelines for placement in water for habitat creation. The MPCA guidelines have been developed to protect the creatures that use these habitats. Dredged material is often used for habitat enhancement projects. The Corps has developed thousands of acres of habitat within the Mississippi River using dredged material.
- How is dredge material tested?
  - The Army Corps collects sediment samples from the parts of the river that are dredged. Sediment samples are sent to independent chemical testing labs. The material is tested for pollutants such as metals, pesticides, PAHs, PCBs and cyanide. PFAS (or PFCs) are sampled separately and sent to specialized labs. The MPCA guidelines were followed for testing locations, amounts and test types. MPCA standards were used to evaluate material safety - the SRVs for upland uses and the SQTs for in-water placement.

New sampling at dredge cuts and dredged material placement sites was performed and analyzed with all past dredging data to ensure the material was safe for island building. Similarly, sampling was conducted within Pigs Eye Lake for the project and combined with published sediment studies to make sure the site of the islands and lake access were safe for construction. All results were coordinated with the MPCA and other federal, state and local agencies who participated in a specially formed work group.

- Is Pigs Eye Lake polluted?
  - Testing was performed within and around the project area in Pigs Eye Lake for Level I and Level II SQTs, MPCA's Residential SRVs. Low levels of contaminants such as metals, pesticides, PAHs, PCBs, cyanide and PFAS were found in the Pigs Eye Lake sediments in the area of the proposed islands. The project team consulted with an interagency group of contaminant experts and it was determined that these low levels of contaminants would not pose a risk to wildlife.

There is known pollution nearby that was considered during planning. The former Pigs Eye Dump is located to the north of the lake and operated from 1956 to 1972. Sludge ash from the wastewater treatment plant was placed on MCES property near the northwest corner of Pigs Eye Lake from 1977 to 1985. Remediation efforts started in 1999 and focused on removing drums and batteries that might cause the most environmental harm, and on reducing the erosion and leaching of waste into water exiting the dump site. The dump site is not part of the project area for habitat restoration. The wastewater ash ponds on MCES property have been decommissioned and ash sludge has been removed by MCES.

- Is pollution the problem and not wind-fetch or turbidity?
  - An EIS was completed in 1973 by the Corps when the coal terminal was proposed. The EIS listed pollution as one of three potential causes for a lack of plant growth and limited waterfowl habitat. Biological surveys were also completed in 1972 as referenced in the EIS document. The water quality has improved greatly since the dump was closed and remediated, however, the pollution impact before that certainly impacted a healthy ecosystem. Additionally, the other two factors that are listed in the 1973 EIS are mucky substrate and turbidity. This project will solidify substrate and reduce turbidity thus meeting the other two factors.

### Timing for Implementation

- How is the project funded?
  - The funding being contributed to this project from federal, state and local programs are intended strictly for habitat enhancement. Funding allocated for the project totals approximately \$15.6 million which consist of \$11.3 million in federal funding and \$4.3 million in local funding provided through the LSOHC. All funding is specifically earmarked for the island building project. Implementation of the island building project will start in the spring of 2021 in order to successfully comply with availability of funds.

### Effectiveness

- How would building islands improve Pigs Eye Lake?
  - The islands will provide habitat and shelter for migrating birds and ducks using the lake. The underwater portions of the islands will provide structure and add different sediment types that fish, reptiles, amphibians and water-dwelling invertebrates use. The calm, shallow and stabilized areas around and inside of the sheltered islands will promote aquatic plants for increased wildlife shelter and food. The islands will be strategically placed in Pigs Eye Lake to achieve the greatest benefit for blocking the wind fetch across the lake and breaking up waves. This will help shelter the shorelines from the wind-generated waves and reduce the loss of aquatic plants and shorelines.
- Will the project result in harassing or killing birds?
  - No. The Corps coordinated the project with airport stakeholders because of the proximity of Pigs Eye Lake to the Saint Paul Downtown Airport. The Corps included willow plantings in the project design around the islands to discourage Canada goose nesting, which was the primary concern identified. The Corps has also agreed to monitor bird use and share the data with the Metropolitan Airport Commission. If a potential issue is identified within the interagency team, the Corps will consider modifications or management actions that might be appropriate.

### Adjacent Land Uses

Surrounding land uses consist of regional park and industrial land uses. Most adjacent land uses are industrial except regional park land located on the north side of the lake. Regional park land on the north side of the lake is owned and operated by the City of Saint Paul which is the location of the landfill. These land uses are complex in nature and require additional planning and coordination for improvements within Pigs Eye Lake.

### Public Safety

Additional planning and agency coordination will be required to develop a plan for long-term environmental cleanup for Pigs Eye Lake. Outcomes of planning activities will determine the extent and actions required but for successful outcomes it is anticipated remediation activities and funding will need to be a coordinated effort across agencies and include public interests.

- **Access and Recreation Improvements:** It should also be noted that no recreation or access improvements are proposed in this master plan. Public safety components will need to be addressed before recreational

improvements and access can be implemented in the Pigs Eye Lake area. Please refer to the overall Battle Creek Regional Park Master Plan for long-term recreation and access improvements in Pigs Eye Lake.

- **Contamination:** From past testing and environmental studies, contamination has been found on adjacent land and within the northern portion of Pigs Eye Lake. Two sediment surveys completed by the Corps in Pigs Eye Lake were analyzed for Level I and level II SQTs, and MPCA's Residential SRVs. It should be noted that testing completed by the Corps within the project area did not find contamination that would result in not proceeded with the island building project.

Summary of the sampling found:

- The northern portion of the lake near the existing landfill had the highest levels of contamination which is consistent with MPCA testing.
  - There were low level exceedances for level 1 SQTs.
  - There were limited locations with higher exceedances for level II SQTs and SRVs
- **PFAS:** PFAS in Pigs Eye Lake is a concern from a recent discovery of PFAS foam. The extent of PFAS in Pigs Eye or sources of PFAS entering Pigs Eye Lake is unknown at this time. This is concerning for Pigs Eye Lake, surrounding areas, and other downstream locations for this pollutant. Additional planning activities and assessments should be conducted, especially in Pigs Eye Lake to determine the extent of PFAS, sources, remediation efforts, and to implement long-term goals and outcomes to protect the environment and human health.
  - **Monitoring:** There is a need to develop a long-term agency wide monitoring and stewardship plan in Pigs Eye Lake as part of public safety planning activities for assessment and restoration of Pigs Eye Lake and surrounding areas after remediation is completed. Additional coordination efforts and steps may be required to monitor and evaluate either the spread or reduction of contaminants within the Pigs Eye Lake area. It is likely monitoring may be combined and or coordinated with other governmental agencies.

### Partner Engagement with MCES

Additional planning meetings were conducted with MCES and Ramsey County Parks & Recreation to discuss projects and initiatives identified within the master plan amendment. MCES demonstrated a need for further collaboration and participation to mitigate potential impacts to the Metropolitan Wastewater Treatment Plant. The items of greatest concern for MCES are listed below.

- **Security.** Additional coordination for necessary security steps will need to be considered for improvements within Pigs Eye Lake. For example, the Metropolitan Wastewater Treatment Plant follows the strategic guidance laid out in the National Infrastructure Protection Plan for security of critical infrastructure. Additional coordination and necessary security steps will need to be considered to mitigate security concerns for implementation of projects within the Pigs Eye Lake area.
- **Access and Recreation Improvements.** It should be noted that no recreation or access improvements are proposed in this master plan amendment. MCES has indicated that the Metropolitan Wastewater Treatment Plant property is not available for these amenities. MCES has demonstrated long-term access and recreational improvements within the Pigs Eye Lake area should not be considered until public safety components have been completed. Additional planning, evaluation and coordination should be considered following completion of public safety components in order to better provide these amenities at that time.
- **Monitoring Plan.** It should be noted that a 10-year monitoring plan will be initiated following the implementation of the island building project. MCES has demonstrated a need for additional collaboration with the Corps and Ramsey County for the development of the monitoring plan for pre- and post-construction activities.

### Island Building Dredge Material

There was public concern relating to the utilization of dredge material for the construction of islands in Pigs Eye Lake. All dredge material utilized for island building had testing completed for both SRVs and SQTs. All dredge material utilized for island building is from Lower Pool 2 in the Mississippi River. No material from Pigs Eye Lake will be utilized in the construction of islands. Data shown in Appendix E Sediment Report and dredge material results (see appendix pages 100 and 303) identified testing results for previous dredge material in Lower Pool 2 for both level 1 and level 2 exceedances of SRVs and SQTs.

- Level 1 – No impact to aquatic invertebrates
- Level 2 – Some impact to aquatic invertebrates

Only dredge material from river mile 828.2 and lower and from year 2000 to present will be utilized for construction of islands. Only a small portion of dredge material qualified as level 1, but no material qualified as level 2. Material that was dredged prior to 2000 was either used in building other islands in the Mississippi River or used elsewhere.

### OPERATIONS

Management of Pigs Eye natural resources will be coordinated by Ramsey County Parks & Recreation and will include ongoing protection in coordination with partnering agencies, site inventories, and restoration of the land and lake resources.

#### Pigs Eye Islands

The Corps is responsible for determining ecological success for the ecosystem restoration projects it constructs for up to 10 years following project completion. Monitoring tasks and project evaluation reports will be Corps responsibilities. Close-out of monitoring task would occur when the level of success of the project is determined adequate or when the maximum 10-year monitoring period has been reached. The level of success would be based on the extent to which the project objectives have been or will be met based upon the trends for the site conditions and processes. After the 10-year monitoring period, Ramsey County would assume maintenance and operation activities for the islands.

The Corps will be providing monitoring for the islands for a period of up to 10 years. Monitoring activities will consist of water quality sampling, bird counts, vegetation surveys, elevation surveys, and GIS analysis of the lake's shoreline. The Corps plans to utilize other federal agencies such as the NPS if possible, for some monitoring activities such as bird counts.

Active adaptive management actions by the Corps for the project may include tree, wet prairie, or marsh replanting and herbivory and weed control may be required in the event vegetation establishment fails and replanting is required. Specific adaptive management replanting strategies have not been developed but would be based on the landscape plan and vegetation monitoring activities. In extreme events, adaptive management for vegetation replanting are estimated to be as much as \$120,000 dependent on the amount of vegetation failure, however actual vegetation adaptive management costs are likely to be much lower than that.

#### Other Natural Resource Maintenance and Operation

Management of Pigs Eye natural resources will be coordinated by Ramsey County Parks & Recreation and will include ongoing protection in coordination with partnering agencies, site inventories, and restoration of the land and lake resources.

Within the parks system plan, habitat restoration of Pigs Eye includes information on the transition of the mixed forest to floodplain forest, mainly through the removal of invasive species, with an estimated cost of \$380,000 and ongoing maintenance cost of \$90,000 every three years.

### PUBLIC ENGAGEMENT

Engagement for the master plan was completed on multiple levels for items identified within the master plan from 2015-2020. Both partner engagement for agency coordination and involvement, and community engagement for general participation by the general public was completed for feedback.

Additionally, Ramsey County Parks & Recreation initiated a process to allow further feedback regarding development of the master plan amendment. Below is a high-level summary of public input options.

#### Public Input Options

- **Pigs Eye Feasibility Study** – There was extensive agency coordination consisting of local, state, and federal agencies throughout this study such as Ramsey County, the City of Saint Paul, RWMWD, Metropolitan Council, MNDNR, MPCA, MNDOT, Corps, NPS, and U.S. Fish and Wildlife. These agencies had direct involvement in the development and approval of this feasibility study. Additionally, non-governmental agencies and organizations such as the Friends of Pool 2, FMR and the Friends of Parks and Trails were also included in the review and approval process of the feasibility study. Coordination notices seeking engagement were also sent out to the Shakopee Mdewakanton Sioux Community of Minnesota. Public engagement was completed with two concurrent 30-day public review periods for both MEPA and NEPA processes to allow general feedback from the public.
- **Lessard Sam's Outdoor Heritage Council Funds** – The island building feasibility study was presented to the LSOHC in efforts to obtain \$4.3 million in local funding. The LSOHC is comprised of 12 members made up by the State Legislature (House and Senate) and public appointees by the Governor, House and Senate. Due to high project significance and benefit received, the LSOHC and State Legislature approved project funding and a grant agreement for the implementation of islands in Pigs Eye Lake.
- **Master Plan Amendment** -
  - **Previous public engagement completed** – Past engagement for development of the 2018 Park and Recreation System Plan, and the overall Battle Creek Regional Park Master Plan process that was initiated in 2019.
  - **Additional public engagement** - Ramsey County Parks & Recreation launched a 45-day public review period from August 17, 2020 through September 30, 2020. A virtual public meeting was hosted on September 17, 2020 to allow additional public comment. Notification of the public review period consisted of multiple notifications through social media, email blasts, and the Ramsey County Parks & Recreation website, in addition to a press release in the Pioneer Press. Ramsey County Parks & Recreation also sent out email notifications to the City of Saint Paul, other Federal and State agencies, in addition to non-profit organizations such as FMR.
  - Coordination notices seeking engagement were also sent out to the Shakopee Mdewakanton Sioux Community of Minnesota



### Engagement Results

- Agency engagement responses (subject matter experts) - There was extensive agency coordination and support consisting of local, state and federal agencies throughout the Pigs Eye Lake Feasibility Study including Ramsey County, the City of Saint Paul, RWMWD, Metropolitan Council, MNDNR, MPCA, MNDOT, Corps, NPS and U.S. Fish and Wildlife. These agencies had direct involvement in the development and approval of this feasibility study.

There was broad agency support from government agencies and non-profit organizations for the Pigs Eye Master Plan Amendment. Supporting letters from the NPS, City of Saint Paul Parks and Recreation Department and FMR submitted are included in the master plan appendix on page 26.

#### Agency Engagement Themes:

- Pigs Eye Island Building Project – Extensive support from all levels of federal, state and local agencies through benefits achieved from this project.
  - Public Safety – need for additional long-term planning.
  - Climate resilient vegetation.
  - Opportunity for partnerships and collaborations.
- Community engagement responses – There was mixed support from the public regarding the Pigs Eye Lake Master Plan Amendment. While most of the master plan amendment was supported by the public, there was mixed support by the public regarding the island building project. Most questions and concerns that were raised by members of the public that did not support the island building project revolved around planning/intent, constructability, timing, and effectiveness. Please refer to the Conflicts section on page 14 and Appendix A on page 224 for more detail information regarding questions received and provided responses.

#### Community Themes:

- Constructability.
  - ° Utilization of dredge material.
  - ° Testing.
  - ° Existing pollution.
- Timing for implementation – potential delay of the project until long-term cleanup activities have been completed.
- Effectiveness.
  - ° Benefits of islands in Pigs Eye Lake.
  - ° Long-term clean-up efforts.
  - ° Impact and or benefits to existing wildlife.
- Public Safety – need for additional long-term planning.
- Need for future access and recreation improvements.
- Climate resilient vegetation.
- Opportunity for partnerships and collaborations.

## Supporting Master Plan Amendment Recommendation.

Following the 45-day public comment period, Ramsey County Parks & Recreation initiated a process to obtain supporting resolutions for the master plan amendment. This process including gaining municipal support from the City of Saint Paul, other governmental agencies and organizations. There was broad agency support including federal, state, local, and non-profit organizations. The master plan amendment was presented to the Ramsey County Parks & Recreation Commission on January 13, 2021 and received unanimous support. The master plan will be presented to the Ramsey County Board of Commissioners on February 16, 2021 for approval and submission to the Metropolitan Council. Additional supporting letters were received and are included in the document from the NPS, Saint Paul Parks and Recreation, and FMR.

As part of the agency support process, a request was also sent to the City of Saint Paul for support of the master plan amendment. Ramsey County Parks & Recreation received notification back from the City of Saint Paul in December 2020 indicating a lack of desire to move a supporting recommendation forward for the master plan amendment due concerns and dissatisfaction relating to the public engagement process for the island building project that was included within the master plan amendment.

Although it is preferred to have a supporting resolution from the municipality, it is not required for final approval by the Metropolitan Council. Ramsey County Parks & Recreation continued to move forward in the Ramsey County and Metropolitan Council approval processes. This will allow the current approval process to proceed and not cause delays in the island building project nor jeopardize funding towards the island building project.

- Determination factors. Ramsey County Parks & Recreation rationale for moving forward with the master plan amendment process was based on the following items.
  - Pigs Eye Feasibility Study - There was extensive agency coordination consisting of local, state, and federal agencies throughout this study including Ramsey County, the City of Saint Paul, RWMWD, Metropolitan Council, MNDNR, MPCA, MNDOT, Corps, NPS, and U.S. Fish and Wildlife. These agencies had direct involvement in the development and approval of this feasibility study. Additionally, non-governmental agencies and organizations such as the Friends of Pool 2, FMR and the Friends of Parks and Trails were also included in the review and approval process of the feasibility study. Coordination notices seeking engagement were also sent out to the Shakopee Mdewakanton Sioux Community of Minnesota. Public engagement was completed with two concurrent 30-day public review periods for both MEPA and NEPA processes to allow general feedback from the public.
  - Island Building Project – Delay in the approval of the master plan amendment would substantially affect the island building project and jeopardize LSOHC and Federal funding provided through the Corps. The estimated time to fully complete the island building project is approximately two years and would require the island building project to start in the Spring of 2021 in order to be fully complete and in compliance with the LSOHC grant funding timeline which has an expiration date in 2024.
  - Master Plan Amendment – Ramsey County Parks & Recreation developed a focused natural resource master plan amendment to specifically include the island building project, additional natural resource restoration activities and project, and Pigs Eye Lake public protection. Although the first step of planned improvements is the island building project, the two remaining project components for additional natural resource restoration and public safety project are also equally important for providing long-term habitat outcome benefits and public safety in the Pigs Eye Lake area. The island building project is fully documented in the master plan amendment in addition to supporting information per the completed Pigs Eye Feasibility Study. Ramsey County Parks & Recreation launched a 45-day public review period from August 17, 2020 through September 30, 2020, in addition to a public virtual meeting on September 17, 2020 to allow greater awareness and public participation on master plan amendment components.

### Pigs Eye Lake Island Building Feasibility Study

Ramsey County Parks & Recreation reached out to the Corps Saint Paul District in October 2012 to identify a need for developing a feasibility study within Pigs Eye Lake. In late 2014, Ramsey County Parks & Recreation was made aware that funding for the study would be made available in 2015. The study was initiated in January 2015 and the Federal Interest Determination was approved by the Corps Mississippi Valley Division on May 14, 2015. The Feasibility phase began immediately to identify the project scope, objectives, coordination, stakeholders and process for developing the feasibility study with an integrated Environmental Assessment.

There was extensive agency coordination consisting of local, state, and federal agencies throughout this study including Ramsey County, the City of Saint Paul, RWMWD, Metropolitan Council, MNDNR, MPCA, MNDOT, Corps, NPS, and U.S. Fish and Wildlife. These agencies had direct involvement in the development and approval of this feasibility study. Additionally, non-governmental agencies and organizations such as the Friends of Pool 2, FMR and the Friends of Parks and Trails were also included in the review and approval process of the feasibility study. Coordination notices seeking engagement were also sent out to the Shakopee Mdewakanton Sioux Community of Minnesota.

In an effort to comply with the MEPA and NEPA processes to allow public feedback, there was a concurrent State and Federal public comment period on March 12, 2018 – April 12, 2018 for the Feasibility Study with an integrated EAW. 30-day public notices for both the State and Federal review were listed on the EQB website in accordance to requirements for both State and Federal process to ensure the public had an opportunity to review and comment on all material identified within the Feasibility Study with EAW.

Public comment involvement regarding the development of the project plan and feasibility study ended as an outcome of the Feasibility Study EAW ROD in April 2018. (see appendix for the attached Feasibility Study EAW Appendix A; EAW Record of Decision).

### 2018 Park and Recreation System Plan

Significant public participation was completed to gauge additional amenity improvements in addition to future planning considerations. In preparing this System Plan update, Ramsey County Parks & Recreation recognized a need to engage the community. The System Plan community engagement process was conducted using two methods:

- Electronic Online Survey
- Pop-Up Table Meetings

Electronic media such as social media, website, and email blasts were used to inform residents of upcoming engagement opportunities. An online survey was launched in July 2017 and remained active until February 2, 2018. Almost 1,000 responses were received. In addition, a series of nine informal or “pop-up” table meetings were conducted at various libraries, community centers, and ice arenas located across the county.

### Overall Battle Creek Regional Park Master Plan Amendment/Update

A robust two-phase public participation process was launched to include pop-up workshops, community meetings and collaborative design sessions to gather community feedback on what is and is not currently working. Phase 1 public engagement started spring 2019 which included an online survey, several pop-up events with the public, multiple stakeholder discussions, (3) community forums, and (1) design work shops. Phase 2 public engagement is planned to be completed in 2020 to gather additional feedback for proposed master plan amendment changes. A similar process to phase 1 engagement will be utilized for phase 2 engagement.

- Phase 1 started spring 2019 (online survey, several pop-up events with the public, multiple stakeholder discussions, (3) community forums, and (1) design work shops)
- Phase 2 public engagement is planned to be completed in 2020 for completion of the overall master plan amendment/update in spring 2021.

### **Battle Creek Regional Park Master – Pigs Eye section focused master plan amendment**

Ramsey County Parks & Recreation launched a 45-day public review period from August 17, 2020 through September 30, 2020. A virtual public meeting was hosted on September 17, 2020 to allow additional public comment. Notification of the public review period consisted of multiple notifications through social media, email blasts, and the Ramsey County Parks & Recreation website, in addition to a press release in the Pioneer Press. Ramsey County Parks & Recreation also sent out email notifications to the City of Saint Paul, other Federal and State agencies, in addition to non-profit organizations such as FMR. Coordination notices seeking engagement were also sent out to the Shakopee Mdewakanton Sioux Community of Minnesota.

### **NATURAL RESOURCES**

The Pigs Eye section of Battle Creek Regional Park consists of a 629-acre lake, which is a back water of the Mississippi river, surrounded by 378 acres of land to the west and 125 acres of wetlands to the east and northwest of the lake, which is in the floodplain. Pigs Eye Lake water levels fluctuate with the river and the land within the park boundary is often inundated by water for varying lengths of time. The Pigs Eye section of Battle Creek Regional Park also contains one of the largest heron rookeries in the State of Minnesota and is designated as a State SNA by MNDNR. The Pigs Eye section is included in the National Great River Park and is also defined as an Environmental Natural Area, within the Ramsey County Parks & Recreation Department System Plan, which warrants additional protection and preservation.

Most of the Pigs Eye area land cover consists of mixed woods located on a peninsula of land that separates the lake from the main channel of the Mississippi River. This peninsula of land is historically a floodplain forest but is presently defined as a mixed woods, within the Ramsey County Parks & Recreation Department System Plan. The wooded peninsula consists of typical floodplain trees such as cottonwood, silver maple, green ash, willows, American elm, and some swamp white oak, however several invasive tree species have encroached into this area, such as buckthorn and boxelder. The area is also prone to constant flooding creating an open understory with few shrubs or saplings. Ground cover can consist of forest pools, mucky depressions, bare silt or sand, and dense patches of wood nettle (*Laportea canadensis*) or impatiens (*Impatiens capensis* or *I. pallida*), which can all constantly shift due to movement of water. The wetlands within the park consist of native vegetation, such as prairie cord grass, and various rushes and sedges. Invasive cattails and reed canary grass also dominate a lot of the wetland edges.

The majority of Pigs Eye will remain a natural area to provide benefit to wildlife and for increase diversity. Natural phenomena, such as hydric soils, areas prone to flooding, water features, and wetlands, make up much of the park and will dictate which recreational amenities should be planned for the area. The south portion of the peninsula will remain a SNA for the protection of the heron rookery. Wetlands will remain protected under the State and Federal wetland conservation act.

Management of Pigs Eye natural resources will be coordinated by Ramsey County Parks & Recreation and will include ongoing protection in coordination with partnering agencies, site inventories, and restoration of the land and lake resources. Additional surveys will need to be completed within the Pigs Eye area prior to any restoration work to gather more information about the current state of the area. Inventory info will include wildlife, plant and shoreline surveys and will focus on determining restoration needs for shoreline erosion, invasive plant species removal, and reforestation of floodplain tree species, such as cottonwood. Past natural resource management within the park has included controlled deer hunts, wildlife surveys and planting of native vegetation in conjunction with a sanitary sewer pipe project on the west side of the park.



The Pigs Eye Lake Island Building Project will provide much needed wildlife habitat within the lake itself, reduce wind-fetch, and prevent further erosion to the lake shore. This project is anticipated to, compliment the surrounding natural resources, and will directly benefit the entire Pigs Eye Lake ecosystem. These restoration efforts are essential to restoring aquatic habitat within Pigs Eye Lake and for providing greater diversity of other vegetation and wildlife habitats.

See appendix page 109, Battle Creek System Plan section, for additional information regarding natural resource conditions for the Pigs Eye section of Battle Creek Regional Park.

### Mississippi River Corridor Critical Area (MRCCA)

The Mississippi River Corridor Critical Area Program is a joint state, regional and local program that provides coordinated land use planning and zoning regulations for the 72-mile stretch of the Mississippi River through the seven-county metropolitan area covering 54,000 acres of land in 30 local jurisdictions. The MRCCA shares a boundary with the Mississippi National River and Recreation Area. Any development within the MRCCA in Battle Creek Regional Park would need to adhere to the standards and criteria for the preservation, protection, and management of the Mississippi River Corridor Critical Area under Minnesota Statute 6106.

Per Minnesota Statutes, section 116G.15, subd. 1, the purpose of the designation is to:

1. Protect and preserve the Mississippi River and adjacent lands that the legislature finds to be unique and valuable state and regional resources for the benefit of the health, safety, and welfare of the citizens of the state, region, and nation.
2. Prevent and mitigate irreversible damages to these state, regional, and natural resources.
3. Preserve and enhance the natural, aesthetic, cultural, and historical values of the Mississippi River and adjacent lands for the public use and benefit.
4. Protect and preserve the Mississippi River as an essential element in the national, state, and regional transportation, sewer and water, and recreational systems; and
5. Protect and preserve the biological and ecological functions of the Mississippi River corridor.

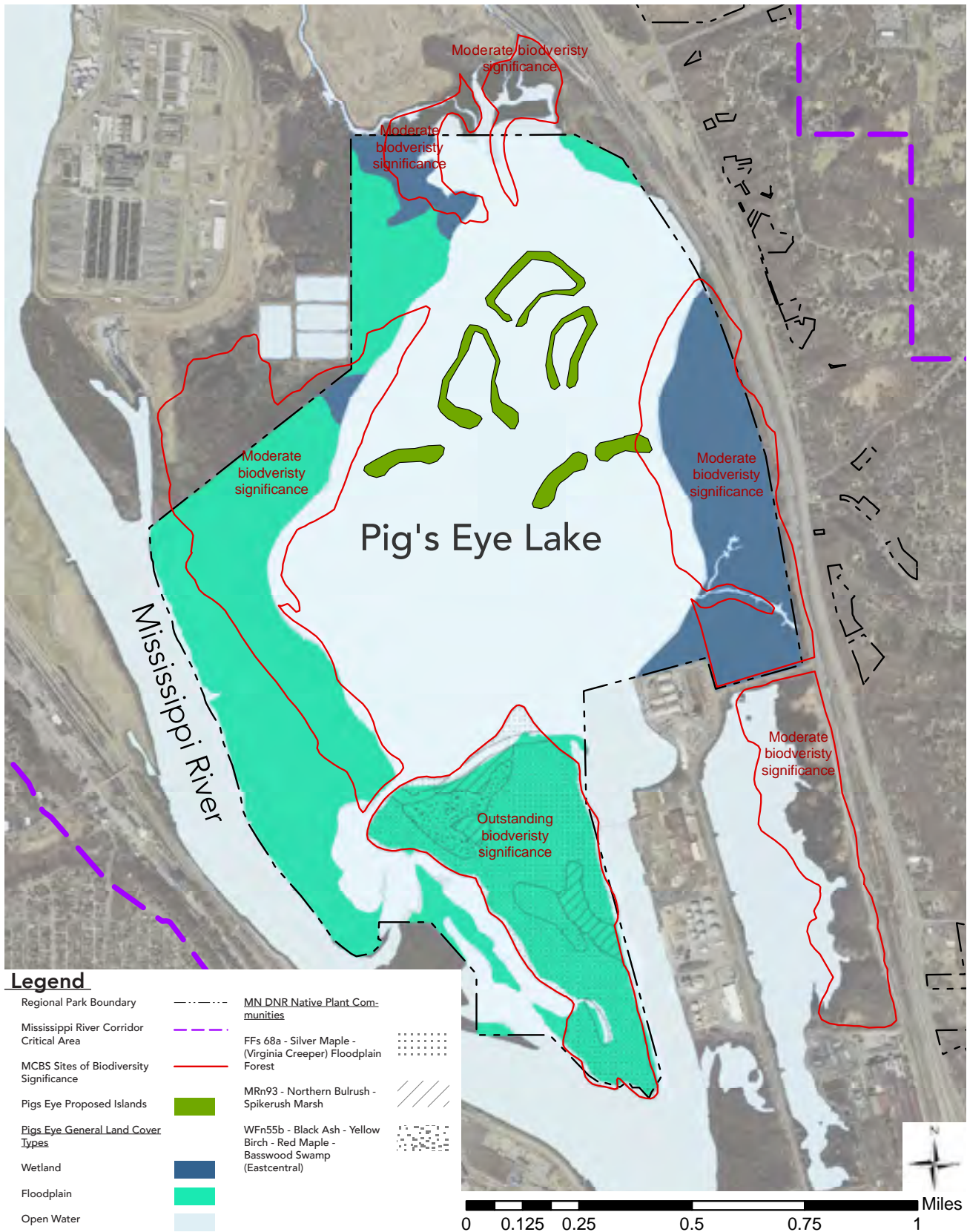
This master plan amendment does not propose the implementation of any public facilities at this time as defined by Minn. Rules 6106.0130 such as, public utilities, public transportation facilities or public recreation facilities. However, the master plan amendment recognizes that the design and construction of future park facilities must comply with the standards contained in Minn. Rules 6106.0130 and will need further evaluation and planning with the public, adjacent landowners, and public agencies. This process will be a critical step for coordinating and implementing potential park facility improvements after public safety improvements are completed as defined in the master plan amendment. Further, any future park facilities and/or projects will be planned, designed and constructed in a manner that protects primary conservation areas and public river corridor views identified by local units of government in their comprehensive plans.

The MRCCA was designated in 1976 to protect its many unique natural and cultural resources and values. These resources and values are protected through development standards and criteria implemented via local land use plans and zoning ordinances.

The MRCCA is home to a full range of residential neighborhoods and parks, as well as river-related commerce, industry and transportation. Though the river corridor has been extensively developed, many intact and remnant natural areas remain, including bluffs, islands, floodplains, wetlands, riparian zones, and native aquatic and terrestrial flora and fauna.



## Pigs Eye Lake - Natural Resources Inventory Graphic



PIGS EYE LAKE MASTER PLAN AMENDMENT | 25

### Natural Resource Inventory (NRI)

Battle Creek Regional Park Management Unit: 10

Dominant land cover type: floodplain forest

Dominant soil type: silt loam

Dominant Terrain: flat

Marschner Pre-settlement Vegetation: Wet Prairie

Government recognition and protection status:

- The entire unit is within the state Mississippi River Corridor Critical Area Program (MRCCA) and federal National Park Service, Mississippi National River and Recreation Area (MNRRA).
- Regionally Significant Ecological Areas and Regional Ecological Corridors.
- Scientific and natural area (SNA): Pigs Eye Island Heron Rookery SNA.
- MN Native plant Community.
  - Sites of biodiversity significance, moderate and outstanding
  - FFs68a - Silver Maple - (Virginia Creeper) Floodplain Forest. Southern Floodplain Forest. 107.7 acres. Vulnerable to Extirpation.
  - MRn93 - Northern Bulrush-Spikerush Marsh. Southern Floodplain Forest. 13.3 acres. Vulnerable to Extirpation.
  - WFn55b - Black Ash - Yellow Birch - Red Maple - Basswood Swamp (Eastcentral). 11.7 acres Northern Wet Ash Swamp. Vulnerable to Extirpation.

Community Structure and Quality: Medium

Management Priority: High

This unit is the Pigs Eye section of Battle Creek Regional Park and consists of an open water lake (Pigs Eye lake) approximately 628 acres, which is connected to Pool 2 of the Mississippi river. Since this lake is a backwater of the Mississippi River, the water level can fluctuate however, the average maximum depth is approximately four feet. Historically, this water body was a shallower wetland with vegetation throughout. After the lock and dam system along the Mississippi River was installed in the 1930's the water level rose along with the river, making Pigs Eye lake an open water shallow lake. The lake is recognized as a public water by the MNDNR, but since the water body is connected to the Mississippi river, the Corps has regulatory jurisdiction over the water body. Another surface water contributor to Pig's eye lake is Battle Creek, which discharges through a series of wetlands on the north side of the lake. The lake has the longest section of natural shoreline in the park system. The lake edge, where vegetation grows, is prime habitat for waterfowl, shoreline birds, raptors, amphibians, and reptiles. The substrate of the lake is a soft bottom throughout. Within the open lake area there is very little structure or submerged aquatic vegetation, due to the water clarity, which is less than one meter and high turbidity. The open lake produces wind-induced shoreline erosion and provides little to no habitat for waterfowl, native fish or other aquatic species in its current condition. In 2015, the Corps began working with the Ramsey County Parks and Recreation department to discuss the construction of islands within the lake to address some of the environmental concerns. Since this time, the Corps completed a feasibility study for constructing island habitat enhancements and a portion of the funding was secured through a habitat grant approved by the Lessard Sam's outdoor heritage council through the Clean Water Land and Legacy amendments Outdoor Heritage Fund. A construction and design plan were completed by the Corps and the island construction is anticipated to begin in 2021 with additional funding provided by Ramsey County. The project will enhance and restore backwater habitat by creating island and wetland features. Project features include six islands, sand benches, marsh habitat and land plantings. These enhancements will improve aquatic and land habitat as well as maintaining the shoreline of Pigs Eye Lake. This project will utilize clean dredged material from the Mississippi to construct the islands, similar to the numerous islands the Corps has constructed in river pools to the south of the metro.

The majority of Pigs Eye area land cover consists of mixed woods located on a peninsula of land that separates the lake from the main channel of the Mississippi River. This peninsula of land is historically a floodplain forest, but is presently defined as a mixed woods with moderate biodiversity significance, within the Ramsey County Parks & Recreation department system plan, due to a number of invasive and tree species that have encroached

into the area, such as buckthorn and boxelder, however, the woods consists of typical floodplain trees such as cottonwood, silver maple, green ash, willows, American elm, and some swamp white oak. The constant flooding of the area creates an open understory with few shrubs or saplings. Ground cover can consist of forest pools, mucky depressions, bare silt or sand, and dense patches of wood nettle (*Laportea canadensis*) or impatiens (*Impatiens capensis* or *I. pallida*), which can all constantly shift due to movement of water. The wetlands within the park consist of native vegetation, such as prairie cord grass, and various rushes and sedges. Invasive cattails and reed canary grass also dominate a lot of the wetland edges. The east side of the lake has some cattail wetlands and patches of lotus. The island in the south portion of the park is of great significance, outstanding biodiversity and is a state protected scientific natural area: Pigs Eye Island Heron Rookery SNA. This island, around 137 acres, is a floodplain forest of green ash, silver maple, cottonwood and black willow which provides excellent nesting habitat for colonial water birds. The Pig's Eye Island rookery is the largest and longest-occupied site for colonial nesting birds in the metro area, and among the largest in the state.

Floodplain forest systems as large as the Pigs Eye unit are rare within the metro and additional preservation and protection, especially for the designated SNA, should be ongoing. The Pigs Eye section is within the MRCCA corridor area and shares the boundary with the Mississippi National River and Recreation Area. Additionally, the Pigs Eye section is included in the "National Great River Park" and is also defined as an Environmental Natural Area, within the Ramsey County Parks & Recreation department system plan, which warrants additional protection and preservation.

Surrounding land use has had historic and current environmental impacts in this area. The open space, owned by the City of St. Paul, abutting the Pig's eye section to the north, was historically the largest unpermitted dump site in the state and was listed as a federal superfund site. Past remediation efforts continued cleanup and monitoring is being completed by the MPCA. The Metropolitan Council Wastewater Treatment Facility is located to the northeast of the site and land use practices, such as abandoned pond holdings, previously used for containing ash sludge, are on the edge of the parkland. To the east is commercial and industrial land use consisting of railroad yards and shipping docks. Barges are docked and line the channel to Pigs eye lake throughout the shipping season. Recreation within the unit is minimal because of limited to no access from land due to surrounding land use. Kayakers and other small boats use the lake.

The wildlife diversity of the park is very high and includes a variety of nesting songbirds, waterfowl, raptors, and wild turkeys. Larger mammals include white-tailed deer, coyotes, red fox, raccoons, and river otters. The Pigs Eye section of the park is especially unique and contains the heron rookery, nesting area for bald eagles, and habitat for countless amphibian, reptiles, migratory waterfowl, and shorebirds. Fish species within the lake consist of common native river fish, such as, black bullheads, crappie, bluegill, catfish, sunfish, freshwater drum. Invasive fauna species within the lake include zebra mussels and carp.

## Management issues

Continued coordination with the Corps is required to ensure the island building project will be successful. A native planting plan and implementation is required, beyond the current willow and grass base design, to ensure quality wildlife habitat following island build.

The extent of survey work being completed by State and local agencies is unknown. Internal park surveys of the Pig's Eye area are severely lacking and will need to be completed to gather more information about the current state of the area prior to any restoration work.

There is pressure for increased access and recreation within the unit.

Coordination and communication with surrounding land use owners is lacking and knowledge of development or restoration on adjacent lands is unknown.

The deer population can exceed the carry capacity of the land in this area.

Management objective, tasks, schedule and cost:

Objective 1:

Communicate with Corps monthly to review status and receive updates of island building progress until islands are established.

Tasks:

- Review current design, budget and plan and discuss any changes.
- List stakeholders to involve in developing native planting plan.
- Engagement with stakeholders to develop and implement plan following island build.

Schedule and costs:

- 2020 - 2024, Monthly: meet with Corps.
- Cost = parks staff time.

Objective 2:

Review existing survey data and determine and complete survey methods necessary to define the diversity level and habitat quality to guide resource decision making.

Tasks:

- Connect with agencies, such as the MN PCA, MNDNR, and NPS, to find most current survey information completed in the area.
- Coordinate with local and state agencies, such as the MNDNR, to help determine sound survey methods for plant and animal data collection.
- Surveys will focus on determining restoration need for shoreline erosion, invasive plant species removal, and reforestation of floodplain tree species, such as cottonwood.
- Parks staff complete surveys if applicable or hire contractor to complete survey and draft restoration guide.

Schedule and costs:

- Year 1: Jan – March. Complete review of existing survey data and determine required surveys and methods to meet objective.
- Cost = parks staff time.
- Year 1: April – October, complete surveys of Pig's eye area and draft guide.
- Cost = contractor cost \$20,000.00.

Objective 3:

Ensure that this unit exists foremost as natural land for wildlife habitat and that all proposed recreation and development will have minimal impact on resources and avoid sensitive areas

Tasks:

- Coordinate with all stakeholders, primarily environmental groups and government agencies, to review any proposed development plans.
- While reviewing plans, the following should be considered at a minimum, but not limited to:
  - No development or recreation will be considered on or around the south portion of the island and peninsula. This area will remain protected for the protection of the scientific natural area heron rookery and follow all state rules.
  - Natural phenomena, such as hydric soils, areas prone to flooding, water features, and wetlands, make up most of the park and will dictate which recreational amenities should be planned for the area. These entities will not be altered for development.
  - List and follow all federal and state regulations, including, but not limited to wetlands will remain protected under the State and Federal wetland conservation act, County recognized Environmental Protection zone, MRCCA rules, national park rules, etc.

Schedule and costs:

- Ongoing: as development is proposed.
- Cost = parks staff time.

Objective 4:

Build stronger relationships with surrounding land use representatives to promote the environmental preservation and improvement of the area.

Tasks:

- Connect with surrounding landowners (Saint Paul Parks, Railroad personnel, Met. Council staff) annually to share work being completed by the parks department and learn about tasks being completed on surrounding lands.
- Share natural resource survey data and promote the importance of preserving unique features in and around the park.

Schedule and costs:

- Annually: ongoing.
- Cost = parks staff time.

Objective 5:

Control deer population.

Tasks:

- Complete annual survey of area.
- Continue with annual special archery hunt.
- Coordinate and contract sharp shooting removal service if population exceeds State standards.



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## BATTLE CREEK

### Off-Road Cycling Master Plan

March 6th, 2018

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### Executive Summary

#### Concept

The goal of this Plan is to implement the proposed trails and amenities for the expansion of the off-road cycling system within Battle Creek Regional Park. RCPRD believes this will encourage novice and young riders to try off-road cycling, while improving the quality of the system for current users. The execution of this Plan will occur over the next 10 years, with more detail of phasing explained within the Implementation section of this document.

Off-road cycling within Battle Creek has grown in popularity ever since the Minnesota Off Road Cyclists (MORC) began working on trails within Battle Creek in the year 2000. With increased demand placed on the current trail system there is both a need and opportunity to expand the trail system at Battle Creek Regional Park. Ramsey County is proposing an increase of approximately 21.22 miles of single track off-road cycling trails to aid in accommodating off road cyclists, hikers and many other user groups. These trails will serve to strengthen the links between the parks setting and natural overlooks through connected trail heads, site amenities and an expanded trail system. The proposed amenities may include storage buildings, trail shelters, restrooms, benches, picnic tables, bike washing stations, drinking fountains, gates, lighting and signage. Together these trails and amenities will allow for patrons of the park to further explore and enjoy Battle Creek Regional Park.

The Battle Creek Off-Road Cycling Master Plan will continue to be managed per the Ramsey County Parks and Recreation System Plan and Natural Resource Management Plan. The Ramsey County Parks and Recreation Department is committed to providing universal accessibility at all trail facilities. Care will be taken to design facilities that meet the requirements of the Americans with Disabilities Act (ADA), as well as principles for universal accessibility to provide all visitors with a meaningful experience.

#### Implementation

No specific timing has been identified for the implementation of the Off-Road Cycling Master Plan within Battle Creek Regional Park. Construction of trails and site amenities could be built in phases. The phasing of the trail system would include the construction of major loops first, followed by secondary and tertiary loops as well as the associated site amenities.

RCPRD will use a variety of tools to promote awareness and use of these additions to Battle Creek Regional Park. Wayfinding signage will be updated as needed following the existing RCPRD Wayfinding Master Plan for consistency with other regional parks and trails.



## Off-Road Cycling Community Outreach

As we move forward with the Off-road Cycling Master Plan, we will invest in developing programs and partnerships to provide better access to the trails for all Ramsey County residents. This will include concerted efforts to increase the diversity of trail riders.

The Battle Creek off-road cycling trails have a few challenging barriers to participation: equipment costs and trail difficulty level being two of the most prominent. To address the latter issue, a beginner level practice area will be developed over time. Until that is constructed, focus will be placed on adult and young adult programs as they will be better suited to handle the trail difficulty. To combat equipment costs, and without our own fleet of bikes, we will need to partner with organization that can provide access to bikes. Some of the identified potential partner agencies include:

- **Cycles For Change** - a non-profit organization working at the intersection of social justice and the bicycle movement.
- **Minnesota Off-Road Cyclists (MORC)** - a non-profit volunteer organization dedicated to safeguarding the future of mountain biking in Minnesota
- **The Major Taylor Bicycling Club of Minnesota** – a nonprofit social/recreational club that promotes safe and fun cycling geared towards the African-American communities of Minneapolis and St. Paul, although all are welcome to join us.
- **The Minnesota High School Cycling League** - state-wide independent activity provider for student-athletes in 7th to 12th grade.
- **St. Paul Police Activities League (PAL)** - PAL promotes youth engagement in a variety of after school and summer recreational activities
- **East St. Paul Bikes** - provides tangible skills to East St. Paul youth while empowering them to provide a service to their community.
- Councilmember Jane Prince whose office represents this area of St. Paul as well as the District 1 Community Council.

Community engagement and outreach will include East Side Somali community via direct outreach, connections with government officials, community members and residential areas such as the Shamrock Court Apartments, Park Apartments and Townhomes and Maplewood Gardens.

Efficiently and effectively monitoring off road cycling programs and community outreach is a priority. Using techniques such as surveys and community engagement sessions, we will regularly analyze what is offered through a performance measurement guideline. Examples may include:

### What We Do

- Number of programs
- Number of program participants
- Number of community partners (groups that help deliver programs)
- Number of partner organizations (groups providing participants) How Well We Do It
- Program attendance
- Do the participants reflect current Ramsey County's demographics?
- Partner organization satisfaction
- Volunteer satisfaction rate (If we have volunteer bike instructors)
- Hours of instruction time/safety training per participant
- Percentage of satisfied participants

### Factors Impacting the Results

- What are the continuing barriers to participation?
- Does this meet a community need?
- Are we communicating effectively?
- Do we have all the equipment we need?

### Is Anyone Better Off?

- Will participants keep riding outside of staffed programs?
- Are participants spending more time exercising? Outside? In a park?

## Planning Framework

### Overview

The purpose of the Battle Creek Off-Road Cycling Master Plan is to guide the development, preservation, management and improvement of new and existing off-road cycling trails and associated infrastructure within Battle Creek Regional Park. Together these trails and amenities will allow for patrons of the park to further explore and enjoy Battle Creek Regional Park.

### Metropolitan Regional Parks and Open Space System

Regional parks and trails are developed in the Twin Cities Metropolitan Area to preserve green space for wildlife habitat and provide a wide range of natural resource-related recreational opportunities such as off road cycling. Established in 1974 the Regional Parks and Open Space System is managed by the Metropolitan Council in partnership with cities, counties, and special park districts. While the operation of the system is the responsibility of cities, counties, and special park districts, the Metropolitan Council supports the regional system with planning, funding, and advocacy. Each implementing agency, such as Ramsey County, is responsible for the development of a master plan for its regional park and open space system. Battle Creek Regional Park is part of the Regional Parks and Open Space System which is overseen by the Metropolitan Council and is operated by the Ramsey County Parks and Recreation Department.

### Ramsey County Parks and Recreation

Ramsey County is the most densely populated county in the State of Minnesota and the parks and open spaces held by Ramsey County Parks and Recreation represent the largest undeveloped land area in the County at over 6500 acres. Within the system there are 6 regional parks, 6 regional trails, 9 county parks, 9 protected open spaces, 5 golf courses and numerous recreation facilities. Ramsey County Parks and Recreation works in cooperation with the Metropolitan Council, the National Park Service, St. Paul Regional Water Services, Minnesota Department of Natural Resources (MNDNR), its municipalities, and other governmental units to advance park, recreation and leisure opportunities for all Ramsey County Residents.

The Vision of Ramsey County is “A vibrant community where all are valued and thrive,” and the mission within the county is “A county of excellence working with you to enhance our quality of life.” The RCPRD follows this mission by preserving, developing, maintaining and managing a system of parks, open space, trail corridors and special use areas; and providing year-round recreational programs, services and facilities which are responsive to changing needs, compatible with the resource base and most effectively provided at the county level.

Ramsey County Parks and Recreation supports the county vision and mission through:

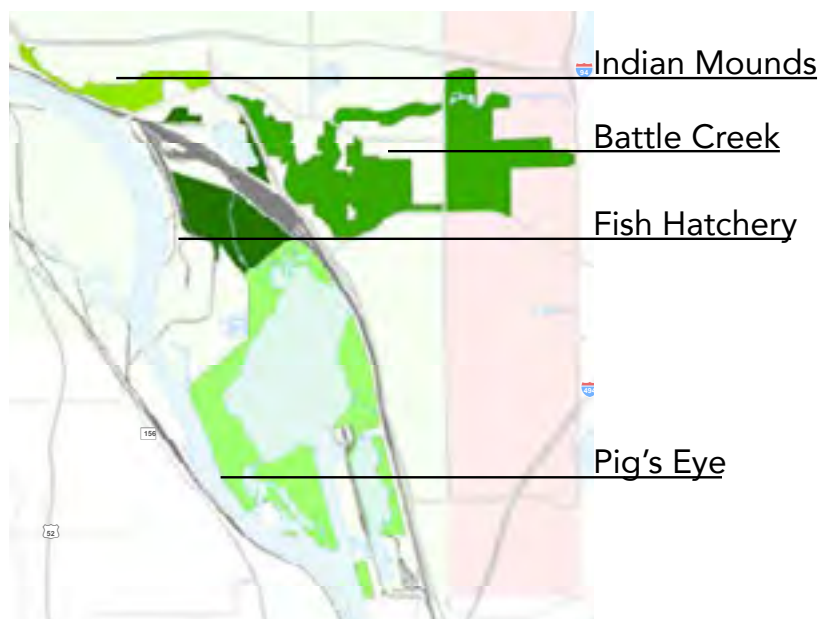
- Trail Services: we coordinate establishment of a Ramsey County-wide system trails plan that connects significant natural and cultural features and implement those segments of county or regional significance that are located on Ramsey County Park and Open Space Land.

- **Open Space Preservation:** we acquire, protect and manage unique, fragile and aesthetically attractive natural resources that contribute positively to the urban landscape, and perform critical natural functions.
- **Natural Interpretation:** we promote positive environmental values through an increased awareness, knowledge and appreciation of natural resources and natural processes.
- **Outdoor Recreation Programming:** we sponsor or co-sponsor recreation programs that encourage development of resource-oriented outdoor recreation skills and promote wellness. We also organize special events that introduce people to recreation opportunities available within the system.
- **Special Recreation Services:** we provide areas, facilities and programs of significance county-wide to meet specialized indoor or outdoor recreation needs of Ramsey County Residents.
- **Park Services:** we provide diverse and accessible areas and facilities primarily for self-directed Ramsey County oriented outdoor recreation that complement the natural features of each site.
- **Equitable Use:** we are strengthening equitable use of regional parks and trails, across all ages, races, ethnicities, incomes, national origin and abilities.

### History

Battle Creek Regional Park, which is under the ownership of Ramsey County through the Ramsey County Parks and Recreation, is in the southeast corner of Ramsey County in the cities of St. Paul and Maplewood. Battle Creek Regional Park is comprised of four segments: Indian Mounds, Fish Hatchery, Pigs Eye and Battle Creek. Ramsey County owns and operates the Battle Creek and Pigs Eye Park segments consisting of 1,456 acres.

The City of St. Paul owns and operates Indian Mounds and the Fish Hatchery segments consisting of 500 acres. The park derives its name from Battle Creek which flows from east to west through the length of the park then south to the Mississippi River. The creek was named following a Dakota and Ojibwa battle that occurred along the creek in 1842.



## Off Road Cycling in Battle Creek

Since 2000, Minnesota Off-road Cyclists MORC has been building off-road cycling trails within Battle Creek. Under a memorandum of understanding (MOU) with the Ramsey County Parks and Recreation Department, MORC's responsibilities have included building off-road cycling trails. MORC helps provide technical support to RCPR in determining the location and design of technical features consistent with the planned ability level of bike trails in accordance with International Mountain Bike Association (IMBA) guidelines. MORC provides and supervises volunteers in the construction of these approved trails. Ramsey County Parks and Recreation's responsibilities include reviewing and approving trail designs and implementation, purchasing materials if needed, and working with MORC in the closing of any trails and beyond. A copy of the complete MOU, which details all responsibilities, can be found within Appendix A.

Several hiking trails at Battle Creek were reshaped and converted into off-road cycling trails. These trails are now considered "Legacy Trails" since they predate International Mountain Bike Association (IMBA) off-road cycling trail design standards. A good example of a Battle Creek legacy trail is the "Luge Trail". The Luge has switchbacks tightly down a steep ravine often exceeding traditional IMBA design standards for off-road cycling trails. Of the existing 5 miles of dedicated single track trails, 2/3 of the trail system consists of legacy trails. This makes the Battle Creek off-road cycling trail system one of the most unique in the region. MORC has enhanced or installed all of the off-road cycling trails within the Park, including the most recent addition, the "Overlook" trail, which is over 1 mile long, and was completed in Spring of 2017 by MORC members and volunteers.

## Stakeholder and Community Engagement

Ramsey County Parks and Recreation Department met with agencies, stakeholders and held community engagement meetings to gather information and input for the creation of the off-road cycling master plan. Agency and stakeholder information was collected first and then a citizen involvement process was initiated that included a public open house, online survey and a comment period on draft materials for public input.

In early 2016 and summer of 2017 RCPRD met with the MORC Battle Creek Trail Steward, whom provided information on all facets of MORC's past, present and future trail building and maintenance within Battle Creek. RCPRD also met with Endurance United, a nonprofit that promotes skiing and trail running within Battle Creek Regional Park. Endurance United contacts were in favor of the plan for off-road cycling expansion in Battle Creek. Endurance United wanted to share that off-road cyclist rarely use the ski trails for cycling so there is little conflict on designated ski trails and that the ideology of any off-road cycling trail should continue to be multi use.

Additionally, RCPRD met with the City of St. Paul and Minnesota Department of Transportation (MNDOT) to discuss the idea of potential off-road cycling trail expansions through their jurisdictional boundaries that border Battle Creek in the northwest corner of the Park. Both entities favored neighboring trail expansions and were receptive to the use of State and City land for a trail access, pending a site plan and approval.



### Highway 61 Overlook

The Highway 61 Overlook is a 10 acre historic site owned and operated by MNDOT and boasts an exceptional view of the Mississippi River Valley. The site consists of a stone overlook wall that was constructed around 1950, a parking area and landscape features. The site is registered as a MNDOT historic roadside development and must maintain its preservation. Any trail expansion or amenities built upon the site would need to be approved by MNDOT and take into consideration a low impact approach.

### Indian Mounds Regional Park

Indian Mounds Regional park is owned and operated by the City of St. Paul. The park extends along a bluff line overlooking downtown Saint Paul and is home to six Native American burial mounds high atop 450 million-year-old limestone and sandstone bluffs. The majority of the Park is west of highway 61 and there is a small 3.8-acre parcel owned by The City of St. Paul that abuts Battle Creek Regional Park. Historically off-road cycling has not been allowed within the park West of Highway 61 because of the steep topography and concerns over potential erosion. City staff were open to the idea of formalizing the trail through the Cities 3.8 acre parcel adjacent to Battle Creek, to create a better connection through the city and county land and assess how trails are built and maintained through a cooperative effort with MORC.

In February through June of 2017 RCPRD conducted an online survey to gather more information from the public on use of the Battle Creek off-road trails. The online survey included questions about current trail use, access, demographics and a needs analysis. There were 142 survey responses submitted. The survey questions and results can be found in Appendix F.

On February 28, 2017 RCPRD held a public meeting with an open house forum. There were over 60 people in attendance. RCPRD encouraged all attendants to make comments and share ideas on site maps of Battle Creek depicting the current trail system. Features were drawn on the map by some attendees and many comments were submitted as well, See comments in Appendix B.

In the summer of 2017, RCPRD drafted a proposed concept map of the Battle Creek off-road cycling trail expansion and future amenities, incorporating information gathered and internal analysis of the site. The map was posted online for public review and comment, 43 comments were received.

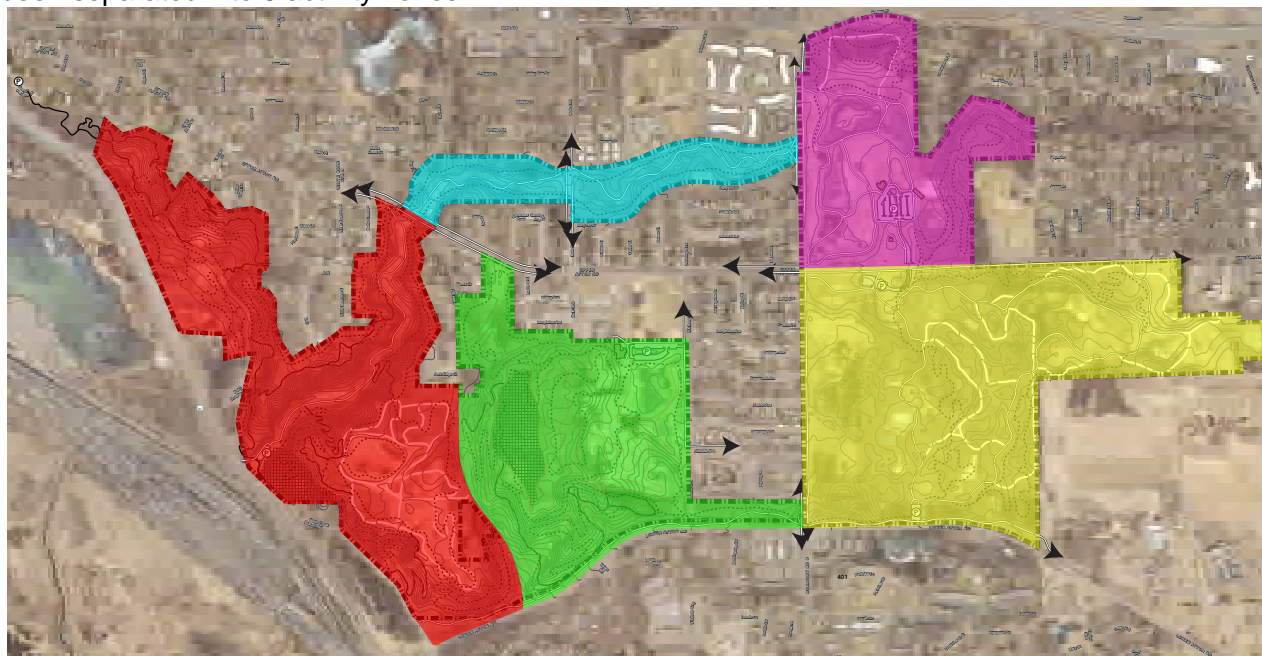
Incorporating information taken from stakeholders, the survey and public input, the Battle Creek Trail Steward and RCPRD staff laid out the proposed trail expansion locations included within this Plan.

### Demand Forecast

Off road cycling is one of the fastest growing categories in cycling sports, and with the increase of riders comes the need for more trails and additional amenities. Varying the trails to accommodate differing skill levels of riders is also an objective to the trail expansion. In addition to adult riders schools are creating more and more off-road cycling clubs and leagues, such as the Minnesota High School League, to introduce riders of all abilities at a younger age. Statewide there are over 60 high school clubs in MN, with around 25 clubs in the Metropolitan area. Battle Creek has been a destination for many off-road cyclists because of the unique terrain and number of legacy trails, which many other trail systems do not offer. Stakeholders and the public made it clear that additional trails would increase the capacity and breadth of riders at Battle Creek Park, while providing more continuity and a more pleasurable riding experience. Currently, there are an estimated 150 off-road cyclists that use Battle Creek on a consistent basis, with most being intermediate to advanced riders. Expanding the trails system and incorporating varying skill level trails will expand the use from beginners to more advanced riders.

## Existing Conditions

Battle Creek Regional Park consists of approximately 850 acres of total park space. The park has 5 parking lots throughout with space for 648 vehicles. For the purposes of this report the park has been separated into 5 activity zones:



North Programmed Activity Zone



Eastern Trails Zone



Central Trails Zone



Western Trails Zone



Battle Creek Corridor Zone



- 1) North Programmed Activity Zone: North of Upper Afton Road and East of McKnight Road North.

The North Programmed Activity Zone within Battle Creek Regional Park serves as the primary active recreation area within the park. The area consists of several informal picnic areas, a large group pavilion and medium sized pavilion available for rent and a 265 car parking lot.

In addition there are 2.04 miles of in park bituminous trails and 0.42 miles of mowed grass trails. Waterworks, a family oriented aquatic center which includes an interactive water play area, leisure pool, water slide and sand play area is also located within the North Programmed Activity Zone of Battle Creek along with a large turf open space for unprogrammed recreational opportunities, such as special events and cross country running meets.



North Programmed Area Pavilion

2) Eastern Trails Zone: South of Upper Afton Road and East of McKnight Road South.

The Eastern Trails Zone is primarily wooded space with prairies and wetlands that serve as passive recreation opportunities. The Battle Creek Dog Park is located in the South West corner of this zone and consists of approximately 42 acres. The dog park is completely fenced in with 3 main access points. Walking, biking, hiking and cross country skiing are the main uses of this area with 3.54 miles of in park bituminous trails and 2.59 miles of grass mowed trails. The Zone is served by two parking lots. The north parking lot off of Upper Afton Road has 102 parking stalls and also serves as an overflow lot for the pavilions and Waterworks.



Eastern Trails

The south parking lot is located off of Lower Afton Road and has 64 parking stalls. The Battle Creek Bike Path runs along the southern edge of the site eventually leading to the Sam Morgan Regional Trail.

3) Central Trails Zone: South of Upper Afton Road, East of Battle Creek Road, North of Lower Afton Road and West of McKnight Road South



Central Trails

The Central Trails Zone consists of various trails including ski trails, off-road cycling trails, paved trails and hiking trails. The ski trails in this section of Battle Creek Regional Park have been homologated by the International Ski Federation. A homologated trail is one that has been designed and inspected to the standards set forth by the FIS. There are 4.74 miles of dedicated cross country ski trails in this zone, 2.5 miles of this is lighted trail. There are also 1.29 miles of single track off-road cycling trails and 0.41 miles of in park bituminous trails. The Battle Creek Community Recreation center also lies in this zone, the recreation center and associated 179 stall parking lot were developed by the City of Saint Paul under a joint powers agreement. Per this agreement the parking lot is available for all trail users and Ramsey County has priority rights to use the recreation center for interpretive programming. A lighted sledding hill also sits adjacent to the recreation center.

4) Western Trails Zone: South of Upper Afton Road, North East of Highway 61, North of Lower Afton Road and West of Battle Creek Road.



The Western Trails Zone consists of trails primarily for use by hikers, bikers, and cross country skiing. The zone lies almost completely undeveloped other than the trails and a 38-stall parking lot which is adjacent to Highway 61 and north of Lower Afton Road. There are 3.73 miles of single track off-road cycling trails, 1.85 miles of in park bituminous trails, and 2.42 miles of grass mowed trails. This zone is highly undeveloped providing a unique opportunity within the greater metropolitan area for hikers, birders and many other user groups to explore the natural beauty of the site. The trail underpass near the parking lot off of Park Entrance Road allows for safe travel under Highway 61 and links the site with the Sam Morgan Regional Trail. Single track off-road cycling and hiking trails follow the site along Highway 61 and links the park with the Burns Avenue Historic Overlook, owned and managed by the Minnesota Department of Transportation.

5) Battle Creek Corridor Zone: Battle Creek West of McKnight Road, North of Larry Ho Drive, East of Upper Afton Road and South of North Park Drive.

The Battle Creek Corridor Zone consists of the land surrounding Battle Creek connecting the Western Trail Zone to the North Programmed Activity Zone. The corridor is primarily used by walkers and bikers containing 1.04 miles of in park bituminous trails.

### Off-Road Cycling Trails:

A total of 5 miles of dedicated single track off-road cycling trails exist today within Battle Creek Regional Park, with most trails located in the Western Trails Zone and the remainder of the trails located within the Central Trails Zone. Approximately 2/3 of the trail system consists of legacy trails and 1/3 of the trails are built to IMBA standards. Many of the legacy trails are named for their unique features and consist of the following:

The Luge: An expert rated trail approximately 0.35 miles in length located in the Western Trails Zone. The Luge starts atop a bluff and then twists and turns down a natural ravine before flattening out and exiting onto the paved trail near the creek.



The Luge



**Wall of Death:** An expert rated trail approximately 0.18 miles in length located in the Western Trails Zone, that starts along the bluff ridge and descends toward the Creek. The Wall of Death boasts a rock garden technical feature and is typically ridden downhill, with some riders trying to ascend the Wall of Death to see how far they can ride without dismounting.

**Jesus Saves:** An intermediate section of trail approximately 0.21 miles in length located in the Western Trails Zone. The trail starts at a point along the paved trail adjacent to Battle Creek and then ascends slightly to the east until rising sharply in elevation before reaching the peak. Upon reaching the peak of the trail riders come across an abandoned ski jump foundation. This trail also contains small rock gardens at the beginning of the trail. This section of trail is used frequently by hikers on foot so riders should use caution. The trail was named Jesus Saves because of some eccentric graffiti that was painted on a rock adjacent to the trail.

**North Rim/Dingo:** An intermediate rated trail approximately 0.57 miles in length continuing from Jesus Saves. The North Rim trail descends from the top of the hill and has a few sections of rooting drops and sandy landings. There are many smaller trails branching off that are either mainly hiking trails or end in rutted, abandoned descents. Off-road cyclists are encouraged to use the main trail leading to a series of switchbacks at the end of the hill, at the bottom of the descent the trail transitions to the Dingo nickname weaving tightly between trees as it goes along a section of prairie. The end of the trail exits onto an abandoned section of Old Point Douglas Road.

**Goat:** an expert rated two way trail approximately 0.59 miles in length. Consistently rated as one of the best trails in Battle Creek Regional Park the trail descends quickly and begins with some rollers and easy jumps. As the trail steepens there are a couple of drops in the trail. A large rock-over is a qualifying technical feature for a much steeper downhill rock garden, there is a filter trail to go around the rock-over with some tight turns but it provides a gentler way down the hill. Riders who decide to take the more difficult rock-over and downhill rock garden should stay on the rocks and not ride around them, due to the trails steepness when riders go around the trail they cause rainwater to gully their tracks widening and rutting the trail causing excessive erosion. After the rock garden the trail widens and continues on to Fern Gully.



Goat Trail

**Overlook:** A two way intermediate rated trail approximately 0.59 miles in length located in the Western Trails Zone. This trail connects the north end of the abandoned section of Old Point Douglass Road and the Highway 61 Overlook. From the end of Point Douglass Road the single track curves around a hiking trail that is worn in a straight path through the woods. Approximately 3/4 of the way north along the trail there is a technical feature consisting of a long skinny foundation, several concrete drops and crumbling steps. The trail is heavily used by hikers and off-road cyclists alike so caution should be exercised to avoid any collisions.

### Natural Resources Inventory

#### Ecological Significance:

At over 800 acres Battle Creek Regional Park is the largest expanse of land owned and operated by Ramsey County Parks and Recreation. The Park is surrounded by medium to high density urban and residential land use, which makes Battle Creek a natural area of high ecological significance for flora and fauna within the twin cities metro ring.

#### Land Cover:

The natural vegetation within Battle Creek is a mixture of prairies, oak savanna, oak woods and wetlands. Current vegetation includes these native land cover types plus brome grass fields, pine plantations and mixed forest. There are also several smaller unique habitats throughout Battle Creek. These include seep swamps with skunk cabbage and marsh marigolds as well as mesic hardwoods with yellow birch and white pine. Much of the natural vegetation has been highly degraded. Invasive species have become widespread in most habitats. The most troublesome species include buckthorn, black locust, garlic mustard and purple loosestrife.



Native Spotted Joe-Pye Weed and Jewelweed (background) growing in a wetland seep. There are several wetland seep open areas along the hillsides of Battle Creek

#### Water Resources:

Battle Creek Park encompasses Battle Creek, which flows from Battle Creek Lake in Washington County and south to southwest into Pig's Eye lake which is a backwater of the Mississippi River. Approximately half way downstream the length of the Creek a series of ponding reservoirs were created on Battle Creek Parkland for storm water volume control to aid in flood prevention. Improvements to the creek and surrounding watershed made by the Ramsey-Washington Metro Watershed District has corrected numerous erosion problems and restored natural areas along the creek within the Park. Although the creek has been altered to accommodate storm water run-off from the surrounding development, it remains a positive natural resource feature within the Park.

#### Topography:

The most prominent visual characteristics of the park are the steep wooded slopes of the Battle Creek Bluffs, including limestone outcroppings and caves. Battle Creek flows through the steepest terrain varying in depth from 25 feet to over 150 feet. The bluffs are significant in the development of the park as they provide a corridor and barriers as well as panoramic views of the river valley.

### Wildlife:

The park hosts diverse wildlife especially on the Pig's Eye Lake segment with its heron rookery, bald eagle nests, migratory waterfowl and shorebirds. The Battle Creek unit has a variety of nesting songbirds, waterfowl, raptors, and wild turkeys. Larger mammals include white-tailed deer, coyotes, red fox and raccoons.

Wildlife management in the park involves the control of white-tailed deer and Canada goose populations. Deer are managed using special hunts under the Ramsey County Cooperative Deer Management Plan in partnership with the cities of Maplewood and St. Paul. Geese are controlled by selective removal of nesting birds in areas where they are nuisances. Nesting boxes are provided for wood ducks and eastern bluebirds within select areas of Battle Creek.

### Natural Resource Impacts of Trail and Amenity Expansions:

The protection and restoration of natural resources will be an utmost priority. The construction of trails will be completed in a manner to avoid long term erosion problems and sensitive natural areas. Any trail builders including MORC will obtain approval of trail alignments by the Ramsey County Natural Resources Manager prior to building any trails. The County Natural Resource Manager will continue to work with trail users on preventing the spread of terrestrial invasive species. Future steps to prevent the spread of invasive species within the Park will include increased educational online material, invasive species signage along the trail system and the potential for bike washing and boot brush stations to clean tires and footwear of any invasive seed material.

### Historic Resources Inventory:

Battle Creek Regional Park holds historical significance as the Creek is named after a Native American conflict that occurred along its shores. All future expansion plans within the Park will determine the requirements set forth by Federal, State and Local regulations in regards to historic preservation and archaeological review and follow these guidelines prior to any development.

## **The Plan**

### **Development Concept**

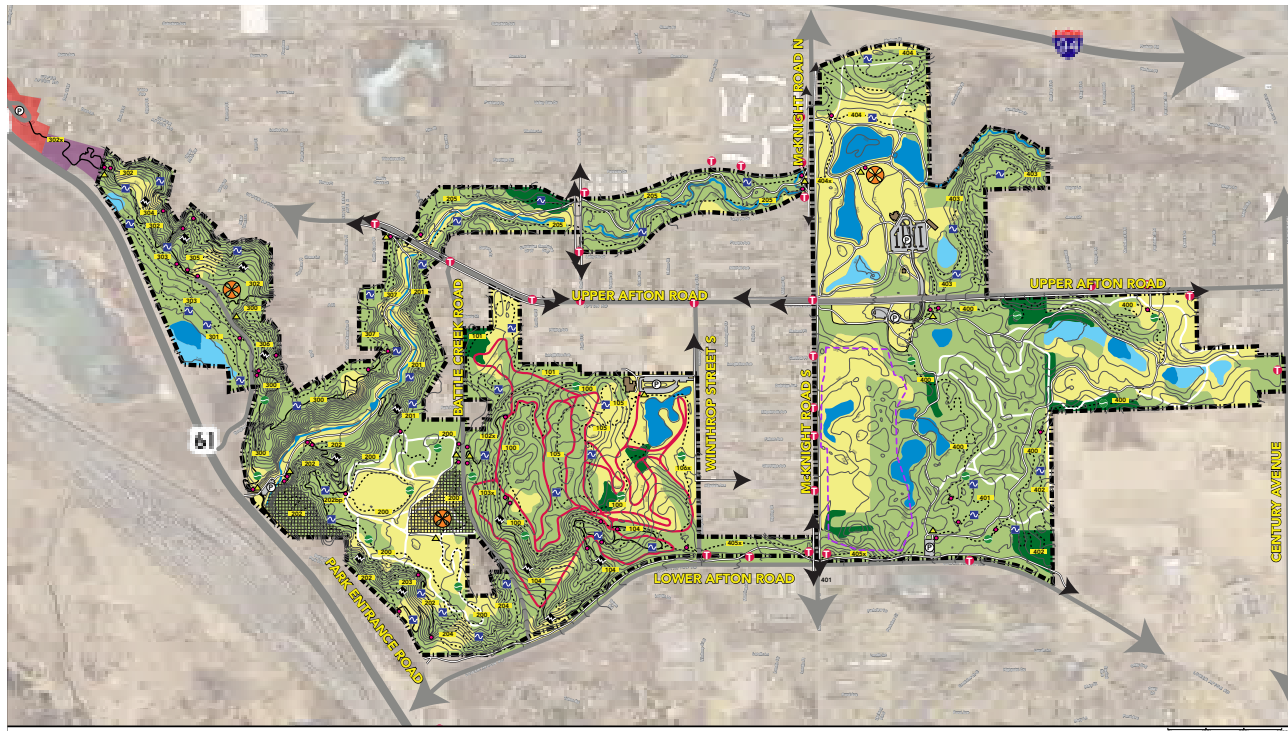
The Battle Creek Regional Park Off-Road Cycling Master Plan has been developed to guide the development of the future trail system as well as create uniform standards. In an effort to help develop a framework for the plan, Ramsey County has worked alongside various user groups, agencies and the public through a series of individual and open house public engagement meetings. The future trail system will primarily focus on connecting looped single track off-road cycling trails to limit the use of paved/grass trails as connections. Other key components of the plan address standards for trail building, access points to trails, parking lots, signage, skills areas, and site amenities. See page 14 for full concept plan.

### Single Track Off-Road Cycling Trails

A single-track trail system has been developed through multiple public meetings and design sessions coordinated with the Minnesota Off Road Cyclists (MORC). The plan focuses on creating a stacked looped system that is attainable for off-road cyclists of any skill level. Stacked loops allow for a wider variety of trails and creates an overall loop, which provides off-road cyclists the ability to traverse the entirety of Battle Creek Regional Park. The existing off-road cycling trail system was originally developed primarily within the Western Trails Zone, with very few single-track trails in the Central Trails Zone, and did not accommodate future expansion for trail variety and skill levels. Single track trails utilizing stacked loops are proposed to be developed throughout all zones within the park. This will greatly expand the variety of trails with varying skill levels, increase use and access from additional parking lots and public transportation stops. There is also an emphasis on developing an overall loop for novice riders. All Trails within Battle Creek Regional Park are multi-use, which means that hikers, walkers, trail runners and other user groups will continue to be allowed to use any current or future off-road cycling trails.

Currently Battle Creek does not allow organized off-road cycling races on the trails. This is partly because the current trail configuration is not conducive for racing. However, with the development of the stacked loops and greatly expanded connectivity of the park, racing could be looked at as an option in the future.

All proposed single track trails shall adhere to IMBA trail building Standards when being planned and constructed.



## Legend

Multi-Use Paved Trails	Proposed Skills Areas	Contours: Interval 10'	Landcover Types	Trail - Length - Difficulty	Total Trail Miles: 26.22
Existing Off-Road Cycling Trails	Future Development Area	Metro Transit Stop	Deciduous Forest	1000 1.46 Miles	1000 1.47 Miles
Proposed Off-Road Cycling Trails	Existing Buildings	Easy Trail Difficulty	Grassland	1000 0.94 Miles	1000 1.39 Miles
Grass Mowed Multi-Use Trails	Parking Lot	Moderate Trail Difficulty	Coniferous Forest	1000 0.20 Miles	1000 0.59 Miles
Cross Country Ski Trails	Wayfinding Signs	Hard Trail Difficulty	Open Water	1000 0.42 Miles	1000 0.62 Miles
Dog Park Fence	Directional Signpost		Emergent Wetlands	1000 1.64 Miles	1000 0.25 Miles
				1000 0.00 Miles	1000 0.53 Miles
				1000 0.85 Miles	1000 0.29 Miles
				1000 1.74 Miles	1000 0.59 Miles
				1000 0.40 Miles	1000 1.59 Miles
				1000 1.03 Miles	1000 0.82 Miles
				1000 2.06 Miles	1000 1.82 Miles
				1000 1.82 Miles	1000 0.09 Miles
				1000 1.47 Miles	1000 0.48 Miles

Other Public Lands  
City of Saint Paul  
MN DOT

RAMSEY COUNTY | 16



### Proposed Trails

The single track off road cycling system has been developed so that zones within the park coincide with a corresponding number. The designated single track series are as follows:

- Central Trails Zone - 100 Series Trails
- Battle Creek Corridor and East of Battle Creek Within the Western Trails Zone - 200 Series Trails
- West of Battle Creek within the Western Trails Zone - 300 Series Trails
- Eastern Trails Zone and North Programmed Activity Zone - 400 Series Trails

All Trails within Battle Creek will be rated based on the scale below, see Appendix D for further information on how trails are rated.

- Green = Easiest
- Blue = More Difficult/Moderate
- Black = Expert
- Red = Extremely Difficult/Most Difficult

Upon final build out of the proposed trail system set forth in this master plan there will be approximately 27.52 miles of single track trails developed and split into the following ratings:

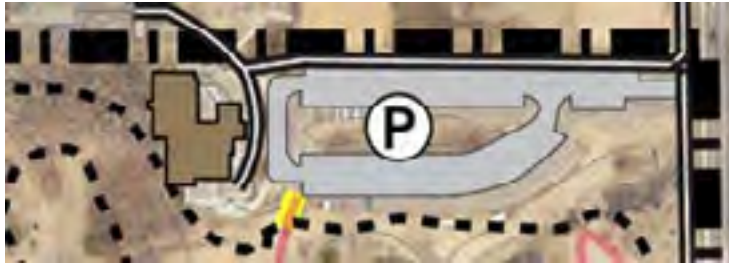
- 7.75 Miles of Green Rated Trails
- 15.42 Miles of Blue Rated Trails
- 4.35 Miles of Black Rated Trails

### 100 Series Trails



The 100 series trail system is proposed for development within the Central Trail Zone and contains approximately 5.94 miles of single track trail. This area within Battle Creek Regional Park is an ideal location for off road cyclists to begin due to the large parking lot available at the Battle Creek Community Recreation Center as well as a mix of easy to intermediate trails available. The 100 series trail improvements are as follows:

**100x:**



A short connection trail leading to the 100 loop from the Battle Creek Community Center parking lot approximately 0.02 miles in length and given a trail rating of Green.

**100:**



The main loop within this area of the park to be used by off-road cyclists as the access to the other stacked loops in the 100 system. Approximately 1.44 miles in length and given a green trail rating.

**101:**



A blue rated trail loop off of the 100 section replacing the use of Big Sandy which is a designated ski trail. Approximately 0.94 miles in length.

**102x:**



An existing connector trail to Battle Creek Road Approximately 0.2 miles in length and given a green trail rating.

**103x:**



A proposed connection trail to Battle Creek Road developed with more switchbacks than the current connector. Approximately 0.42 miles in length with a green trail rating.

**104:**



An existing trail with modifications to be made in the future to enhance the long term durability. Established sections such as the Goat Path and Fern Gully are to be preserved in the future. A Black rated trail off of the 100 loop approximately 1.64 miles in length.

**105:**



A proposed loop off of the main 100 trail. Approximately 0.85 miles in length, blue trail rating.

**106x:**



A connection trail leading from the Battle Creek Community Recreation center leading to trail 405x which connects the Central Trails Area to the Eastern Trails Area off-road cycling trails. Approximately 0.43 miles in length, green trail rating.

## 200 Series Trails



The 200 series trail system is proposed for development to the East of Battle Creek within the Western Trails Area and extending up the Battle Creek Corridor and eventually connecting with the 400 loop system in the North Programmed Activities Area. Overall the 200 series trails will contain approximately 7.96 miles of single track trail upon final build out. This section of trail would be an ideal area to develop overlooks as the bluff top area offers spectacular views of the surrounding landscape. This system would include the following trail improvements:

**200:**





New proposed off-road cycling single track trail encircling the bluff top. Approximately 1.74 miles in length, green trail rating.


**201x:**





Short connection trail over Battle Creek leading to the 300 loop system. Approximately 0.03 miles in length, blue trail rating.

- 201:**  Proposed expert level loop leading off of trail 200 and using parts of existing trail. The Wall of Death feature would be retained in the new layout of the trail as well as the connection to the paved multi-use path along Battle Creek. Approximately 1 mile in length, black trail rating.

- 202x:**  A short connection trail allowing bikers the opportunity to enter or exit the 202 loop onto the in park bituminous trail running along Battle Creek. Approximately 0.03 miles in length, blue trail rating.

- 202bp:**  A short approximately 0.05 mile bypass trail allowing less experienced trail riders to go around a more difficult, technical section of trail. Blue trail rating.

- 202:**  A proposed difficult and technical trail section to be built by hand. Approximately 0.44 miles in length, black trail rating.

- 202:**  A combination of proposed and existing trail. The 202 loop would contain the Luge and instead of exiting onto the bituminous trail along Battle Creek would instead loop back towards the South West running along Park Entrance road before climbing back up towards the bluff top and doubling back to the 202bp and black rated sections of the loop. Approximately 1.61 miles in length, blue trail rating.



**203:**



A proposed technical trail section breaking off of the 202 loop. Approximately 0.40 miles in length, black trail rating.

**204:**



Proposed new trail exploring a piece of Battle Creek which currently has no trails developed. The loop will take off to the South from the bluff top towards the intersection of Lower Afton Road and Park Entrance Road running alongside Battle Creek Road before doubling back in the same direction and returning to about the same spot along the 200 loop. Approximately 0.82 miles in length, blue trail rating.

**205:**



A proposed trail section running along the North and South of Battle Creek within the Battle Creek Corridor Zone. The trail would connect the 200, 300 and 400 loops. Approximately 1.82 miles in length, blue trail rating.

### 300 Series Trails



The 300 series trail system is proposed for development to the North and West of Battle Creek within the Western Trails Zone of Battle Creek Regional Park. Overall the 300 series trails will contain approximately 6.86 miles of single track trails. This area of the park would add the most black rated trails and contain almost no beginner level trails, keeping experienced riders interested in returning to the Battle Creek Regional Park off road cycling system. This system would include the following trail improvements:

#### **300:**



This trail section is proposed to contain Jesus Saves, Dingo and North Rim while constructing new portions of trail to link them all as well as create a loop. Approximately 1.45 miles in length, blue trail rating.

#### **300x:**



An existing trail connecting the 300 loop to the Park Entrance Road parking lot. Approximately 0.15 miles in length, blue trail rating.

- 301:** A proposed new trail loop extending to the South of Old Point Douglass Road. Approximately 0.5 miles in length, blue trail rating.



- 302x:** An existing connection trail containing a portion of the Overlook Trail connecting the new looped system to the Highway 61 Historic Overlook. Approximately 0.19 miles in length, blue trail rating.



- 302:** An existing trail consisting of a piece of the Overlook trail and a recently finished portion of trail to make a loop. Approximately 1.60 miles in length, blue trail rating.



- 303:** A proposed trail loop breaking away from an existing portion of the Overlook Trail heading to the south following the park boundary to the North East of Highway 61. Approximately 0.62 miles in length, blue trail rating.



- 304:** A proposed difficult trail section cutting from the top of the bluffs along trail loop 302 heading down toward the old section of the Overlook Trail. Approximately 0.09 miles in length, black trail rating.



**305:**



A proposed loop breaking off of and returning to the North section of the 302 loop. Approximately .048 miles in length, black trail rating.

**306:**



A proposed loop breaking off of the reconstructed portion of Dingo trail loop 300. Approximately 0.3 miles in length, black trail rating.

**307:**



A proposed loop off of the 300 loop heading to the North along the West side of Battle Creek. Approximately 1.45 miles in length, blue trail rating.

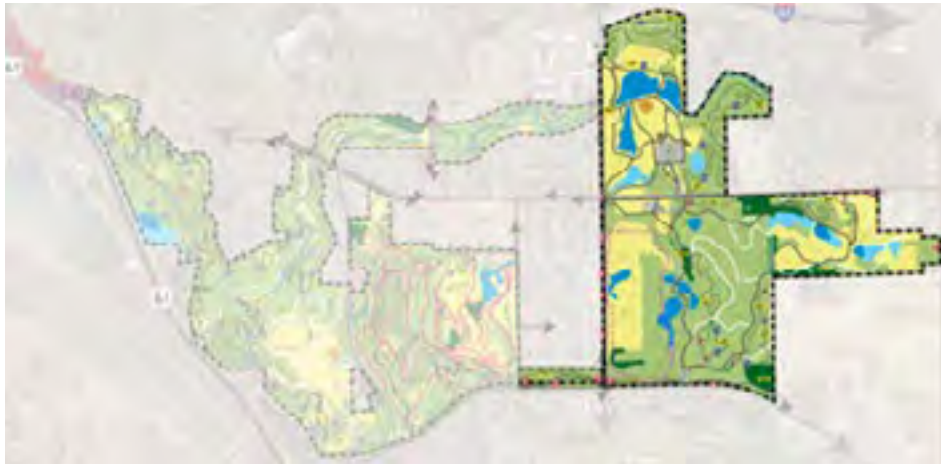
**307x:**



A proposed trail connection off of loop 307 heading North to Upper Afton Road, connects the 300 system with the 200 trail system. Approximately 0.03 miles in length, blue trail rating.



## 400 Series Trails



The 400 series trail system is proposed for development within the North Programmed Activity Zone and Eastern Trails Zone of Battle Creek Regional Park. Overall the 400 series trails would contain approximately 6.78 miles of single track trail upon final build out. Previously these two zones of the park did not have any dedicated single track off road cycling trails. Expanding to this area would help to greatly increase off road cycling and help to introduce the sport to a wider audience. This system would include the following trail improvements:

**400:**



A proposed trail loop encircling the Eastern Trail Zone, this trail would be extremely approachable for new off-road cyclists. Approximately 2.75 miles in length, green trail rating.

**401:**



A proposed loop off of the 400 section. Approximately 0.25 miles in length, blue trail rating.

**402:**



A proposed loop off of the 400 section. Approximately 0.25 miles in length, blue trail rating.



**403:**



A proposed loop off of the 400 section, breaking off near the Upper Afton Parking Lot and heading North across Upper Afton Road. The trail would head to the East of Water works looping around to the North of Afton Heights Park before returning to the South near where the trail broke off of 400. Approximately 1.57 miles in length, blue trail rating.

**404x:**



A proposed connection trail leading to the Battle Creek Corridor and connecting to 404 as well as the in park bituminous system within the North Programmed activity Area of Battle Creek. Approximately 0.18 miles in length, green trail rating.

**404:**



A proposed loop North of the in park bituminous trails within the North Programmed Activity Zone. Approximately 1.21 miles in length, blue trail rating.

**405x:**



A proposed trail connecting the 400 and 100 trail sections between the Lower Afton Road parking lot and trails 104 and 100x. Approximately 0.57 miles in length, green trail rating.

### Trail Rules:

In Addition to the Regional Park Rules already in place riders should also obey the Rules of the Trail. Rules of the Trail are taken from IMBA trail rules and include the following:

- Ride Open Trails: Respect trail and road closures
- Leave No Trace: Be sensitive to the dirt beneath you and the environment around you. Wet and muddy trails are more vulnerable damage than dry ones. When the trail is soft, consider other riding options. This also means staying on existing trails and not creating new ones. Don't cut switchbacks. Don't ride around standing water which results in widening the trail. Be sure to pack out at least as much as you pack in. Consider improving the trail experience for those that follow by picking up and removing any litter.
- Control Your Bicycle: inattention for even a moment could put yourself and others at risk. Obey all bicycle speed regulations and recommendations, and ride within your limits. Social conflicts on trails often result when riders are going too fast.
- Yield Appropriately: do your utmost to let your fellow trail users know you are coming, a friendly greeting or bell ring are good methods. Try to anticipate other trail users as you ride around corners. Off-Road cyclists should yield to other non-motorized trail users, unless the trail is clearly signed for bike-only travel. Bicyclists traveling down hill should yield to all users headed uphill, unless the trail is clearly signed for one-way or downhill traffic only. In general, strive to make each pass a safe, controlled and courteous one.
- Never Scare Animals
- Plan Ahead: Know your equipment, your ability and the area in which you are riding and prepare accordingly. Strive to be self-sufficient: keep your equipment in good repair and carry necessary supplies for changes in weather or other conditions. Always wear a helmet and appropriate safety gear.

### Parking and Areas of Development

Currently the best available parking locations for the off-road cycling system are at the Battle Creek Community Recreation Center, the Park Entrance Road parking lot and there are limited numbers of pull over/parallel parking stalls along Battle Creek Road. As the system expands more of the parking lots already built within Battle Creek will become more viable for parking as well.

### Access Points and Trail Heads

Trail heads should be developed so that they have a consistent feel as well as components located at each access point. Access points should at a minimum have a wayfinding sign which has a system map as well as park and off road cycling rules. Trail heads should be developed to include at a minimum a wayfinding sign comparable to the signs located at access points, as well as park and off road cycling rules, a bike fixing station, and a bike washing station.

### Signage

Park signs shall conform to the standards that have been developed for all Ramsey County Regional Parks. Battle Creek off road cycling trails are planned to have a numbered system, and intersections will have an associated letter, similar to the trails system at Lebanon Hills.

Wayfinding & Rules Kiosks are planned to be located at all access points and trail heads as well as some major intersections within the park. Large wayfinding kiosks are intended to display park and trail rules along with a large overall map of the Battle Creek Trail System. These signs will help trail users by pointing out exactly where in the park they are located and the trail system throughout the park. Rules Kiosks will display park and trail rules which are expected to be followed by all park patrons.

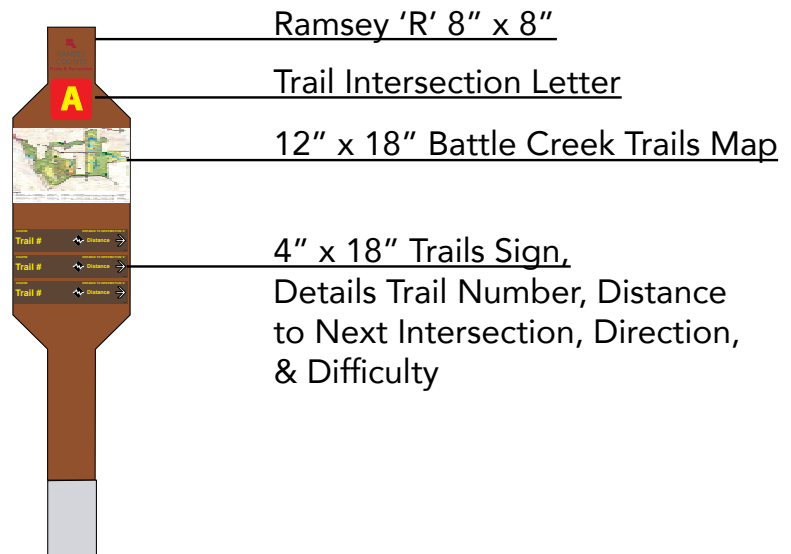
### Understanding the Signs:

Existing wayfinding and rules signs would be modified to present the Battle Creek Off Road Cycling Trails Plans and rules. Pictured are the Battle Creek Cross Country Skiing wayfinding and rules signs.



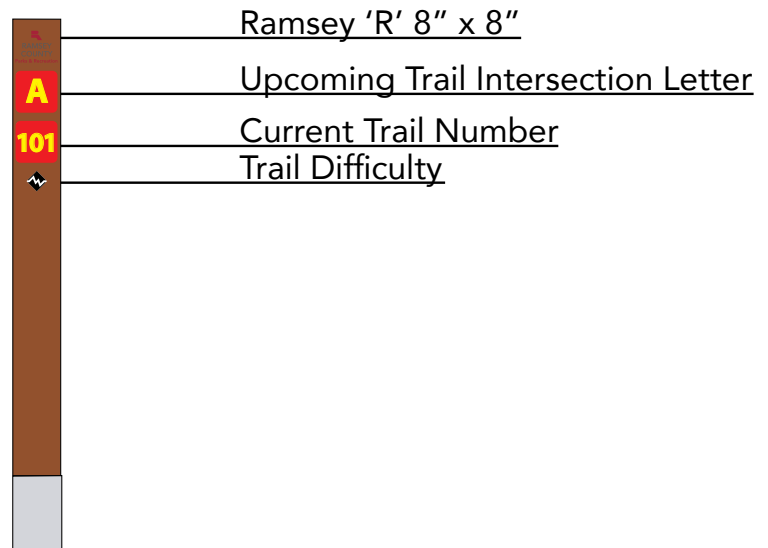
### Trail Intersection Posts:

Trail intersection posts should have a smaller trails map and a letter to indicate where you are. The letter on the post will also be indicated on the map as a you are here spot location. Each letter corresponds to a unique intersection, while numbers are reserved for the individual trails in the system.



Trail direction posts contain both the letter of the next intersection post if you travel in that direction, the number of the trail you are on and the specific intended trail use and difficulty level designation. For off-road cyclists it is important to note the difficulty level on signs and respective colors.

Green = Easiest  
 Blue = More Difficult/Moderate  
 Black = Expert;  
 Red = Extremely Difficult.



### Skills Park Areas

The proposed construction of one or more off-road cycling skills development and training parks within Battle Creek Regional Park was requested through the community engagement process. A skills park can consist of a constructed subset of features riders will encounter on the trail system such as rock crossings, boardwalks, bermed turns, and tabletop jumps to name a few. The skills park is a more controlled environment of features that consist of safer landing zones, located closer to a parking lot for easier access. Within Battle Creek one option would be to set up one large skills park for various experience levels from beginners to advanced riders, with more difficult and technical features being added as you progress through the park. Another option is to separate the park into two or more areas so that each rider class would have their own area to develop skills. Ramsey County would like to see the development of skills areas range to accommodate novice riders who are new to off-road cycling all the way to an advanced technical skills park to retain and maintain the relationship the park has and will continue to grow with advanced riders throughout the metro area.

As funding becomes available more public involvement meetings will be necessary to facilitate the design and development of the skills park component. As this process progresses the International Mountain Biking Association's published document on how to help a community design and develop a skills park can be referenced. Many of these steps coincide with the steps taken for trail building and the development of the Off-Road Cycling Plan in general. These steps are a good place to start once the skills park portion of the plan is being undertaken. These steps can be found in Appendix E.



## Site Amenities

Additional site features have been identified as potentially beneficial through the community engagement process and stakeholder review. Features could consist of site overlooks/rest areas with benches, picnic tables or perhaps even small gazebo type structures. These overlooks would ideally occur where there are major trail intersections with multiple trail types and have expansive or unique views for park patrons.

Other site amenities that have been explored to be installed as a part of the Off Road Cycling Master Plan include:

A Fixit Station similar to the station installed near the Battle Creek Community Recreation Center. The Fixit station is an ideal component to any trail head and could include components such as:

- Hanger arms to accommodate most types of bikes
- QR code takes smart phone users to a comprehensive bike repair web site
- Large surface area for sponsorship, branding etc.
- Tools are secured with braided stainless steel aircraft cables
- Reinforced pump hose for protection
- Pump holster can be mounted to side or back of station
- Includes most commonly used tools for simple bike maintenance
- Pump head accommodates Presta and Schrader valve stem types



Bike Washing Station: an ideal component to heavily used trails heads so that park patrons can immediately wash bikes after heavy use. Components may include:

- Ideal design for indoor or outdoor use
- Vandal resistant hose and nozzle with stainless steel fittings
- High Velocity Low Consumption (HVLC) nozzle optimized for strong cleaning power without damaging bicycle bearings while also minimizing water usage
- Vandal proof auto shut off water valve
- Cleaning brushes attached by braided stainless steel cable
- Requires municipal water and sanitary drain or dry well hookup
- Optional Coin Operated Timer Box

## Stewardship Plan

Trail Stewardship shall continue to be arranged as set forth in the memorandum of understanding between Ramsey County Parks and Recreation and The Minnesota Off-Road Cyclists.

Currently this is an annually renewing policy and as such has room to expand and change the scope of stewardship.

## Implementation

### Phasing Priorities and Costs

The off road cycling trail system and site amenities outlined in this plan will go through several phases of development.

Trail building and signage will have the highest priority of development followed by the skills park(s) and any other future development.

### Trails

Trail building has been outlined and separated into three priority tiers: A, B, C & D. The following tables have been grouped into tier A, B, C, D and outline the trail designation number along with length in miles, build type, cost/mile and cost of trail. Trail costs were estimated based upon values provided by the MORC Trail Steward using current contractor pricing.

In past construction of off-road cycling trails, it has always been a priority to build natural surface trails with minimal impact to the environment and to maintain a buffer between trails and homes, for the privacy of the homeowners and off-road cyclists alike. Ramsey County Parks and Recreation Department, in conjunction with MORC, will continue to make these efforts a priority for all future trail expansions.

Priority	Trail	Length Miles	Build Type	Cost/Mile	Cost
A	100x	0.02065	Machine	\$12,500.00	\$258.09
A	102x	0.2	Existing	\$0.00	\$0.00
A	103x	0.4214	Machine	\$12,500.00	\$5,267.50
A	200	1.74025	Machine	\$12,500.00	\$21,753.18
A	304	0.09431	Machine	\$12,500.00	\$1,178.85
A	302x	0.18872	Existing	\$0.00	\$0.00
A	302	1.60275	Existing	\$0.00	\$0.00
A	300	1.47	Hand	\$0.00	\$0.00
A	300x	0.15178	Existing	\$0.00	\$0.00
A	100	1.46	Machine	\$12,500.00	\$18,250.00
				<b>Total</b>	<b>\$46,707.61</b>

Priority	Trail	Length Miles	Build Type	Cost/Mile	Cost
B	104	1.6436	Machine + Hand	\$6,500.00	\$10,683.43
B	307	0.59217	Machine + Hand	\$6,500.00	\$3,849.08
B	201x	0.03714	Hand	\$0.00	\$0.00
B	201	1.03	Machine + Hand	\$6,500.00	\$6,695.00
B	202x	0.03389	Hand	\$0.00	\$0.00
B	202 bp	0.05246	Machine + Hand	\$6,500.00	\$340.98
B	202	0.44082	Hand	\$0.00	\$0.00
B	202	1.61184	Machine + Hand	\$6,500.00	\$10,476.97
B	307x	0.03143	Hand	\$0.00	\$0.00
				<b>Total</b>	<b>\$32,045.45</b>

Priority	Trail	Length Miles	Build Type	Cost/Mile	Cost
C	101	0.94185	Machine + Hand	\$6,500.00	\$6,122.04
C	105	0.8454	Machine + Hand	\$6,500.00	\$5,495.13
C	204	0.81662	Machine + Hand	\$6,500.00	\$5,308.05
C	205	1.81956	Machine	\$12,500.00	\$22,744.53
C	301	0.49853	Machine + Hand	\$6,500.00	\$3,240.41
C	303	0.62189	Machine + Hand	\$6,500.00	\$4,042.28
C	305	0.47786	Hand	\$0.00	\$0.00
C	306	0.2927	Hand	\$0.00	\$0.00
				<b>Total</b>	<b>\$46,952.44</b>

Priority	Trail	Length Miles	Build Type	Cost/Mile	Cost
D	106x	0.44596	Machine	\$12,500.00	\$5,574.48
D	400	2.49	Machine	\$12,500.00	\$31,125.00
D	401	0.25	Machine	\$12,500.00	\$3,125.00
D	402	0.53	Machine	\$12,500.00	\$6,625.00
D	403	1.47	Machine	\$12,500.00	\$18,375.00
D	404	1.39	Machine	\$12,500.00	\$17,375.00
D	405x	0.5033	Machine	\$12,500.00	\$6,291.25
				<b>Total</b>	<b>\$88,490.73</b>

<b>Grand Total</b>	<b>\$214,196.22</b>
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## Signage

The following table outlines conceptual cost of various Sign types throughout the off road cycling trail system, including an approximate sign cost and quantities.

Rules Sign	Total QTY	Unit Cost	Total Cost
24" Concrete Foundation	2	\$1,000.00	\$2,000.00
8 x 8 Wood Post	2	\$60.00	\$120.00
8 x 8 Steel Base Plate	2	\$60.00	\$120.00
8 x 8 Metal Cap	1	\$30.00	\$30.00
8x8 Metal Cap Water Cut	1	\$45.00	\$45.00
60 x 48 Sign	1	\$500.00	\$500.00
8 x 8 R Logo	1	\$32.00	\$32.00
Installation	1	\$700.00	\$700.00
Total Cost			\$3,547.00

Wayfinding Kiosk	Total QTY	Unit Cost	Total Cost
24" Concrete Foundation	2	\$1,000.00	\$2,000.00
8 x 8 Wood Post	2	\$60.00	\$120.00
8 x 8 Steel Base Plate	2	\$60.00	\$120.00
8 x 8 Metal Cap	1	\$30.00	\$30.00
8x8 Metal Cap Water Cut	1	\$45.00	\$45.00
Kiosk Graphic Panel	1	\$343.00	\$343.00
8 x 8 R Logo	1	\$32.00	\$32.00
Installation	1	\$700.00	\$700.00
Total Cost			\$3,390.00

Wayfinding Trail Post - Intersections	Total QTY	Unit Cost	Total Cost
24" Concrete Foundation	1	\$1,000.00	\$1,000.00
8 x 8 Wood Post	2	\$60.00	\$120.00
8 x 8 Steel Base Plate	1	\$60.00	\$60.00
8 x 8 Metal Cap	1	\$30.00	\$30.00
8x8 Metal Cap Water Cut	1	\$45.00	\$45.00
12 x 18 Wayfinding Map	1	\$100.00	\$100.00
8 x 8 R Logo	1	\$32.00	\$32.00
8 x 8 Trail Intersection Letter	1	\$32.00	\$32.00
4 x 18 BC Direction Marker	3	\$30.00	\$90.00
8 x 8 Recreation Symbol	3	\$32.00	\$96.00
Emergency Location Marker	1	\$32.00	\$32.00
Installation	1	\$500.00	\$500.00
Total Cost			\$2,137.00

Directional Trail Post	Total QTY	Unit Cost	Total Cost
18" Concrete Foundation	1	\$700.00	\$700.00
4 x 4 Wood Post	1	\$50.00	\$50.00
4 x 4 Steel Base Plate	1	\$50.00	\$50.00
4 x 4 R Logo	1	\$16.00	\$16.00
3.5 x 3.5 Trail Number	1	\$10.00	\$10.00
3.5 x 3.5 Recreation Symbol	3	\$10.00	\$30.00
Installation	1	\$500.00	\$500.00
Total Cost			\$1,356.00

Sign Type	Total QTY	Unit Cost	Total Cost
Wayfinding Kiosk	12	\$3,390.00	\$40,680.00
Rules Sign	12	\$3,547.00	\$42,564.00
Wayfinding Trail Post	36	\$2,137.00	\$76,932.00
Directional Trail Post	117	\$1,356.00	\$158,652.00
Total Cost			\$318,828.00

### Site Amenities

The following table outlines bike fixing and washing stations, which are proposed to be located at all existing parking lots as well as an additional pair at the future site of the skills park and another pair at a site of future development.

Site Amenity	Total QTY	Unit Cost	Total Cost
Bike Fixing Station w/ Air Kit	7	\$3,000.00	\$21,000.00
Bike Washing Station	7	\$5,000.00	\$35,000.00
Total Cost			\$56,000.00



### Future Development/Skills Park

At this time no cost estimates or locations of specific structures, skills parks, or other type of development has been decided. During the development planning process public involvement will be a high priority and will include public surveys, needs assessments and public input on development location(s).

### Trails and Signage Cost

Mtn. Bike Component	Total QTY	Unit Cost	Total Cost
Priority A Trails	1	\$46,707.61	\$46,707.61
Priority B Trails	1	\$32,045.45	\$32,045.45
Priority C Trails	1	\$46,952.44	\$46,952.44
Priority D Trails	1	\$88,490.73	\$88,490.73
Site Signage	1	\$318,828.00	\$318,828.00
Site Amenities	1	\$56,000.00	\$56,000.00
Project Total			\$589,024.22

## Appendix A

### Memorandum of Understanding

#### MEMORANDUM OF UNDERSTANDING

BETWEEN THE

**Ramsey County Parks and Recreation**

AND THE

**MINNESOTA OFF-ROAD CYCLISTS**

**Battle Creek Regional Park – Ramsey County, MN**

#### INTRODUCTION AND PURPOSE

Ramsey County Parks and Recreation (RCPR) of MN and the Minnesota Off-Road Cyclists (MORC) are interested in promoting mountain biking as an outdoor recreation and fitness activity and in developing and maintaining quality trails and bike parks for cyclists of all ability levels at the Battle Creek Regional Park.

This memorandum identifies specific projects, including the design and construction of bike park features, bike park maintenance, and mountain bike patrol activities, which MORC volunteers have agreed to provide as service to the RCPR, establishes the responsibilities and conditions under which that volunteer service will be provided, and delineates the responsibilities of the RCPR.

#### SCOPE OF THE AGREEMENT

##### **Ownership of Improvements**

All improvements, constructed on RCPR park property, shall be, and remain the property of the RCPR. All materials, including records, data, and other information acquired, developed or documented under this MOU shall be the property of the originating party, unless otherwise mutually agreed upon by both parties.

##### **Term of Agreement**

The term of this MOU shall start May 1, 2016, and extend through December 31, 2016. RCPR and MORC can subsequently agree to extend this agreement on an annual calendar year basis with the approval of both parties.

##### **MORC Volunteers**

Volunteers assigned to work under this agreement at the Battle Creek Regional Park are volunteers of MORC and are covered under the policies and procedures of MORC in relation to volunteer organization and management. Volunteers are not employees of or individual volunteers of the RCPR, however they will receive training enabling them to represent the relationship between MORC and the RCPR.

##### **MORC Responsibilities**

1. Provide technical support to the RCPR in determining the location and design of technical features consistent with the planned ability level of bike trails in accordance with International Mountain Bike Association (IMBA) guidelines.
  2. Provide and supervise volunteers in the construction of approved technical features.
- Utilize tools owned by MORC and the RCPR tools that may be made available by the designated RCPR Maintenance or Parks Supervisor.

- Technical features and trail development must conform to IMBA guidelines and the RCPR approved designs.
  - Train and supervise volunteers in appropriate construction techniques in accordance with IMBA guidelines.
  - Identify a crew leader and submit name to the designated the RCPR Recreation Services Supervisor (position currently filled by Jennifer Fink).
  - Coordinate work schedule and on-site public notification, when needed, with the designated Recreation Services Supervisor.
  - MORC volunteers may use bikes in the on-site planning and testing of technical features and trails prior to opening features to the public as coordinated with the Park Recreation Services Supervisor.
3. Provide volunteers to assist with the inspection and hand-work maintenance of the trail.
- Seasonally submit to the RCPR department for approval a schedule identifying minimum timetable for park observation/inspection.
  - Ensure that all volunteers have received training in bike park inspection and maintenance responsibilities as well as an orientation to the RCPR department.
  - MORC volunteers are authorized to sculpt and/or remove dirt as need throughout the biking area.
  - Perform routine maintenance activities. In the event that MORC is unable to safely and promptly address an identified issue that may create an unsafe situation, the MORC volunteer should notify the RCPR Recreation Services Supervisor.
4. Work with the RCPRD in developing a routine inspection log report sheet for use by volunteers for the regularly scheduled inspections that will identify desired items for inspection and implement the use of this report sheet in the regular inspection of biking facilities.
- Copies of reports should be submitted to the RCPR Recreation Services Supervisor.
5. Prior to making any bike trail alignment changes, submit recommendations to the RCPR for any significant alignment changes that may contemplated by MORC in carrying out the volunteer duties as outlined in the MOU.
6. Recommend to the RCPR for consideration the types of trail, location and language directional, cautionary and informational signs and install (if requested by RCPR).
7. A designated MORC representative(s) may make recommendations to the RCPR Recreation Services Supervisor as to when to close and re-open the bike trails due to poor conditions or other unforeseen circumstances observed during bike patrol or maintenance activities.
8. Provide trail patrol volunteers (Ambassadors) as an optional service to assist in monitoring bike activities and providing assistance to bike trail users.
- MORC may provide volunteers identified and trained by MORC as trail patrollers to ride and monitor the park trails.
  - Trail patrollers can offer assistance to bike park users within the scope of their training and volunteer status under MORC.
  - Trail patrollers should call 911 for emergency assistance. To contact the Ramsey County Sheriff's Department at 651-484-3366 specifically for non-emergency situations such as, to report suspicious activity, uncooperative behaviors, or unauthorized bike park use, call 911 and request to be put in contact with Ramsey County Sheriff's Department Officer.
  - Provide the RCPR with summary bike park safety reports as generated by MORC volunteer trail patrol.
9. Hold Harmless Agreement
- Each party agrees that it will be responsible for its own acts and the results thereof and shall not be responsible for the acts of the other party and the results thereof. Each party, therefore, agrees that it will assume all risk and liability to itself, its agents or employees, for the injury to persons or

or property resulting in any manner from the conduct of its own operations, and the operation of its agents or employees under this agreement, for any loss, cost, damage, or expense resulting at any time from any and all causes due to any acts or acts of negligence, or the failure to exercise proper precautions, of or by itself or its own agents or its own employees, while occupying or visiting the premises under and pursuant to the agreement.

10. MORC may not interfere with the enjoyment of park users and must abide by RCPR Park Ordinances.

### **RAMSEY COUNTY PARKS AND RECREATION RESPONSIBILITIES:**

1. To review and approve design and implementation plans for all agreed to volunteer activities.
2. To purchase materials, if needed, to be used in the construction of approved technical features and trail development.
3. To loan hand-tools for construction and maintenance activities, upon request and approval of designated by the Recreation Services Supervisor.
4. To provide RCPR Maintenance Supervisor support for approved work on a schedule agreed to by the Recreation Services Supervisor.
5. To review and approve recommended technical features and trails construction schedules and bike trail maintenance schedules.
6. To recognize MORC's contributions for bike trail design and construction and volunteer maintenance, support in appropriate signage at an appropriate location in a manner approved by the Ramsey County Board of Commissioners and to be coordinated through the Director of Park Operations.
7. To display a message about the MORC organization and event opportunities in manner approved by RCPR at a location approved by the designated Director of Park Operations.
8. To authorize MORC to have an informational display/booth at the trailhead up to six times per year for the purposes of providing information about MORC memberships and mountain biking events, as approved and coordinated with the RCPR Recreation Services Supervisor. Informational displays may also be approved for the RCPR permitted biking events. Requests for a permit for direct financial solicitation (membership sales) must be approved in advance by the Ramsey County Board of Commissioners.
9. To notify MORC of bike park closures or events which affect the use of the bike park for posting on the MORC web site.

### **Termination of Agreement**

This MOU may be terminated by either party upon delivery of 30-day written notice to the other party.

### **Amendment of Agreement**

This MOU shall not be altered, changed or amended except by written mutual agreement of the parties

### **MORC Contacts**



**Ramsey County Parks and Recreation Contacts**

Recreation Services Supervisor  
Office: 651-748-2500

Park Maintenance Supervisor  
Office: 651-748-2500

Director of Park Operations  
Office: 651-748-2500

MOU Administration  
(insert name)  
(insert address)  
(insert phone number)

IN WITNESS WHEREOF, the parties have entered into this Memorandum of Understanding as of this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

**Ramsey County Parks & Recreation**  
2015 N Van Dyke Street  
Maplewood, MN 55109

**Minnesota Off-Road Cyclists**  
PO Box 19520  
Minneapolis, Minnesota 55419-0520

By: \_\_\_\_\_

Title: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Attest: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Attest: \_\_\_\_\_



Appendix B

Concept Map Developed at  
Public Engagement Meeting



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### Appendix C

#### Battle Creek Public Engagement Meeting Comments

##### Battle Creek Off-Road Cycling Master Plan 2-28-2017 Public Meeting Comments

1. Cameras in parking lots
2. Signage for Trails
3. Restrooms with running water & showers
4. I want to reach out to local youngsters and get them involved in building and riding Battle Creek
5. Reach out to 3M, helping Battle Creek Park is consistent with 3M values of community support and healthy living:
6. Signage and maps at all intersections
7. Picnic areas covered with grills
8. Professional design build to complete park
9. Contact local breweries to sponsor Battle Creek: Summit, Bad Weather, Surly etc.
10. The high school teams contribute much to trail building efforts, allow them to race here once per year:
11. Look to Duluth and the "Duluth Traverse" for funding ideas
12. Parking lots for more people
13. Trails for all: beginner, intermediate, advanced etc.
14. Jumps & Technical Features
15. Many different skill level trails & technical features
16. One way trails
17. Bathrooms
18. Safe intermediate & beginner area
19. Signage, wayfinding, Risk Management
20. Designating trail difficulty and setting up more beginner & intermediate trail
21. Battle Creek Road needs to support traffic
22. Need to respect homes on parks and traffic
23. Skiing must stay
24. Building for restrooms and water is needed
25. What benefits to non-bike riders? \$
26. I want to reach out to first responders who cover Battle Creek Park. They can help build trail and learn an area they may need to respond to
27. Signage, risk management. More single track, downhill trail runs. Bathroom. Water access. Trail head signage
28. Would like to see better signage. Much like Lebanon Hills
29. Changing areas
30. Maintain Legacy Trails

## Appendix D

### Trail Difficulty Rating System

Trail Difficulty Rating System					
	Easiest White Circle 	Easy Green Circle 	More Difficult Blue Square 	Very Difficult Black Diamond 	Extremely Difficult Dbl. Black Diamond 
Trail Width	72" or more	36" or more	24" or more	12" or more	6" or more
Tread Surface	Hardened or surfaced	Firm and stable	Mostly stable with some variability	Widely variable	Widely variable and unpredictable
Average Trail Grade	Less than 5%	5% or less	10% or less	15% or less	20% or more
Maximum Trail Grade	Max 10%	Max 15%	Max 15% or greater	Max 15% or greater	Max 15% or greater
Natural Obstacles and Technical Trail Features (TTF)	None	Unavoidable obstacles 2' tall or less  Avoidable obstacles may be present  Unavoidable bridges 36" or wider	Unavoidable obstacles 8" tall or less  Avoidable obstacles may be present  Unavoidable bridges 24" or wider  TTF's 2' high or less, width of deck is greater than 1/2 the height	Unavoidable obstacles 15" tall or less  Avoidable obstacles may be present  May include loose rocks  Unavoidable bridges 24" or wider  TTF's 4' high or less, width of deck is less than 1/2 the height  Short sections may exceed criteria	Unavoidable obstacles 15" tall or greater  Avoidable obstacles may be present  May include loose rocks  Unavoidable bridges 24" or narrower  TTF's 4' high or greater, width of deck is unpredictable  Many sections may exceed criteria

### Appendix E

#### Proposed Skills Parks Development Standards and Rule Additions

##### Skills Parks Proposed Development Standards

- 1) **Set the Stage:** in your campaign to develop a skills park, you should start with the following tasks: identify allies in local government, find sources of volunteer labor, search out funding, and conduct an educational campaign, including tours of the potential area, to familiarize people with bike parks.
- 2) **Address Risk Management:** Bike skills parks provide a level of managed risk that many riders and parents will find reassuring. Develop standards for structures and emphasize how this will be a safe place for kids to ride while saving the city or county money spent tearing down unauthorized areas.
- 3) **Design a Visually Appealing Facility:** Communities often reject plans that might lead to eyesores. Emphasize planting and other beautification efforts to help convince skeptics who claim a bike park would be visually unappealing. You might try partnering with gardening clubs and other community groups on your beautification efforts.
- 4) **Create a Maintenance Program:** Develop a thorough maintenance plan for your park, and set it down in writing. Name each structure and plan on having the staff use an inspection form to check the park. This will help standardize maintenance records and allow you to easily identify an area that needs repair after a rider reports a problem.
- 5) **Train Your Builders:** Identify potential crew leaders and make sure they're well trained before you start building the park. You're going to need these people to direct groups of volunteers several days a week, so make sure they have the building skills and leadership qualities needed to produce a first rate facility.
- 6) **Progression is Key:** Any bike park should include smaller stunts that allow for a safe progression to more difficult terrain and attract new riders and parents who otherwise would be watching from the sidelines. Parent support helps build momentum for future expansions.
- 7) **Plan For Growth:** Parks are long-term community assets. Most should be overhauled every two to three years to keep them fresh and Exciting. The most advanced riders may leave the park, but this will help retain and attract other riders.
- 8) **Consider Hiring a Pro Builder:** Communities often prefer working with a professional contractor. When hiring a builder to construct a bike skills park, be prepared to articulate your needs, longer term plans, education and other goals and any in-kind contributions you may have. Less important is to know about the specific materials or technical specifications. (<https://www.imba.com/resources/freeriding/developing-bike-skills-parks>)

### Skills Parks Proposed Rule Additions

A separate set of rules should be in place for the skills park. Some rules to consider are:

- Use skills park at your own risk. Skills park is not supervised
- You are responsible for determining safe conditions
- Off-Road cycling can be hazardous – use caution and wear safety gear.
- Ride with control and within your ability level and be considerate of others
- Building or modifying skills park features is prohibited
- Only one person may use a feature at a time, wait for a clear bike path
- Ride only in designated areas
- Non-motorized use only
- Emergencies: Call 911
- The Skills park is closed when the lot and off-road cycling trails are closed

Other rules may have to be considered or altered as the skills park is developed.

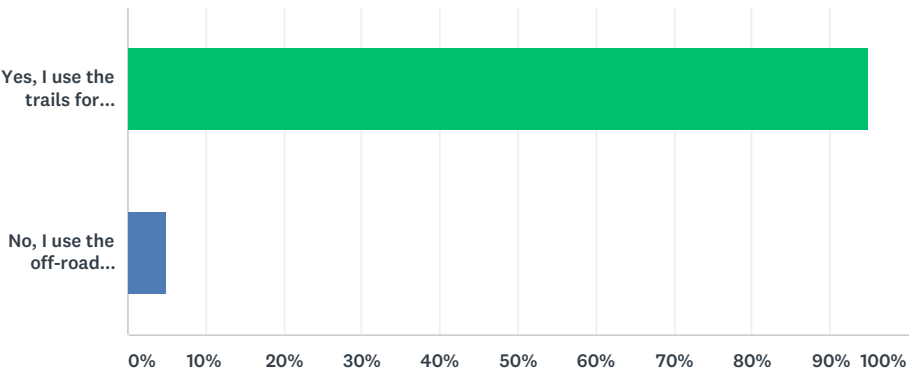


**Appendix F**  
Online Survey

Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

**Q1 Do you use the off-road cycling trails at Battle Creek Regional Park for off-road cycling?**

Answered: 142    Skipped: 0

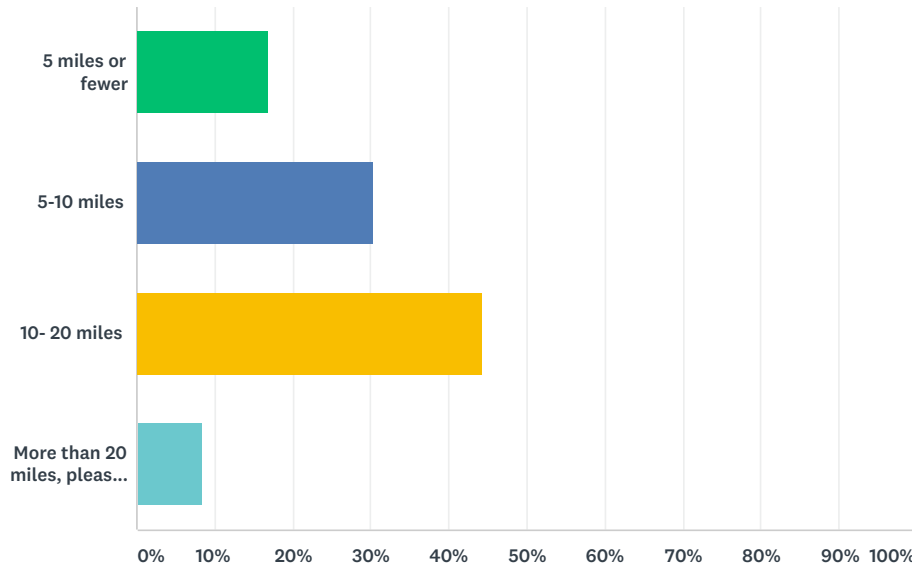


ANSWER CHOICES	RESPONSES	
Yes, I use the trails for off-road cycling	95.07%	135
No, I use the off-road cycling trails for an alternative use. (please specify use below)	4.93%	7
TOTAL		142

## Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

## Q2 How far do you travel to get to the Battle Creek Off-Road Cycling trails?

Answered: 142 Skipped: 0

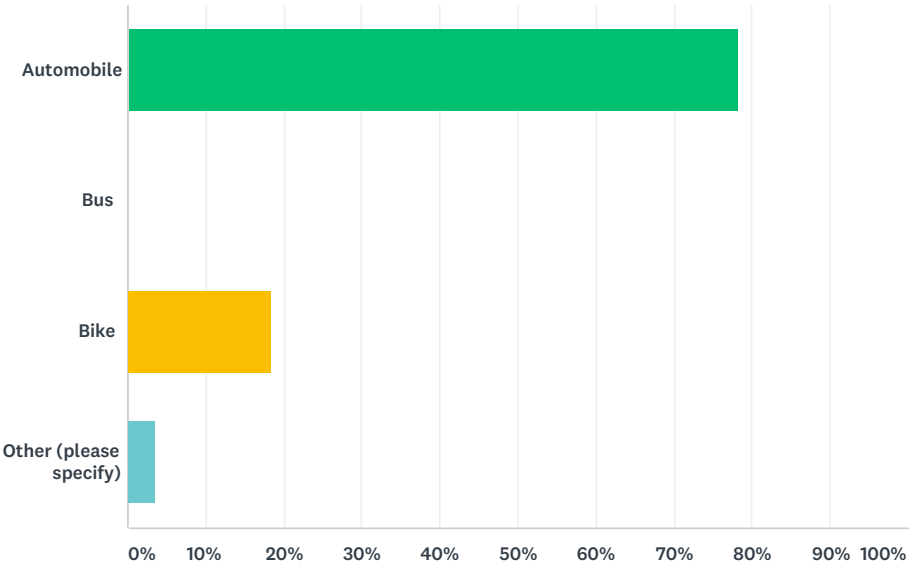


ANSWER CHOICES	RESPONSES	
5 miles or fewer	16.90%	24
5-10 miles	30.28%	43
10- 20 miles	44.37%	63
More than 20 miles, please specify	8.45%	12
<b>TOTAL</b>		<b>142</b>

Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

Q3 What mode of transportation do you use to get to the Battle Creek Off-Road Cycling trails?

Answered: 142 Skipped: 0

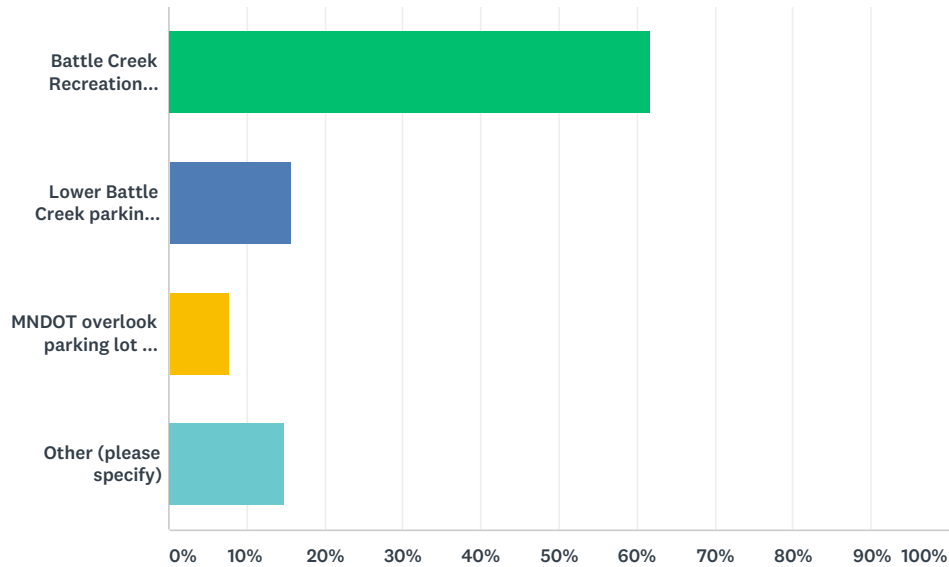


ANSWER CHOICES		RESPONSES	
Automobile		78.17%	111
Bus		0.00%	0
Bike		18.31%	26
Other (please specify)		3.52%	5
TOTAL			142

## Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

## Q4 What access point do you use the most to enter the Battle Creek Off-Road Cycling trails?

Answered: 141 Skipped: 1



ANSWER CHOICES	RESPONSES	
Battle Creek Recreation Center parking lot off of Winthrop Street	61.70%	87
Lower Battle Creek parking lot off of Park Entrance Road (adjacent to Highway 61)	15.60%	22
MNDOT overlook parking lot off of Burns Ave and Highway 61	7.80%	11
Other (please specify)	14.89%	21
<b>TOTAL</b>		<b>141</b>

### Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

## Q5 In a few words, what attracts you to use the Battle Creek Off-Road Cycling trails?

Answered: 132   Skipped: 10

Close to downtown, big hills  
Views, hills and not over crowded  
Elevation changes  
Actually hilly and technical riding  
The hills  
It's close to home and trails are rad. I like the challenge.  
Trail layout, routes, and features  
Challenging trails  
Technical, fast, fun, rugged. They are the best trails in the Metro because of the difficulty and technical features.  
The terrain and variety of trails, also the views and woods!  
Closest trail to White Bear Lake  
beautiful forest, hills, less crowded than other parks  
Significant elevation changes, close to Minneapolis  
Close proximity to home  
Raw trails with bluffs and scenery  
Close to downtown, views  
Downhill Section  
Biking  
Having a great trail that is close to the cities  
Quality aggressive descents compared to the other metro trails.  
hilly terrain, difficulty of trails and how different they are from other local trails  
beautiful fun  
Friends, Millage  
Elevation changes, expanse, and variety of trails  
difficulty and scenery and wildlife  
The topography is a little different than other area trails.  
The technical aspect of the trails and the scenic views of the river valley.  
The exposed rock, the climbs and descents. It's one of the few trail systems around here that is NOT machine-built-smooth-flowy-single-track.  
Excellent terrain! The best hills in the area. Downhill trails with berms and some jumps like nothing else in the Twin Cities.  
Fun and technical trails with more elevation change than other local mtb trails  
Actual elevation change, some ripping downhill  
Can bike there, don't have to drive  
Elevation change -- challenging climbs and exciting downhill  
The trails are less groomed than others in the area (making them more fun), and they are frequently open when other trails are not.



The terrain is unlike any other trail system in the metro area. Battle Creek offers challenging climbs. Very rugged, natural "trail" trails (rather than machine cut , designed trails seems more natural then most metro trails

It is one of the few MTB destinations in town that has some decent vertical climbing topography, local, views, fun.

The flowy nature and challenging hills/climbs, while less technical trails (fewer obstacles)

I like to ride the various trail systems in the area

Different terrain.

hills, old-school singletrack feel

Its location to the city, the elevation gain/topography, the amount of trail, and that the trail system is not tightly compact.

BC has the most technically challenging trails in the metro.

old school mountain biking

More elevation than other mtb trails in area

Challenge, hills, amazing scenery

Nearby and good trails

access to natural areas

Hills

Great terrain.

The scenery and the challenge.

Proximity to home, which is the Macalester Groveland Neighborhood in Saint Paul. Would prefer to be able to ride my bike from there to the park if it were easier and more direct.

Best place for getting elevation gain and downhill riding

I can ride to them

Their fast and flowy sections (when trees aren't down) and the up or downhill super technical climb.

It's actually in the city, there is real elevation changes which is a rarity in the cities, beautiful views that other trails do not have, decent mountain bike riding.

Quick escape from the city without actually need to technically leave the city

Great variety of terrain

Narrow dirt paths with inclines

The relative undeveloped nature of the park. It feels like you have left the city.

Great location and great park!

Battle Creek provides off road riding within riding distance of my home in St. Paul.

They're a fun intense workout like nothing else in the metro terrain

They are unique to the Metro. Old school. Hills. Obstacles/features.

Fun trails with good designs.

Close to work

The varied terrain/trails, the undeveloped feel of the park

Layout of the trail is rugged and natural. Differs from many other off-road cycling locations. It's great!

Connection to nature

proximity to home and topography

raw, steep, challenge

better terrain than anything else in the metro

The elevation change, technical challenges

Steep hilly terrain, challenging trails

The hills and ruggedness of the trails.

hilly technical trail

Not over maintained like some of the other trails like Elm Creek. It's nice to have somewhere more technical to ride.

It is the most traditional off road trail, it is NOT groomed and sterile  
it's one of the few local trails that offers climbing.  
Close location, and great terrain. I choose to live in Highwood Hills to be close to a park like BC.  
Challenging trails, elevation gains are unique among the metro area trails  
The "old school" hilly trails  
The challenging climbs and fast downhill.  
They are the best mountain bike trails in the metro.  
It is a different style of trail system than most others in the area.  
It's often open when others are closed  
Diverse trails and natural lines  
Technical challenges not found at other trails  
challenging trails, well maintained  
Only off road bike trail in Ramsey County  
That is is unique compared to many of the other local trails.  
Scenery  
Variety  
Elevation change, technical terrain, and it's never crowded  
Variety of trails  
Location. River bluff views.  
Rugged, hilly, close to home, quiet  
underdeveloped  
Tough, challenging, technical trails. Hills.  
Hills  
Challenging trails, hills, good views  
Beautiful terrain, love being outdoors while in St. Paul!  
Close to work and can go with workmates after work.  
The varied, hilly terrain and large land area  
Great views and lots of climbing and descents.  
It has a more raw feeling than some of the other trails.  
the beautiful park lands, existing bike trails are less groomed than other area trails, lots of elevation  
Beautiful scenery and feels cut off from world  
Unique terrain for the area.  
Best natural trail system in the metro!  
Variety of terrain and technical difficulty of the trails  
Great hill training, old- school trails and new work being done.  
Hilly terrain and woods close to city  
The variety of elevation, trail types, and the views  
It is close which is nice, but also challenging.  
I love that they are close to home and offer a nice getaway from the city into nature.  
The rugged terrain and downhill features  
hilly trails  
It's locality, challenging terrain and potential.  
The current trails have a different flavor than other metro trails. I'd suggest most new builds keep this character rather than try to recreate other metro flow trails. BC has very sandy soil that won't lend itself well to "flow" trails. More trails like GOAT which is between two xc ski trail segments on the south end of the park east of BC road would be excellent  
Its close  
The ruggedness of the trails and the elevation changes.  
The feel of being in nature while still in the city. Seeing wildlife

A nice alternative to the hiking/ski trails @ BC

beauty and the great trails

loved the park

Not to many MTB trails in the east metro, one of the few options

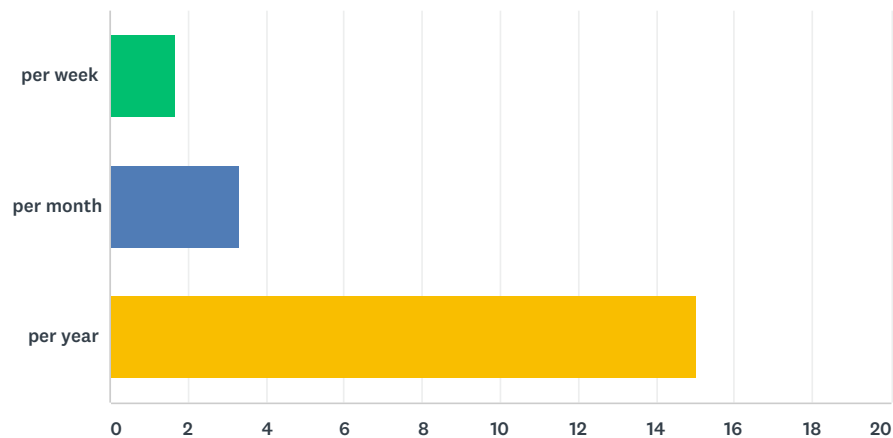
Single track trails and rolling terrain

It offers a wide variety of difficulty levels

#### Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

### Q6 How often do you visit the Battle Creek Off-Road Cycling trails?

Answered: 138 Skipped: 4

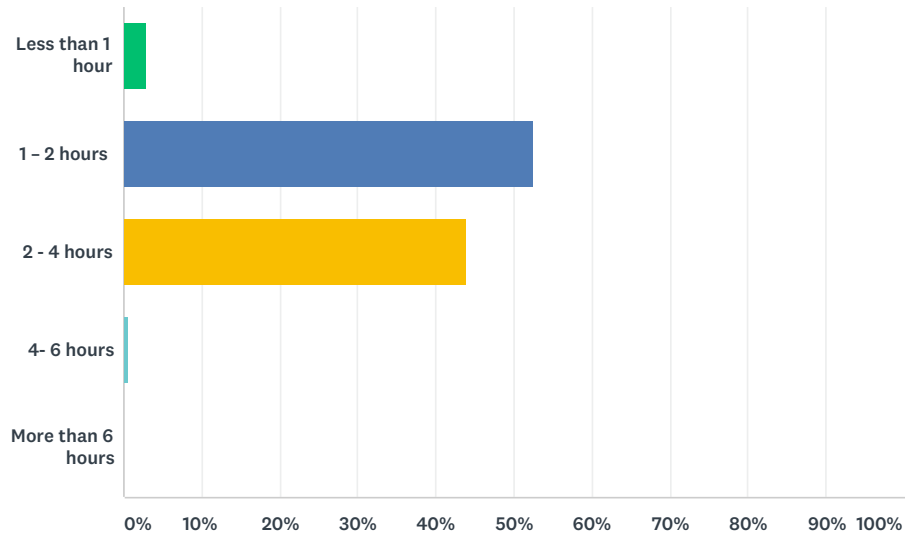


ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
per week	2	86	52
per month	3	226	68
per year	15	1,156	77
Total Respondents: 138			

Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

Q7 On average, how much time do you spend on the Battle Creek Off-Road Cycling trails per visit?

Answered: 141    Skipped: 1

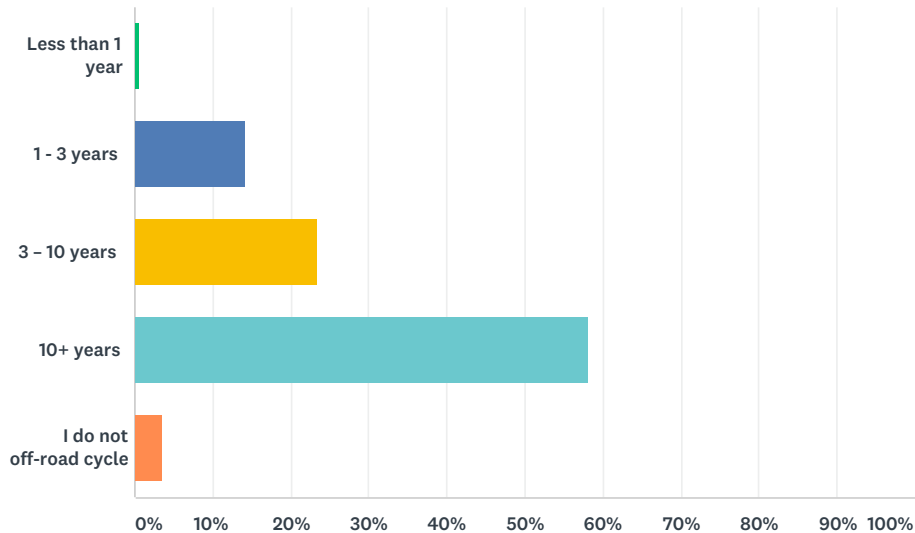


ANSWER CHOICES	RESPONSES	
Less than 1 hour	2.84%	4
1 – 2 hours	52.48%	74
2 - 4 hours	43.97%	62
4- 6 hours	0.71%	1
More than 6 hours	0.00%	0
TOTAL		141

## Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

## Q8 How long have you been an off-road cyclist?

Answered: 141 Skipped: 1



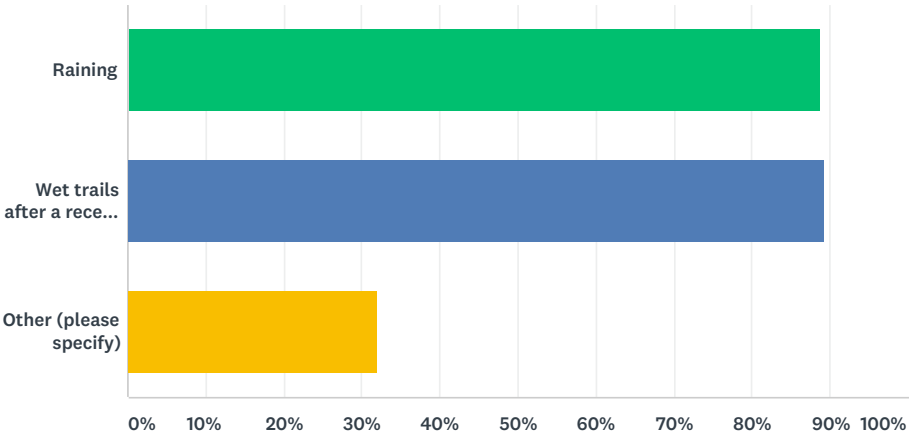
ANSWER CHOICES	RESPONSES	
Less than 1 year	0.71%	1
1 - 3 years	14.18%	20
3 – 10 years	23.40%	33
10+ years	58.16%	82
I do not off-road cycle	3.55%	5
<b>TOTAL</b>		<b>141</b>



Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

Q9 What weather conditions would cause you not to use/ride the trails?  
Check all that apply

Answered: 141    Skipped: 1

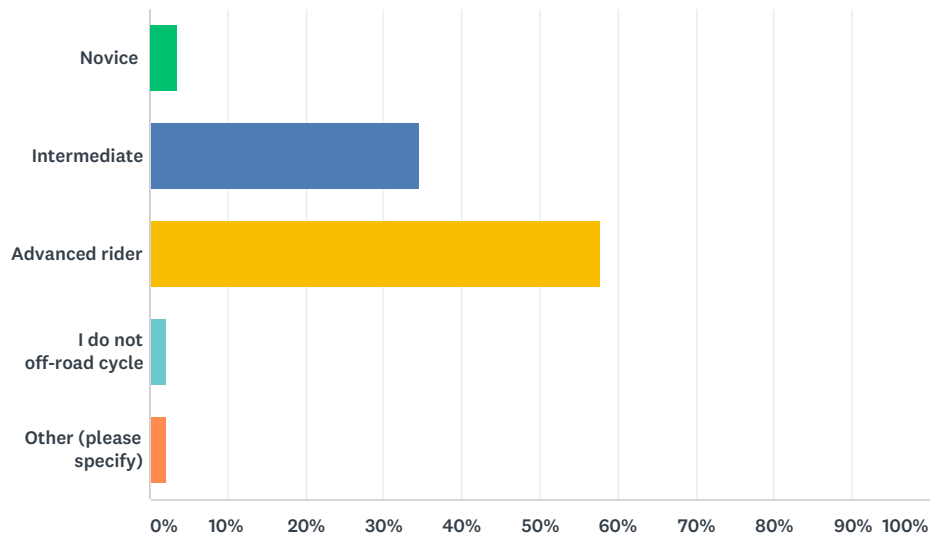


ANSWER CHOICES	RESPONSES	
Raining	88.65%	125
Wet trails after a recent rain	89.36%	126
Other (please specify)	31.91%	45
Total Respondents: 141		

## Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

## Q10 Please rate your experience level as an off-road cyclist?

Answered: 142 Skipped: 0

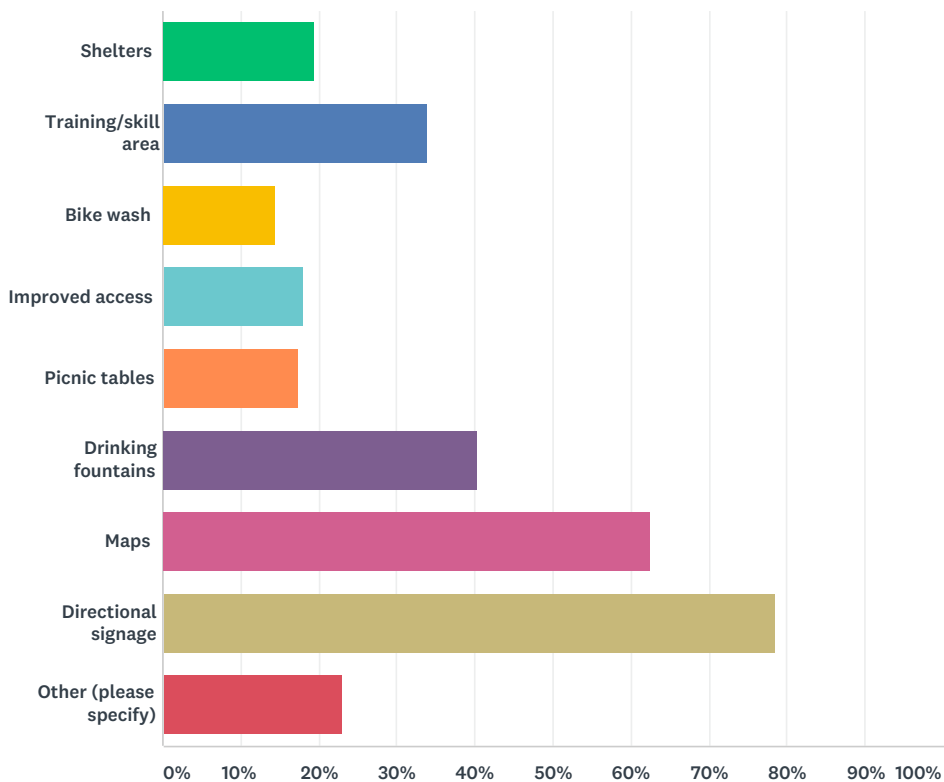


ANSWER CHOICES	RESPONSES	
Novice	3.52%	5
Intermediate	34.51%	49
Advanced rider	57.75%	82
I do not off-road cycle	2.11%	3
Other (please specify)	2.11%	3
<b>TOTAL</b>		<b>142</b>

## Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

**Q11 Other than trail improvements, what other amenities do you wish existed within the trail system? Check all that apply**

Answered: 139 Skipped: 3

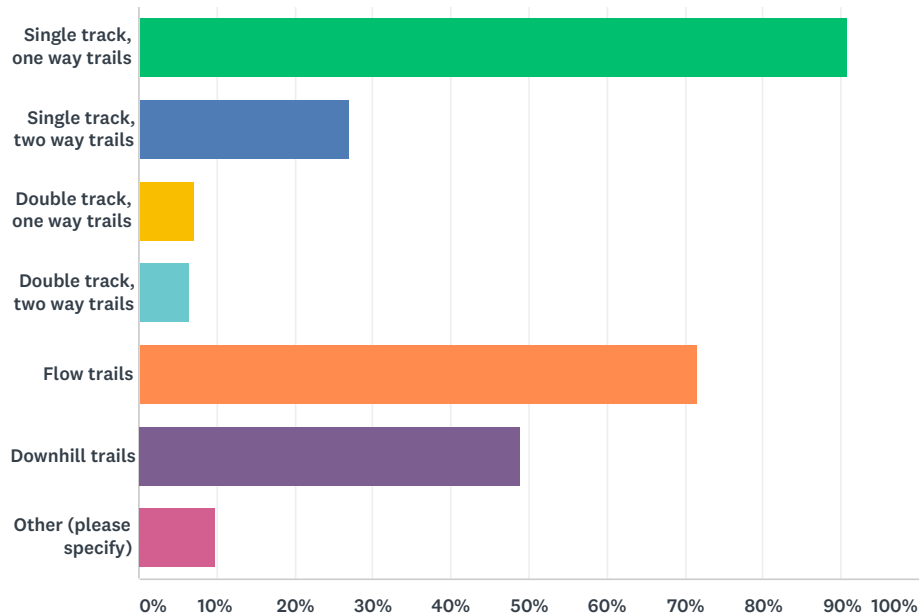


ANSWER CHOICES	RESPONSES	
Shelters	19.42%	27
Training/skill area	33.81%	47
Bike wash	14.39%	20
Improved access	17.99%	25
Picnic tables	17.27%	24
Drinking fountains	40.29%	56
Maps	62.59%	87
Directional signage	78.42%	109
Other (please specify)	23.02%	32
Total Respondents: 139		

## Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

## Q12 What types of off-road cycling trails would you prefer to use at Battle Creek Off-Road Cycling trails? Check all that apply

Answered: 141 Skipped: 1

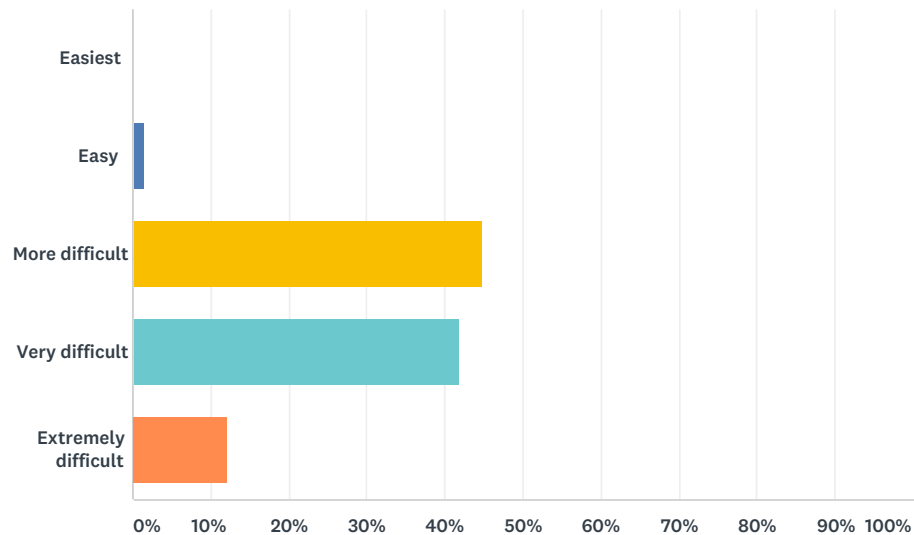


ANSWER CHOICES	RESPONSES	
Single track, one way trails	90.78%	128
Single track, two way trails	26.95%	38
Double track, one way trails	7.09%	10
Double track, two way trails	6.38%	9
Flow trails	71.63%	101
Downhill trails	48.94%	69
Other (please specify)	9.93%	14
Total Respondents: 141		

Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

Q13 What trail difficulty do you prefer? (see graph below for description)

Answered: 141    Skipped: 1



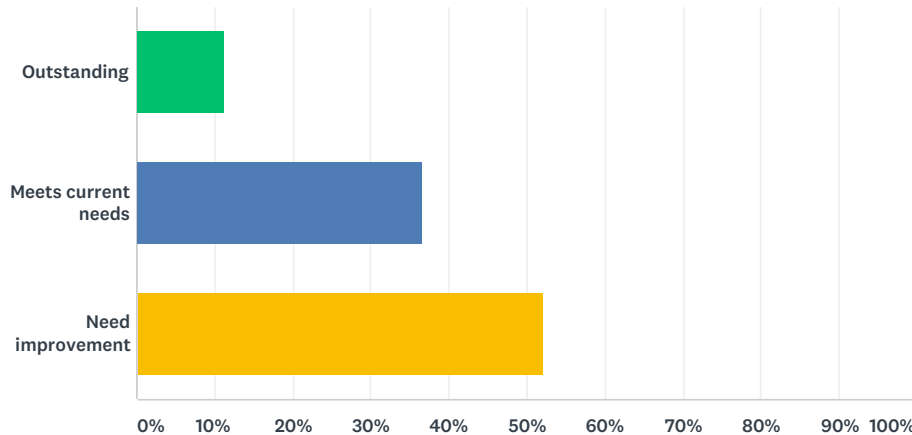
ANSWER CHOICES	RESPONSES	
Easiest	0.00%	0
Easy	1.42%	2
More difficult	44.68%	63
Very difficult	41.84%	59
Extremely difficult	12.06%	17
TOTAL		141



## Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

### Q14 In general, how would you rate the quality of the Battle Creek Off-Road Cycling trails?

Answered: 142 Skipped: 0

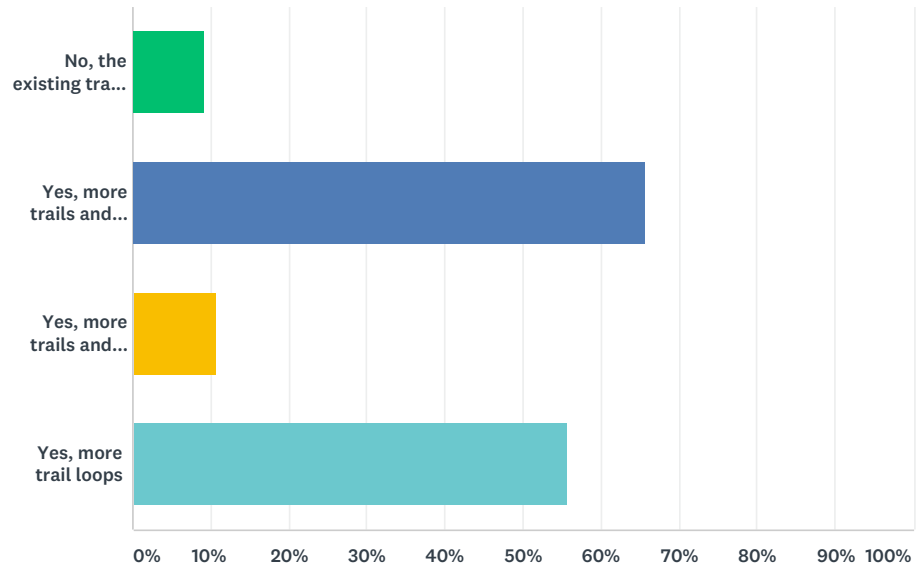


ANSWER CHOICES	RESPONSES	
Outstanding	11.27%	16
Meets current needs	36.62%	52
Need improvement	52.11%	74
TOTAL		142

Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

Q15 Do you think more trails need to be added to the Battle Creek Off-Road Cycling trail system?

Answered: 140    Skipped: 2

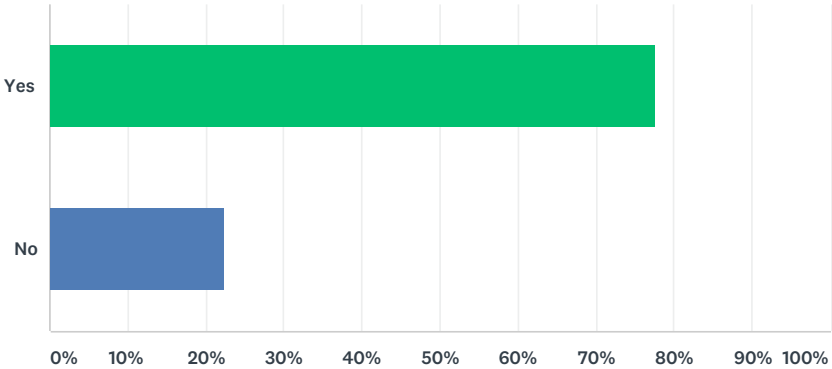


ANSWER CHOICES	RESPONSES	
No, the existing trails are adequate, no need for expansion	9.29%	13
Yes, more trails and longer runs are needed	65.71%	92
Yes, more trails and shorter runs are needed	10.71%	15
Yes, more trail loops	55.71%	78
Total Respondents: 140		

Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

Q16 The Battle Creek Off-Road Cycling trails are closed during wet and winter conditions. If fat tire and/or winter off-road cycling biking were available elsewhere in the Ramsey County park system, would you use this area?

Answered: 139    Skipped: 3



ANSWER CHOICES	RESPONSES	
Yes	77.70%	108
No	22.30%	31
TOTAL		139

### Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

## Q17 Do you have any specific comments regarding present and future recreation demands and needs for off-road cycling in Ramsey County?

Answered: 61 Skipped: 81

We need off road cycling trails in northeast Ramsey county, or a trail system in the former munitions facility in Arden Hills.

I look for trails that have sections like Spirit Mountain and Colorado so it's obviously difficult to do that here but the more trails the better. Battle Creek is a great place to train and have some fun. I would like to volunteer some time to help build / improve trails if needed.

I'd like to see trails in northeast metro, no current system close. I'd like to see County open space in bald eagle-otter lake park developed for cycling.

I like that the trails are sometimes confusing to follow and not always in great shape. It gives a sense of adventure and exploration that you don't get on some of the other over-developed bike areas. I also sometimes hike on the trails, and wouldn't like to see that option go away. Too many bikers or too-fast trails would make hiking difficult - keep it low-key and multi-use.

There needs to be a stronger focus on way-finding and separation of uses between hiking and mountain biking (including one-way trails). Way too many close calls and wrong turns. I generally don't choose to visit Battle Creek for mountain biking due to these issues, although it is fairly close to where I live.

I do not understand why fat biking is not allowed here in the winter. That is outrageous.

Keep it raw and natural--not overly maintained and artificial.

Aim for something different than all the other metro trails.

Specifically to Battle Creek... This place suffers badly from poor/no signage. Everyone I talk to complains about how hard it is to get around that trail system. I have been there many times and still don't understand how to put together a decent ride. Signs would make this place a TON better.

More trails for all abilities

1. Because Question 13 only allows for a single answer I feel it is a poor representation of how I use off road trails. I bike with some very advanced riders that pull me through Double Blacks from time to time. When I ride solo I mainly stay on the Blue/Black trails. I also take my 6 and 3 year olds out biking with me weekly and they only can hand the white/green trails. I believe a good trail system has a variety of all levels of trails. Even advanced riders use the easy trails to warm up or cool down. This allows a more diverse group of riders to enjoy the area and allows the development of young riders.

2. Any trail system that closes its doors completely to winter riding is missing out on a core of your most dedicated riders and it cuts the use of the trails in half. Other trails have found a way to keep winter biking open without sacrificing the CC ski trails that intermix.

3. My favorite trails are those that give me an hour plus of riding that does not repeat on itself, flow well, have obvious character to them, challenge me but allow me to bail out, and I can take my kids to. Connecting existing trails would help. More trails are always welcome! Developing some Extremely Difficult/Advanced trails would draw more people to Ramsey County trails.

Battle Creek is the only one I know; I travel a lot further for other singletrack in the metro area. It'd be really nice to utilize northern Ramsey County, if there is some space, for a more technical-style track. The trails at Battle Creek are special because of the elevation available, the large space they occupy, and how remote things feel despite being so close to the city. Adding trail, making them more sustainable, and improved mapping/signage will bring significant numbers of additional mountain bikers to the park. It is also important for skill building areas, as there are many people in the area that have not previously had access to mountain biking.

I really enjoy technical trails BC has to offer.

Used to bike here a lot more, but trails are not sufficiently maintained, and signage is poor. Better options elsewhere, but I'd love to see Battle Creek improved.

Thanks for soliciting input!

Go easy on the plants; do not transport invasive plants by accident

I think multi-skill trails would encourage many more riders and skill levels.

The demand for MTB trails is increasing significantly as is ridership with the High School Leagues. Battle Creek is only one of two trails inside the 494/694 loop and located where the densest populations and highest population of riders are located.

Battle Creek needs a vastly improved layout to utilize the terrain properly. Currently many of the Grades are too steep and create erosion. Better connections of loops, signage and maps are required so riders can find the trails and not get lost.

With the amount of area available in the park and a professional design with proper use of terrain, there could be many more miles of trails. With better quality trails, riders would return more often, including myself.

Today the lack of signage, maps and poor layout keep most riders away. Every time I am out there I run into riders that are lost and cannot find sections of trail.

By improving the design and having stacked loops of trails from beginner to intermediate to advanced you can satisfy a larger group of riders and get many more riders to return to the park.

An improved trail system and promotion of this to the St. Paul Urban High Schools would benefit Ramsey county and it's residents.

Bicycling is a lifetime sport and the St. Paul urban schools need better representation and the option to participate in the HS Leagues.

Please build trails that attract advanced riders as well as intermediate level riders.

Why not Fat Biking in winter?



A few flow trails and more downhill style runs at battle Creek along with much improved signage would really go a long way. A lot of us st paul residents never go to Theodore Wirth because it's far away and traffic is always a pain thus cutting us off from that type of riding. In general elevation changes are very welcomed here, we're lacking in that area in the twin cities

Make sure trails are either multi use or offer enough of different trails for various uses so that the park does not become dominant to one or two activities. 3/4 of your park is closed off in winter to anything but one activity type because of the trail system.

I believe off-raod cycling is needed now and in the future at Ramsey County. Thank you!

Off road cycling is still growing. Youth leagues should be encouraged.

Appreciate the opportunity for comments

Additional trail is always an attractive idea, but we need to improve and maintain what is currently there.

More and better signage, one way trails.

More trails are not the answer, trail crew can't maintain what they already have. It will be difficult to build flow trails, because the dirt is too sandy, it will be too much maintenance to keep up. All man made features wash away over time. Trails should be more natural, raw, and steep. If new trails are to be made, a longer sustained downhill trail would be great, similar to Goat, but longer (if possible).

In my opinion, there does not need to be any more trails there. The existing trails are not maintained enough, and it has taken workers all year to build one new section of trail that is not completed yet. An effort to improve existing trails would be better suited for any efforts.

Needs signage and loops that don't use asphalt or ski trails

This park has always been a great multiuse trail for those of us that live nearby. (I live across the street.) I fear that if more bike trail development is done it will ruin the multiuse aspect of this trail and hikers/runners who live in the area will not be allowed or welcome on the trail. Please don't let this happen. Some of us like to bike AND run on this trail and don't want to be told we can only bike on it.

There are very few singletrack trails left for runners where they aren't yelled at by bikers. I also hope that this does not become a fee-based biking area. This is a lower income neighborhood. Many of the people who live nearby cannot afford to pay to use the park. Asking for a fee just makes the park more accessible to people who don't even live in the area and less accessible to those who do. If a fee box is placed it should be donation only.

There is a ton of space, as seen at other parks, trails can be added without looking like trails have been added. I advise anyone to tour some other local trails that started from the ground up, like Cuyuna, Elk River and Maple Lag Resort.

I'm also a XC skier, but since natural snow has been a challenge at BC, I would prefer that more trails be opened to off road cycling. If BC made snow that would change of course, but there are parks like Hyland, and Elm Creek that both make snow and have winter MTB trails, so this should be included if BC has a future with manmade snow.

More funding please!

The downhill trails are very unique to metro area riding. I feel like they are the greatest asset to the trail system. Would love to see them expanded on.

Develop BC first, then additional trails along the river hill areas would be nice  
With the exponential growth of High School mountain bike racing has come a need for more places for young people to ride and train.

Battle Creek is the best place to mountain bike in the metro in my opinion because of the elevation and size of the park. I really like the two way trail network instead of one way loops. It would be nice to have more singletrack so mountain bikers don't have to use paved/ski/doubletrack trails as connectors between singletrack.

Great bones but boy do the trails need modern design

If future trails are created have the trails accessible for all types of activities. In addition, keep the emphasis on promoting the beauty of Battle Creek and not stripping away the beauty to making it assessable. It is a great sanctuary in the middle of an urban setting and if that changes too much it takes away from the vitality of this area.

North end of the county could use some trails. Like legalize the rogue trails around snail and sucker lakes

More winter access

My boy is finally old (and strong) enough to ride off-road with me. it is a recreation experience unlike anything else we do!

There are not many mountain biking opportunities in Ramsey County. I generally have to go to Hennepin County or elsewhere in the Metro Area.

I hope the expansion of the trails continues, the recent developments and re-works I've seen over the last few years are greatly appreciated.

Keep Battle Creek "unpolished". Carver, Lebanon, etc are all great trails but Battle Creek offers a unique experience that is rugged, washed out, and full of tree roots. It's great!

Battle creek desperately needs better signage for navigation.

The trails are unique but the signage is poor and there are some big hazards which are not marked.

Keep BC natural and lengthen current trails. I've been leading a group ride every Wed during open conditions since 1998 and this is my go to trail even though I live in Minneapolis!

Battle Creek provides the greatest opportunity in the metro area to truly develop and extensive trail system that caters to a wide range of riders. Battle Creek's terrain is unlike any other in the metro, which provides the opportunity to develop flow-style and downhill trails, which are currently only found in northern Minnesota. It is also easily accessible by car and bike path. I would like to see the trails continue to be build in addition to having improved amenities, such as porta-potties or restrooms, a changing area and picnic tables. Lebanon Hills has done a nice job with this and I think improved facilities would bring in more riders.

Reservoir Woods is an ideal place for trails.

I like Battle Creek's difficulty and challenge even though I am sometimes not adequate to the task. I would appreciate some compromises of an easier loop alongside a tougher trail so we can kind of ride together.

Only that I would hate to see the current, rugged and downhill trails go away without a similarly challenging replacement. Ideally, those stay and more are added.

As a long-term tax payer of Ramsey County and avid off-road cyclist, I would like to see the county take a step forward in utilizing park lands not just BC as off-road recreational opportunities for the benefit of residents and local tourism. I'm tired of seeing garbage filled woods with transient people occupying county park land. Off-road cycling not only offers excellent human powered recreational opportunities, but as well establishes an inviting community that cares for the preservation of the land. The local economy also receives a boost from well-organized and maintained human powered trail systems through tourism opportunities.

If you build it, they will come. I think Battle Creek should retain its existing character which is really unique in the whole Metro area and the county should build beginner or flow trails at a another location.

Winter fatbiking is a natural extension of summer use, so that should be a consideration. Signage issues hurts Battle Creek's reputation in the cycling community.

Thanks for your support and willingness to grow the off road cycling opportunities in Ramsey County!

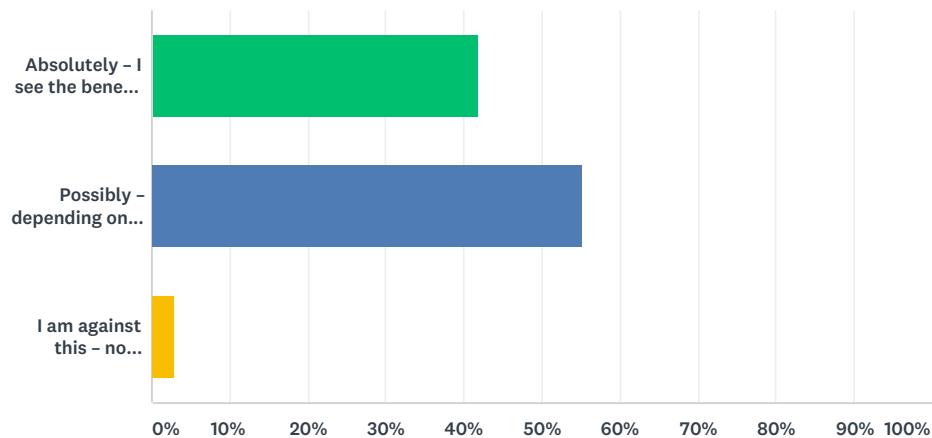
Maintain present trails before expanding & keep separate from hiking/skiing trails

Mountain biking as a hobby is growing very quickly. High schools have bike clubs and racing now. Battle creek has enormous potential to be one of the premier trail systems in Minnesota.

## Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

**Q18** Currently there is not a fee to use the Battle Creek Off-Road Cycling Trails. If a donation box was placed on-site and funds collected were used for trail improvements and maintenance at the Battle Creek Off-Road Cycling Trails how willing would you be to donate?

Answered: 141   Skipped: 1

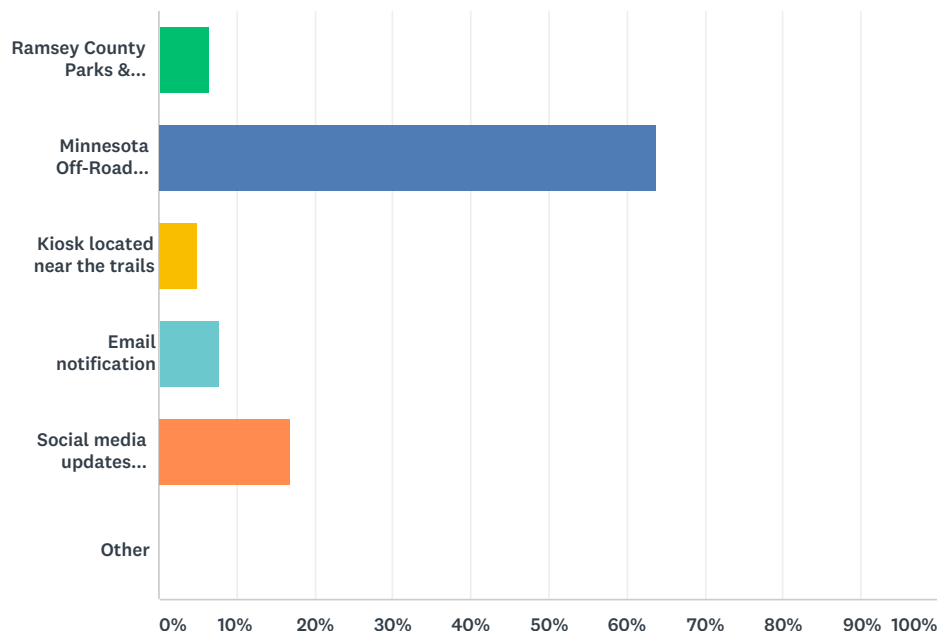


ANSWER CHOICES	RESPONSES	
Absolutely – I see the benefit in investing in these areas above and beyond current funding	41.84%	59
Possibly – depending on the long term plan for investment and improvements	55.32%	78
I am against this – no donation box should be used.	2.84%	4
<b>TOTAL</b>		<b>141</b>

## Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

### Q19 Where would you prefer to get information on the Battle Creek Off-Road cycling trails?

Answered: 141 Skipped: 1



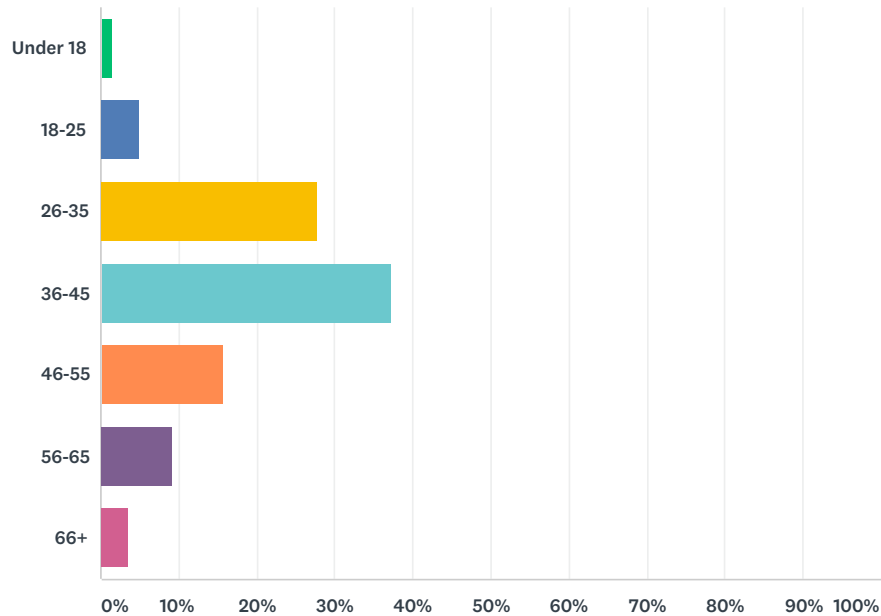
ANSWER CHOICES	RESPONSES	
Ramsey County Parks & Recreation website	6.38%	9
Minnesota Off-Road Cyclists (MORC) website	63.83%	90
Kiosk located near the trails	4.96%	7
Email notification	7.80%	11
Social media updates (Facebook, Twitter)	17.02%	24
Other	0.00%	0
<b>TOTAL</b>		<b>141</b>



## Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

## Q20 What age group are you in?

Answered: 140 Skipped: 2

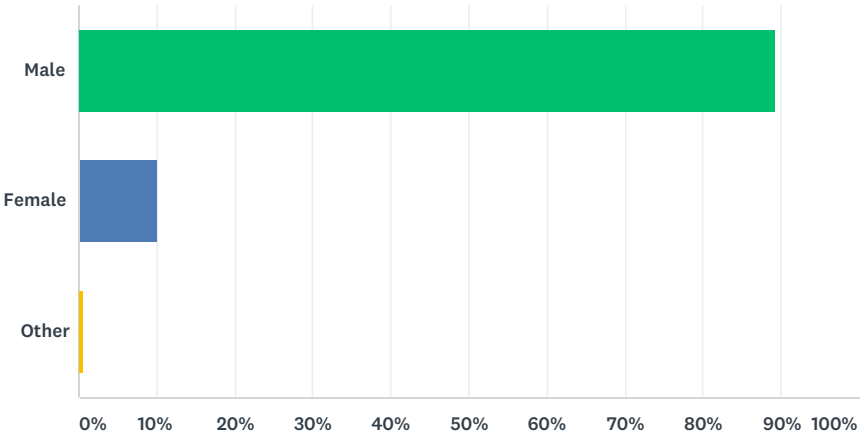


ANSWER CHOICES	RESPONSES	
Under 18	1.43%	2
18-25	5.00%	7
26-35	27.86%	39
36-45	37.14%	52
46-55	15.71%	22
56-65	9.29%	13
66+	3.57%	5
TOTAL		140

Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

Q21 What is your gender?

Answered: 140    Skipped: 2

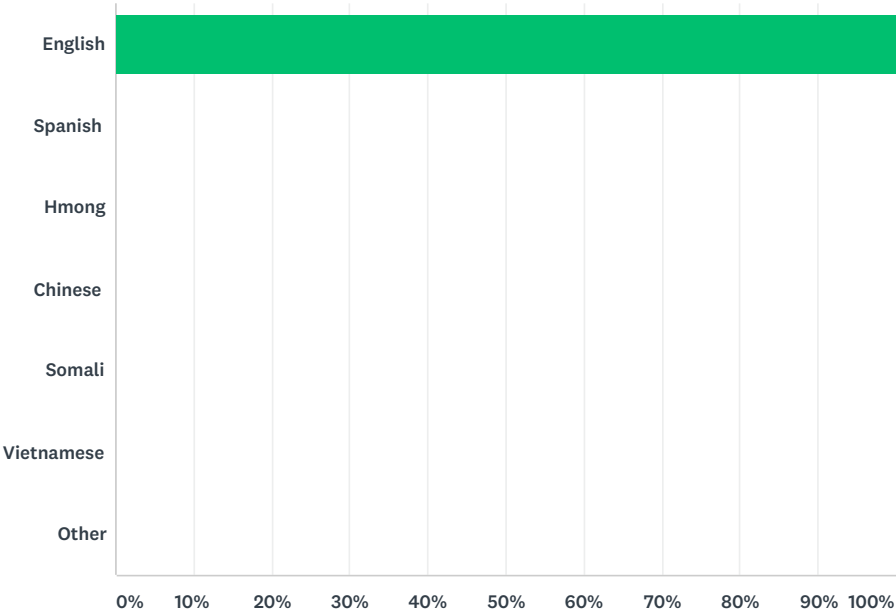


ANSWER CHOICES	RESPONSES	
Male	89.29%	125
Female	10.00%	14
Other	0.71%	1
TOTAL		140

Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

Q22 What is your primary language?

Answered: 140 Skipped: 2

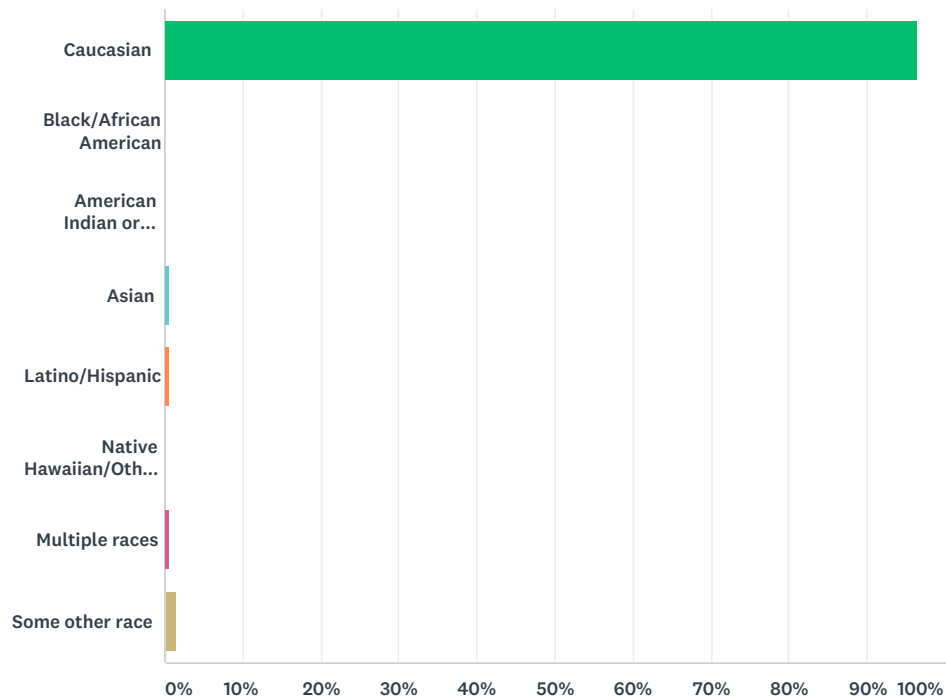


ANSWER CHOICES	RESPONSES	
English	100.00%	140
Spanish	0.00%	0
Hmong	0.00%	0
Chinese	0.00%	0
Somali	0.00%	0
Vietnamese	0.00%	0
Other	0.00%	0
TOTAL		140

Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

Q23 What race or ethnic group do you identify with?

Answered: 140    Skipped: 2



ANSWER CHOICES	RESPONSES	
Caucasian	96.43%	135
Black/African American	0.00%	0
American Indian or Alaskan Native	0.00%	0
Asian	0.71%	1
Latino/Hispanic	0.71%	1
Native Hawaiian/Other Pacific Islander	0.00%	0
Multiple races	0.71%	1
Some other race	1.43%	2
TOTAL		140

Battle Creek Off-Road (Mountain Biking) Cyclist Questionnaire

Q24 Contact information (if you would like to receive emails/newsletter)

Answered: 58    Skipped: 84

ANSWER CHOICES	RESPONSES	
Name	96.55%	56
Email	100.00%	58

### Appendix G

#### Comments Received After Concept Plan Public Review Period

7/25/2017 12:09 P.M.

Good afternoon. I just wanted to comment on how excited I am that Ramsey County is supporting the building of more singletrack mountain bike trails at Battle Creek. As a regular trail worker I have seen the weekly efforts put into gaining and maintaining trails at this great park. Like other metro trails, more singletrack miles will bring more users in turn making it an even better place for individuals, families and high school mountain bike teams to recreate and train. This will be a great asset to the City of St Paul and for all user groups of the trail, not just mountain bikers. Kudos to Ramsey County Parks & Rec!

7/25/2017 12:12 P.M.

I am super excited to see Ramsey County looking to dramatically expand mountain bike / single track trail riding opportunities in Battle Creek Regional Park. It's already a good place to ride. This significant expansion could elevate it to a destination trail.

Trail ridership in the Metro has grown exponentially over the last few years with the expansion of High School mountain bike racing. It's a very inclusive sport getting kids outside and being active.

Thanks for having such great vision.

7/25/2017 12:27 P.M.

I just looked over the Concept Map for Battle Creek - Looks great! It's a fun area to ride now, but adding more miles/variety, and a more cohesive routes would really be a boon to the trail..

As it is now, I would never just tell someone to just ride there on their own the first time, you need to be guided a couple of times to know the full trail.. I've talked to more than a few that just missed sections of the trail due to not knowing how they connect.

Thanks for the trail - it's a nice addition to our Twin Cities trail system!

7/25/2017 12:27 P.M.

Thank you for the Battle Creek mountain bike trails project and development! It's already a great trail and will only be getting better. Thanks!!!!

7/25/2017 12:46 P.M.

As a former member of the trailbuilding crew at Battle Creek ( and current Trail Steward @ Salem Hills), I have seen the potential that Battle Creek holds. If the current plan comes to life, it would make Battle Creek one of the premier mountain bike destinations in the metro area. Utilizing all areas of the park would also cut down on riff raff as well.



7/25/2017 12:54 P.M.

I am regular user of the current BC mtb. trail system. I ride 2-3x/week and run 1-2x/week on the existing trails. Let me be the first to write, I am extremely excited about the future development and plan of the trail system! The mapping looks great! Thank you for your hard work. I look forward to the expansion process and spreading the word with other trail users.

7/25/2017 1:14 P.M.

Hello!

I ride at Battle Creek regularly and I just reviewed the plans for expansion. First off, WOW! This looks like an amazing opportunity for the park, the city, and outdoor recreation in the East Metro! Thank you for considering this project!

I have a big concern about routing. As I understand the plan (from talking to others involved in the project) calls for all trails to be two way. I feel that this creates more safety concerns than it solves. It would be great if we could expect all riders to ride with the upmost caution and be aware of everything coming at them, the reality is that they do not. When they have a close call it can cause them to lose interest and to seek other trails to ride that they feel are "safer". Virtually all metro trails, with the exception of very short sections, are one way trails. The biggest exception that I can think of in all of Minnesota is the Cuyuna Lakes Recreation Area which is managed by MN DNR. But, as part of the Cuyuna Master Plan, all of the trails will eventually be one way.

Please strongly consider revising the plan to make all of the trails one way. This will result in a greater perception of safety and better ridership and enjoyment of the trails!

Thank you for your time!

7/25/2017 1:29 P.M.

I'm in full support of expanding the Battle Creek MTB trail system. I think what's most important in the design is taking advantage of the elevation change and ensuring the Twins Cities region has more intermediate and advanced downhill features. While there are many options for novice riders in the regional trail system, few options are available for steep, technical features. Integrating this into planning for Battle Creek expansion would serve the Twin Cities well and increase engagement with the trails.

Please consider making use of the elevation change to create downhill trails that are fast, fun, and challenging!

7/25/2017 1:32 P.M.

I'm pretty excited to see news of the proposed expansion of trails at Battle Creek! BC is perhaps the only place in the twin cities metro that you can ride some proper downhill trails, so the prospect of having more challenging trails like that without having to drive 1-2 hours away to Duluth or Welch Village is great for our community.

The terrain available at BC gives incredible opportunities for advanced riders to get their fix, when the flipside is riding other MORC trail systems that really only cater to cross country and beginner riders. I hoped that the proposed map would have more downhill trails like Goat Trail and The Luge (though Luge is probably a bad example because it's old and built unsustainably).

If I could have one wish, it would be for several short, fast, and challenging DH lines going from the top of the hill to the creek, with an easy access climb back to the top. The aggressive trail riding scene in the twin cities is underserved, and it will continue to be passed over as a destination city to go riding in unless that need is met. As it stands, I'd rather wait several weeks to take a 7 hour trip to Marquette than ride nearly all of MORCs current trail offerings. In my mind, there's no point in having 100 miles of trail under their stewardship if no one save beginners and cross country riders want to ride their trails. I understand however that riders like myself are in a vocal minority, but I believe other trail organizations have done a much better job of creating diverse trail networks that appeal to all skillsets and leave none of them wanting for more.

Thanks for reading, I hope these comments are helpful

7/25/2017 1:49 P.M.

I just looked at the map for Battle Creek and the proposed trail expansion. I wanted to toss in my \$.02 for what it's worth.

I have been riding there off and on for maybe fifteen years. I am a pretty infrequent visitor but it is one of my favorite trail systems in the metro. It ranks high on my list due to the technical nature of the terrain, the difficult climbs, the use of topography (esp. the newest stuff being built in the far NW reaches of the park. I love that it is hand-built versus all of the modern machine built trails in Duluth, Cayuna, and CAMBA systems to name a few.

I hope that if and when a revamping/expansion of the trails happen that the original nature of the park is retained. IMHO, there is nothing worse than a completely "dumbed" down trail system that is readily accessible to all skill levels. They have done a nice job at perhaps the most popular metro area Lebanon Hills by installing filters that force one to display adept biking skills before entering into more difficult sections.

One thing about BC that is really frustrating, unless you ride there often, is the complete lack of signage. I have to ride there multiple times before I can figure out a good way to get the most miles in (w/o riding boring grass XC ski trails).

Finally, as you are probably aware, the lower parking lot has a lot of broken glass in it sometimes accompanied by sketchy characters. I will no longer park there as I worry about my vehicle. I hope that something can be done to remedy this not only for park user's convenience but for the safety of all concerned.

I'm really excited about the prospect of an expansion/updating/modernization. I will do my best to follow any and all updates on Facebook.

7/25/2017 2:13 P.M.

I'm writing with comments about the proposed new trails in Battle Creek Park.

I'm a fairly active mountain bike rider who lives in St. Paul and works quite close to Battle Creek and I look forward to the proposed trails using much more of the park than are currently being used. I'm familiar with trail design and construction, and I volunteer my time with MORC at a close by trail about once a week in the summer.

My comments mostly deal with how to make BC better, and I hope that the new trails will incorporate them.

- Build them sustainably. Many of the current trails channel water, and the resulting 'gully' trail is no fun to ride and continues to erode. There are lots of instances of this in the park, and I don't feel as safe riding in them because it's much harder to handle a bike down in a gully. Plus, they'll dry faster and have less damage when it rains.
- Build options for all skill levels. With the current trail design, it's hard to get from one trail to others without riding harder sections (e.g. down the Luge or Wall of Death). Dedicated loops, stacked loops, or lots of junctions with options makes this easier. Also easy access to hard trails (so the fast folks don't run over new riders on their way to the hard stuff). The map looks like you have this, but I try to imagine someone on their first ride vs. someone that wants to bomb and jump everything.
- Multiple kinds of trail. Going along with the above, have easy wide open trail, stuff that flows well, tight technical trail, technical features, jumps, etc. More flow trail, and trails that flow well both ways if it's to be 2 direction trail.
- Going along with the above, making the trail bench flatter and wider on sides of hills. I rode the new parking lot overlook return (back down to Pt Douglas Rd) for the first time last night, and almost everything felt narrow and off camber. It wasn't really fun and I didn't feel as safe riding it.
- One way trails! BC is pretty hilly. Imagine riding quickly down hill and coming across someone headed up!
- Signage! Maps! With all the singletrack, ski trails, etc. It's really tough as a new visitor to navigate BC. Labeled waypoints at junctions (and arrows at other ones) make this easy. "I ride from A to C to D to N to P to A for tonight's loop".
- More signage! When is the trail closed? Where do you check? Is it ok to run on the trails, or is it bikes only? Have simple answers to this all.
- In addition, put the maps up on Singletracks, MTB project, Trailforks, Google Maps, Ramsey County Parks, etc. Make it easy to find information.

- B-lines around tech features. Unless it's a technical-only section, make dedicated ridearounds for folks that don't feel comfortable riding certain features, or make it possible to walk over them.
- More connectivity. The park is sectioned off by roads, trails, etc. Make it easy to get from one section to another. The extreme example of this is the paved walking path along the creek. It's no fun to ride up Luge or Wall of Death, and Big Wheezy is further away. There doesn't seem to be a good climb up between them on the proposed map. Could there be one there somewhere other than 201 and 202?
- Put a skills area near the parking lot too. It's nice to have something close to the parking area.
- Have a good plan for maintenance. This is a lot of trail! I know the volunteers do a lot of work, but it's a lot of trail.

Thank you! I'm really happy there's going to be more trail at BC and hope you can figure out a design that works for all riders.

7/25/2017 2:14 P.M.

Hello,

I am a cyclist and in full support of the plan for improving the mountain bike trail system in Battle Creek. Having trails of varying levels of difficulty and improved signage will make it easier for my wife and two children to ride there. It will also help encourage others from the community into the trail system, which currently is not very welcoming or signed clearly.

Improving the trail network will also increase the number of users in the park which will help drive off undesired activities that take place in some of the back areas of the park.

Thanks!

7/25/2017 2:22 P.M.

I am so proud to live in a county that is expanding its mountain bike trail system. I can't begin to describe how stoked I am to see this new plan. Keep up the good work!

7/25/2017 2:33 P.M.

This new concept looks amazing! PLEASE make this happen!

7/25/2017 2:40 P.M.

Looks great! Would be a welcome addition to the current cluster-f\$%@ of trails currently at Battle Creek. Such a great location and would rival the legendary Theo Wirth trails on the other side of the Cities.

Go for it!

7/25/2017 2:50 P.M.

Just wanted to say that I like what I see and I hope it materializes.

Battle creek would be much more enjoyable if it were looped, connected and properly signed. I would even be willing to pay a trail fee to ride there if it meant better trails in my backyard. A skills park would also be great, as would year round usage. Fatbiking is growing in popularity every year, and it is a family friendly sport that everyone can enjoy. This park should be open year round.

7/25/2017 3:01 P.M.

Yes. With increasing demand for mountain biking with youth, increased need for equitable sports, and MN setting the national model for high school mountain biking, we need more access to more trails throughout the region. Ramsey County is lacking in trails but has an amazing space to make this happen.

Let's build this.

7/25/2017 3:02 P.M.

I am writing today in support of the proposed mountain bike trail expansion at Battle Creek. I think that this is a great idea and will benefit the community. I just recently brought my son to Battle Creek for the first time and he had a blast. He is excited to get back out there and ride again. Thank you for putting this forward and I am looking forward to seeing the trail develop.

7/25/2017 3:05 P.M.

I would like to commend the City's efforts to create a better Battle Creek Park. This east side park is brimming with potential, and the expansion of the mountain bike trails would maximize use and provide a draw for area residents, expand wellness opportunities, and be a cornerstone for revitalization. Expansion of this underutilized open space through a collaborative effort with MORC will provide a certain amount of ownership to the safety and cleanliness of the site, while minimizing government resources. Expanded use of the more isolated areas of the park will create a safer environment for all to enjoy.

As a user of this park myself, I have two requests:

- Please provide adequate wayfinding where the mountain biking trail and XC ski trails intersect. It's easy to get lost when biking.
- Please develop the more remote western sections of the trail plan first. These areas can benefit the most from expanded use by putting more eyes on the ground - offering a safer environment for all.

7/25/2017 3:20 P.M.

This area is so underutilized and has the potential to be a really amazing MTB course. I am a Woodbury resident and use the trails now but not as much as I would if they were logically connected.

Now that mountain biking is a yearlong sport with Fatbikes as well as a High School sport I only see this as a great addition to the East Side.

Great work. Please add me to your contact list for updates etc. I would really like to support this effort!

7/25/2017 3:33 P.M.

I'm super excited to see Ramsey County's concept map for the single track trail network at Battle Creek. Some thoughts:

- The biggest benefit that I see from the map is getting the mtb trails off of the ski trails. This is key. Not only would new singletrack be more fun than ski trails, but it'll also open the possibility for fat biking in the winter (don't want to ruin the ski trail grooming)
- I also like that the proposed routes would eliminate the need for connecting trails via paved bike paths and along Point Douglas Rd. For similar reasons, riding single track is more fun than roads.
- I like seeing the proposed skill areas on the map. I've always thought the top of the hill above the community center would be a great area to develop for something like this. Between the ski trails, it seems the area is under utilized, but it's really nice, with big trees and relatively clear under story.
- I'm surprised to see East Battle Creek included in the concept map. This would be great for getting some tamer, less hilly trail in the network. Not everyone enjoys hilly, challenging trails. When I take my kids biking, for example, I try to bring them to less hilly trails so that they can have a good time. I look forward to bringing my kids to this trail!
- I'm amped to see the hilly terrain on the west end of the park included. There's a lot of terrain potential here. BC is already one of the hilliest trails in the region. With these changes, it'll be even more challenging! That's awesome. One thing that I've always loved about BC is that at the end of the ride, I feel like I've accomplished something.

Thank you for sharing the concept map and inviting comments!

7/25/2017 3:53 P.M.

I support this project.

7/25/2017 3:59 P.M.

The map looks fantastic. What a great proposal to utilize a wonderful area. As an avid biker, I frequently go other local trails, which also results in me going to local businesses – restaurants, grocery stores, liquor stores, and other errands. I'm excited to hear about the funding and progress.

7/25/2017 4:25 P.M.

I fully support the improvement if the single track mountain bike trails and believe this would be a great investment in St.Paul. I currently choose to mountain bike at Carver Lake versus Battle Creek due to the good trail flow and design, as well as trail maintenance.



I am really disappointed in the Twin Cities with their lack of trails for dirt bikes, four wheelers, and snowmobiles. Also I think it would be worthwhile looking into creating a whitewater park for kayakers off of the River in St.Paul. (Yes I know this is very expensive) these are investments if you want people with money to move into your city.

7/25/2017 6:15 P.M.

Would love to see this happen!

7/25/2017 7:12 P.M.

I enthusiastically support the Battle Creek concept map. I coach with a mountain biking team that draws from students across St Paul. We would use this very often. My family will love it as well.

7/25/2017 8:21 P.M.

I am a senior rider who first started MB riding a BC. The current proposal is one that makes great use of the park total space, the terrain, access points, views, challenges, welcoming to all levels, close to a population group that we can get new riders from, and the deer won't care so you can still have the annual deer hunt in the fall.

The current trails in the park are getting quite worn and some aren't designed for the long term use. Good signage for a Metro/Urban park is a good idea to help keep people safe and oriented. Even in a park surrounded by roads and houses you can get very disoriented and it can be challenging to be able to tell someone where are if injured. I would think even the Police/Fire/EMTs would support the signage.

Good use of resources, carbon free, efficient use of land, and supports a healthy lifestyle. Good luck.

7/25/2017 8:59 P.M.

This plan looks awesome. Battle Creek has some great topography and amazing potential. Seeing this plan makes me realize that I had no clue how big this park actually is.

I hope this plan moves forward.

7/25/2017 9:57 P.M.

I would love for something like this to happen. Currently Battle Creek is not at all beginner-friendly. The proposed changes would mean I could ride my bike to a good trail system and not have the hassle of driving to Leb, Theo, etc.

7/26/2017 6:53 A.M.

Very impressive. The proposed plan takes advantage of the terrain and space that Battle Creek park possesses. It would definitely be draw for me and my family. I'm even excited about signage, that will help enhance the experience of new visitors to this trail system.

7/26/2017 10:53 A.M.

Hello - budding singletrack rider here, just wanted to clearly show my support for the overhaul of the MTB trails in Battle Creek.

As it stands there is a giant mess of trails back there, it is extremely difficult to learn, and while there are some really great segments, they are frustrating to get to.

Switching over to a loop system is going to be fantastic all around, not to mention one that is so comprehensive and LONG! I am really excited to come try this out once complete!

7/26/2017 11:18 A.M.

As a former Minnesota resident and ten-year resident of Saint Paul I'm very excited to view the concept master plan for Battle Creek Park. When I lived in Saint Paul I always enjoyed hiking in Battle Creek, walking under large oak trees and looking out over the Mississippi River always wishing the mt. bike trails were better. I had to drive to the south metro, or Minneapolis to get in some good singletrack time. Take my comments as you will since I no longer live in the area, but I fully support the plans. My only suggestion would be to encourage the trail to be single direction. With all the hills in the park biker to biker and biker to hiker encounters can be reduced and make for a more enjoyable experience for everyone. I've lived in Colorado now for three years and the trails are endless, but there's the problem of hiker-biker encounters. Hikers and bikers travel at different speeds, so rightly hikers can be very startled by bikers. Very few of the trails around here are single direction unlike MN. I think the single direction model reduces injuries and increase the experience for all users.

Thanks for your time and good luck with the plan development.

7/26/2017 11:46 A.M.

This is awesome, it's incredible to see a great trail system expanded on. I am seeing a lack of new higher difficulty trails in the map though. Battle Creek has some amazing down hill sections and more difficult features that are not seen on other MORC trails. Please keep up this tradition and consider the culture of these trails going forward. Moderate to advanced riders love Battle Creek for it's feature rich trails and chalange. Thank you for all your hard work on this project.

7/26/2017 11:47 A.M.

This plan looks amazing - it will be a true destination!

7/26/2017 12:49 P.M.

I ride Battle Creek regularly. It's the closest to my house and one of the best and challenging (most climbing) trails in the area. The new trail managers have done an awesome job within the last year and it is very obvious. New return trail from overlook is awesome!

I hope their plans gets approved. I totally support it!

RAMSEY COUNTY | 85

7/26/2017 7:56 P.M.

I'm glad to see Ramsey County is considering expanding mountain biking. It's a great recreational activity that can involve the whole family and besides Carver Park in Woodbury, Battle Creek is the only real trail in Ramsey or Washington County. For those of us in the east metro it would be a welcome Investment.

Battle Creek to date provides challenges in that the signage is poor and the trail layout is confusing. I would love to see a centrally backed initiative.

Please feel free to contact me with any questions you may have.

7/26/2017 9:03 P.M.

Time to move forward with this bike trail initiative. Thanks

8/1/2017 12:56 P.M.

Greetings!

I'm writing to you in support of the Battle Creek off-road biking project. As an avid cyclist, Ramsey county resident, and bike industry professional, I've seen firsthand the positive difference that bike trails can make in peoples' lives. The example that stands out to me most is the story of Cuyuna. While Ramsey isn't in the same financial position that Cuyuna was in, singletrack trails still have the potential to improve recreational opportunities for the area and bring the community together.

My only concerns are that road crossings are safe and that the trails that aren't open to walking/dogs are clearly marked.

Thank you for your time!

8/1/2017 1:46 P.M.

I'm an avid off road and road cyclist. I support this project and would ride here.

8/1/2017 2:07 P.M.

I wanted to send some comments on the concept map for Battle Creek MTB trails. I live in St. Paul and ride these trails 2-3 times a week, so am very excited to hear of the possibility of more trail!

I noticed is that not all of the existing trails are updated on the concept map. I believe it is 304, 305 and 306 that have already been completed. I'm sure there are better sources for this information as I am not involved in the actual trail building, or perhaps you left these trails as incomplete for a reason.

Battle Creek is easily my favorite area to ride in the metro, part of this is due to the relative solitude offered here and how wild the area feels compared to Theo for example. You may not be the person to direct this input to, however my concerns about the development of more trails would be that the natural terrain gets "white-washed". I sincerely hope that the difficulty of existing trails isn't affected by these plans.

Moving from Minnesota to Colorado I have found that trail builders are big fans of fast rolling flow trails (I am too!), but not at the expense of existing terrain. Battle Creek happens to have great elevation and I think it would be a shame to not take full advantage of this. To give some context to these comments, existing trail 104 is a prime example of the type of trail that makes this area so fun to ride; 104 uses the gravity of the hillside to offer a sweet descent over the area's natural rocks and roots.

The proposal outlines only 1.43 miles of new black trails. The other 2.5 miles of black trails, I believe are all already in existence (as per my earlier comment on 304-306). I would argue that the metro area is not necessarily in need of more green or blue trail, the nature of Minnesota terrain is such that there is already a lot of land that makes for great beginner/intermediate trail. I am all about getting more people into the sport of mountain biking, however there are few trails in the metro where riders can challenge themselves and expand their capabilities (the Brownie Lake trails and the Extreme loop at Leb are the only places that come to mind).

In light of this, and my earlier comments on the great elevation available at Battle Creek, I would like to advocate for the development of more miles of black trail. What I hope comes across from my ramblings is that to make trails at Battle Creek less difficult would be a shame because this area is one of a kind in the metro.

As far as the proposal goes, I think that skills areas would be a great addition to Battle Creek. I would love to see one of these be a pump track, as there aren't any well maintained pump tracks at existing parks outside of Cottage Grove.

My final thought is that any trail is better than no trail, and I am so excited to see this on the table!

8/1/2017 2:51 P.M.

I have been riding mountain bikes at Battle Creek for over a decade and have been pleased with some of the trail additions/improvements that have occurred in recent years. BC has always been a place that riders get mad at because there isn't a 'loop' per se. Of course if you ride there a bunch, you learn how to loop it together, but it still involves tar trail and road segments.

It's great to see that more trail may be built at BC! Making a real loop is hopefully a priority of this plan as opposed to continuing with disjointed trails. Build it and riders will come...especially if you do a good job maintaining the trails during the season.

Thanks for reading.

8/1/2017 3:41 P.M.

I love the plan! It's exciting to think of all the mountain bike potential at Battle Creek. I don't live in Ramsey county, but I travel to Battle Creek often, because it has unique topography for our area (hills!)

The other thing that Battle Creek has is some dedicated downhill trails. Battle Creek has always been ahead of the other trail systems in regard to berms, jumps and technical downhill trails. It would be very exciting to see that aspect of the trail enhanced (in the expert areas of course!) and it would be disappointing to see that aspect of the trail disappear. I'm writing to encourage you and your team to develop some of the expert trail with downhill in mind. Having a few chunks of trail as one way downhill would provide a space for local riders to develop downhill riding skills. With the growing boom of lift-access trails both in MN and, even more so, in the mountains to the East and West, downhill is definitely a growing mountain bike discipline, and a demographic that is currently underserved. Developing trails with downhill in mind would help preserve Battle Creek's place as the most unique and challenging trail system in the Twin Cities.

Thanks and keep up the good work!

8/3/2017 10:43 A.M.

The scale and detail of the concept map makes it difficult for me to make out exactly what is contemplated, but as a concept of adding a significant amount of mountain biking trails at Battle Creek, I'm very supportive of the idea.

I live near Battle Creek Park, but I frequently drive to other trails in the east and south metro because the existing trails at Battle Creek are crudely built and sporadic. Thoughtful expansion and skillful building of additional trails has tremendous potential at Battle Creek because of the park's large size and significant topography. My experience of other metro-area mountain bike trails is that the user groups are conscientious about their impact on the trails and on other trail users.

The concept map shows a total of more than 20 miles of mountain bike trails. If that much trail is built, and it is done with the thoughtfulness and skill demonstrated at places like Carver Lake, Lebanon Hills, Murphy-Hanrehan, and others, Battle Creek would absolutely become one of the premier trails in the area.

Please keep me informed of the progress of this planning effort, and of additional occasions when I might provide additional support in person or in writing. Thank you!

### Appendix H

#### Comments Recieved After Master Plan Draft Public Review Period

1/19/2018 8:38 A.M.

Thanks for sharing the update on the Battle Creek MTB Master Plan. I'm super excited for this project and I can't wait to see what the first phase looks like. The proposed trail segments look like they'll make the most of the landscape on the western end of the park to make some good, challenging trails!

The only feedback I could think of when looking the plan over regards the proposed washing station(s). I guess I would recommend not including the washing stations at trail heads. If the county is going to invest in some new trails, it doesn't make sense to encourage people to ride them when they're wet and destroy them. It stands to reason:

- Having a washing station implies that people's bikes will get dirty
- Bikes only get dirty if it's muddy
- Riding muddy trails damages them

One could argue that the washing station would be useful for cleaning dust off a bike (since the trails at BC can get dusty at times), but in that case, it's just dust. A washing station is mostly helpful for muddy bikes, when people don't want to ride a muddy bike home or get the inside of their car all muddy.

Thanks for soliciting feedback!

1/19/2018 2:03 P.M.

I'm not sure if the comment period is still open (web site says Feb 3 2017), but the link is active so I'm giving it a shot...

I'm a resident of Roseville and a frequent mountain biker. I read through the plan and looked over the map, and I'm thrilled by them.

My impression is that Battle Creek is currently underutilized relative to the more outlying trails such as Elm Creek or Lebanon Hills, or Theodore Wirth- I never see nearly the traffic at BC as the other areas. The proposed improvements to signage alone seems like it would draw more users, and the trail additions seem to be prioritized really sensibly.

My impression is that Battle Creek is currently underutilized relative to the more outlying trails such as Elm Creek or Lebanon Hills, or Theodore Wirth- I never see nearly the traffic at BC as the other areas. The proposed improvements to signage alone seems like it would draw more users, and the trail additions seem to be prioritized really sensibly. Much of the county feels like it's in a dead zone of trail opportunities with the higher traffic areas all about a 45 minute drive in various directions, and having a more cohesive trail system in this part of the metro would be fantastic.



1/19/2018 2:15 P.M.

I am very excited to see the plan for the additional mountain bike trail at Battle Creek and fully support the Master Plan. There will be a lot of excitement in mountain bike community and it will bring many new visitors to the area.

1/19/2018 3:43 P.M.

Would be a welcome change/addition! Hard to recommend mountain biking here currently, even to friends who are advanced riders. Really tricky sections, confusing layout and unclear trail signage. And 21 miles - wow! What is there like 5 currently? I also think with more people using the park, will help diminish the number of undesirables in the area.

StP needs its own "Theo" on the east side of the river. Good luck out there!

1/19/2018 4:50 P.M.

We used to picnic at Battle Creek in the early 70's with extended family. It is an amazing place and is perfect for mountain biking. I love the plan and can't wait!

1/19/2018 6:37 P.M.

I have been very frustrated everytime I try to ride there because the signage is terrible or should I say nonexistent. Hopefully the plan is to not only add signs but make the trail easier to follow. Should just get rid of any really confusing intersections so you can get on the trail and ride for miles and not worry about which way you need to go every half mile. I'm actually disappointed that they collect MORC money and don't take care of the most obvious problem at Battle Creek

1/20/2018 1:28 P.M.

I do not reside in Ramsey county, however, I work near Battle Creek and bike there often. Thank you for working on the continued development of this park. I think that the terrain of the park offers a unique opportunity for single track trails. I think that the draft plan and map are great and if executed, it will turn the park into an awesome riding experience.

I also help out with the Stillwater High School Mountain Bike team. We currently do not have practice there, but drive past it, for two reasons. First, the current skill level is beyond new riders. Second, the lack of signage can be confusing for riders not familiar with the park. I think that the existing plan addresses both of these issues well.

1/20/2018 2:03 P.M.

I absolutely love the idea of additional trails at Battle Creek! We have three kids, aged 10-16 who bike frequently at Carver. Having more trails will be great!

1/20/2018 8:15 P.M.

Do it!

1/20/2018 8:49 P.M.

Very excited to see the work being to bring more trails to the Battle Creek Park! I did some work on a REI National Trails Day event last year out there and have gotten to ride it a few times. It really has some great woodlands and views of the area. Building 20+ miles of purpose-built single track will be a great year-round additional to the park and to the community. Battle Creek could really become a great local asset for generations to come. Thanks for doing the hard work to help bring this to reality. Let me know if you need anything else from me – thanks!

1/21/2018 9:19 A.M.

New trails are nice. Being able to ride a fat bike in the winter would be stupendous.

Look to the Hayward/Cable, WI, area to see how winter biking and skiing can coexist. It can be done.

1/21/2018 12:19 P.M.

I am a current Resident of Stillwater so Washington County. I have heard from some Mountain biking friends about Battle Creek looking to expand the trail system. I want to support this master plan. I have to admit I cannot read the plan and map. I will recommend that whatever you do look to Cuyuna Mtn Bike area and Duluth as we have spend time at both trails. I absolutely love Cuyuna and in my opinion the area is reaping the benefit of lots of bikers going to the area. The staging area and trails are phenomenal. Anything that resembles that down in the Metro I think would be awesome. We are involved in the Mountain Bike Team in Stillwater which just won the 2018 State Championship and at the races the participation is expanding every year. Stillwater has I believe 80-90 students on the team and expected about 100 next year.

Anyways long winded but wanted show support in that it would bring our dollars to St. Paul. I was a resident of St. Paul for 20+ years. If you could improve the public school options I would move back as that is why we moved to Stillwater. That is a different topic though.

1/21/2018 5:02 P.M.

I fully support this!

1/21/2018 5:14 P.M.

I want to offer my enthusiastic support for your proposal. What an exciting opportunity for the Battle Creek community.

For the last 3 years I have led the St. Croix Valley Athletic Association Mountain Biking Club. We serve kits 3-12 grades and focus on generating excitement for a lifetime of fitness through cycling. This area would be a boon to our club.

I am also a parent volunteer coach with Stillwater Mountain biking. The expansion of Battle Creek would add another great venue for the team.

Lastly I am an employee of 3M. This area would be well used during noon breaks and after work.

Please support this plan.

1/22/2018 11:25 A.M.

Please approve the plan to expand mountain biking at Battle Creek. This would be an amazing asset to the community!

1/22/2018 1:48 P.M.

I am greatly looking forward to expanded trails in Battle Creek. With some of the best elevation change and terrain in the cities, Battle Creek has the potential to be the premier trail in the Metro!

1/22/2018 7:56 P.M.

This proposal is well thought out. The proposed mix of green/blue/black trail is appropriate and I especially like the emphasis on signage, one aspect in which BC is particularly lacking.

This is great work and as a Ramsey county taxpayer, general outdoor enthusiast, and as an off-road cyclist I heartedly endorse this plan and encourage its adoption and implementation.

1/24/2018 7:56 A.M.

I fully support the development of new single track mountain biking trails at Battle Creek Park. I'm an assistant high school mountain biking coach and cycling enthusiast in Stillwater. Our student athletes and adult cyclists are always looking for new single track riding opportunities. Currently we need to drive to Riverfalls WI or Woodbury to ride significant single track trails.

I would love the opportunity to support MORC and the Park Board in the development of additional mountain biking trails at Battle Creek.

1/24/2018 8:20 A.M.

I would just like to voice my support and excitement over the proposed plan of expansion of the mountain bike trails at Battle Creek park. I am new into the mountain bike scene, and have heard from many friends and coworkers that Battle Creek is great, albeit mostly advanced and technical trails. I run there during the summer and ski there during the winter, so I know and love the park and would love to be able to enjoy it in another mode as well (mountain biking). The addition of new trails of varying levels would help me enjoy the park even more.

On a less selfish note, the high school mountain bike scene has blown up over the last few years (unfortunately it wasn't an option when I was in high school) and I think they would be able to capitalize on the new trails. Thanks for working on this.

1/24/2018 8:37 A.M.

Hi I am a 3M employee and a mountain biker. I am very supportive of the proposed improvements to the mountain bike trails at Battle Creek. In addition to the extra miles of single track the new signage is critical. I don't ride at Battle Creek because I've heard from a number of people that it is extremely confusing to figure out where you are and where you are going due to lack of signage. I think the proposed changes will truly make Battle Creek a "destination" for a much larger group of cyclists.

1/24/2018 9:27 A.M.

I would like to offer my support for the proposed mountain bike trails at Battle Creek. I think the proposed setup is excellent. If there is appropriate signage and a decent mix of trail vs technical this location could serve a tremendous area in the east valley and draw in a large number of people. If there is anything else you need please let me know!

1/24/2018 9:50 A.M.

I think that the trails at Battle Creek would be a great resource to the community, especially for individuals and families living within the city limits. For those who lack a means of transporting bikes to far-away trails, having resources close to the city can significantly lower the barrier to entry.

1/24/2018 12:53 P.M.

I am very excited to see the plans for additional mountain biking paths in the park. I personally do not ride the current mountain bike trails, but as an avid year round bicycle commuter I do support the idea of more options to get folks out cycling. I frequently bike through the park on the paved trails either to or from my job (at 3M). It's a great park and perfect spot for more bike trails.

1/24/2018 1:05 P.M.

This would be a great addition to the east side. I have recently rediscovered Battle Creek trails and look forward to expansion and new challenges.

1/24/2018 2:14 P.M.

I am writing to you in support of the expanded trails and better signage at Battle Creek. Mountain biking has become very popular as demonstrated by other trail systems in the area (Lebanon Hills, Theodore Wirth, Elm Creek). This would be a great asset to the East Side community and I think it would go a long way to help the area.

As a transplant to the cities, I am always impressed with how great the parks are here. We are lucky. Other US cities are starting to see the importance of parks, and it's key that we keep the bar high. This is a project to do that.

Thanks for your time!

1/24/2018 3:41 P.M.

As a citizen of Ramsey County (Shoreview) and an avid user of the regional park system, I applaud your efforts for adding single track mountain biking trails to Battle Creek Regional Park. The topography is excellent for a diverse trail network and if built right will become a regional destination. The investment in this project will be worthwhile and serve a great need.

Thank you!

PS- I have 2 children ages 14 and who I mountain bike with on a regular basis.

1/25/2018 6:54 A.M.

I wanted to submit my comments about the proposed Battle Creek MTB trail plan. As a resident of Battle Creek Rd. for 13 years I used the park on a daily basis and I truly feel it's one of the greatest assets in St. Paul. I'm also an avid cyclist and XC skier. The ski trail upgrades to the park some years back were fantastic and brought hundreds of new skiers to the park weekly. I have no doubt that improving the mtb trails as proposed will do the same for the summer months and make this park a truly great year round destination. The park is vast and even the large amount of trail being proposed will not overwhelm the space.

I can't encourage this improvement enough. I'm still a local work resident as I work at 3M and use the park several times a week.

1/29/2018 12:22 P.M.

My family and I want to thank the county to revisiting the appropriate uses for Battle Creek Park. This is an amazing park with significant untapped potential. We are firmly in favor of the expansion of development of mountain bike trails in Battle Creek park. We live in the community and our house is within easy riding distance of the parks' access points.

We would like to encourage the county to look at trail alignment when the time comes to ensure that adequate space is provided between private houses and yard space, and where the trail gets established. I think the trail as proposed, with proper setback, will be a great thing for Ramsey County and am looking forward to helping make it happen.

Keeping the trail multi-use, when appropriate, is also important to bring more users safely into the park and to help drive out unwanted user groups.

1/29/2018 12:56 P.M.

I am not in favor of expanding and improving the bike trail in Battle Creek. It appears already that the trails are very near the homes on the bluff. This will encourage people to explore in our back yards as I have already seen this last summer visitors exploring the land and exiting via the back of my house. I have lived here for 35 years and the crime keeps on growing.

1/29/2018 3:33 P.M.

I will add one other comment. We have very little police presence in our area currently and our neighborhood over the last several years has been subject to home invasions.

1/29/2018 9:15 A.M.

I would just like to express how happy I am to see that a mountain bike trail system as well thought-out and ambitious as the one planned is even being considered for a home at battle creek. I love parks, paved trails, etc. But since recently getting in mountain biking a little over a year ago I've found that I have a greater appreciation for nature and a better understanding of the importance of having parks in general. Mountain biking allows me to go deep in the forests, ride alongside streams, maneuver between the different families of trees, and every other ride it seems I cross paths with deer. When it comes to exercise, having fun, overcoming challenges and learning to appreciate our forests and wildlife mountain biking is a phenomenal way of doing all of this at once. I can't tell you how valuable having something like this in the metro area is, and I greatly appreciate its consideration.

1/30/2018 7:21 A.M.

with all the new bike trails that will be added to battle creek park, there will be no need to have trails in the back of our yards on A & B & C & White Bear streets. The streets are narrow and the neighbor hood kids play in them. The kids also play in the backyards with the trails rate next to them.



1/30/2018 9:45 A.M.

As someone who has lived in this neighborhood since 1968 and seen the growth and resulting changes in the area, I must say that mountain bike trails near the houses on White Bear, A, B and C streets are definitely not in the majority's best interest. Our neighborhood is unique, in that we are surrounded by the park. Our area streets are enjoyed all year round by families out walking and yes – leisurely biking! Increased traffic and parking would greatly restrict that.

For years, we've been told by the police that our area (from Upper Afton south to C Street) is the "best kept secret" and calls to the police are low. While we've seen a general increase in crime in our city, our neighborhood still remains fairly quiet and a great place to live. The neighborhood is a great mix of seniors and new, growing families, for whom safety is a concern. Increased traffic near our homes, both in the park and on our streets, is a negative.

Bike paths just below our streets will only bring more undesirable traffic, congestion, garbage, and increased crime. Not by the bikers, but by those undesirables who see new ways to access the neighborhood. I see no positives in that. The park has been here for many years; mountain biking became popular in the 1950's. I doubt it was considered in the original park plans.

If there's a way to keep these trails away from homes, that's one thing, but locating them practically in peoples' back yards is not necessary. The objectionable trails are: 300, 302, 306, 307 in our immediate neighborhood.

It seems that more study needs to be done. Trails need to be located away from homes.

1/30/2018 9:58 A.M.

On a aside note, Dorothy summary does not speak to my beliefs entirely. I greatly appreciate the expansion of mountain bike trails through battle creek park, and I believe the consensus of the neighborhood email chain is as such too. The main concern is the proximity of the proposed trails to the property lines. I believe the trails would have much more approval if there was a strong 100-150ft buffer from any property line.

2/1/2018 8:26 A.M.

I own a home on Battle Creek off White Bear Ave and have read through the proposals for bike trail expansion. I have concerns in regards to the plans. Let it be said that I walk and use the park often. I clean trash out of the park with every walk as a habit. I have watched changes in the park due to erosion and traffic.

#### Concerns:

- Location of bike trails behind my home and/or close to the backyards of homes on battle creek. This would bring people too close to property lines and bring people into our yards and bring down our property value for privacy and yards. I am against this period.
- Currently I walk the trails and find trash, drugs, and human feces quite often.. (actually my dogs find it) this would increase

- Currently the people who ride the trails make other routes where they should not be and do dangerous routes down the hills
- I want to be able to walk in the woods and feel this expansion would prevent this.
- I feel we do not have ample parking and do not want them on our streets
- I do not want to upset the wild life
- I do not want the trails to destroy the nature of the park in general, erosion of the space
- Bring more opportunity for people coming in the area, which many now set camp fires and do drugs in the woods. This might increase and or it may deter that is an unknown.

Improvements that could be made:

- Bathrooms
- Trash Cans
- Cameras for parking lot
- Signs for the trails that we have
- Oversight of those who bike these trails and oversight of the trails
- Community using the park to exercise

2/1/2018 6:37 P.M.

I want you to be aware that not everyone on south white bear Ave in St. Paul (and A-B-C streets) is opposed to the single track trail being proposed. Frankly I'm embarrassed about the NIMBY reactions of some of our neighbors, I hope they don't speak for everyone. I understand it's not "my" park land, it's our park land.

I think you'd be advised to have the best answers possible about potential parking impacts.

Thanks, I'm happy to chat if you'd like to.

2/2/2018 8:42 A.M.

My wife and I live on B St and as you know by now the neighborhood has had quite a flurry of emails with concerns about the bike trails. I agree that the trails would deter bad elements as argued in the proposal. I also support more public use of a very nice city park area. My only concerns would be a lot of traffic and parking in our residential area at the end of White Bear Ave, erosion of the trails as some are already pretty eroded in the park, and sharing multi-use on the trails with walkers. I would hope that the trails would also be open for hiking use.

## Appendix I

### County Representative Responses to Concerns

#### Public Comment:

Hello Mr. Goodnature,

Perhaps to get a better perspective the real question is how many feet from the neighbors' property line is the will the trail be? The map does not really provide this answer. There is an existing bike trail behind White Bear Avenue according to the Ramsey County website. My understanding is that bikers are required to yield to pedestrians and biking is only allowed sunrise to sunset. The bikers that we have observed entering on C St. have never been a problem. Maybe there should be a fee similar to the nordic ski pass that is required by the county to pay for trail upkeep. My only comment is the parking on White Bear between A and C St. The parking issue is probably a city council matter.

#### County Representative Response:

Hello everyone,

I have received several e-mails from differing people in the A, B, C neighborhood on the matter of the proposed trails. First, I wanted to make it clear that this Plan is showing where trails could be installed as a representation and that we have no timeline set for any of the proposed trails to be built. The build out phase of different proposed trails will be completed over the next decade and will depend heavily on time and money, these trails are not all going to be built at once. Therefore, I have not walked every proposed trail corridor to determine the exact layout, including the trails around the ABC neighborhood.

As I mentioned in my previous e-mail, we are aware of your concerns and the need for a buffer, and when the money and time comes to install the trails adjacent to ABC street, I can assure you a buffer will be implemented. This Plan also calls out for increased signage, which will tell bikers where trail heads and trail points of access are located, neither of which are proposed to be installed around your neighborhood. Once signs are installed, this should keep rogue vehicles from parking and bikers accessing the trails out of the ABC neighborhood, as there will be clear points of entry.

I appreciate everyone's comments and when the time and funding comes to install the trails of concern, I can reach out to this group to inform all of you about our next steps.

Michael Goodnature | Natural Resources Manager  
 Ramsey County  
 Parks and Recreation Department  
 2015 Van Dyke Street  
 Maplewood, MN 55109-3796

### Public Comment:

Dear Mr. Goodnature:

I write in response to the emails currently being circulated in our neighborhood, which I assume you've received. If not, let me know and I'll do a synopsis and send them to you. FYI, our neighborhood is active in the National Night Out, and we have our own email group to get important messages to one another. I keep this list and update it as needed. This has worked very well for us, as people note suspicious cars and people in the neighborhood, report any incidents that have happened to them, and generally keep in touch with one another.

As someone who has lived in this neighborhood since 1968 and seen the growth and resulting changes in the area, I must say that mountain bike trails near the houses on White Bear, A, B and C streets are definitely not in the majority's best interest. Our neighborhood is unique, in that we are surrounded by the park. Our area streets are enjoyed all year round by families out walking and yes – leisurely biking! Increased traffic and parking would greatly restrict that.

For years, we've been told by the police that our area (from Upper Afton south to C Street) is the "best kept secret" and calls to the police are low. While we've seen a general increase in crime in our city, our neighborhood still remains fairly quiet and a great place to live. The neighborhood is a great mix of seniors and new, growing families, for whom safety is a concern. Increased traffic near our homes, both in the park and on our streets, is a negative.

Bike paths just below our streets will only bring more undesirable traffic, congestion, garbage, and increased crime. Not by the bikers, but by those undesirables who see new ways to access the neighborhood. I see no positives in that. The park has been here for many years; mountain biking became popular in the 1950's. I doubt it was considered in the original park plans.

If there's a way to keep these trails away from homes, that's one thing, but locating them practically in peoples' back yards is not necessary. The objectionable trails are:  
300, 302, 306, 307 in our immediate neighborhood.

It seems that more study needs to be done. Trails need to be located away from homes.

### County Representative Response:

Thank you for your response and expressing your concerns, we appreciate your, and fellow neighbors, feedback and fellowship of Battle Creek Park.

In constructing previous off-road cycling trails within Battle Creek, it was always a priority to build natural surface trails with minimal impact to the environment and to maintain a buffer between trails and homes, for the privacy of the homeowners and off-road cyclists alike. In future trail expansion these will continue to be priorities, as it is not the intention to expand off-road cycling trails within residences back yards, but to provide access to other portions of Battle Creek Regional Park for public use.

Now that we have your response, we are aware of your and neighbors' concerns to maintain a buffer between residences and newly constructed trails.

If you have any additional questions or concerns, do not hesitate to contact me, best regards,

Mike

Michael Goodnature | Natural Resources Manager  
Ramsey County  
Parks and Recreation Department  
2015 Van Dyke Street  
Maplewood, MN 55109-3796

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## OFF LEASH DOG AREAS MASTER PLAN

June 30, 2018

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### Executive Summary

#### Concept

The Off-leash Dog Area Master Plan assesses the current state of off-leash dog areas within the Ramsey County Parks & Recreation system using information gathered from internal staff, stakeholder groups, an online survey, and public engagement meetings to plan for the future of off-leash dog areas. The Ramsey County Parks & Recreation department believes that by looking at the current state of off-leash dog areas and using the input from current users the parks department can create a baseline design for all of the off-leash dog areas to follow and standardize the minimum requirements of off-leash dog areas in parks under the jurisdiction of Parks & Recreation.

After meeting with stakeholders and conducting public engagement meetings throughout the county it is clear that there is a passionate support group for off-leash dog areas. It is also evident that there is room for improvement to site amenities, park rules, and the maintenance and operations of off-leash dog areas within the Ramsey County parks system.

#### Implementation

No specific timing has been identified for the implementation of the Off-Leash Dog Areas Master Plan within the Ramsey County parks system. Construction of upgraded site amenities and features could be built in a series of phases. Phasing would most likely begin with upgrading current sites and follow with the possible expansion of more off-leash dog areas.

#### Off-Leash Dog Areas Community Outreach and Equity Plan

As Parks & Recreation moves forward with the development of the Off-leash Dog Areas Master plan, the department will invest in developing programs and partnerships to provide better access to the off-leash areas for all Ramsey County residents. This will include efforts to increase the diversity of off-leash area users.

Maintaining off-leash dog areas that are free and open to the public is one way that Parks & Recreation offers opportunity for everyone. Programs should be developed in the future to encourage people of different ethnic groups to enjoy the off-leash areas, meet, and socialize. Parks & Recreation could organize “open house” days where people are invited into the off-leash areas for educational programming teaching people about the rules and etiquette for off-leash dog areas, and introducing them to the park with the help of volunteers. In marketing such a program, the county can reach out to various racial groups who have previously not felt comfortable coming to off-leash areas.

## Planning Framework

### Overview

The purpose of the Off-leash Dog Areas Master Plan is to assess the current state of Ramsey County off-leash dog areas and plan for future aspects of development. This would include the redevelopment of existing infrastructure as well as any new park that may be developed. Ramsey County Parks & Recreation will also be assessing the state of the volunteer program along with how maintenance is handled within the off-leash dog areas and laying out a plan for the future of the volunteer program as well as maintenance and operations.

### Metropolitan Regional Parks and Open Space System

Regional Parks and trails are developed in the Twin Cities Metropolitan Area to preserve green space for wildlife habitat and provide a wide range of natural resource related recreational opportunities such as walking and hiking. Many people enjoy these activities and desire the ability to exercise their dogs off-leash and for this reason areas have been set aside for patrons to enjoy natural spaces with their pets. Established in 1974 the Regional Parks and Open Space System is managed by the Metropolitan Council in partnership with cities, counties, and special park districts. The Metropolitan Council supports the regional system with planning, funding, and advocacy. Each implementing agency, such as Ramsey County, is responsible for the development of a master plan for its regional park and open space system.

Ramsey County currently operates off-leash dog areas within Battle Creek Regional Park, Bald Eagle Otter Lakes Regional Park, the Rice Creek North Regional Trail Corridor, and Woodview Open Space which are a part of the regional parks and open space system overseen by the Metropolitan Council.

### Ramsey County Parks & Recreation

Ramsey County is the most densely populated county in the State of Minnesota and the parks and open spaces held by Ramsey County Parks & Recreation represent the largest undeveloped land area in the county at nearly 8,000 acres. Within the system there are six regional parks, six regional trails, nine county parks, nine protected open spaces, five golf courses and numerous recreation facilities. Ramsey County Parks & Recreation works in cooperation with the Metropolitan Council, the National Park Service, Saint Paul Regional Water Services, the Minnesota Department of Natural Resources (MNDNR), its municipalities, and other government units to advance park, recreation, and leisure opportunities for all Ramsey County residents.

The vision of Ramsey County is “A vibrant community where all are valued and thrive,” and the mission within the county is “A county of excellence working with you to enhance our quality of life.” The Ramsey County Parks & Recreation department follows this mission by preserving, developing, maintaining, and managing a system of parks, open space, trail corridors, and special use areas as well as providing year round recreational programs, services, and facilities which are responsive to changing needs, compatible with the resource base, and most effectively provided at the county level.

Ramsey County Parks & Recreation supports the county vision and mission through:

- **Trail Services:** Parks & Recreation coordinates the establishment of a Ramsey County-wide system trails plan that connects significant natural and cultural features and implement those segments of county or regional significance that are located on Ramsey County Park and Open Space land.



- **Open Space Preservation:** Parks & Recreation acquires, protects, and manages unique, fragile, and aesthetically attractive natural resources that contribute positively to the urban landscape, and perform critical natural functions.
- **Natural Interpretation:** Parks & Recreation promotes positive environmental values through an increased awareness, knowledge, and appreciation of natural resources and natural processes.
- **Outdoor Recreation Programming:** Parks & Recreation sponsors or co-sponsors recreation programs that encourage development of resource oriented outdoor recreation skills and promote wellness. We also organize special events that introduce people to recreation opportunities available within the system.
- **Special Recreation Services:** Parks & Recreation provides areas, facilities, and programs of significance countywide to meet specialized indoor and outdoor recreation needs of Ramsey County residents.
- **Park Services:** Parks & Recreation provides diverse and accessible areas and facilities primarily for self-directed Ramsey County oriented outdoor recreation that complements the natural features of each site.
- **Equitable Use:** Parks & Recreation is working to strengthen equitable use of regional parks and trails, county parks, open spaces, along with other recreation facilities across all ages, races, ethnicities, incomes, national origins, and abilities.

### History

Responsible Owners of Mannerly Pets (ROMP) first approached the Ramsey County Parks & Recreation Commission at a meeting on October 8, 1996 to request the establishment of one or more designated off-leash dog areas, citing several successful programs throughout the United States. Ramsey County Parks & Recreation staff at the time recommended the establishment of two off-leash dog areas based upon the expressed demand and the fact that owners were illegally allowing dogs off-leash throughout the Ramsey County parks system. Current ordinance allowed for the creation of off-leash areas.

After review of local and national responses to requests for off-leash dog areas the Parks & Recreation Commission endorsed a staff proposal on January 11, 1997 to establish two off-leash areas for a pilot program operating within the Ramsey County parks system beginning on June 27, 1997 and running through December 31, 1998.

Upon the completion of the pilot program the Ramsey County Parks & Recreation department determined that the off-leash dog areas were successful and moved towards developing an administrative policy that would

- Identify the characteristics, amenities, and operation of Ramsey County off-leash areas.
- Define the number and general geographical location of the site(s) in the Ramsey County park system.
- Establish a process for reviewing and evaluating sites.

The Ramsey County Parks & Recreation department passed a policy to govern the general rules, guidelines, site characteristics, support facilities, disabled access, use policies, and the review, evaluation and site selection of off-leash dog areas on April 13, 1999. This policy will be used in the evaluation and future direction of off-leash dog areas as set forth in this master plan. This policy can be found in Appendix A , "Off-leash Dog Area History."

Beginning on March 14, 2000 the Ramsey County Parks & Recreation department began implementing the off-leash dog areas program as adopted by policy on April 13, 1999. Four sites were chosen by the Parks & Recreation Commission Liaison and department representatives

- Battle Creek Regional Park (Part of Pilot Program)
- Woodview Open Space (New Site)
- Bald Eagle Otter Lakes Regional Park (New Site)
- Rice Creek North Regional Trail Corridor (Part of Pilot Program)

### Public Engagement Meetings:

Ramsey County Parks & Recreation held three public engagement events in which a short presentation was made followed by a group exercise to help develop an ideal dog park. The presentation material can be found in Appendix B. The main information that Ramsey County Parks & Recreation department hoped to gather was what the public saw as most important in a dog park and how those amenities or site features should be designed in the future. This would aid the county in both standardizing as much as possible the current off-leash dog areas, as well as inform the design of any future off-leash dog area areas.

The public engagement meetings were held on the following dates:

- Monday September 11 at Tamarack Nature Center
- Thursday September 21 at the Battle Creek Recreation Center
- Wednesday October 4 at the New Brighton Community Center

Public engagement meetings started with a short presentation approximately ten minutes long aimed at focusing attention on dog parks across the system and not just the park patrons felt the most attached to. The purpose was to focus the group not on the park that meant the most to them but rather on what makes an off-leash dog area good in their opinion. Parks & Recreation staff asked them what amenities were important, what site features they sought out and what would make a park stand out as a destination worth going to. After the presentation, the attendees were split into groups for a design charrette to both write down as well as sketch out an idealized dog park. All the meetings carried some common themes as shown in the breakdown below.

### Tamarack Nature Center, Monday September 11th, 2017

The meeting at Tamarack Nature Center was the first of the three meetings to be held and was the only meeting that began without an introductory presentation. It was hard to get the attendees to talk about what would make a better dog park in general but staff did learn what could be altered at Otter Lake to make that site better. As a result the format of the meetings was changed to include the presentation. Comments from the public engagement meeting at Tamarack Nature Center can be found in appendix C. The main points from this meeting were

- The department needs a better maintenance agreement between the county and Volunteers/Guardians to help take care of day to day maintenance of the park
- Would like wood chips available to be spread by volunteers and/or county
- Would like to be able to fence off wetland areas or fill in the wetland
- Is it possible to add additional fencing so that the volunteers could rotate areas of use

- Patrons would like an easier way to contact the county about periodic maintenance as well as when/if there is a problem patron in the park.

Comments gathered from this meeting can be found in Appendix D.

### Battle Creek Community Center, Thursday September 21, 2017

The public engagement meeting at the Battle Creek Community Center began with a short presentation after which we broke into groups for a charrette exercise. In the group exercise participants were asked to draw out, list or in any way they could think to relate information to Ramsey County representatives what made a great dog park. Ramsey County Parks & Recreation is looking to not only improve the current state of its existing off-leash dog areas but also gather information on the creation of an ideal off-leash area if the opportunity to create one arose. All comments and charrette exercise documents can be found in Appendix D. The main points take from this meeting were:

- The off-leash dog area at Battle Creek is generally highly regarded as one of the best in the metropolitan area and is greatly appreciated by patrons for its size, and varying environments among a multitude of other reasons.
- Users of the park would like to see some of the tables in large open areas go away. People tend to congregate and socialize while losing track of what their dog is doing, which is against park rules, this causes issues such as dog fights. These could be replaced with smaller benches along trails and away from open areas providing the seating opportunity without the ability for large groups of people to congregate.
- Security of the parking lots is a concern, and patrons would like a camera or other security measure implemented.
- Overall maintenance is a concern and users would like an established rule or plan for how they interact with the county and how Parks & Recreation handles dog parks.
- There was also an expressed interest in some type of licensing fee or other donation method to use the dog park if those funds went directly into off-leash dog area maintenance and development.

### New Brighton Community Center, Wednesday October 4th

The public engagement meeting at the New Brighton Community Center followed the same format as the meeting at the Battle Creek Community Center. The meeting began with the presentation on dog parks, participants were broken into groups, and the group reconvened for a question and answer session. Comments and charrette drawings can be found in appendix E. The major take aways from this meeting included:

- Rice Creek off-leash dog area is most likely the best maintained off-leash area in our system, a reflection of the volunteer based and correctly sized park.
- Shade is needed on site
- Overall satisfaction is extremely high at this off-leash area

## Public Survey

Ramsey County Parks & Recreation department representatives met with stakeholders, posted an online public survey, and held community engagement meetings to gather information and input for the creation of the Off-Leash Dog Areas Master Plan. Department representatives first met with various guardians and volunteers of established off-leash areas to gather information before formulating the online survey which can be seen in its entirety in Appendix B. After completing the online survey Ramsey County Parks & Recreation also held a series of three public engagement meetings aimed at gathering information on what park users would ideally like to see in an off-leash dog area.

### Public Survey

The online survey that was conducted by the Ramsey County Parks & Recreation department provided a lot of valuable information and with over 1,000 respondents the department feels confident in its findings moving forward with the Off-Leash Dog Areas Master Plan.

Ramsey County Parks & Recreation asked many questions of its off-leash dog area user base as a part of the online survey gathering insight into that group of park users. Overall the satisfaction level with county off-leash dog areas was good with most respondents indicating that off-leash areas either meet current needs or are in outstanding condition. Through the survey staff has learned a lot about the dogs that are in off-leash areas as well, most dogs do not have any certified skill set, are licensed within their municipality at 62 percent, and are a diverse mix of species with the sporting group of dogs being most popular. When given a choice it was indicated that all other things being equal most people would prefer to exercise their dogs off-leash, showing that Parks & Recreation is providing a valuable resource to the community through its off-leash areas.

Ramsey County off-leash dog areas currently have very few amenities beyond the natural settings provided for them. All but one, Woodview off-leash area, are fully fenced, have benches or tables, paths, and parking lots. Two of our off-leash areas have separate small and large dog enclosures, which is a feature that ranks high on a lot of lists for off-leash area amenities. Rice Creek off-leash area is the only county facility that does not provide for shade through a natural means at this time. These are important to note as most of our off-leash areas have a lot of good qualities there are still areas that each could improve upon. The top features/amenities as voted in our online survey are as follows:

1. Size of Off-leash Dog Area
2. Paths
3. Shade Trees or Shade Structure
4. Dog Drinking Fountain or Hose Bib
5. Natural Water/Water Play Areas
6. Restrooms
7. Benches
8. Separate Small and Large Dog Areas
9. Location Within Walking Distance
10. People Drinking Fountain
11. Obstacle or Agility Course

A common theme of most concern at our off-leash dog areas is trash and animal waste pick up and maintenance. Currently Ramsey County relies heavily on volunteers to monitor and maintain trash and waste pick up within off-leash area boundaries. This is performed differently at each park depending on number of volunteers and time commitment to each park. Battle Creek is by far the largest off-leash area in the county requiring more effort than most, it also has the most dedicated following of volunteers in the county. At the Battle Creek off-leash dog area volunteers have placed trash receptacles within the boundaries and collect them for waste management. The

other off-leash areas in our system have trash receptacles placed at entrances and users are required to bring animal waste and trash back out of the park individually. There is a rule in place stating that owners are responsible for picking up after themselves and their dog, the county will look at ways to make this easier for park users to accomplish. Ramsey County Parks & Recreation is also looking at ways to change or expand the stewardship/volunteer program as only 4.68 percent of respondents said they currently participate. With the large numbers of people and dogs that use our off-leash areas this number is most likely too small to accomplish all of the tasks needed to keep up off-leash areas in the size that the county has provided.

Current policy provides for four off-leash dog areas within the county park system, users are split roughly in half as to whether this number is enough or not. County policy also sets as a goal that residents be able to drive 20 minutes or less to any county run off-leash area. The survey results also indicate that the Ramsey County Parks & Recreation has met this goal as a vast majority of people drive 15 minutes or less to get to an off-leash area. The county also asked how far people would be willing to drive to get to an off-leash area and 74.74 percent of respondents indicated that they would drive up to 15 minutes.

Some important statistics that were gathered from the survey include:

- 91.8% of dogs in county off-leash dog areas do not have any certified skills or training
- 61.92% of dogs are licensed within their municipality
- 77.81% of respondents exercise their dog(s) off-leash in a dog park
- 75.2% of respondents prefer to exercise their dog(s) off-leash
- 74.78% of respondents currently use a Ramsey County off-leash dog area
- 4.68% of respondents currently participate in the volunteer/stewardship program
- 74.74% of respondents are willing to drive 15 minutes to reach an off-leash dog area

### Battle Creek Off-Leash Dog Area

- Of the respondents who use the Battle Creek off-leash dog area 9.5 percent visit daily, 31 percent visit weekly, and 59.5 percent visit the park monthly
- Among the most commented favorite part of Battle Creek off-leash dog area were the parks large size, variety of landscapes and topography, the vast trail system, access to water, and the fact that there are mature trees providing shade opportunities.
- Respondents were asked to rate their concerns for security of personal property, safety for themselves and their pet(s), site improvements, length of volunteer commitment to the park, trash and animal waste pickup and rules and regulations of the park. For these categories the level of concern was low at the Battle Creek off-leash dog area.
- Respondents felt that the top three items that needed to be addressed at the Battle Creek Off-leash dog area were security of personal property, site improvements, and safety for patrons and their pets.
- The clear majority of patrons drive to the Battle Creek off-leash dog area at 97.98 percent, and most people (58.69 percent) drive 15 minutes or less.

### Otter Lake Off-Leash Dog Area

- Of the respondents who use the Otter Lake Off-leash dog area 12 percent visit daily, 35 percent visit weekly, and 53 percent visit the park monthly
- Among the most commented favorite part of the Otter Lake off-leash dog area were the parks variety of landscapes, separate small and large dog areas, mature trees and the shade they provide, proximity of the park to their home, trails, and the parks size. Many respondents also commented that they enjoyed being able to let their dog off-leash at the boat launch, which is against park rules and indicates that there is a need for better signage or education about park rules.
- Respondents were asked to rate their concerns for security of personal property, safety for themselves and their pet(s), site improvements, length of volunteer commitment to the park, trash and animal waste pickup, and rules and regulations of the park. For these categories the level of concern was low at the Otter Lake off-leash dog area.
- Respondents felt that the top three items that needed to be addressed at the Otter Lake off-leash dog area were site improvements, trash and animal waste pick-up, and safety concerns.
- The clear majority of patrons drive to Otter Lake Off-leash dog area at 98.61 percent , and most people (68.66 percent) drive 15 minutes or less.

### Rice Creek Off-Leash Dog Area

- Of the respondents who use the Rice Creek off-leash dog area 10.5 percent visit Daily, 36 percent visit weekly, and 53.5 percent visit the park monthly
- Among the most commented favorite part of the Rice Creek off-leash dog area were the parks proximity to home, size, the park is very open and provides great vision of dogs, and the park is close to the Rice Creek Trail system so it is very accessible.
- Respondents were asked to rate their concerns for security of personal property, safety for themselves and their pet(s), site improvements, length of volunteer commitment to the park, trash and animal waste pickup, and rules and regulations of the park. For these categories the level of concern was low at the Rice Creek off-leash dog area.
- Respondents felt that the top three items which needed to be addressed at the Rice Creek off-leash dog area were site improvements, trash and animal waste pick-up, and safety concerns.
- The clear majority of patrons drive to Rice Creek Off-leash dog area at 96.79 percent, and most people (67.89 percent) drive 15 minutes or less.

### Woodview Open Space Off-Leash Dog Area

- Of the respondents who use the Woodview off-leash dog area 6 percent visit Daily, 21.5 percent visit weekly, and 72.5 percent visit the park monthly
- Among the most commented favorite part of the Woodview lake off-leash dog area were the parks proximity



to home, and the separate small and large dog areas

- Respondents were asked to rate their concerns for security of personal property, safety for themselves and their pet(s), site improvements, length of volunteer commitment to the park, trash and animal waste pickup, and rules and regulations of the park. All categories received a low concern rating other than site improvements which respondents saw as a medium concern.
- Respondents felt that the top three items that needed to be addressed at the Woodview off-leash dog area were site improvements, safety concerns, and trash and animal waste pick-up.
- The clear majority of patrons drive to Woodview off-leash dog area at 96.15 percent, and most people (77.19 percent) drive 15 minutes or less.

The public survey shows that people visit Ramsey County off-leash dog areas for many reasons but the top three are that they enjoy the designated open exercise area, like the parks environmental features, and they like the other dogs and people that use the park. A full copy of the Off-leash Dog Area Survey can be found on our website at: <https://www.ramseycounty.us/sites/default/files/Parks%20and%20Recreation/OLDA%20Survey.pdf>

### Current Dog Park Rules & Department Policy

The current department administrative policy was passed on April 13, 1999 after the pilot program had been deemed a success.

#### Current Policy:

The Ramsey County Parks & Recreation department will endeavor to provide off-leash dog areas that serve multiple communities within the county. Off-leash dog areas will be separate from any current or planned recreational areas.

The following additional general guidelines will apply:

- Attempts will be made to locate an off-leash area within a twenty minute drive of any residence in the county. However, it is recognized that Ramsey County does not own parkland in the south and west portions of the city of Saint Paul. Accordingly, the city of Saint Paul will be encouraged to provide these regional facilities.
- County off-leash areas will be geographically located to compliment "close to home" municipal areas.
- Sites will be designated in areas that will have minimal impact to significant natural resources. Proposed sites will be evaluated by the county's Natural Resource Specialist for potential impact.
- Up to four sites will be established in the Ramsey County Park System.
- Sites must be consistent with municipal zoning and/or park master plans.

#### Size

Sites will be approximately ten acres, including buffer zones.

#### Buffer Zones

Where feasible, sites will include a 100' buffer zone around their perimeter to avoid conflict with other park users or adjacent land uses. Improvements within the buffer zone will be limited to perpendicular access trails. Off-leash dogs will be allowed in the buffer zone at the discretion of their owners.

#### Perimeter Markings

The boundary of each site will be delineated with carsonite type markings located at 100' intervals around the perimeter. Each carsonite marking will have a decal applied to both sides indicating the boundary of an off-leash dog area.

#### Fencing

Where a 100' buffer zone is feasible, fencing will not be installed. However, if a 100' buffer zone is not feasible due to specific site characteristics or proximity to other recreational use areas, a fence will be considered, subject to funding availability.

#### Signage

Rules signs will be posted at each entrance to the off-leash dog area. Directional signs may be placed at parking areas or trail entrances where necessary to direct users to the off-leash areas.

#### Water Access for Dog Use

Access to water for dog use will be a high priority in selecting off-leash sites. where suitable water resources do not exist within an off-leash site, auxiliary water access sites may be considered in areas adjacent to off-leash sites. Water access for dogs at other park use areas (Such as swimming areas, boat access sites, etc.) will not be permitted.

#### Parking

A minimum of ten vehicular parking spaces will be provided at each off-leash area. In areas where multiple activities exist (such as trail use), additional parking will be provided where feasible.

#### Drinking Water (Potable)

Potable water will not be provided for the off-leash sites, unless currently provided.

#### Restroom Facilities

Restroom facilities will be provided in close proximity to off-leash areas. In most cases, these will be portable facilities.

#### Trash Receptacles

Trash receptacles and removal service will be provided at each entrance point. Additional trash receptacles may be placed in parking areas or where deemed necessary.

#### Picnic Tables/Benches

Picnic tables and/or benches will be provided in each off-leash area.

#### Disabled Access

Priority will be given to sites that can accommodate access for individuals with disabilities. At least one site within the system will include an accessible trail from the parking lot to the interior of the site. At other sites where access is limited, the county will work with users to improve accessibility.

#### Use Policies:

The following use policies will apply:

- Dogs must be properly licensed and vaccinated
- Dogs must be leashed prior to entering and upon leaving the off-leash area and in transition corridors.
- Owners must be in verbal control of their dogs at all times and prevent aggressive behavior, biting, fighting or excessive barking.
- Owners are liable for damage or injury inflicted by their dogs
- Owners must have a visible leash at all times
- Owners must clean up and dispose of feces
- Dogs in heat are not allowed
- Owners must comply with all other park rules and regulations

Fees will not be charged for the use of the off-leash areas.

### Review, Evaluation, and Site Selection

The implementation of this administrative policy will begin a process for reviewing, evaluating, and selecting sites. This Process will involve five steps:

1. County staff will identify candidate sites that meet the criteria outlined in this policy.
2. A planning team comprised of four off-leash dog area users and county staff will review candidate sites, including on-site visits.
3. County staff will identify expenses associated with establishing and maintaining each site. Staff and users will work together to explore possible funding sources for development and ongoing maintenance.
4. County staff will develop a timeline for establishing each site.
5. County staff and users will work to establish each site.

The Ramsey County Parks & Recreation department will monitor the criteria and sites established under this policy. It reserves the right to modify the policy and/or sites to maintain park resources, address public health and safety issues, or to meet changing use patterns.

### Current Rules As Posted at Off-Leash Areas:

1. Dogs must be leashed before entering and when leaving the park.
2. Owners are legally and financially responsible for the actions of their dogs.
3. All dogs must be licensed and vaccinated.
4. No female dogs in heat or puppies under four months old are allowed.
5. Owners must clean up after their dogs using plastic bags and provided trash containers.
6. Dogs must be in sight and under verbal control at all times. No digging holes.
7. No aggressive dogs allowed. Aggressive dogs must be leashed and removed from the park immediately by their owners.
8. Children under 12 must be accompanied and supervised by an adult, and should be educated about safe behavior around dogs (no running, screaming, food, etc.).

### Current Maintenance Program/Guardians

Current maintenance by Ramsey County for the dog parks is minimal:

- Fence repair
- Removing trees fallen over trails, or dangerously hanging branches
- Habitat restoration
- Trail maintenance and erosion control
- Trash Removal

There is trash removal outside the fence of each off-leash dog area, and in the case of Battle Creek, volunteers disperse garbage cans throughout the park, and bring them out to be emptied on Thursdays.

There are a few maintenance costs associated with the off-leash dog areas as well:

- 2 year round portable toilets – \$1,200
- 2 half year portable toilets – \$600
- Garbage disposal – \$11,800

Mulch will often be brought in to help during the muddy spring months, which is typically dropped near the park entrance and dispersed by volunteers.

## Existing Off-Leash Dog Areas

### Battle Creek Off-Leash Dog Area Inventory & Analysis

#### History

The off-leash dog area at Battle Creek Regional Park was a part of the initial pilot program of off-leash areas in Ramsey County running from the summer of 1997 to December 31, 1998. The area was initially approximately four acres located near the intersection of Lower Afton Road and McKnight Road South. A mowed corridor between the parking lot and the off-leash area provided a transition area. A mowed perimeter trail and signage defined the limits of the off-leash area as no fences were initially installed.

Ramsey County Parks & Recreation accepted the current policy regarding off-leash dog areas on April 13, 1999 and the off-leash area at Battle Creek was chosen as a permanent site in March of 2000. Due to the publicity and popularity of the site during the pilot phase the off-leash area saw considerable use. It was decided that a number of actions would take place as a part of the permanent installation of the off-leash area including:

- Extending the border North to provide access to a pond.
- Relocating existing boundary markings to accurately reflect off-leash border
- Relocated trails away from ponds to reduce erosion
- Maintaining existing trails
- Install fencing along McKnight Road South
- Install a gate at the McKnight Road South entrance
- Increase the size of the off-leash area by 5-15 acres for a total of 10-20 acres

As part of future development additional fencing was installed around the entire off-leash area and the site expanded by at least 24 acres. No policy action is recorded for this development but the total size of the off-leash area is approximately 44 acres today. Benches and tables and additional signage has also been implemented within the off-leash area.

#### Site Amenities

- Two parking lots one along Upper Afton Road with space for 98 vehicles, and another along Lower Afton Road with space for 66 vehicles.
- Security cameras in both parking lots
- Fully Fenced area encompassing approximately 44 acres
- Miles of natural surface trails meandering through a variety of environments including woods, ponds, wetlands, and open spaces.
- Three entrance gates
- Rules signs at all entrances
- Tables and benches throughout
- Well shaded by a natural tree canopy
- Considered by many to be the best off-leash dog area in the entire metro area

#### Planning Considerations

Currently the off-leash dog area at Battle Creek Regional Park has entirely natural surface trails which do not comply with the Americans with Disabilities act, as part of redevelopment access into and through the off-leash area should be considered for everyone regardless of ability.

Security of personal belongings left in vehicles has been raised as a concern. Security cameras have been installed in both the Upper Afton Road and Lower Afton Road parking lots. Ramsey County has and will continue to encourage everyone visiting the park to not leave any valuables left unattended whether they are in a locked vehicle or not.

There is no potable water source near the off-leash dog area and future plans should incorporate either drinking water or a wash station as part of a trailhead facility at one or both of the parking lots.

Additional trails and activities are planned to be developed in spaces adjacent to the off-leash area. The off-leash portion of the park should continue to be kept separate from other recreational activities so that conflicts do not arise.

### Natural Resources

Natural resources within the parks are impacted by invasive vegetation and by the dogs and people using these areas. The numerous barriers attributed to the use of off-leash dog areas makes the restoration of natural resources a priority below the greater park system. To reestablish or maintain natural resources within these areas would include the partitioning off of off-leash sections for alternate use, term closures for an unknown amount of time, or permanent closures of specific sensitive areas within the current boundaries.

The land cover within the Battle Creek off-leash dog area consists of cultivated conifers, mixed woods with scattered open fields, oak woods, and several wetlands, which are state and federally protected resources. Invasive vegetation has degraded most of the natural areas within the park. Most wooded areas contain invasive buckthorn and open fields consist of brome grass and other invasive herbaceous vegetation. In addition to the invasive species, the park use has a negative impact on the natural resources. The foot traffic by dogs and humans through heavily used areas has caused erosion and aids in the spread of invasive species. Wetlands are heavily impacted where use is concentrated. Wetland shoreline edges are eroding and consist of mostly bare soil with minimal vegetation. The dog use along the wetland edge causes exposed soil to enter the water, negatively impacting the use for aquatic life and dog use within the water disturbs the overall wetland habitat. The constant presence of dogs within the off-leash area also disturbs the habitat for upland wildlife as well.

Restoration within the off-leash dog area is difficult because of the consistent heavy use and apprehension for herbicide use on invasive vegetation. Restoration of eroding areas would require long term to permanent closure to regain and maintain vegetated cover. Removal of buckthorn would require areas to be partitioned off so that herbicide stump treatment could be applied. Past restoration within the off-leash dog area has been limited and consisted of some cutting and stacking of buckthorn on site with no herbicide stump treatment, which results in re-sprouting of cut stumps. To preserve wetlands, access to these areas should be permanently closed to regain plant growth and for continued protection of wetland habitat.

**Battle Creek Regional Park Off-leash Dog Area Features:**

1. Both parking lots at the Battle Creek off-leash dog area have been equipped with security cameras.
2. Erosion issues persist along many of the wetland ponds present within the off-leash area, fencing may be required to limit access and restore these features.
3. Miles of trails exist within the off-leash area traversing a variety of environments.
4. Multiple entrances to the site exist, however only one has a double gated entrance
5. There is an abundance of duplicative and excessive signs at the two busiest entrances
6. Certain sections of trails become quite wet during certain season and after rain events, it must be remembered that the area is a low lying wetland complex.
7. Large open spaces allow plenty of room to exercise dogs
8. Battle Creek is one of the most accessible off-leash areas by public transportation with quite a few bus lines stopping nearby.


**Legend**

 Park Border 

 Park Entrance 

 Feature Point 

 Metro Tranist Stop 

 Park Paved Trail 

 Park Turf Trail 

 Off Leash Area Trail 

 Regional Trail 

 0 125 250 500 Feet  
 Parking Lot 




### Bald Eagle-Otter Lakes Regional Park Off-Leash Dog Area Inventory & Analysis

#### History

The off-leash dog area at Bald Eagle-Otter Lakes Regional Park was identified as a new site after the acceptance of the county policy on off-leash dog areas was passed in March of 2000 because it could serve residents in the northeastern part of the county, the site is a large open space that was not established for other types of recreational use, and there was existing parking available. It was decided that a number of actions would take place as a part of the permanent installation of the off-leash area including:

- Main site access would be from the boat launch parking lot on Otter Lake
- The area along Otter Lake Road may need to be fenced in

As part of future development fencing was installed around the entire off-leash area.

#### Site Amenities

- Parking lot off of Otter Lake Road for 44 vehicles and 3 trailer stalls
- Fully Fenced area encompassing approximately 10 Acres
- Natural surface trails meandering through a variety of environments including woods, wetlands, and open spaces.
- One entrance gate
- Rules sign at main entrance
- Tables and benches throughout
- Well shaded by a natural tree canopy
- Separate small and large dog areas

#### Planning Considerations

Currently the off-leash dog area at Bald Eagle-Otter Lakes Regional Park has entirely natural surface trails which do not comply with the Americans with Disabilities act, as part of redevelopment access into and through the off-leash area should be considered for everyone regardless of ability. As a part of path redevelopment an additional access gate should be considered at the southwest corner of the off-leash area. There is a planned multi use trail along Otter Lake Road and this access would provide easy entrance for trail users and neighborhood residents.

Security of personal belongings left in vehicles has been raised as a concern. A security camera should be considered in the parking lot. Ramsey County has and will continue to encourage everyone visiting the park to not leave any valuables left unattended whether they are in a locked vehicle or not.

Additional trails and activities are planned to be developed in spaces adjacent to the off-leash area. The off-leash portion of the park should continue to be kept separate from other recreational activities to prevent conflicts.

Potable water and a restroom are located on the west side of the parking lot. Water could be brought up closer to the off-leash area entrance for the installation of a drinking/washing station.

### Natural Resources

Natural resources within the off-leash dog areas are impacted by invasive vegetation and by the dogs and people using these areas. The numerous barriers attributed to the use of off-leash dog areas makes the restoration of natural resources a priority below the greater park system. To reestablish or maintain natural resources within these areas would include the partitioning off of off-leash area sections for alternate use, term closures for an unknown amount of time or permanent closures of specific sensitive areas within the current boundaries.

The land cover within the Otter Lake off-leash dog area consists of cultivated conifers, mixed woods, an open field area and several wetlands, which are state and federally protected resources. Invasive vegetation exists within the park. Most wooded areas contain invasive buckthorn and the open field consists of brome grass and other invasive herbaceous vegetation. Restoration has included the removal of buckthorn through the woodland areas. Park use has caused the loss of vegetation and erosion within the woodlands and on heavy use trail areas within the open field area. Wetlands are located mainly within the wooded area and are ephemeral features with saturated soils. Wetlands are heavily impacted where use is concentrated. Wetland shoreline edges are eroding and consist of mostly bare soil with minimal vegetation which negatively impacts aquatic wildlife. The constant presence of dogs within the park also disturbs the habitat for upland wildlife.

Restoration within the off-leash dog area is difficult because of the consistent heavy use and apprehension for herbicide use on invasive vegetation. Restoration of eroding areas would require long term to permanent closure of sections to regain and maintain vegetated cover. Past restoration within the off-leash dog area has been limited and consisted of some cutting and stacking of buckthorn on site. To preserve wetlands, access to these areas should be permanently closed to regain plant growth and for continued protection of wetland habitat.



Bald Eagle Otter Lakes Regional Park Off-Leash Dog Area Features:

1. Multiple entrances to the off-leash area, southern entrance is not double gated
2. There is an abundance of duplicative and excessive signs at the entrance
3. Parking lot is not monitored by a security camera
4. Natural surface trails throughout, traversing both open spaces, and shaded wooded areas
5. Wetland is troublesome for some park users, don't like that their dogs get muddy. permanent or temporary fencing may be necessary with boardwalks over wetland for trail crossings.
6. Off-leash area is split into separate areas for small and large dogs.
7. Trail planning for a regional or in park trail has been identified through the corridor, adding to the accessibility of the site.
8. Site is fully enclosed by fence

## Legend

Park Border	---	Park Paved Trail	—	Parking Lot	P
Park Entrance	⊙	Park Turf Trail	—		
Feature Point	1	Off Leash Area Trail	—		
Metro Tranist Stop	T	Regional Trail	—		

## Rice Creek Regional Trail Off-Leash Dog Area Inventory & Analysis

### History

The off-leash dog area at Rice Creek North Regional Trail Corridor was a part of the initial pilot program of off-leash areas in Ramsey County running from the summer of 1997 to December 31, 1998. The area was initially approximately five acres located off of Lexington Avenue North south of County Road J. Parking was available but the popularity of the site exceeded parking capacity.

Ramsey County Parks & Recreation accepted the current policy regarding off-leash dog areas on April 13, 1999 and the off-leash area at Rice Creek North Regional Trail Corridor was chosen as a permanent site in March of 2000. Due to the publicity and popularity of the site during the pilot phase the off-leash area saw considerable use. It was decided that a number of actions would take place as a part of the permanent installation of the off-leash area including:

- Expand the northern boundary of the site
- Relocate the access trail to reduce erosion around the pond
- Realign and redevelop the existing parking lot to increase capacity
- Security camera in the parking lot

As part of future development fencing was installed around the entire off-leash area.

In 2013 the parking lot was redeveloped and a restroom building, drinking fountain, and small watercraft access to the Rice Creek Water Trail were constructed as a part of the regional trail head development for the Rice Creek North Regional Trail Corridor.

### Site Amenities

- Parking lot off of Lexington Avenue North, with the lower lot being dedicated to small watercraft with space for five vehicles, and the upper lot serving the trail and off-leash area with space for 30 vehicles.
- Fully Fenced area encompassing approximately 13 Acres
- Natural surface trail meandering through a prairie
- Two entrance gates
- Rules signs at all entrances

### Planning Considerations

Currently the off-leash dog area at Rice Creek North Regional Trail Corridor has entirely natural surface trails which do not comply with the Americans with Disabilities Act, as part of redevelopment access into and through the off-leash area should be considered for everyone regardless of ability.

Security of personal belongings left in vehicles has been raised as a concern. A security camera has been installed overlooking the parking lot. Ramsey County has and will continue to encourage everyone visiting the park to not leave any valuables left unattended whether they are in a locked vehicle or not.

Additional trails and activities are planned to be developed in spaces adjacent to the off-leash area. The off-leash portion of the park should continue to be kept separate from other recreational activities so that conflicts do not arise.

Potable water and a restroom are located near the parking lot. Water could be brought up closer to the off-leash area entrance for the installation of a drinking/washing station.

### Natural Resources

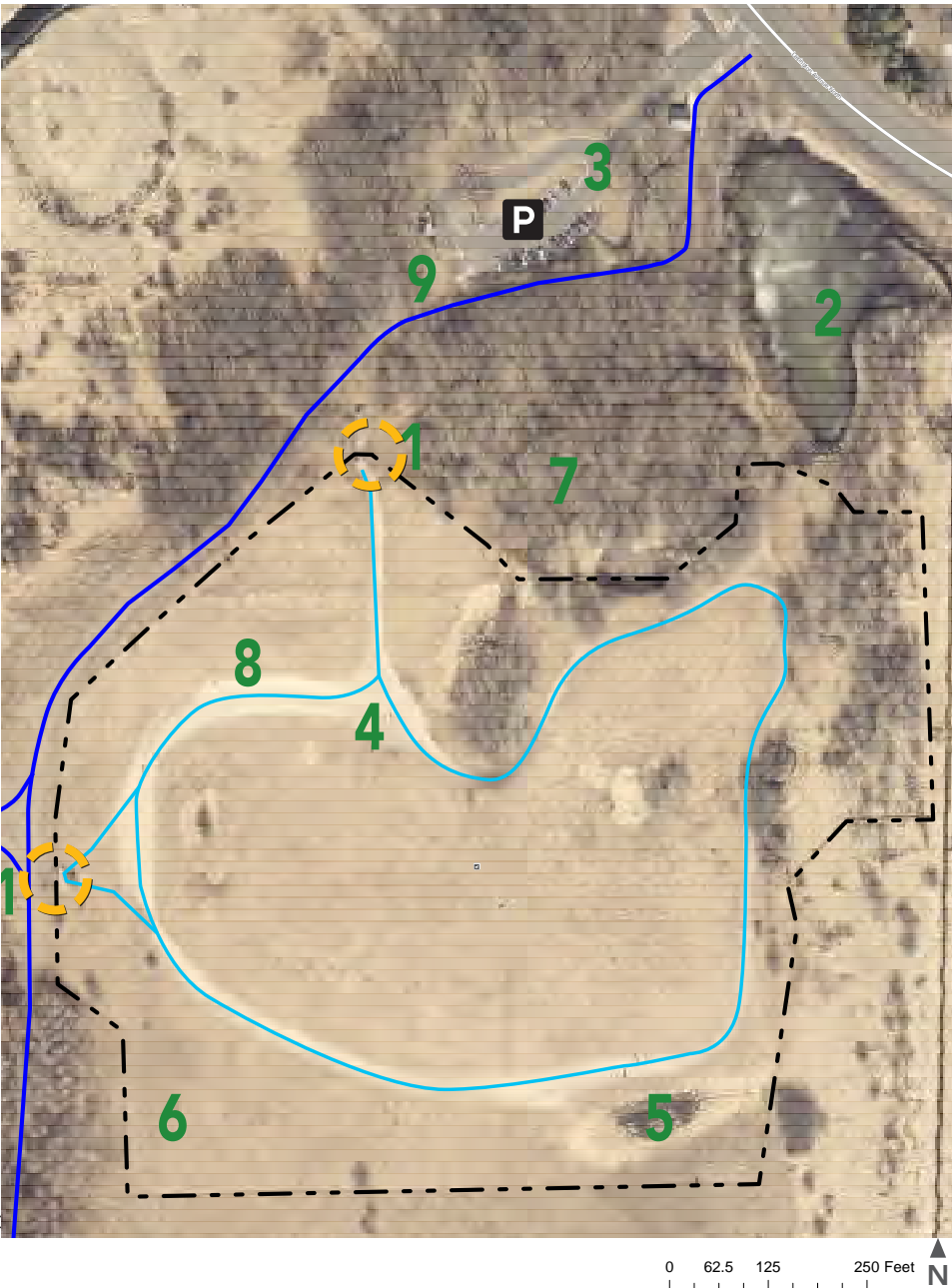
Natural resources within the off-leash dog areas are impacted by invasive vegetation and by the dogs and people using these areas. The numerous barriers attributed to the use of off-leash dog areas makes the restoration of natural resources a priority below the greater park system. To reestablish or maintain natural resources within these areas would include the partitioning of park sections for alternate use, term closures for an unknown amount of time, or permanent closures of specific sensitive areas within the current boundaries.

The land cover within the Rice Creek off-leash dog area is mostly an open field consisting of brome grass and other invasive herbaceous vegetation. There is little native habitat or wildlife use within the Rice Creek off-leash dog area because of the presence and impact of dogs and park users. There is a well-worn trail with no vegetation that encircles the field. This trail is getting wider and is eroding in high use areas. There is currently no access or impact to any water features within this park. In the past, there was access to a wetland water resource on the east side of the site. This wetland area is a mitigation site that is regulated for added protection, and because of the damage to the wetland shoreline through off-leash dog area use, the permanent closure of access to the wetland area was prompted. The areas damaged were replanted with native wetland vegetation.

Re-growth of vegetation along the trail would require the temporary closing of the area for many growing seasons to establish high use turf or hearty vegetation which could sustain heavy use. Once the vegetation re-grew the off-leash dog area could be partitioned for alternate use to maintain a certain percentage of vegetation and allow regrowth of vegetation.

Rice Creek North Regional Trail  
Corridor Off-Leash Dog Area  
Features:

- 1. Multiple entrances to the off-leash area, both are double gated
- 2. Nearest open water body is a wetland mitigation site, and therefore dogs are not allowed entrance.
- 3. Trail corridor parking lot does have a security camera
- 4. Natural surface trails throughout, traversing open prairie space
- 5. Area is sometimes wet, sometimes muddy. Owners are split as to whether this area should be fenced off or not.
- 6. No Separate area for small dogs, plenty of room to add fencing and create two spaces
- 7. No natural shade currently on site. Opportunity to perhaps add some area under tree canopy or man made structure.
- 8. Site is relatively flat, lending itself to development making the space accessible



- 9. Nearest water source is located by the parking lot, and would be relatively easy to bring potable water to an off-leash area entrance.

Legend

Park Border		Park Paved Trail		Parking Lot	
Park Entrance		Park Turf Trail			
Feature Point		Off Leash Area Trail			
Metro Tranist Stop		Regional Trail			



### Woodview Open Space Off-Leash Dog Area Inventory & Analysis

#### History

The off-leash dog area at Woodview Open Space was identified as a new site after the acceptance of the county policy on off-leash dog areas was passed in March of 2000 because it could serve residents in the central part of the county, the site is a large open space that was underutilized. The primary use area was identified as a part of the open space that previously was being used for garden plots. Parking did not exist on site at the time, however there were future plans in place including a trail through Reservoir Woods that included a trailhead parking lot. It was decided that a number of actions would take place as a part of the permanent installation of the off-leash area including:

- Primary site access would be located off of Larpentuer Avenue
- A trail or path route would need to be determined and cleared
- Create an additional accessible fenced site

As part of future development fencing was placed around the entire small dog and accessible area, and along the path and Larpentuer Avenue partially encompassing the large dog area. The trail and a trailhead parking lot were also developed in conjunction with the city of Roseville as a part of Reservoir Woods Park.

#### Site Amenities

- Parking lot off of Larpentuer Avenue with space for 19 vehicles
- Fully fenced and accessible small dog area and a partially fenced large dog area approximately 4 acres
- Rules sign at all entrances
- Well shaded by a natural tree canopy
- Separate small and large dog areas

#### Planning Considerations

Currently the off-leash dog area at Woodview Open Space has entirely natural surface trails which do not comply with the Americans with Disabilities act, as part of redevelopment access into and through the off-leash area should be considered for everyone regardless of ability.

Security of personal belongings left in vehicles has been raised as a concern. A security camera should be considered in the parking lot. Ramsey County has and will continue to encourage everyone visiting the park to not leave any valuables left unattended whether they are in a locked vehicle or not.

Additional trails and activities are planned to be developed in spaces adjacent to the off-leash area. The off-leash portion of the park should continue to be kept separate from other recreational activities so that conflicts do not arise.

Potable water and a permanent restroom would be difficult in this location as there are no services nearby at this time.

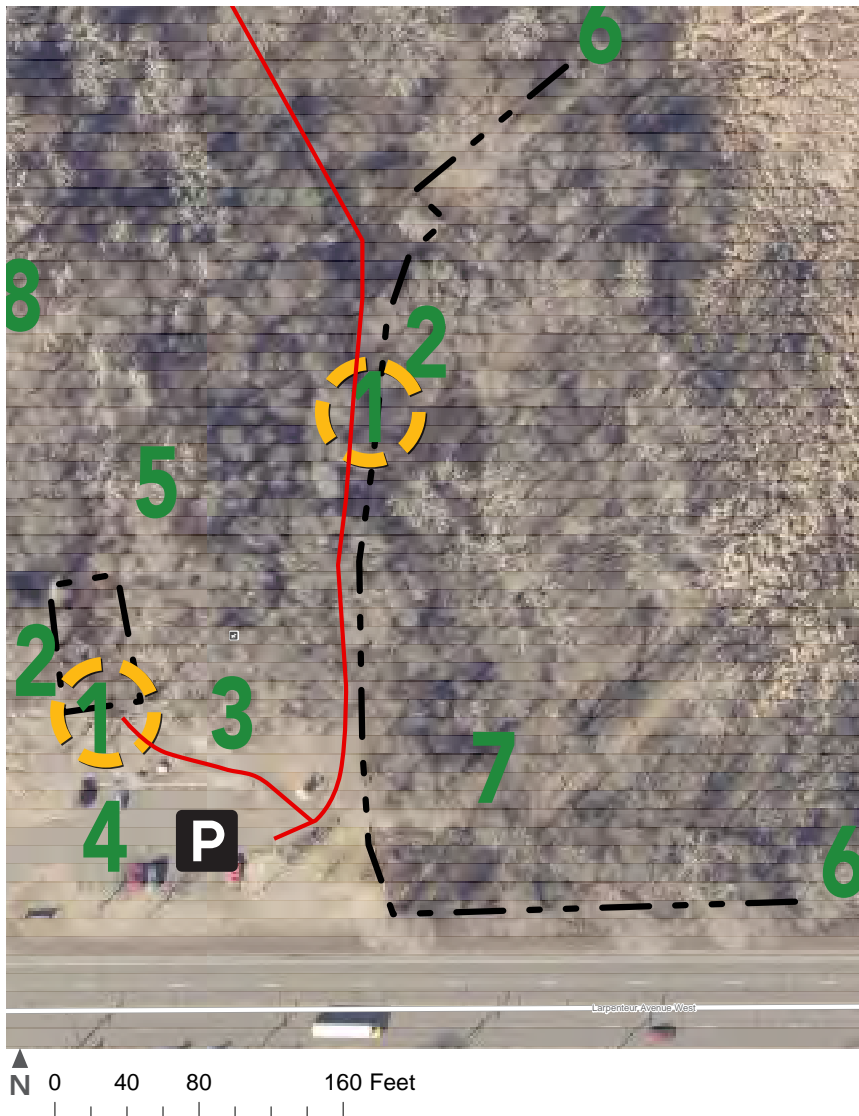
Ramsey County Community Corrections owns a 17.8 acre parcel directly to the west of the off-leash dog area. This parcel has been identified in the Parks & Recreation System Plan as a possible area of expansion for Woodview Open Space. If this occurred expansion of the off-leash dog area and trailhead facilities would be possible, as this is the smallest off-leash dog area that the county maintains and it is under our suggested 10 acre regional off-leash area goal it would help to serve the central area of the county and its residents much better.

### Natural Resources

Natural resources within the off-leash dog areas are impacted by invasive vegetation and by the dogs and people using these areas. The numerous barriers attributed to the use of off-leash dog areas makes the restoration of natural resources a priority below the greater park system. To reestablish or maintain natural resources within these parks would include the partitioning of park sections for alternate use, term closures for an unknown amount of time or permanent closures of specific sensitive areas within the current boundaries.

The land cover within the Woodview off-leash dog area consists of mainly mixed woods abutting a wetland, which is a state and federally protected resource. Invasive vegetation exists within the park. Most wooded areas contain invasive buckthorn and the wetland consists of a cattail edge. Limited restoration has been completed through the woodland areas. Park use has caused the loss of vegetation and erosion within the woodlands and trails leading to the wetland edge. The constant presence of dogs within the park disturbs the habitat for wildlife.

Restoration within the off-leash dog area is difficult because of the consistent heavy use and apprehension for herbicide use on invasive vegetation. Restoration of eroding areas would require long term to permanent closure of sections to regain and maintain vegetated cover. To preserve wetlands, access to these areas should be permanently closed to regain plant growth and for continued protection of wetland habitat.



Woodview Open Space Off-Leash Dog Area Features:

1. Entrance to the small dog and accessible area is double gated, large dog area is not
2. Signs should be removed from within the off-leash area and moved outside entrance gates
3. Currently the only accessible off-leash area run by Ramsey County
4. Relatively undersized parking lot does not have any security camera
5. County staff has observed rogue paths and dog prints, indicating off-leash activity outside of designated area
6. Fences do not completely contain large dog area, but could be modified to do so
7. Many widow makers, overhanging limbs, and unkept underbrush conditions along with trash make Woodview off-leash area the least safe and most unattractive off-leash area in the county.
8. Site to the west has been identified for acquisition.

## Legend

Park Border	---	Park Paved Trail	—	Parking Lot	P
Park Entrance	⊙	Park Turf Trail	—		
Feature Point	1	Off Leash Area Trail	—		
Metro Transit Stop	T	Regional Trail	—		

## Comparison To Other Off-Leash Dog Areas

Ramsey County Parks & Recreation has taken a look at the surrounding region's off-leash areas in order to compare the existing rules, permitting, and physical characteristics to those of the county's own. These findings will help the county make decisions, along with public input received, when evaluating and making any recommended changes to the current off-leash dog area structure.

### List of Park Districts Surveyed for Comparison:

Local: off-leash areas looked at for a direct comparison of rules, regulations, and general size in contrast to Ramsey County

- Three Rivers Park District
- Dakota County Parks
- Minneapolis Park & Recreation Board
- Saint Paul Parks & Recreation
- Anoka County Parks & Recreation
- Carver County
- City of Woodbury
- City of Oakdale

National: Off-leash areas looked at for a comparison of rules and regulations in contrast to Ramsey County

- Salt Lake County
- City of Denver Parks and Recreation

### Off-Leash Dog Area Classifications

Off-leash dog areas are generally broken into a few classifications defined roughly by their size, service area, and function. Larger parks will serve a larger service area and are intended to be a regional draw, whereas a smaller park is better suited to a smaller service area and function as a neighborhood draw to get a quick workout with your pet. Classifications have been derived from the public input process as well as through the department's research of other park systems.

OFF-LEASH DOG AREA CLASSIFICATIONS		
TYPE	APPROXIMATE SIZE RANGE	SERVICE AREA
Regional (Large)	10 Acres or Greater	Regional, at a Minimum Countywide
Community (Medium)	2-10 Acres	5 Mile Radius
Neighborhood (Small)	0.5-2 Acres	Up to a 2 Mile Radius

### Regional Off-Leash Areas

Regional off-leash areas are typically 10 acres or greater and have a service area encompassing the entire county and, in cases where they are located in a regional park, beyond. Many of the larger parks in this category have areas that remain unfenced with small dog areas being completely fenced in. These parks often have a variety of environments and terrain for users to explore with miles of established trails. Regional off-leash areas may have fewer amenities, or amenities which are concentrated near entrances due to their more remote locations and undeveloped nature. Care should be taken when choosing sites for regional off-leash areas to mitigate or prevent negative impacts in sensitive areas such as wetlands, riparian zones, high value habitat areas, protected watersheds, and to make sure there is not a conflict with another recreational activity.

Common amenities for regional off-leash areas include but are not limited to fencing, double entrance gates, looping paved or unpaved trails, dog waste dispensers and trash cans, restrooms, drinking fountains, and regulatory signs.

## Community Off-Leash Areas

Community off-leash areas are typically 2-10 acres or greater and have a service area of up to a five mile radius. Off-leash dog areas of this size are typically fully fenced, and divided to allow for separate small and large dog facilities. Common amenities for community off-leash areas include but are not limited to perimeter fencing, double gated entries, paved paths, drinking fountains, dog waste bag dispensers, trash cans, shade structures or naturally shaded areas, benches, restrooms, and regulatory signs.

## Neighborhood Off-Leash Areas

Neighborhood off-leash dog areas are typically 0.5-2 acres and have a service area of one to three neighborhoods, making the park a walkable destination for many. Off-leash dog areas of this size seem to always be fully fenced with a double gated entry. Other common amenities include but are not limited to paved paths, drinking fountains, dog waste bag dispensers, trash cans, benches, and regulatory signage.

## Size & Amenities Comparison

ANOKA COUNTY				
NAME	AMENITIES	CLASSIFICATION	SIZE	FEES
Bunker Hills Regional Park	Fully Fenced, Separate Small and Large Dog Areas, Short Trail, Wood Chips	Community	6.5 Acres	Vehicle Entry Permit \$30
Locke County Park	Fully Fenced, Shaded, Wood Chips	Neighborhood	1.5 Acres	Vehicle Entry Permit \$30
CARVER COUNTY				
NAME	AMENITIES	CLASSIFICATION	SIZE	FEE
Lake Minnewashta Regional Park Off-leash Area	Fully Fenced, Ponding Area (Water Access), Open Areas, Wood Chip Trail, Aggregate Trail	Regional	17 Acres	Vehicle Entry Permit \$25
CITY OF OAKDALE				
NAME	AMENITIES	CLASSIFICATION	SIZE	FEE
City of Oakdale Bark Park	Fencing, Vestibule Gate, Grass Trails, Picnic Tables/Benches, Dog Waste Bag Dispenser, Trash Cans, Signage	Community	4.6 Acres	Dog License \$12-20
CITY OF WOODBURY				
NAME	AMENITIES	CLASSIFICATION	SIZE	FEE
Andy's Bark Park	Partially Fenced, Mowed Trails, Benches, Shelter Area, Picnic Tables, Pet Water Station, Dog Waste Disposal and Bag Stations, Portable Restrooms, Rules Sign	Regional	70 Acres	Dog License \$10-18

DAKOTA COUNTY PARKS				
NAME	AMENITIES	CLASSIFICATION	SIZE	FEE
Dakota Woods Dog Park	Fully Fenced, Wooded, Open Space, Wood Chip Trail	Regional	16 Acres	Annual Pass \$42.85
MINNEAPOLIS PARK & RECREATION BOARD				
NAME	AMENITIES	CLASSIFICATION	SIZE	FEE
Franklin Terrace	Fully Fenced	Neighborhood	1.37 Acres	Resident \$35 Nonresident \$60
Lake of the Isles	Fully Fenced, Designated Small Dog Area	Neighborhood	1.87 Acres	Resident \$35 Nonresident \$60
Loring Park	Fully Fenced	Neighborhood	0.22 Acres	Resident \$35 Nonresident \$60
Lyndale Farmstead	Fully Fenced, Crushed Granite Play Surface	Neighborhood	0.62 Acres	Resident \$35 Nonresident \$60
Minnehaha	Pay To Park Lot,	Community/ Regional	6+ Acres	Resident \$35 Nonresident \$60
St. Anthony Parkway	Fully Fenced	Community	2.17 Acres	Resident \$35 Nonresident \$60
Victory Prairie	Fully Fenced	Community	2.62 Acres	Resident \$35 Nonresident \$60
SAINT PAUL PARKS & RECREATION				
NAME	AMENITIES	CLASSIFICATION	SIZE	FEE
Arlington/Arkwright	Wooded Trails, Opens Space	Community	4.5 Acres	Dog License \$58/Year \$68/Life if Microchipped
High Bridge	Shade, Fully Fenced, Parking, Open Space	Community	7 Acres	Dog License \$58/Year \$68/Life if Microchipped
Meeker Island	Benches, Trail, Water Access	Community	N/A	Dog License \$58/Year \$68/Life if Microchipped
Lowertown	Fully Fenced	Community/ Neighborhood	N/A	Dog License \$58/Year \$68/Life if Microchipped



THREE RIVERS PARK DISTRICT				
NAME	AMENITIES	CLASSIFICATION	SIZE	FEE
Bryant Lake	Fully Fenced	Community/ Regional	9 Acres	\$6 Daily \$45 Annual
Carver Park Reserve	Fully Fenced, Separate Small and Large Dog Areas	Regional	27 Acres	\$6 Daily \$45 Annual
Cleary Lake Regional Park	Fully Fenced, Wetland Pond	Regional	28 Acres	\$6 Daily \$45 Annual
Crow-Hassan Park Reserve	Unfenced	Regional	40 Acres	\$6 Daily \$45 Annual
Elm Creek	Fully Fenced, Wetland Pond	Regional	29 Acres	\$6 Daily \$45 Annual
Fish Lake Regional Park	Fully Fenced, Separate Small and Large Dog area	Community/ Regional	7 Acres	\$6 Daily \$45 Annual
Lake Sarah Regional Park	Fully Fenced, Separate Small and Large Dog Area, Picnic Tables	Regional	30 Acres	\$6 Daily \$45 Annual
Murphey Hanrehan Park Reserve	Fully Fenced, Separate Small and Large Dog Area	Community	3 Acres	\$6 Daily \$45 Annual
Spring Lake Regional Park	Fully Fenced, Separate Small and Large Dog Area, Watering & Rinsing Station	Regional	10 Acres	\$6 Daily \$45 Annual
RAMSEY COUNTY PARKS & RECREATION				
NAME	AMENITIES	CLASSIFICATION	SIZE	FEE
Battle Creek Regional Park	Fully Fenced, Picnic Tables, Benches, Miles of Trails, Wetland Ponds	Regional	44 Acres	None
Bald Eagle-Otter Lakes Regional Park	Fully Fenced, Separate Small and Large Dog Area, Wooded, Open Space, Footpaths	Regional	10 Acres	None
Rice Creek Regional Trail Corridor	Fully Fenced, Natural Surface Trail, Open Prairie	Regional	13 Acres	None
Woodview Open Space	Fully Fenced Small Dog Area, Partially Fenced Large Dog Area, Small Dog Area is Accessible, Trails, Wooded, Wetland Pond	Community	2.25 Acres	None

The information provided in the table above suggests that most government agencies accommodating off-leash areas fall into their respective categories of service. Overall, amenities offered within the region seem to be very consistent across the board. In comparison to other urban areas Ramsey County Parks & Recreation has the largest off-leash areas by size. Woodview Open Space is the one off-leash dog area that currently does not fit the county's goal of providing regional, county-wide service due to its size. Ramsey County Parks & Recreation is also the only provider regionally that does not see any form of compensation for providing off-leash areas to residents.

## Rules & Regulations

Current Ramsey County off-leash dog area rules and regulations are posted at most off-leash areas as follows:

1. Owners must clean up and dispose of feces.
2. Dogs must be leashed prior to entering and upon leaving the off-leash area and in transition corridors.
3. Owners must be in verbal control of their dogs at all times and prevent aggressive behavior, biting, fighting, or excessive barking.
4. Owners must have visible leash at all times
5. Owners are liable for damage or injury inflicted by their dogs
6. Dogs must stay within signed boundary.
7. Dogs must be properly licensed and vaccinated.
8. Dogs in heat are not allowed.
9. Owners must comply with all park rules and regulations

Ramsey County's posted rules are not consistent at every off-leash area or in some cases different entrances for the same off-leash area. The posted rules also do not follow the rules which were passed by policy in 2000, and there is another differing set of rules that has been posted to the Ramsey County website. Signage that is posted also varies wildly from off-leash area to off-leash area, some have flea and tick warnings, additional rules posted about picking up after one's pet etc. An important step forward through the Off-leash Dog Area Master Plan will be the establishment of common rules that shall apply throughout the Ramsey County park system as they pertain to off-leash dog areas. Another step in the master plan will be to set a standard for all off-leash areas as to what is posted and where rule posting shall occur.

Rules and regulations among park districts that administer off-leash dog areas seem to be very consistent both regionally and nationally with a few rules that many other agencies have instituted in their off-leash areas. It is worth looking at these differences in order to open a discussion about the county's own rules and help determine whether or not a change in the stated rules is necessary. Some differences also come in the way that a rule is stated or phrased. In many cases the rule as prescribed by Ramsey County could be made clearer with a change in phrasing. A general discussion of these differences follows.

1. Many off-leash areas have a minimum age requirement below which children must be accompanied by an adult. In one version of Ramsey County rules that is posted online there is a rule that states "Children under the age of 12 must be accompanied and supervised by an adult, and should be educated about safe behavior around dogs (no running, screaming, food, etc.)" Concern was raised at public engagement meetings about the age of some handlers entering the park without supervision.
2. Almost every other park system has a maximum number of dogs per handler to ensure that the dogs stay under their control. The most commonly accepted number of dogs per handler is 2. This is also an issue that came up during some of the public engagement meetings. Off-leash area patrons had brought up the fact that they will occasionally see dog walkers coming through the park with large numbers of dogs, sometimes they keep the dogs leashed and this could lead to more problems than intended to prevent.
3. It is very common for off-leash areas to bar outside food, toys, and dog food with the exception of dog treats.
4. Nationally, it is common for off-leash areas to explicitly state that pit bulls and other breeds considered to be more aggressive/violent are not allowed in off-leash dog areas. This rule has not been noted on the regional level. Other rules observed on a national level are consistent with Ramsey County Rules.

## The Plan

### Rules & Regulation Recommendations

An important objective of the Off-leash Dog Areas Master Plan is to standardize the rules and regulations that are posted at county designated off-leash areas. Currently not every park, or even every entrance, has the same look and feel. Many entrances are littered with signage that is repetitive of what has already been posted on the rules and regulations signs. To rectify this all miscellaneous signs should be removed from fences and posts, and the rules and regulations sign should be the prominent source of information. A posting board may also be provided for any additional rotating information that may be needed.

The following set of rules is recommended based upon what is currently posted by Ramsey County through various materials, what was learned through public engagement, and what has been observed in other off-leash areas both regionally and nationally

1. Owners must clean up and dispose of feces.
2. Dogs must be leashed prior to entering and upon leaving the off-leash area and in transition corridors.
3. Owners must be in verbal control of their dogs at all times and prevent aggressive behavior, biting, fighting, or excessive barking. If a dog becomes aggressive, or gets into a fight it shall be leashed and escorted out of the park immediately.
4. Owners must have visible leash at all times
5. Owners are liable for damage or injury inflicted by their dogs
6. Dogs must stay within signed boundary.
7. Dogs must be properly licensed and vaccinated.
8. Dogs in heat are not allowed.
9. For every handler there shall be a maximum of two dogs.
10. Children under the age of 12 must be accompanied and supervised by an adult, and should be educated about safe behavior around dogs (Do not run, scream, offer food, pet a strange dog without permission, etc.)
11. Owners must comply with all park rules and regulations



Typical Ramsey County Rules Sign at Rice Creek Regional Trail Corridor



Repetitive and obnoxious signage clutters off-leash area entrances which may be causing users to bypass rules board all together as a result of over stimulation

## Off-Leash Dog Area Design Standards

Ramsey County off-leash dog areas have been developed somewhat simultaneously with different results from park to park, mostly influenced by the user base. The county would like to standardize the look and feel of its off-leash dog areas to the extents possible. Parks & Recreation will be working with and expanding upon the guidelines for off-leash dog area developed in the original policy to determine site standards.

From the public survey, public engagement, internal dialogue, and research of various other facilities the following guidelines should be followed whenever possible:

### Off-Leash Dog Area Site Selection:

**Size:** Ramsey County originally decided that a 10 acre park would be of sufficient size to accommodate a regional draw for an off-leash area. After comparing our own system to others in the region a size of 10-20 acres would be most acceptable for a regionally sized off-leash area. The county has four off-leash areas serving the region all within a 15 minute drive of any resident so another way to fill in gaps where municipal off-leash dog areas do not exist would be considering the addition of community sized off-leash area in the range of 2-10 acres. Many county parks may be better able to fill this role.

**Parking:** Ramsey County Parks & Recreation previously stated that a minimum of ten parking spaces will be provided, however this number does not seem to be sufficient given the size of most of the county off-leash areas combined with the fact that the parking lots all serve another purpose than just the off-leash areas. Parking should be looked at on a case by case basis along with other recreational uses that the parking lot is serving. Woodview, for example, has an undersized parking lot for a combined trail head/off-leash area and is often at capacity during peak hours.

**Shade:** Shade is a highly desirable aspect to off-leash dog areas. In the public survey conducted by Ramsey County shade was the second highest amenity sought out by park users. Whenever possible a site with natural shade should be utilized, if natural shade is not available trees should be planted or a man made shade structure installed.

**Conflict with Recreational Activities:** It is important to maintain a buffer between off-leash dog areas and other recreational uses such as playgrounds, trails, or another programmed recreational area. A minimum of a 100 foot buffer has been established in the previous Ramsey County policy and should be maintained in the future.

**Accessibility:** Priority will be given to sites that can accommodate access for individuals with disabilities. Ramsey County Parks & Recreation strives to gain and maintain an equitable use of all its facilities. Current sites that are not accessible should be retrofitted in the future so that at least a portion of the site is accessible to all.

**Natural Resources:** Ramsey County is home to a diverse landscape and animal population, with more than 1,250 species found in or adjacent to the county. County staff manage the land, plants, and animals throughout the park system to ensure their health and sustainability. As a natural resources based park system Ramsey County will weigh all impacts that any future development may have on the environment. All efforts shall be made in site selection so that no off-leash dog area has a negative impact on any native plants, animals or water bodies.

It is extremely important that all off-leash dog area users follow rules and clean up after their pets immediately as dog waste has been declared a nonpoint source of pollution by the Environmental Protection Agency. Improperly disposed of, or pet waste which is not picked up negatively impacts water quality in lakes, ponds, creeks, wetlands, and rivers. Pet waste decays in water and depletes oxygen which in combination with the warming of water bodies may lead to fish kills. The nutrients in pet waste also aid in weed and algae growth further reducing water quality, algae blooms are stinky, cause water discoloration, and in the case of blue green algae can be lethal to pets and

extremely toxic to humans. These blooms can result in fewer recreational uses for the water body which affects swimmers, boaters, and many other park recreational uses.

Improperly disposed pet waste may also make water unsafe for swimming. Diseases and parasites can be transmitted from pet waste to humans. Pet waste is not the biggest source of pollution to the regions water bodies, but it is one of many small sources that add up to larger issues, dog owners are at the front line of picking up after themselves in a responsible manner.

**Water Access:** Access to water for dogs in the county off-leash dog areas has been identified as an important aspect that many users would like whenever possible. While not a possibility on every site, where suitable water sources do exist within an off-leash site access should be granted. Water access for dogs will not be permitted if there is conflict with another recreational use such as swimming areas, boat launches, etc.

### Site Amenities

**Fencing:** Where a one hundred foot buffer is not possible fencing will always be installed. Fencing shall be 4' in height and constructed of vinyl coated chain link. Almost all Ramsey County off-leash areas as well as those found regionally are fully enclosed areas. This adds to the safety of an off-leash area so that if a dogs control is lost by voice alone the owner has some reassurance that their pet will not get far.

**Drinking Water:** All efforts shall be made so that potable drinking water for humans and dogs is placed near at least one off-leash area entrance per park.]

**Restroom Facilities:** Restroom facilities will be provided in close proximity to off-leash areas, in most cases these will come in the form of portable facilities. Wherever possible, if there are multiple recreational programs located in the vicinity of the off-leash area, more permanent restrooms should be accommodated.

**Trash Receptacles:** Trash receptacles and removal service will be provided at each entrance point. Additional trash receptacles may be placed in parking areas or any other space deemed necessary.

**Picnic Tables & Benches:** Picnic tables and benches will be provided in each off-leash area, the placement and siting of the amenities should be coordinated between site volunteers and county staff.

**Surfacing:** A variety of surfacing will be used at off-leash dog areas. Efforts will be made to make as much of the off-leash area a natural surface. Crushed fines such as limestone or granite may be considered for trails or low lying areas to deal with erosion. An asphalt trail may be considered to make the site accessible to all users, and may aid the county in future maintenance operations within off-leash dog are boundaries.

**Separate Areas for Large & Small Dogs:** County off-leash dog areas shall accommodate separate areas for large and small dogs.

**Signage:** Rules shall be clearly posted, including codes of behavior, hours, and requirements for entry. Entrances shall also be allowed an extra posting/bulletin board for miscellaneous information. Additional and often repetitive signage posted on fences shall be removed.

**Americans with Disabilities Compliance:** Barrier free access to off-leash dog areas shall be provided, as well as an area through the double gated entry. Barrier Free paths should be provided throughout the off-leash area.

**Entrances:** Double gated entrances shall be provided at every off-leash dog area entrance. The double gated entry shall consist of an 8 foot by 8 foot fenced area with two gates, allowing for owners to safely unleash their dogs prior to letting them into the park.

**Ease of Maintenance:** Service gates should be provided at every off-leash dog area at a minimum of ten feet wide and located so that maintenance vehicles may easily enter from an existing road, parking lot, or street frontage.

**Waste Bag Dispensers:** Waste bag dispensers should be installed and refilled by the county. These dispensers should be placed minimally at every off-leash area entrance.

**Agility Equipment:** Agility equipment was the lowest rated site amenity from the public survey, and little interest was voiced in the public engagement process. As such, there are no immediate plans to include an agility course but one could be considered in the future if a user group expresses interest.

**Shade:** Trees and/or shade structures should be provided if a site has insufficient shade to allow humans and dogs to retreat from the sun.

**Trails:** Trails encourage owners to interact with and monitor their dogs and provide easier access to the entire site. At least on trail loop should be made accessible to all. Trail material should be evaluated on a case by case basis for every site, a variety of surfacing materials will likely be used for every site. Trails will vary from natural surfaces, wood chips or crushed limestone for low lying and erosion prone sites, to asphalt paths for accessible and maintenance vehicle routes.

### Management & Enforcement of Off-Leash Dog Areas

**Staffing:** It is recommended that county staff monitor the off-leash dog areas during heavy periods of use.

**Fines:** Warnings, followed by tickets and fines are recommended for repeat offenders to help reduce any illegal off-leash dog activity outside of designated off-leash areas.

**Hours of Operation:** Hours of operation should remain consistent with current park hours: one half hour prior to dawn until one half hour after dusk.

**Volunteers:** Volunteer involvement should continue to be encouraged to promote the stewardship of off-leash dog areas. County staff shall work with volunteers to help develop programs, events, and to aid in the recruitment of new volunteers.

**Fees or Donations to Off-Leash Dog Areas:** When asked through the off-leash dog areas survey whether patrons would be willing to pay a fee or donate to county run off-leash dog areas 87.71 percent of respondents said they would be possibly likely or very likely to do so. Ramsey County Parks & Recreation is also the only agency in the region that does not ask for fees, licensing fees or donations to aid in the management or future development of its off-leash areas. It is recommended that the county look into a donation system to aid with maintenance and development costs for current and any future off-leash areas.

**Education:** County staff should work with off-leash dog area volunteers to develop educational programs addressing park etiquette, dogs, and off-leash dog areas among others.



### Future of the Volunteer Program

The volunteer program that has been implemented in a majority of the county's off-leash dog areas has been vital to the success of the off-leash program. Volunteers have aided in the enforcement of park rules, gone above and beyond in their capacity to maintain and clean the off-leash areas, and report maintenance issues to Parks & Recreation staff, among many other responsibilities.

#### Volunteers

Volunteers are a group of people on our email list who are available for when there are service projects, programs or awareness projects that need to take place in the park. They can lend a hand when we have spring cleanup or wood chips to spread, or they can help spread the word when we have a program, like a dog training seminar or nail trimming opportunity.

#### Stewards

Stewards are frequent users of the park (daily or weekly), who are invested in the maintenance and character of the off-leash dog area. Some of the tasks can include:

- Be the eyes and ears on the ground at the dog parks and communicate any problems or concerns that the dog park may have: maintenance issues, dangerous users, ideas and input.
- Clean up the park as you walk around: pick up any trash, pick up stray dog poop, refill poop bags. Stewards will often help to shovel snow around the entrance gates when snow piles up.
- In Battle Creek, moving the trash cans out to the entrance on Thursdays.
- Have an open line of communication with the Ramsey County Recreation Services Supervisor, so that we can get your input on issues.
- Recommend ideas to help improve the dog park and pitch in your talents to make those ideas come to life.
- Recruiting volunteers.
- Foster a positive spirit of community for those who come to the park.

### Future Maintenance and Operations within Off-leash Dog Areas

One of the largest concerns that was identified through the online survey and public engagement was how maintenance operations are handled within off-leash dog areas. Volunteer groups and general park users agree that more could be done on the part of the county in regards to how trash collection is performed as well as general maintenance of the off-leash areas.

Currently volunteers are charged with moving trash receptacles from within park boundaries to the curb where waste management picks them up. Ramsey County Parks & Recreation would like to assist in park maintenance in any way we can. One way this may be accomplished in the future goes along with the development of an accessible route. Accessible Routes could be developed as a 10' wide asphalt path which maintenance workers could use to drive a county vehicle to trash receptacle pads installed along the perimeter of the site making trash disposal a faster and easier operation. Individuals would still be charged with picking up after their pets and making sure animal waste makes it into a trash receptacle.

Miscellaneous repairs are currently requested by off-leash dog area users by calling Parks & Recreation staff to alert them to any issues. County staff generally enters the park to make fence repairs, cut and remove dangerous trees etc. on a regular basis during heavy use periods. County staff shall continue to work with volunteers to find the best way to take care of and address these issues.

## Improvements to Existing Facilities

An important step in the development of off-leash dog areas within Ramsey County will be to bring our current facilities up to the development and design standards addressed in the Off-leash Dog Area Master Plan. Many of our current parks are beloved in their current form, however all of our off-leash areas would benefit from improvements both in constructed amenities and maintenance. Many of our off-leash dog areas are very close to being up to standards set in the master plan, such as Rice Creek, and would need minimal development. Others, such as Woodview, need quite a bit of work just to make the site walkable and safe. Following is a map and description of first steps to take in each of the Ramsey County off-leash areas. Maps are for conceptual purposes only and do not imply final locations for any improvements made to the off-leash areas. Any developments made within the off-leash areas would need to go through further public engagement and design procedures.

### Bald Eagle-Otter Lakes Regional Park Off-Leash Dog Area

1. Addition of an accessible route for the inclusion of all park users as well as maintenance operations.
2. Permanent fencing around wetland and sensitive area.
3. Accessible concrete bench pads and trash receptacles.
4. Bring a dog and human drinking fountain and water line up to the off-leash area entrances
5. Double gated entry at south entrance
6. Install trash receptacles throughout the off leash area along with waste bag dispensers
7. Remove miscellaneous and duplicative signage on fences and relocate to bulletin board



### Battle Creek Regional Park Off-Leash Dog Area



1. Addition of an accessible route for the inclusion of all park users as well as maintenance operations.
2. Accommodate an area within the off-leash dog area for small dogs only by fencing off a portion of the site with double gated entry
3. Accessible concrete bench pads and trash receptacles.
4. Bring a dog and human drinking fountain and water line up to the off-leash area entrances
5. Double gated entry at North and West entrances
6. Remove miscellaneous and duplicative signage on fences and relocate to bulletin board
7. Install 10' maintenance gate
8. Standardize rules boards at entrances, currently not the same rules are posted at each entrance
9. Install trash receptacles throughout the off leash area along with waste bag dispensers

### Rice Creek Regional Trail Corridor Off-Leash Dog Area

1. Addition of an accessible route for the inclusion of all park users as well as maintenance operations.
2. Accommodate an area within the off-leash dog area for small dogs only by fencing off a portion of the site with double gated entry.
3. Accessible concrete bench pads and trash receptacles.
4. Look into the possibility of expanding the off-leash area boundary to include more trees for shade, planting additional trees for shade, or constructing a shade structure.
5. Install 10' maintenance gate
6. Bring a dog and human drinking fountain and water line up to the off-leash area entrances
7. Accessible concrete bench pads and trash receptacles.
8. Install trash receptacles throughout the off-leash area along with waste bag dispensers



### Woodview Open Space Off-Leash Dog Area



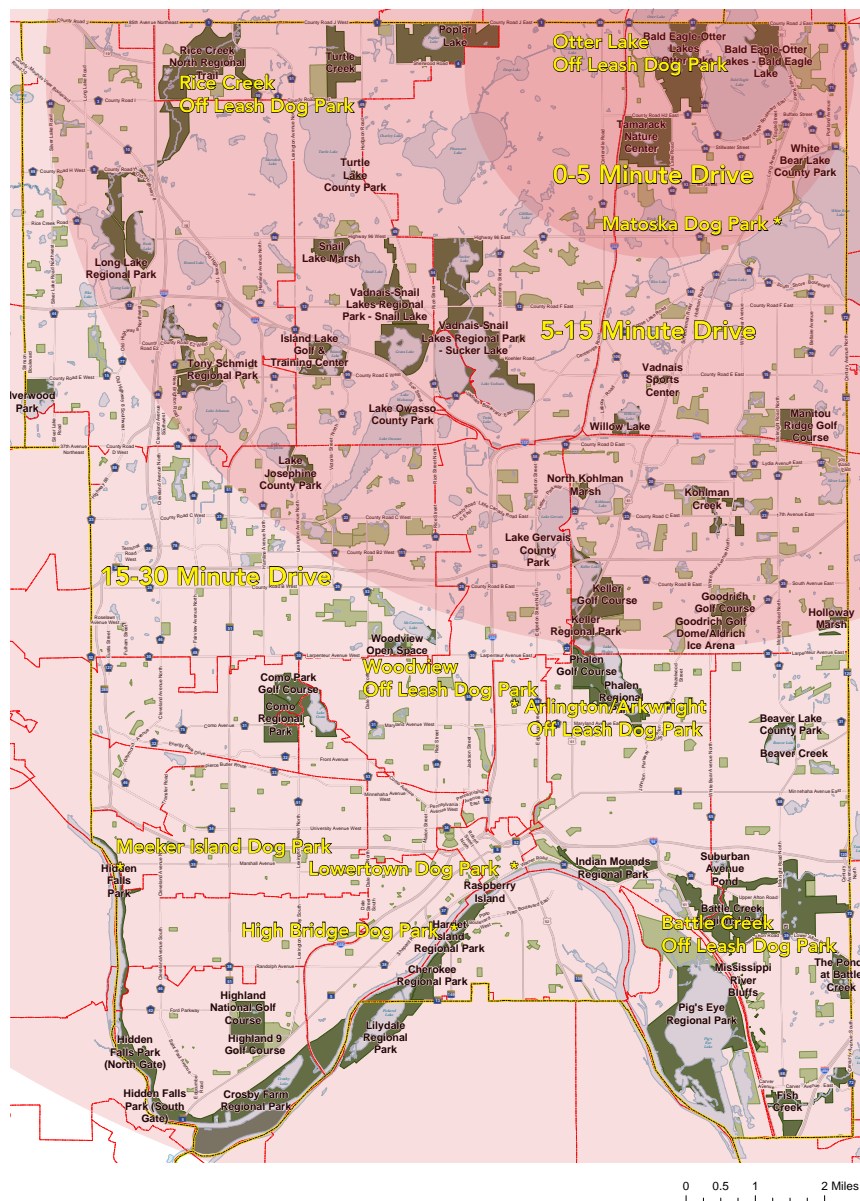
1. Woodview off-leash dog area has an accessible small dog area, finding an accessible route into the large dog area will be more difficult due to the topography of the site but should be explored and executed if possible by Parks & Recreation
2. Woodview is the only current site that does not meet the size requirements of a regional off-leash area, making this off-leash area the top priority among the county's current system. Every effort should be made to expand the current site. The system plan has identified the county owned parcel to the west of Woodview Open Space for acquisition, this area would be a prime location for an expanded off-leash area as there are few if any conflicts.
3. The off-leash dog area at Woodview Open Space is in the worst condition of any in the Ramsey County system, and is identified as the top priority for future development of off-leash areas. There are many overhanging hazardous trees, brush, and other debris making the site difficult and unsafe to traverse. This should be the number one priority going forward to make this site safe.
4. The rules signs and bulletin board should be moved out of the off-leash dog areas and relocated to the front of the entrances.
5. A water line for a human and dog drinking fountain should be brought to the entrance.
6. A double gated entry should be installed for the large dog area
7. Fencing should be installed to fully enclose the large dog area, along with any expansion area
8. Install trash receptacles throughout the off-leash area along with waste bag dispensers
9. If possible install a 10' maintenance gate.



## Future Development of Off-Leash Dog Areas

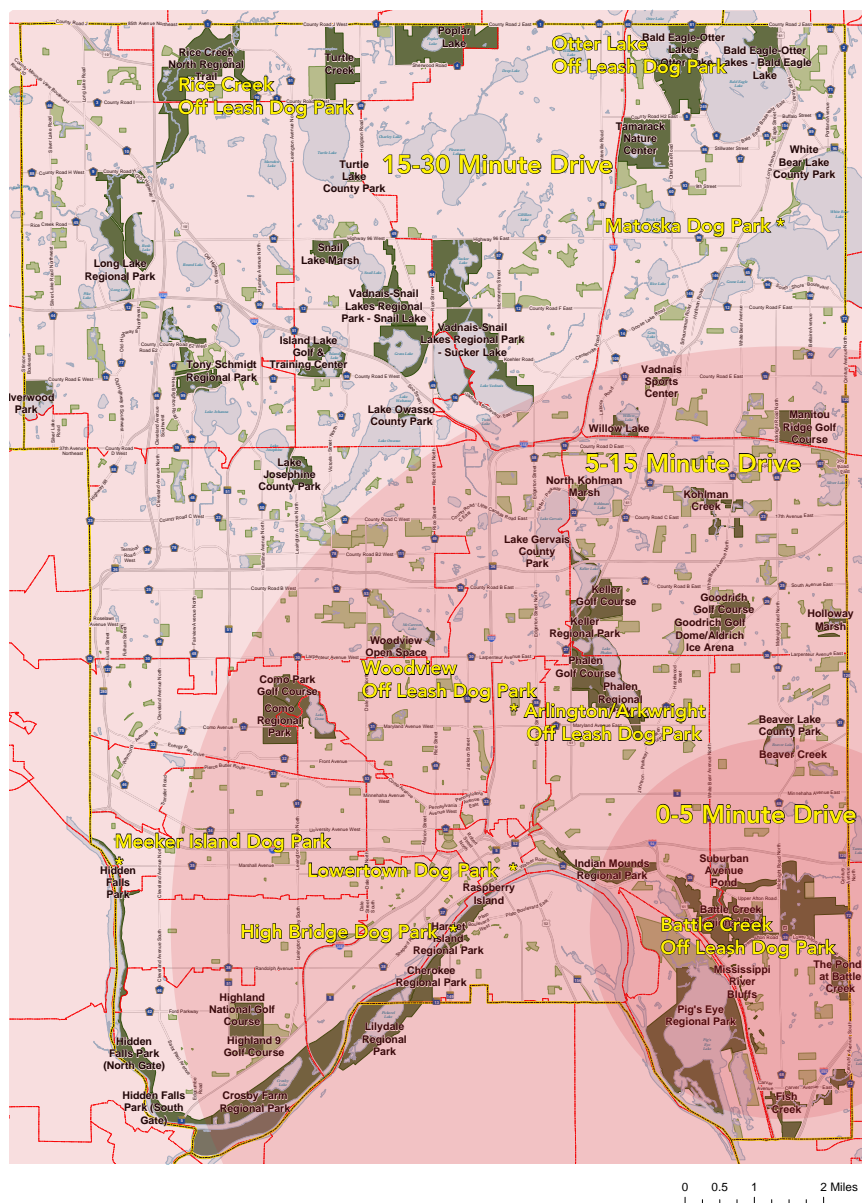
An original goal of the policy passed by Parks & Recreation was to locate a regionally serving facility within a 20 minute drive of any county resident, allowing for other municipalities to fill in gaps with neighborhood and community sized off-leash dog areas. The current system accomplishes this goal with the exception of the Woodview Open Space off-leash dog area due to its size, reinforcing the need for improvement at this facility or another area nearby to serve this segment of the county. The following maps show the distribution of the county's off-leash dog areas along with drive times and other supporting off-leash areas not provided by the county. Only off-leash areas within Ramsey County boundaries are shown, there are others very close by such as Lock County Park near the northwest corner and Andy's Bark Park located in Woodbury.

### Bald Eagle Otter Lakes Regional Park Off-Leash Dog Area

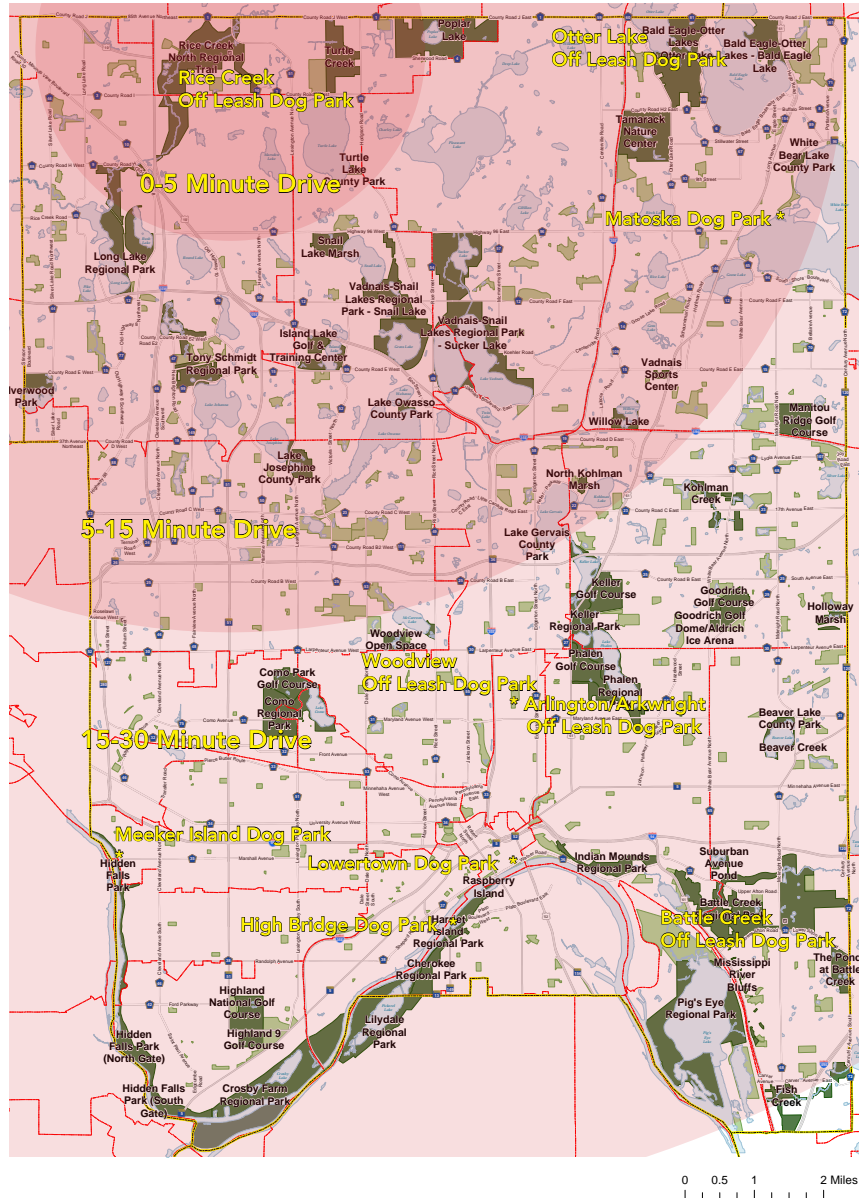




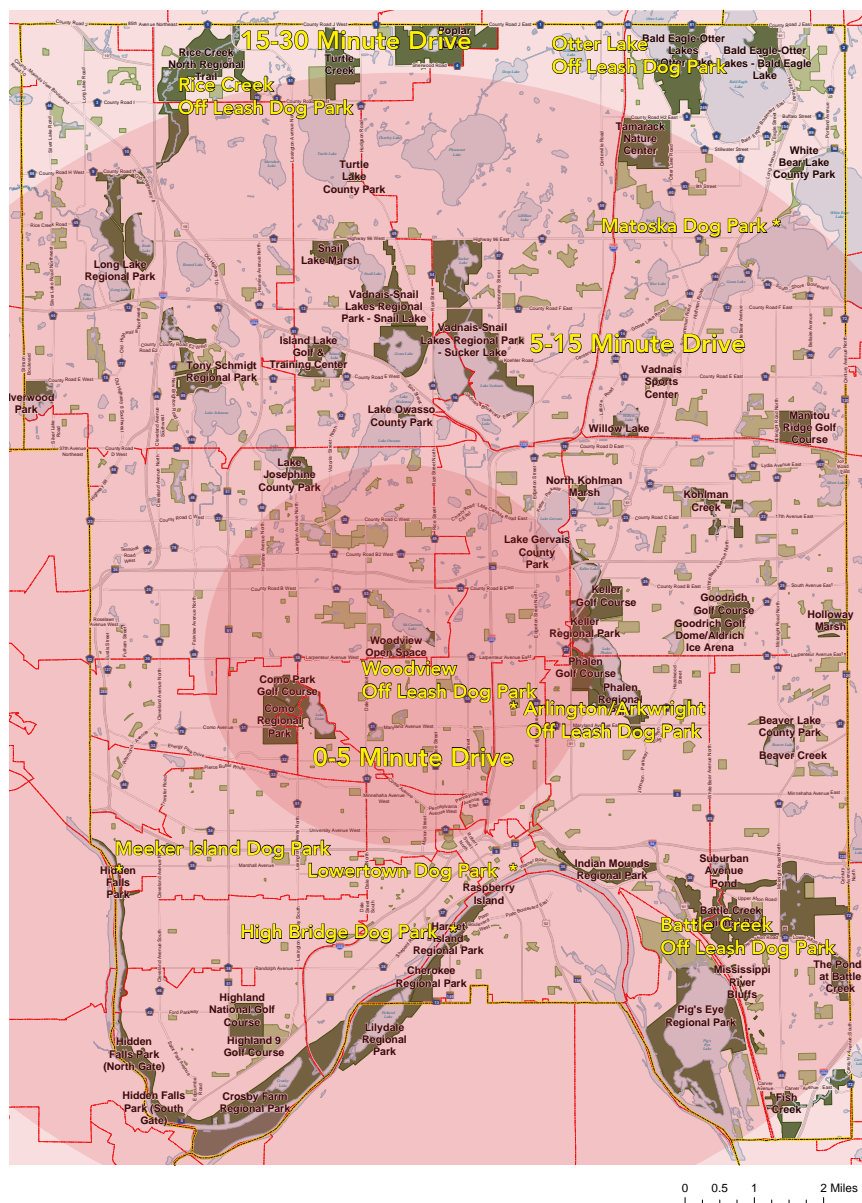
## Battle Creek Regional Park Off-Leash Dog Area



Rice Creek Regional Trail Corridor Off-Leash Dog Area



## Woodview Open Space Off-Leash Dog Area



Although Ramsey County Parks & Recreation has accomplished the original goal of placing an off-leash area within a twenty minute drive of all county residents there still may be a future need or demand to develop new off-leash dog areas within the park system. Care shall be taken in the selection of any new site that may be developed, taking into account natural resources, proximity to other off-leash dog areas, and the demand for service weighed against conflicts with other recreational programming.

If public demand and support exist to establish a new off-leash area site selection and design shall conform to the standards discussed in the Off-leash Dog Area Master plan. The following process for review, evaluation and site selection of off-leash dog areas shall be followed:

1. A planning team comprised of county staff, off-leash area users and volunteers, and the natural resources manager shall work together to identify potential sites using the guidelines and standards enclosed in the master plan.
2. The planning team will evaluate potential sites according to the master plan guidelines and standards to identify the best possible location(s).
3. Public engagement meetings shall be coordinated to develop a concept plan for the proposed site(s)
4. As a part of the public engagement process a questionnaire shall be developed to address any potential conflicts with other recreational programs/uses, neighbors, trails, etc. that may have been overlooked during site selection.
5. Once a concept plan for the off-leash dog area has been developed it shall be presented at another public engagement meeting for any final changes and to address whether or not there is general support for the project, and to double check the appropriateness of the site making sure that the off-leash area is serving an under served area within the county that does not currently have an off-leash area nearby.
6. Upon acceptance through public engagement of the final concept, Ramsey County staff will evaluate the plan to make cost estimations for the implementation of the project.
7. The final concept along with project cost estimates shall be presented to the County Parks & Recreation Board for acceptance.
8. Upon acceptance county Parks & Recreation staff will work internally and with volunteer groups to fund, create construction documents following the final concept, go through any necessary design reviews, and implement the project.

### Implementation

#### Phasing Priorities

There have been many aspects to off-leash dog areas that have been identified as a part of the Off-leash Dog Area Master Plan that Ramsey County Parks & Recreation needs to address in the future. As such development and implementation of the plan will need to be phased over a period of time. The following list is a proposed timeline of implementation based on needs according to the findings of the master plan.

1. Woodview Open Space Off-leash Dog area is currently in the worst condition of any of the county's off-leash dog areas. There are numerous hazardous trees making the large dog area unsafe along with litter, tractor tires etc. The top priority concerning off-leash areas should be to clean up and make this area safe for the numerous users that use the open space.
2. Woodview Open Space is also the only off-leash dog area that does not meet criteria for a regionally sized off-leash area. Efforts should be made to expand the usable space of the off-leash area. Park patrons are already using space not designated in the off-leash area as evidenced by unmarked trails and dog tracks observed by county staff. The Parks & Recreation System Plan has identified property to the west for acquisition which would be one option. Another would be to expand the off-leash area to the north and west of the path where tracks and trails have been observed. A rough take off shows that the county could expand the current site to approximately ten acres by designating additional space, which would provide a more regionally sized off-leash area serving the southwest area of the county.
3. All existing county off-leash dog areas shall be evaluated and reviewed according to the design guidelines and standards outlined in the Off-leash Dog Area Master Plan. Cost estimations should be put together for each park in order to bring the off-leash area up to the design standards of the master plan. These improvements should then be executed as funding becomes available. Cost estimation should be re-evaluated prior to any new funding request to make sure the amount allotted is in alignment with current construction costs.
4. New off-leash dog areas shall be explored according to the review, evaluation, and site selection criteria outlined in the Off-leash Dog Area Master Plan.

#### Alternative Delivery Options to Meet Demand

An alternative to the creation of additional fenced off-leash dog areas may be to adjust some park rules to accommodate off-leash activities at some county parks and open spaces. One Precedence of this comes from the city of Minnetonka, where a rule is in place allowing for off-leash dogs on dirt paths or in non-mowed spaces. Another option may be to designate certain fields, open areas etc. for off-leash activity which could be limited to certain hours of the day or week. This would greatly expand off-leash options within the Ramsey County park system with minimal cost.

## Programs

Adding programs at the off-leash dog areas seems to be a huge opportunity, and one that people have interest in. Socialization and training programs seem to be popular choices.

If Ramsey County Parks & Recreation considered adding an agility training course, programs could be built around the feature creating an exciting opportunity.

Ramsey County Parks & Recreation is interested in continuing a program implemented in the past where veterinary technical schools come to the park to do free nail trimmings.

## Donation System Options

Adding the option of giving donations had overwhelming support in the survey. 32 percent said that they would be very likely to donate, and 55 percent said that they were possibly likely to donate depending on proposed improvements.

People were wary of donations being stolen if a donation box were implemented, but perhaps posting on the bulletin boards an online location to donate would be a good way of collecting donations, or even holding special events once in a while to make improvements. People were especially interested in donating to specific projects for specific dog parks knowing that their donation is going to an area they use. The county could make an event out of it, doing a dog costume contest in Halloween, or other fun events.



### Appendix A Off-Leash Dog Area History

#### Ramsey County Parks and Recreation Department Off-Leash Dog Area Pilot Program January 8, 1997

##### Summary

There are several areas throughout the Ramsey County Parks and Recreation system where owners are illegally allowing their dogs off-leash. Recently, a group of dog owners requested that the department consider developing off-leash areas. Parks and Recreation staff have reviewed national and local trends and responses to requests for off-leash areas. Based on expressed demand, historical uses and capacity of park resources, staff recommends establishing a pilot program of two off-leash dog areas.

##### Background

As urban areas develop, owners increasingly use parks to exercise their dogs. Ordinances control dogs in parks by requiring the use of leashes and restricting areas where dogs are allowed. However, dog owners have recently become more vocal and organized against these restrictions, petitioning for increased freedom with their pets. In response, many agencies have designated spaces where dogs are allowed to exercise and socialize without being leashed.

There are several areas throughout the Ramsey County Parks and Recreation system where owners of dogs are illegally allowing dogs off leash. Staff regularly observes users at Rice Creek, Grass Lake, Battle Creek, and other parks with dogs off-leash.

Responsible Owners of Mannerly Pets (ROMP) made a presentation at the October 8, 1996 Park and Recreation Commission meeting, requesting establishment of one or more designated off-leash dog areas. ROMP cited several successful off-leash programs throughout the United States.

Current park ordinances allow for the creation of specialized off-leash areas. Chapter III, section T, Subsection 3 states: "It shall be unlawful for any person to bring a pet into an authorized area of a park unless caged or on a leash not more than six (6) feet in length, except in a designated pet exercise area."

##### Comparative analysis

###### National

Based on an Internet literature search, it appears that the development of off-leash areas is most active on the East and West coasts. This development has been in direct response to citizen's requests for areas where their dogs can exercise and socialize off-leash.

Although not a complete nationwide list, the following is a sample of off-leash areas available on the Internet:

###### San Francisco Bay Area

- Pulgas Ridge Open Space Preserve, a 290-acre site, permits dogs off-leash in a 17 acre area located inside a loop road.
- Marin County Open Space District allows dogs off-leash on fire roads.
- The East Bay Regional Park District operates about 76,000 acres, dogs may run off-leash in undeveloped areas.

#### New York City Area

- 18 neighborhood parks within the New York City area have dog runs.

#### City of Seattle

- Seattle recently established off-leash areas in seven geographically distributed city parks for a 12-month pilot program.

#### **Local**

A survey of Twin Cities agencies that operate regional parks was conducted in the fall of 1996. The following is a summary of metropolitan off-leash policies:

#### Anoka County

- No official sites, but owners run dogs off-leash in the Chain of Lakes area.

#### Carver County

- No off-leash sites.

#### Dakota County

- No off-leash sites.

#### Hennepin Parks

Hennepin Parks has three designated areas available by special permit for training and exercising pets. The sites are located at Elm Creek Park Reserve, Crow-Hassan Park Reserve, and Lake Sarah Regional Park. Sites are approximately 30 acres. The Elm Creek area is fenced; Crow-Hassan and Lake Sarah have fencing along adjacent roads.

Special use permits of \$25/year provide access to the off-leash area for the permit holder and immediate family members residing in the same household. In addition, an annual parking permit of \$25 is required. 125 special use permits were issued in 1996.

#### Minneapolis

- No off-leash sites. In 1994, a citizen's group presented a proposal for the creation of an off-leash dog area in Powderhorn Park. According to Park Board staff, the Board initially authorized staff to create the off-leash area for a one-year pilot program. However, this required amending the park ordinance to permit dogs off-leash, which apparently raised additional Board concerns about the impact of this type of activity. The proposal was not implemented.

#### St. Paul

- There is a designated "Pet Park" in a fenced area near I-94 and 6th Street in Lower Town. The area is approximately one acre, fenced, and covered with wood chips. There is no fee to use the area.

#### Washington County

- No off-leash sites. There have been requests, but Washington County has decided against providing off-leash sites.

## Proposed Pilot Program

<u>Issues</u>	<u>Literature Review</u>	<u>Battle Creek Regional Park-Lower Afton Site</u>	<u>Rice Creek Regional Trail Corridor</u>
<b>Site Characteristics</b>	<p>Off-leash areas provide an opportunity for dogs to exercise and socialize. Ideal locations for off-leash activities are areas that:</p> <ul style="list-style-type: none"> <li>• Can withstand free-running by dogs without interfering in activities in or around the area.</li> <li>• Are fenced to park boundaries, have natural boundaries, or require minimal fencing.</li> <li>• Are not associated with established recreation interests or attract high concentrations of users.</li> </ul>	<p>Battle Creek Regional Park site is located east of McKnight Road and north of Lower Afton Road. The terrain is hilly and the site contains tall grasses, shrubs, and scattered trees.</p>	<p>Rice Creek Regional Trail Corridor site is located north of Sherwood Road and west of Lexington Avenue in Shoreview. The terrain has a slight slope and the site contains tall grasses and shrubs.</p>
<b>Size, Site Layout and Design</b>	<p>The following is a general summary of ideal site areas:</p> <ul style="list-style-type: none"> <li>• The size of the area is generally less important than its location and suitability for dogs' use.</li> <li>• Generally, a "rougher" setting is more suitable than a mowed area for free running; however, owners using the area for specialized training prefer a mowed area.</li> <li>• Sites that can be both mowed in part and retain natural areas are best.</li> <li>• Paving is not recommended, but wood chips or paving can be used on paths if necessary.</li> <li>• Contour which varies adds to the appeal for dogs and plants add to the interest and diversity.</li> </ul>	<p>Both sites possess the characteristics desired in an off-leash area: a "rougher" setting, varying terrain, tall grasses, and some trees and shrubs. Each site has sufficient space to establish a 5-6 acre off-leash area and maintain the necessary buffer from existing paths and roads.</p> <p>The following changes would be made to the sites for the pilot program:</p> <ul style="list-style-type: none"> <li>• Mowed corridors would provide a transition area from trails and parking lots to the off-leash site. Dogs would be required to be leashed on this corridor until reaching the off-leash area boundary.</li> <li>• Mowed perimeter trails on the sites would help define the off-leash area boundaries.</li> <li>• Additional trails could be mowed to create a more interesting experience for dogs and their owners.</li> </ul> <p>Site drawings can be found in Appendix A.</p>	
<b>Boundaries</b>	<p>In most cases, boundaries where free-running is permitted need to be fenced. Fencing is also used where natural barriers are not available to prevent dogs from straying, being injured, or causing a traffic hazard. Finally, clearly identified boundaries are a barrier to other park users who might unknowingly wander into it.</p>	<p>The west boundary of the proposed area would be located approximately 150 feet off of McKnight Road, allowing a growth of pine trees to establish a natural boundary. Other natural boundaries include a ravine to the north and woods to the south and east.</p>	<p>The south boundary would be established approximately 300 feet from the trail corridor's border. The remaining boundaries would be at least 100 feet from any trails.</p> <p>In general, the site would be set apart from the remainder of the trail corridor by trees and tall grasses in the area.</p>
<b>Fencing</b>	<p>A four-foot-high fence will restrain most dogs and slow down others. Higher fences may be needed in some places, such as adjacent to busy public roads and neighboring residential properties.</p>	<p>Although fencing is desirable in some situations, the natural boundaries of these sites would be adequate for the pilot nature of this program.</p>	
<b>Signage</b>	<p>Two types of signage are normally used at off-leash areas: regulatory and advisory. Regulatory signage displays the rules of the facility. Advisory signs caution unsuspected</p>	<p>Signage would be required at each site. The following types of signs would be installed at each location:</p> <ul style="list-style-type: none"> <li>• One general access sign at each corridor entrance directing users to</li> </ul>	

	park users of the activity and indicate park boundaries.	the site; <ul style="list-style-type: none"> <li>• One rule sign at each entrance to the off-leash area; and,</li> <li>• Site markings to identify the off-leash area boundaries.</li> </ul> Additional signage would be posted in other park areas informing users of the designated off-leash areas as needed.
<b>Support Facilities</b>	Support facilities to consider in the establishment of off-leash areas include shelter, toilets, seating, drinking water, and parking.	Parking areas with trash containers currently exist at each site. Restrooms, water, and additional facilities are not proposed for this pilot program.
<b>Disposal of Feces</b>	<p>Users are normally required to clean up after their pets. Some agencies choose to provide bags or scoops for cleaning up, while others require users to supply their own clean-up tools. Feces is usually disposed of in trash containers; however, some disposal units are buried in the ground which permits natural decomposition back into the soil.</p> <p>Dogs are instinctually attracted to long grass for defecating. If a site contains tall grass, feces that is not in mowed areas or on paths could be left to naturally decompose.</p>	Owners would be required to supply their own clean-up tools, pick up after their pets, and dispose of feces in a designated trash container.
<b>Impact on Wildlife and Vegetation</b>	The impact on wildlife and vegetation needs to be determined for each facility. Generally, dogs will have a minimal impact on natural grasses and brush. However, an area might see a decrease ground wildlife and an impact on nesting birds.	<p>Directing pet owners to designated off-leash areas would reduce the negative impact of dogs on natural areas where illegal off-leash activity is occurring, thus resulting in positive system impact.</p> <p>No significant vegetation is present at either site.</p>
<b>Maintenance of Site</b>	Maintaining paths and parking lots, mowing, collecting trash, and other general maintenance is generally required.	<p>Each site currently has parking and limited support facilities. Increased maintenance needs would include mowing the access paths and a portion of the off-leash site, collecting trash, and general upkeep. Parking lots would be plowed in the winter; no other winter maintenance would be performed.</p> <p>Some of the increased maintenance activity could be assumed by R.O.M.P. or other organizations through the Ramsey County Park Partners program.</p>
<b>Rules</b>	<p>The following is a list of rules typically posted at a dog run area.</p> <ul style="list-style-type: none"> <li>• Dogs must be properly licensed and vaccinated.</li> <li>• Dogs must be leashed prior to entering and upon leaving the off-leash area and in transition corridors.</li> <li>• Owners must be in verbal control of their dogs at all times and prevent aggressive behavior, biting, fighting or excessive barking.</li> <li>• Owners are liable for damage or injury inflicted by their dogs.</li> <li>• Owners must have a visible leash at all times.</li> <li>• Owners must clean up and dispose of feces.</li> <li>• Dogs in heat are not allowed.</li> <li>• Owners must comply with all other park rules and regulations.</li> </ul>	Rules would be as stated on the left column.

<b>Fees/Charges</b>	Fees and charges vary. Hennepin Parks currently charges \$25 for an annual permit. Many agencies such as the Cities of Seattle and New York City require a city license only.	Ramsey County provides all existing park areas (excluding shelters, pavilions, and Long Lake Beach) free to park users. No additional fees or charges are proposed during this pilot program.
<b>Penalties and Enforcement</b>	Varies.	Ramsey County Parks and Recreation would work closely with the Ramsey County Sheriff to actively enforce the existing dog ordinance. Enforcement would include informing dog owners of the new areas and consistent ticketing of repeat offenders who illegally have their dogs off-leash in non-designated areas.

## Recommendation

Parks and Recreation staff proposes a pilot program creating two off-leash dog areas within the Ramsey County Parks and Recreation system, one at Battle Creek Regional Park and one at the Rice Creek Regional Trail Corridor. The pilot program would be initiated in early summer 1997 and run through December 31, 1998, subject to funding availability. The department reserves the right to discontinue this program at any time if it is found unacceptable.

## Cost

### Implementation

The following costs are directly associated with the development of the off-leash areas, excluding staff time:

<b>Item</b>	<b>Cost by Location</b>	
	Battle Creek	Rice Creek
Signage and Boundary Markings	\$1,500	\$1,500

### Projected Annual Operating Costs

<b>Item</b>	<b>Cost by Location</b>	
	Battle Creek	Rice Creek
Mowing and General Site Maint. (Bi-weekly, May-Oct, \$105/site)	\$1,260	\$1,260
Trash Removal (Twice per week, year round at \$9)	\$936	\$936
Winter Plowing (10 snowfalls X \$142/snowfall)	currently plowed	\$1,420
<b>Total</b>	<b>\$2,196</b>	<b>\$3,616</b>

## Monitoring and Evaluating the Program

This program would have a baseline study prior to opening to estimate current use at each site. The sites would be monitored throughout the program to record number of users. Users would also be asked to complete evaluations periodically throughout the program.

All information would be reviewed at the conclusion of the program and a decision to discontinue, continue as is, or expand the program would be made at that time.

## Ramsey County Parks and Recreation Department Off-Leash Dog Area Pilot Program Summary February 5, 1999

### BACKGROUND

A citizens' group, Responsible Owners of Mannerly Pets (ROMP), made a presentation at the October 8, 1996, Ramsey County Parks and Recreation Commission meeting requesting establishment of one or more designated off-leash dog areas within the park system. ROMP cited several successful off-leash programs throughout the United States.

Ramsey County Parks and Recreation staff reviewed both local and national response to citizen requests for off-leash areas. On January 11, the Parks and Recreation Commission endorsed a staff proposal to establish two off-leash areas for a pilot program beginning June 27, 1997 and running through December 31, 1998.

The off-leash areas were located at Rice Creek Regional Trail Corridor in Shoreview and the Lower Afton area of Battle Creek Regional Park in Maplewood. The areas were not associated with established recreation areas, one of the criteria in site selection. The Rice Creek site was approximately five acres; Battle Creek was approximately 4 acres. Mowed corridors (where pets are required to be leashed) provided transition areas from trails and parking lots. Mowed perimeter trails and signage defined the off-leash area boundaries.

The creation of the sites was not part of the department's 1997 operating budget. In recognition of the cooperative effort between the department and the citizens' group, ROMP provided a donation of \$3,000 for the signage and boundary markings. The department provided staff time and equipment to prepare the sites.

### PROGRAM SUMMARY

Ramsey County's pilot off-leash dog area program concluded on December 31, 1998. The proposal to establish the pilot program indicated that an evaluation of the program would be conducted at its conclusion. This evaluation would determine the future direction of the program, which included discontinuing the program, continuing as is or expanding the program.

In order to effectively evaluate the program and determine the future direction, seven evaluation criteria were established:

1. Number of users;
2. Public comments;
3. Natural resource impact;
4. Reduction of illegal activity in other park areas;
5. Expenses associated with the program; and,
6. Off-leash activity occurring in other agencies.

#### Number of Users

Two methods of monitoring were used to determine the number of users: staff counts and a ROMP sign-in book. However, since department staff is not typically in the park system continuously throughout the day, exact use numbers are not available. The following represents an estimation of use:

##### a. Staff Counts

Prior to opening the off-leash areas, some off-leash use was observed by staff, although usually not in designated sites. Throughout program: Use would depend on day and time visited. Use was most prevalent during the late afternoon/early evening on weekdays, and Saturday and Sunday throughout the day. Staff



most frequently observed 5-10 human users.

b. Romp Sign-In Book Examples (1998) for Battle Creek

Dates	Number of Users
February 13 - February 19	95
April 11 - April 17	211
June 11 - June 17	196
August 11 - August 17	188
October 11 - October 17	196

(ROMP estimates number under-reported by approximately 30%.)

## Public Comments

Public comments on the program were received in a variety of methods, including letters, e-mail, web site comments, and phone calls. In addition, the department held a community meeting on Tuesday, January 12, 1999, before the Ramsey County Parks and Recreation Commission to receive comments on the program. Eighty-one members of the community attended the meeting.

a. **In Support of the Program**

- 14 e-mail comments
- 31 telephone calls
- 7 letters
- 127 comment cards

b. **Concerns About the Program**

- Three calls received regarding a perceived increase in illegal off-leash activity near sites.
- One call reporting owner's dog being attacked by stray dog.
- One call reporting injured dog. Owner originally thought injury was caused by a trap, but no traps were found.

c. **Community Meeting**

Members of the community who attended the meeting were asked to respond to four questions. Comments were summarized as follows:

***Should Ramsey County provide off-leash dog areas?***

There was unanimous consent that Ramsey County should provide off-leash dog areas. Individuals cited several positive outcomes of the off-leash dog areas in support of their position, including:

- Off-leash dog areas help build community by bringing together individuals of varying interests, abilities and ages.
- Off-leash dog areas help keep dogs and people active by getting out of their homes and into the parks.
- Dogs have an important role in families and the off-leash areas provide a positive focus for families.
- Off-leash activity is a valid recreation use of parkland.

***How well did the pilot off-leash dog areas function?***

Individuals were generally satisfied with the pilot program sites. However, they frequently suggested changes that would enhance the sites. Comments included:

- The pilot program sites provided common meeting space for dogs and their owners.
- Dogs had the opportunity to socialize with people, other than their owners, meeting strangers and learning tolerance and manners.
- People followed the rules, cleaned up after their dogs, supervised and controlled their dogs and even extended themselves beyond baseline responsibility.

*What were the positive aspects of the off-leash dog areas in the pilot program and what changes would you recommend?*

#### **Positive Aspects**

- Dogs could run free of the usual hindrances without breaking the law.
- Increased health, longevity and well-being for people and dogs.
- Off-leash recreation benefits the dogs, their owners and the general public.
- Sites are used throughout all seasons of the year.

#### **Recommended Changes**

- Add more sites.
- Increase the size of the sites to 10-20 acres.
- Add more trash receptacles.
- Install fencing.
- Consider lighting for winter use.
- Allow dogs off leash on entry paths.
- Consider inner-city locations.
- Provide "clean" water for dog swimming and cooling-off.
- Provide people facilities, including restrooms and drinking water.

*In your opinion, what are the desirable elements of an ideal off-leash dog area?*

- Clean water for dogs' use.
- Drinking water for people.
- Restroom facilities.
- Variety of terrain.
- Safe, convenient parking.
- Fencing.
- Safety from traffic.
- Trash receptacles.
- Sites with 10-20 acres.
- Inner-city location.
- Lighting for winter use.
- Adequate signage to inform users and non-users of the areas and the associated rules.

#### **Additional comments:**

- Consider time-share areas such as waterfronts and trails.
- Consider use fees to provide off-leash dog areas.

#### **Natural Resource Impact**

The department's Natural Resource Specialist conducted an evaluation of the impact off-leash dog areas have on the natural resources associated with the pilot program sites:

- No apparent impact on vegetation or larger wildlife species.
- Some impact on nesting birds is possible.
- Would not recommend using wooded areas due to potential for increased erosion and greater impact on wildlife.

### Reduction of Illegal Activity in Other Park Areas

The department attempted to determine the effect the off-leash dog areas had on reducing illegal off-leash activity in other park areas. Generally, enforcing illegal off-leash activity is a low priority for law enforcement. Therefore, data is difficult to obtain. The Ramsey County Sheriff Lakes and Trails Unit indicates no perceived difference. In addition, the City of Maplewood indicates that the areas have had little impact, either positive or negative, primarily due to lack of knowledge of the sites.

### Expenses Associated With the Program

- Rule and Directional Signage: \$550 per site
- Boundary Markings: \$425 per site
- Temporary Fencing (Battle Creek only): \$650
- Minimal operating costs. (Bi-weekly trash removal, occasional mowing, occasional snow compaction with groomer.)
- Materials provided by donation made on behalf of ROMP.
- Department provided all labor.

### Off-Leash Activity Occurring in Other Metropolitan Agencies

#### Anoka County

- Occasional requests from the public, primarily received by operations staff.
- Discussed concept internally and identified one possible site (Rum River Central) when park undergoes redevelopment in 2-4 years.
- Park users generally disregard current ordinance due to limited enforcement.

#### City of Bloomington

- Task force established to consider issue.
- Preliminary findings indicate two one-acre sites in city parks.
- Early summer implementation.

#### Dakota County

- Department has received informal requests from the public.
- Discussed internally, but no current plans.
- Expect to consider issue in 1999.

#### Hennepin Parks

- Currently has three sites in operation, each approximately 30 acres in size located in the outer tier areas of the county. No planned modifications to current sites.
- Special use permit (\$25) required for use of any site.
- Some discussion to add a site in one Southern Division park, but no site selected.

#### City of Minneapolis

- Citizens Advisory Committee established to study issue.
- Recommended that the City and Park Board establish a minimum of six to ten initial sites throughout Minneapolis that will be operational within the next 12-18 months.

Suggested one site per park district, with additional sites placed in areas of identified need.

#### City of St. Paul

- One small area (<1 acre) near Mears Park to accommodate condominium residents.
- Internal discussion, but no formal discussion at the Park Commission level.
- Mayor's Office has received complaints regarding leash laws, primarily after being cited for illegal off-leash activity.

#### Washington County

- No formal request from park users, except for ski touring and dog sledding.
- Have identified a potential area in Lake Elmo Park Reserve, but without expressed need, will not move concept forward.

## FUTURE DIRECTION

Ramsey County Parks and Recreation Department has determined that the two off-leash pilot areas were successful. In order to implement the complete program, the department will develop an administrative policy on off-leash areas. The administrative policy will:

- Identify the characteristics, amenities, and operation of Ramsey County's off-leash areas.
- Define the number and general geographical location of the site(s) in the Ramsey County park system.
- Establish a process for reviewing and evaluating sites.

The pilot program sites will remain in operation as established in the pilot program until the administrative policy is developed and implemented. These sites will then be subject to review based on the criteria established in the administrative policy.

# Ramsey County Parks and Recreation Department Off-Leash Dog Area Administrative Policy April 13, 1999

## Background

A citizens' group, Responsible Owners of Mannerly Pets (ROMP), made a presentation at the October 8, 1996, Ramsey County Parks and Recreation Commission meeting requesting establishment of one or more designated off-leash dog areas within the park system. ROMP cited several successful off-leash programs throughout the United States. Ramsey County Park Ordinance Chapter 3, Section T requires pets to be caged or on a leash not more than six (6) feet in length, except in a designated pet exercise or training area.

Ramsey County Parks and Recreation staff reviewed both local and national response to citizen requests for off-leash areas. On January 11, 1997, the Parks and Recreation Commission endorsed a staff proposal to establish two off-leash areas for a pilot program beginning June 27, 1997 and running through December 31, 1998.

Upon conclusion of the pilot program, it was evaluated based on six criteria:

1. Number of users;
2. Public comments;
3. Natural resource impact;
4. Reduction of illegal activity in other park areas;
5. Expenses associated with the program; and,
6. Off-leash activity occurring in other agencies.

Results of the pilot program found that the provision of off-leash dog exercise areas are a legitimate recreational program that can be accommodated at carefully selected sites within the County park system. The following administrative policy defines the number and general geographical location of the site(s) in the Ramsey County park system; identifies the characteristics, amenities, and operation of Ramsey County's off-leash areas; discusses accessibility goals; and establishes a process for reviewing, evaluating, and selecting sites.

## POLICY

**The Ramsey County Parks and Recreation Department will endeavor to provide off-leash dog exercise areas that serve multiple communities within the County. Off-leash dog exercise areas will be separate from any current or planned recreational use areas.**

The following additional general guidelines will apply:

- Attempts will be made to locate an off-leash area within a twenty-minute drive of any residence in the county. However, it is recognized that Ramsey County does not own parkland in the south and west portions of the City of St. Paul. Accordingly, the City of St. Paul will be encouraged to provide these regional facilities.
- County off-leash areas will be geographically located to compliment "close to home" municipal areas.
- Sites will be designated in areas that will have minimal impact to significant natural resources. Proposed sites will be evaluated by the County's Natural Resource Specialist for potential impact.
- Up to four sites will be established in the Ramsey County Park System.
- Sites must be consistent with municipal zoning and/or park master plans.

## Site Characteristics

### A. Size

Sites will be approximately ten acres, including buffer zones.

### B. Buffer Zones

Where feasible, sites will include a 100' buffer zone around their perimeter to avoid conflict with other park users or adjacent land uses. Improvements within the buffer zone will be limited to perpendicular access trails. Off-leash dogs will be allowed in the buffer zone at the discretion of their owners.

### C. Perimeter Markings

The boundary of each site will be delineated with Carsonite type markings located at 100' intervals around the perimeter. Each Carsonite marking will have a decal applied to both sides indicating the boundary of an off-leash dog area.

### D. Fencing

Where a 100' buffer zone is feasible, fencing will not be installed. However, if a 100' buffer zone is not feasible due to specific site characteristics or proximity to other recreational use areas, a fence will be considered, subject to funding availability.

### E. Signage

Rules signs will be posted at each entrance to the off-leash area. Directional signs may be placed at parking areas or trail entrances where necessary to direct users to the off-leash areas.

### F. Water Access for Dog Use

Access to water for dog use will be a high priority in selecting off-leash sites. Where suitable water resources do not exist within an off-leash site, auxiliary water access sites may be considered in areas adjacent to off-leash sites. Water access for dogs at other park use areas (such as swimming areas, boat access sites, etc.) will not be permitted.

## Support Facilities

### A. Parking

A minimum of ten vehicular parking spaces will be provided at each off-leash area. In areas where multiple activities exist (such as trail use), additional parking will be provided where feasible.

### B. Drinking Water (Potable)

Potable water will not be provided for the off-leash sites, unless currently provided.

### C. Restroom Facilities

Restroom facilities will be provided in close proximity to off-leash areas. In most cases, these will be portable facilities.

### D. Trash Receptacles



Trash receptacles and removal service will be provided at each entrance point. Additional trash receptacles may be placed in parking areas or where deemed necessary.

#### E. Picnic Tables/Benches

Picnic tables and/or benches will be provided in each off-leash area.

#### Disabled Access

Priority will be given to sites that can accommodate access for individuals with disabilities. At least one site within the system will include an accessible trail from the parking lot to the interior of the site. At other sites where access is limited, the County will work with users to improve accessibility.

#### Use Policies

The following use policies will apply:

- Dogs must be properly licensed and vaccinated.
- Dogs must be leashed prior to entering and upon leaving the off-leash area and in transition corridors.
- Owners must be in verbal control of their dogs at all times and prevent aggressive behavior, biting, fighting or excessive barking.
- Owners are liable for damage or injury inflicted by their dogs.
- Owners must have a visible leash at all times.
- Owners must clean up and dispose of feces.
- Dogs in heat are not allowed.
- Owners must comply with all other park rules and regulations.

Fees will not be charged for the use of the off-leash areas.

#### Review, Evaluation, and Site Selection

The implementation of this administrative policy will begin a process for reviewing, evaluating, and selecting sites. This process will involve five steps:

1. County staff will identify candidate sites that meet the criteria outlined in this policy.
2. A planning team comprised of four off-leash dog area users and County staff will review candidate sites, including on-site visits.
3. County staff will identify expenses associated with establishing and maintaining each site. Staff and users will work together to explore possible funding sources for development and ongoing maintenance.
4. County staff will develop a timeline for establishing each site.
5. County staff and users will work to establish each site.

The Ramsey County Parks and Recreation Department will monitor the criteria and sites established under this policy. It reserves the right to modify the policy and/or sites to maintain park resources, address public health and safety issues, or to meet changing use patterns.

4/16/99

## Ramsey County Parks and Recreation Department

### Off-Leash Dog Area Program Implementation

March 14, 2000

#### Background

A citizens' group, Responsible Owners of Mannerly Pets (ROMP), made a presentation at the October 8, 1996, Ramsey County Parks and Recreation Commission meeting requesting establishment of one or more designated off-leash dog areas within the park system. ROMP cited several successful off-leash programs throughout the United States. Ramsey County Park Ordinance Chapter 3, Section T requires pets to be caged or on a leash not more than six (6) feet in length, except in a designated pet exercise or training area.

Ramsey County Parks and Recreation staff reviewed both local and national response to citizen requests for off-leash areas. On January 11, 1997, the Parks and Recreation Commission endorsed a staff proposal to establish two off-leash areas for a pilot program beginning June 27, 1997 and running through December 31, 1998.

The pilot program was evaluated based on six criteria:

1. Number of users;
2. Public comments;
3. Natural resource impact;
4. Reduction of illegal activity in other park areas;
5. Expenses associated with the program; and,
6. Off-leash activity occurring in other agencies.

Results of the pilot program found that the provision of off-leash dog exercise areas is a legitimate recreational program that can be accommodated at carefully selected sites within the County park system. The Off-Leash Dog Area Administrative Policy was developed, which established criteria for the program, including:

- The number and general geographical location of the site(s) in the Ramsey County park system;
- The characteristics, amenities, and operation of Ramsey County's off-leash areas;
- Accessibility goals; and,
- A process for reviewing, evaluating, and selecting sites.

#### Site Review Summary

In August of 1999, a site review team was formed to examine possible changes to the pilot program sites, and considered additional sites for program expansion. The site review team members were off-leash users who resided in different geographic regions of the County, as well as a Parks and Recreation Commission liaison and department representatives:

- Roseanne Carbone, St. Paul
- Barb Heideman, Falcon Heights
- Rose Quaday, Shoreview
- Laura Jean Rathmann, St. Paul
- Deb Schneider, White Bear Lake
- Philip Jenni, St. Paul (Park and Recreation Commission Liaison)

- Larry Holmberg, Ramsey County Parks and Recreation Department
- Greg Mack, Ramsey County Parks and Recreation Department
- Bill Schnieder, Ramsey County Parks and Recreation Department
- Mark Themig, Ramsey County Parks and Recreation Department

The review team examined six sites to determine how each site would meet the criteria established in the Administrative Policy. The following are the results of the review:

Site	Summary of Review	Summary of Findings
Battle Creek Regional Park, Maplewood  (Pilot Program Site)	Reviewed site for possible expansion to north to increase size and permit access to water.	Existing site meets criteria and expansion will better serve increasing use. Expansion will also provide access to water for dog use.  <i>Expansion of site to north is recommended.</i>
Woodview - Reservoir Woods Open Space,  Roseville	Reviewed both the Woodview Open Space (operated by Ramsey County) and the Reservoir Woods Open Space (operated by the City of Roseville) for possible location of additional off-leash area.	Reservoir Woods: Roseville's master plan for this site will not accommodate off-leash activity.  Woodview: Site meets criteria and serves population in the center of the County. Potential for accessible area at site.  <i>Creation of site at Woodview Open Space is recommended.</i>
Bald Eagle-Otter Lakes Regional Park,  White Bear Township	Two sites were reviewed for possible creation of off-leash area: Bald Eagle segment and Otter Lake segment.	Bald Eagle Segment: Site lacks close parking. Master plan indicates trail development, which may interfere with off-leash use.  Otter Lake Segment: Site meets criteria, has existing parking, and a variety of terrain and vegetation.  <i>Creation of site at Otter Lake is recommended.</i>
Rice Creek Regional Trail Corridor, Shoreview	Site was reviewed for possible dog access to Rice Creek.	Water access would be separate from existing facility, require extensive fencing, and provide limited access area.  <i>Providing access to water at Rice Creek is not recommended. Minor expansion of existing site is recommended.</i>
Vadnais-Snail Lakes Regional Park, Shoreview	Two sites were reviewed for possible water access: north side of	Sites do not meet criteria. North side has extensive vegetation along

	Snail Lake and south side of Snail Lake.	shoreline. South side has limited space and is adjacent to active recreation areas.  <i>Providing water access is not recommended at either site.</i>
Island Lake County Park, Shoreview	Site was reviewed for possible water access to Island Lake.	Site does not meet criteria. Vegetation is extensive along shoreline and site size is limited.  <i>Providing water access is not recommended at this site.</i>

### Proposed Action

The following outlines proposed action. However, implementation of any of these steps depends on the availability of funding.

1. Expand the Battle Creek site north to provide water access.\*
2. Create an additional off-leash site at Otter Lake.\*
3. Realign parking lot and conduct minor expansion at Rice Creek.\*
4. Create site at Woodview Open Space with additional accessible area.\*
5. Continue to research and attempt to identify additional water access areas.

(\*Details on proposed action follow.)

### Funding

Funds have not been allocated in the department's operating budget for this program. In order to implement the program, funding sources will need to be explored. As with other elements of the off-leash efforts, a partnership with the off-leash area users to explore funding will facilitate implementation of the program. Three possible funding opportunities have been identified:

#### 1. Corporate Sponsorship and/or Grants

Funding may be available from corporations such as pet food suppliers, veterinarian suppliers, granting agencies, etc. If these types of sources are identified, it might be more beneficial to have off-leash users apply for any funding, rather than the County.

#### 2. User Donations

Donations were received for the creation of the pilot program. Additional funds could be solicited from users to continue development.

#### 3. User fees

The concept of user fees could be explored. Although fees are charged for special use areas such as picnic shelters and pavilions, fees are not charged for general park use. In addition to developing fee policies and procedures, the issue of enforcement would need to be considered in greater detail.

## Battle Creek Regional Park

## Off-Leash Dog Area

### Summary

- This pilot program site was evaluated for its current use, as well as possible expansion.
- Due to increased publicity and proximity to St. Paul, use at this site has grown considerably over the past three years.
- User comments have indicated a desire for increased space, as well as access to water for dog use that is currently out of the site boundaries.
- Many users have expressed concern regarding McKnight Road. Fencing should be installed along McKnight.

### Proposed Action

- Extend off-leash border north to provide access to pond.
- Relocate existing boundary markings to accurately reflect off-leash border.
- Relocate trail away from small pond to reduce erosion.
- Install crossing or bridge at deep culvert.
- Re-route trail around second culvert.
- Maintain existing circular trail.
- Install fencing along McKnight from southern border of area to north of pond.
- Install gate at McKnight entrance.

### Potential Future Action

- Create new access to the off-leash area from the new Upper Afton parking lot.
- Install bulletin board at picnic table.
- Improve turf in high use areas.

### Timeline

- Spring 2000, pending available funding.

### Application of Administrative Policy

Characteristic	Policy Goal	Review Team Findings	Estimated Costs
Size	Sites should be approximately 10 acres.	Expansion of the site to the north would create an additional 4.5 acres, creating a total off-leash area of 10.9 acres.	
Buffer Zones	100' buffer zone should be established around perimeter to avoid conflict with other park users or adjacent land uses.	Buffer zone could be established throughout the majority of the site. However, the perimeter may come close to a trail running along McKnight.	

Perimeter Markings	Carsonite markings with labels placed every 100'. Estimated pricing per marking (with labels on front and back) is \$17.25.	Perimeter is approximately 4,000'. Approximately 30 markings exist. Additional 10 markings would be needed.	\$170.25
Fencing	Where 100' buffer zone is not feasible, fencing may be considered to buffer use areas. Estimated pricing on "hog wire" type fencing (installed) is \$3.50/linear ft. Double gates run approximately \$400.	Fencing along McKnight should be considered. Pilot program users have expressed concern about the proximity of the site to McKnight. Approximately 1275 feet of fencing would be required.	Fencing = \$4,500 Double Gate = \$400
Signage	Rules signs will be posted at each entrance to the off-leash area. Directional signs may be posted where necessary. Estimated sign pricing is \$250 for rules signs, \$100 for directional signs.	Two rule signs exist. A third rule sign and directional sign may be required if an official access is created to the north.	\$350
Water Access for Dogs	Access to water for dog use will be a high priority.	Expansion of the site will provide water access to small pond on north end of site.	
Parking	A minimum of 10 vehicular parking spaces will be provided.	Ample parking exists at the Lower Afton lot. Additional parking exists at Upper Afton.	
Drinking Water	Potable water will not be provided, unless in place.	Drinking water available at picnic pavilion.	
Restroom Facilities	Restroom facilities will be provided in close proximity to the off-leash areas. In most cases, these will be portable facilities.	Portable restroom currently being provided at the Lower Afton parking lot.	\$55/month
Trash Receptacles	Trash receptacles and removal service will be provided at each entrance point. Additional receptacles will be provided where necessary.	Two receptacles are in place. If access is created from the north (Upper Afton Lot), an additional receptacle may be required.	
Picnic Tables/Benches	A picnic table or bench will be provided for each off-leash area.	One picnic table in use. No additional tables proposed.	
Accessibility	Priority will be given to sites that can accommodate access for individuals with disabilities. At least one site in the system will include an accessible trail from the parking lot to the interior of the site.	Developing an official trail link to Upper Afton parking lot could provide accessibility to site. However, making entire site accessible would be difficult due to terrain.	

## Woodview Open Space

## Off-Leash Dog Area

### Summary

- This possible expansion site was identified because it could serve the population in the center of the county.
- It is a large open space site that is currently underutilized. The primary use area would be an area that was previously used as garden plots. However, this site may not be useable during wet period.



An additional 1.2 acre area could be made accessible but would need to be fenced.

- Parking does not exist on the site. However, future plans include a parking lot and trail access to the Reservoir Woods area. Fencing may be needed along trail segment.
- Larpenteur Avenue is a busy street and fencing may be necessary on the roadside perimeter.
- There is no water access.

## Proposed Action

- Create site with primary access off of Larpenteur Avenue.
- Trail/path route would need to be determined and cleared.
- Create additional accessible fenced site.

## Timeline

- Summer 2000, pending available funding.

## Application of Administrative Policy

Characteristic	Policy Goal	Review Team Findings	Estimated Costs
Size	Sites should be approximately 10 acres.	Initial boundaries indicate that the primary site would be 8 acres, with an additional 1.2 acre accessible area.	
Buffer Zones	100' buffer zone should be established around perimeter to avoid conflict with other park users or adjacent land uses.	No existing uses. However, future trail and parking lot would require fencing in some areas.	
Perimeter Markings	Carsonite markings with labels placed every 100'. Estimated pricing per marking (with labels on front and back) is \$17.25.	Perimeter is approximately 2,500'. Approximately 25 markings would be needed.	\$431.25
Fencing	Where 100' buffer zone is not feasible, fencing may be considered to buffer use areas. Estimated pricing on "hog wire" type fencing (installed) is \$3.50/linear ft. Double gates run approximately \$400.	<ul style="list-style-type: none"> <li>• Fencing along Larpenteur should be considered (900').</li> <li>• Additional fencing along trail may be needed (770').</li> <li>• Entire accessible site would need fencing (900').</li> </ul>	<ul style="list-style-type: none"> <li>• Fencing along Larpenteur = \$3,150</li> <li>• Fencing along trail = \$2,695</li> <li>• Accessible area fencing = \$3,150</li> <li>• Double Gates (2) = \$800</li> </ul>
Signage	Rules signs will be posted at each entrance to	Two rule signs would need to be installed.	\$500

	the off-leash area. Directional signs may be posted where necessary. Estimated sign pricing is \$250 for rules signs, \$100 for directional signs.		
Water Access for Dogs	Access to water for dog use will be a high priority.	No water access available.	
Parking	A minimum of 10 vehicular parking spaces will be provided.	Construction of 20-car parking lot is planned for 2000 and funded by the City of Roseville.	
Drinking Water	Potable water will not be provided, unless in place.	No drinking water.	
Restroom Facilities	Restroom facilities will be provided in close proximity to the off-leash areas. In most cases, these will be portable facilities.	Portable restrooms would be provided.	\$55/month
Trash Receptacles	Trash receptacles and removal service will be provided at each entrance point. Additional receptacles will be provided where necessary.	Trash receptacles would be provided at each entrance.	
Picnic Tables/Benches	A picnic table or bench will be provided for each off-leash area.	One picnic table would be provided.	
Accessibility	Priority will be given to sites that can accommodate access for individuals with disabilities. At least one site in the system will include an accessible trail from the parking lot to the interior of the site.	Potential for creation of smaller accessible area with paved trail access. Due to proximity of parking lot and trail, fencing would be needed.	Cost of paved trails (to be determined).

## Bald Eagle/Otter Lakes Regional Park

### Off-Leash Dog Area

#### Summary

- This possible expansion site was identified because it could serve residents in the northeastern part of the County. The site is a large open space area that is not established for other types of recreational use. It is relatively flat, with both wooded and open areas.
- Although much of the site is adjacent to Otter Lake, weeds would limit water access to only the boat launch area. It is thought that this would not conflict with boaters because the launch has relatively low use.
- Existing parking is available.
- Fencing along Otter Lake Road may need to be considered.

#### Proposed Action

- Create site with access from the parking lot south of the boat launch.
- Boat launch area could provide water access.
- Area along Otter Lake Road may need fencing.

#### Timeline

- Spring, 2000

## Application of Administrative Policy

Characteristic	Policy Goal	Review Team Findings	Estimated Costs
Size	Sites should be approximately 10 acres.	Initial boundaries locations indicate that the site would be 12.3 acres.	
Buffer Zones	100' buffer zone should be established around perimeter to avoid conflict with other park users or adjacent land uses.	The only existing use is boat launch parking and unofficial walking trails. Throughout the majority of the site, a buffer zone could be established. However, additional signage may be needed in the boat launch area if water access is permitted.	
Perimeter Markings	Carsonite markings with labels placed every 100'. Estimated pricing per marking (with labels on front and back) is \$17.25.	Perimeter is approximately 3,568'. Approximately 35 markings would be needed.	\$603.75
Fencing	Where 100' buffer zone is not feasible, fencing may be considered to buffer use areas. Estimated pricing on "hog wire" type fencing (installed) is \$3.50/linear ft. Double gates run approximately \$400.	Fencing along Otter Lake Road may need to be considered. Approximately 1,111 feet of fencing would be required.	\$3,900
Signage	Rules signs will be posted at each entrance to the off-leash area. Directional signs may be posted where necessary. Estimated sign pricing is \$250 for rules signs, \$100 for directional signs.	One rule sign would need to be installed	\$250
Water Access for Dogs	Access to water for dog use will be a high priority.	Water access is available at the boat launch. Weeds prohibit access at other points.	
Parking	A minimum of 10 vehicular parking spaces will be provided.	The current parking lot can accommodate users.	
Drinking Water	Potable water will not be provided, unless in place.	No drinking water.	
Restroom Facilities	Restroom facilities will be provided in close proximity to the off-leash areas. In most cases, these will be portable facilities.	Portable restrooms would be provided.	\$55/month
Trash Receptacles	Trash receptacles and removal service will be provided at each entrance point. Additional receptacles will be provided where necessary.	Trash receptacles would be provided at the entrance.	
Picnic Tables/Benches	A picnic table or bench will be provided for each off-leash area.	One picnic table would be provided.	
Accessibility	Priority will be given to sites that can accommodate access for individuals with disabilities. At least one site in the system will include an accessible trail from the parking lot to the interior of the site.	Accessibility to site is possible, but gravel lot would make accessibility difficult. In addition, terrain limits accessibility in the site.	

## Rice Creek Trail Corridor

### Off-Leash Dog Area

#### Summary

- This pilot program site was evaluated for its current use, as well as possible access to Rice Creek on the east side of Lexington Avenue. However, the shoreline, vegetation, and distance from the existing parking lot do not make this option feasible. A small pond is used by some dogs, although the water level drops in late summer.
- Parking is available, but the popularity of the site has exceeded the lot's capacity. A realignment of the existing site is needed to create additional spaces.
- Expansion of the site to include the wooded area will provide better access and a variety of vegetation.

#### Proposed Action

- Expand the northern boundary to include the wooded area.
- Relocate the access trail to reduce erosion around pond.
- Realign the parking lot to increase the number of parking spaces.

#### Future Action

- Construction of new entrance road and paved parking lot.

#### Timeline

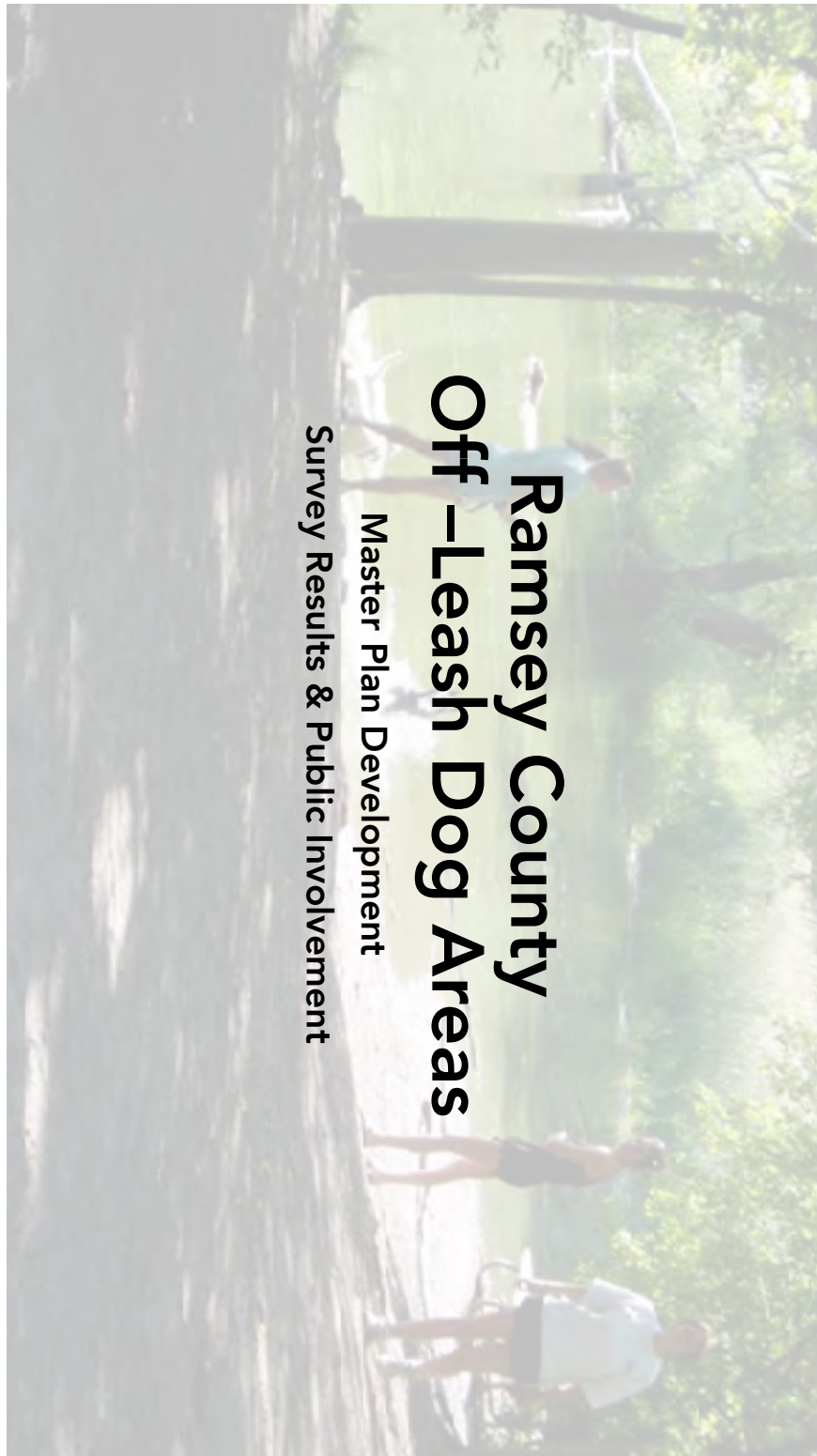
- Spring, 2000

#### Application of Administrative Policy

Characteristic	Policy Goal	Review Team Findings	Estimated Costs
Size	Sites should be approximately 10 acres.	Minor expansion of this site would result in approximately 14.8 acres.	
Buffer Zones	100' buffer zone should be established around perimeter to avoid conflict with other park users or adjacent land uses.	Appropriate buffer zones currently exist, and could also be incorporated when relocating the buffer zone.	
Perimeter Markings	Carsonite markings with labels placed every 100'. Estimated pricing per marking (with labels on front and back) is \$17.25.	Perimeter is approximately 3,253'. Approximately 20 markings exist. An additional 13 markings would be needed.	\$224.25

Fencing	Where 100' buffer zone is not feasible, fencing may be considered to buffer use areas. Estimated pricing on "hog wire" type fencing (installed) is \$3.50/linear ft. Double gates run approximately \$400.	Not required at this site.	
Signage	Rules signs will be posted at each entrance to the off-leash area. Directional signs may be posted where necessary. Estimated sign pricing is \$250 for rules signs, \$100 for directional signs.	Two rule signs exist. No additional signs required.	
Water Access for Dogs	Access to water for dog use will be a high priority.	Water access is available at the pond. No other water access will be provided.	
Parking	A minimum of 10 vehicular parking spaces will be provided.	14 parking spaces exist, but it is not adequate capacity. Realignment of the existing lot would result in 24 total spaces. Master plan for the Regional Trail Corridor calls for removal of existing parking lot and creation of 30-carpaved lot with access road, funded through regional park funds.	\$1,000
Drinking Water	Potable water will not be provided, unless in place.	No drinking water.	
Restroom Facilities	Restroom facilities will be provided in close proximity to the off-leash areas. In most cases, these will be portable facilities.	Portable restroom would be provided.	\$55/month
Trash Receptacles	Trash receptacles and removal service will be provided at each entrance point. Additional receptacles will be provided where necessary.	Trash receptacles are located at the parking lot.	
Picnic Tables/Benches	A picnic table or bench will be provided for each off-leash area.	One picnic table is provided.	
Accessibility	Priority will be given to sites that can accommodate access for individuals with disabilities. At least one site in the system will include an accessible trail from the parking lot to the interior of the site.	Long-term plans include installation of paved parking lot that could provide accessibility in the future.	

## Appendix B Ramsey County Parks & Recreation department Public Engagement Presentation





## Master Plan Meeting Schedule

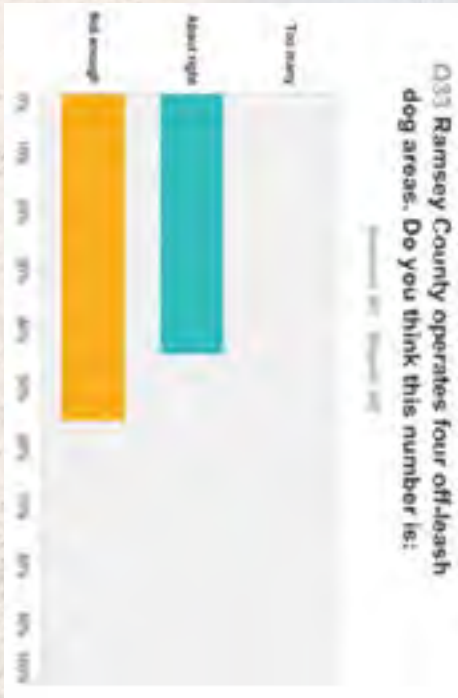
- 5:30 Introduction & Short Presentation Appx. 10-15 Min.
- 5:45 Break into Groups for Diagramming Exercise Appx. 45 Min.
- 6:30 Re-Convene for Question & Answer Appx. 30 Min.

## Master Plan Overview

- Master Plan: overarching document that sets standards and guidelines across the system as a whole
- Look at Dog Parks as a whole system, not just one park
- Important Consistent Program Elements to be Included
- Important Consistent Site Amenities to be Included
- Access: Do we have enough parks in the System
- Rules: Are we where we need to be, do we need to modify?
- Maintenance Program
- Volunteer Program
- Where Would Additional Off Leash Dog Areas Make Sense?

# Do We Need More Off Leash Dog Areas In Our System

- Average Drive Time Maps
- People Overwhelmingly Drive to the Park, Greater Than 95%
- Average of 35 MPH

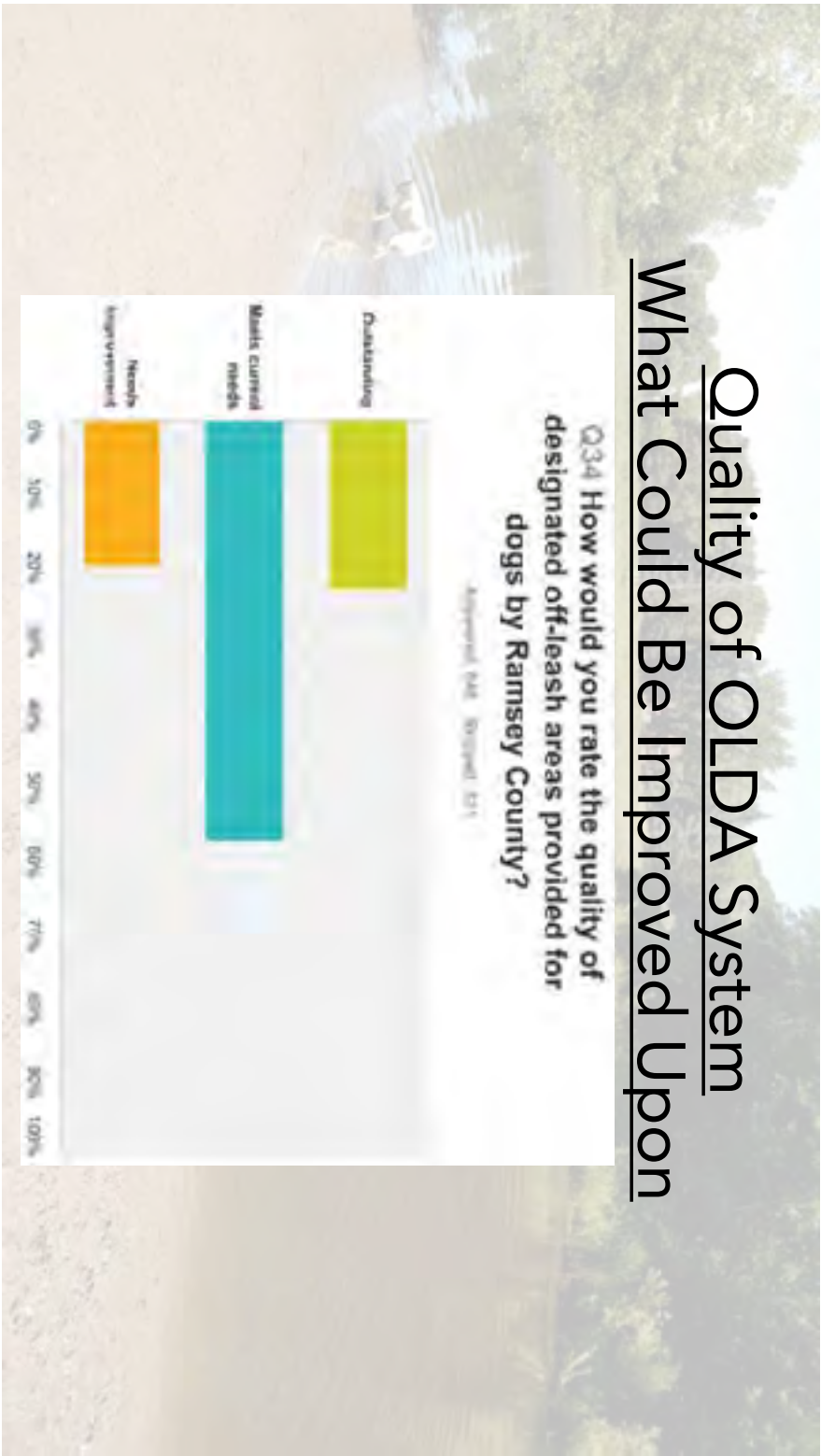




How Long Does it Take to Travel to  
Ramsey County OLDA Parks

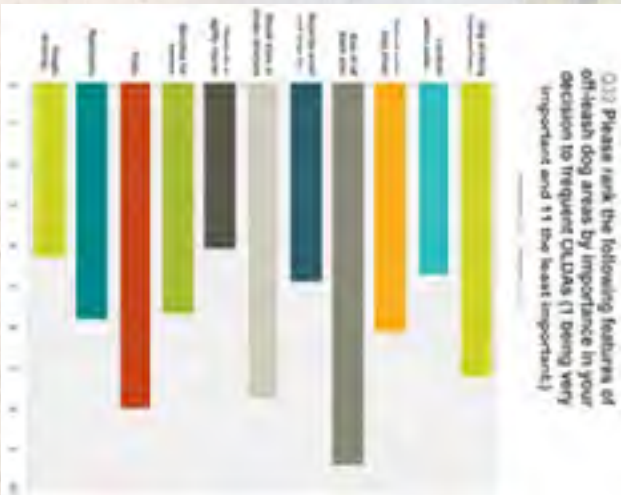
Battle Creek    Otter Lake    Rice Creek    Woodview





## Quality of OLDA System What Could Be Improved Upon

- Top 4 Features/Amenities
  1. Size
  2. Paths
  3. Shade
  4. Drinking Fountains
- Followed by
  - Natural Water Play Area
  - Restrooms
  - Benches
  - Separate Small And Large Dog Area
- Other Ideas?





### Visual Example Survey



#### • Paths

- Aggregate Surface
- Bituminous
- Wood Chips
- Other?

Visual Example Survey



- Shade
  - Elaborate
  - Sails
  - Trees
  - Combine with Benches/Tables etc.



### Visual Example Survey



- Drinking Fountains
  - Dog Only
  - Multi-Species





## Visual Example Survey



- Water Play
  - Natural
  - Man Made
  - Combination

Visual Example Survey



• Restrooms

- Central Piece with Shade, Benches/tables
- Stand Alone
- In Park
- At Trailhead/Parking Lot



# Visual Example Survey



- Other Amenities or Features
  - Separate Small and Large Dog Areas
  - Agility Course
  - Others?





## Dog Park Rules

- Existing Rules
  1. Owners must clean up and dispose of feces
  2. Dogs must be leashed prior to entering and upon leaving the off leash area
  3. Owners must be in verbal command of their dogs at all times and prevent aggressive behavior, fighting or aggressive barking
  4. Owners must have visible leash at all times
  5. Owners are liable for damage or injury inflicted by other dogs
  6. Dogs must stay within assigned boundary
  7. Dogs must be properly licensed and vaccinated
  8. Dogs in heat are not allowed
  9. Owners must comply with all park rules and regulations
- Proposed Rule Changes/Additions



## Volunteer/Maintenance

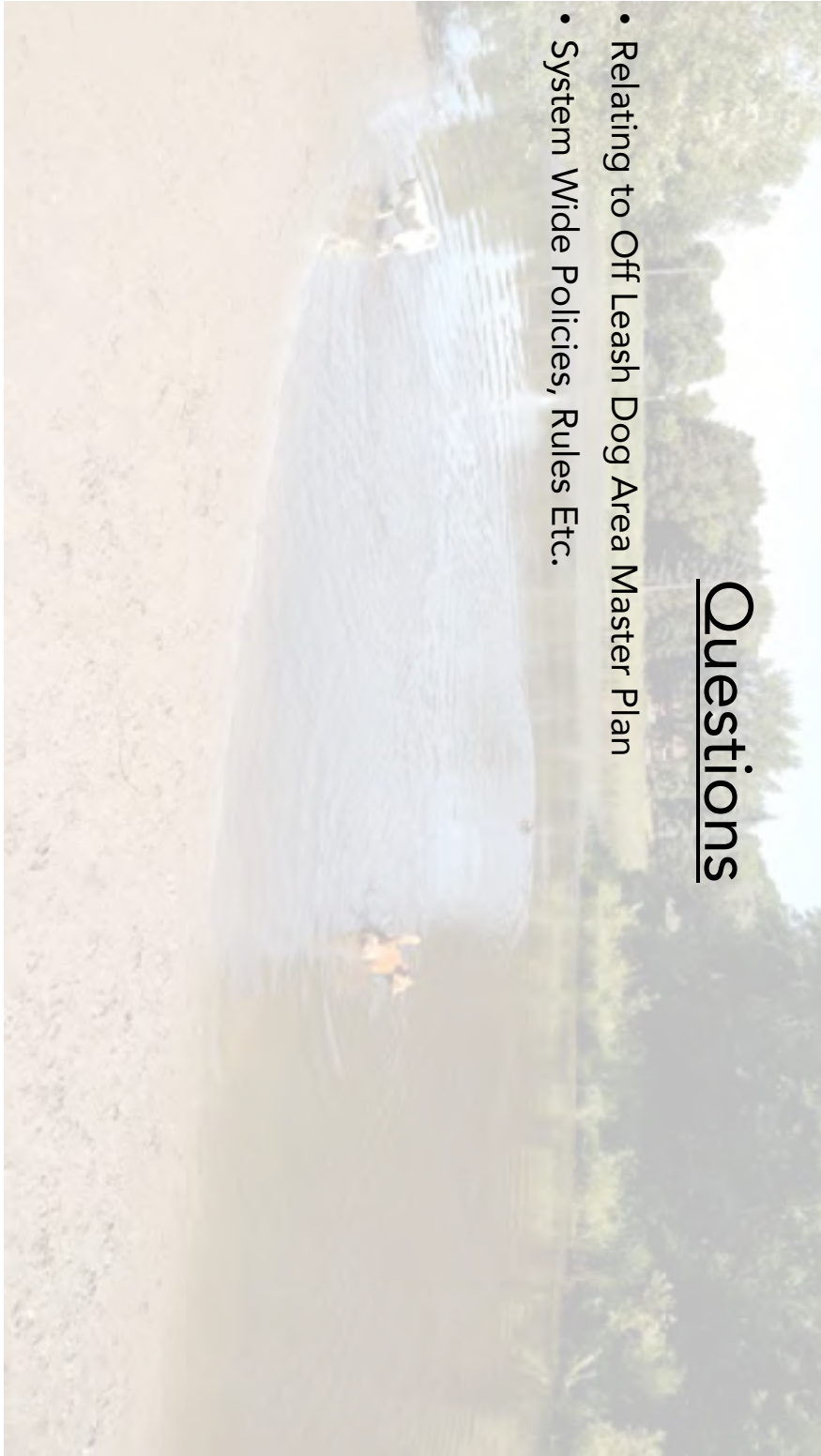
- Guardians
  - Help Identify and Report Dog Park Maintenance Issues
  - Make Suggestions and Recommendations for Dog Park Improvements
  - Identify Inappropriate Use and Report to Department Staff or Law Enforcement
- Ramsey County
  - Interior Trail Maintenance Physical Trails & Brush)
  - Invasive Species Control
  - Mowing
- Other Ideas & Suggestions

## Break For Group Diagramming Exercise

- Assume Brand New Off Leash Dog Area Development
  - Where would amenities be located?
  - Fully fenced/separate large dog small dog areas?
- May Assume access to Water Feature
- Schematic Drawing of Ideal Layout
  - Think of a Bubble Diagram
- No Specific Park in Mind
- Gathering Ideas for Off Leash Dog Area Standards System Wide

## Questions

- Relating to Off Leash Dog Area Master Plan
- System Wide Policies, Rules Etc.





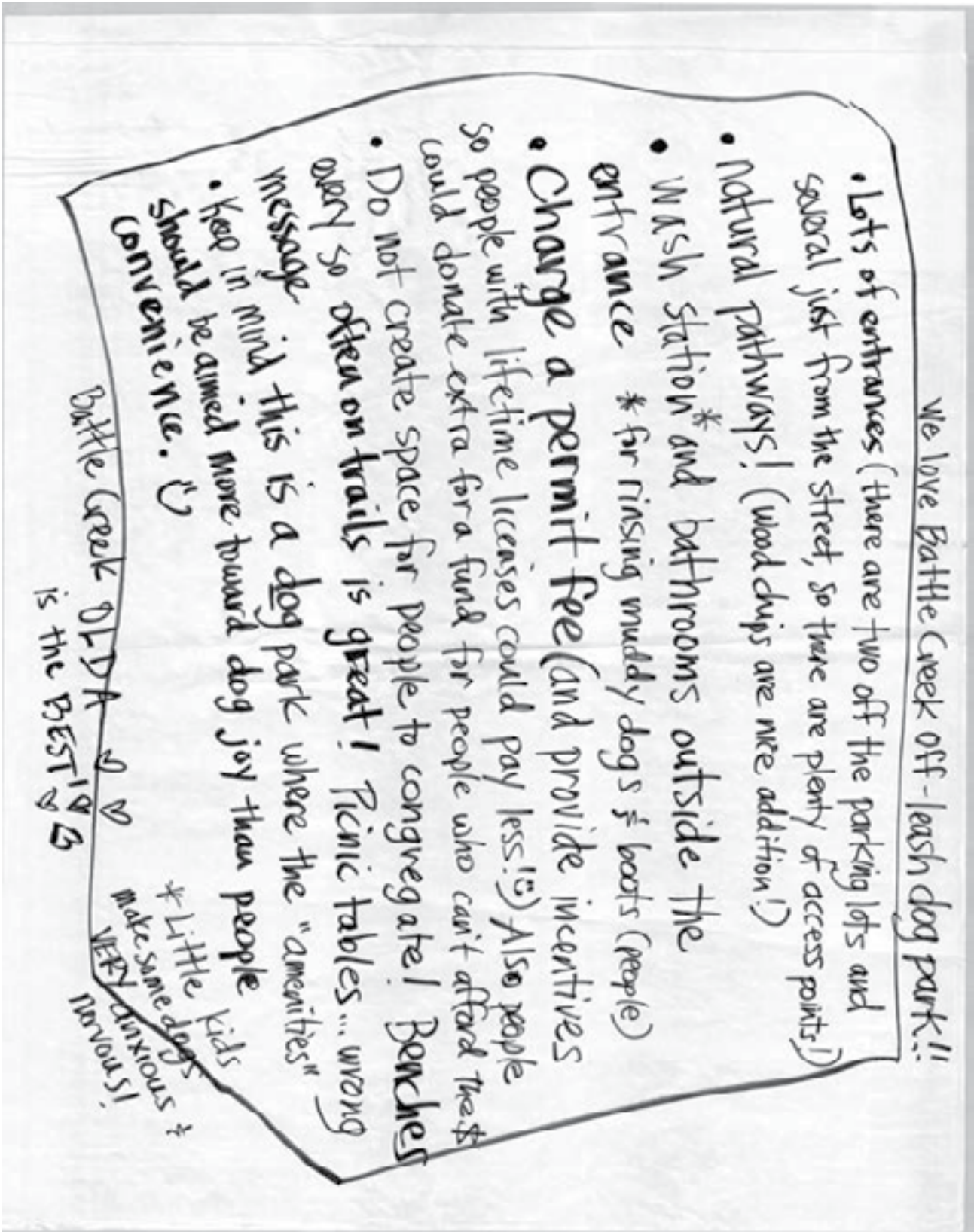
### Appendix C Comments from Public Engagement Meeting at Tamarack Nature Center 9-11-2017

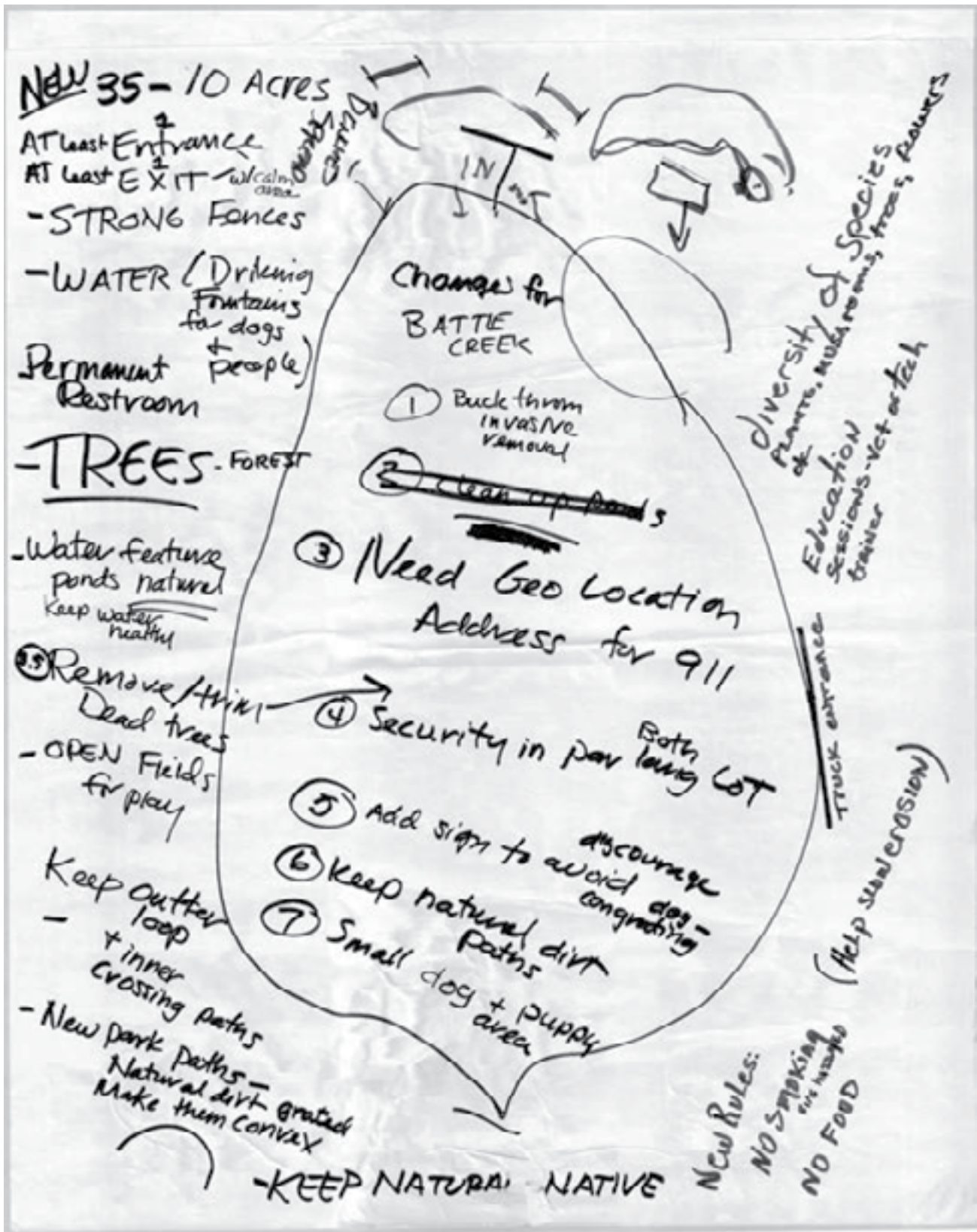
1. Move to the south, make larger, split in half. Open ½ one week ½ the next
2. There seems to be a need to improve the email list – to make it easier to sign up, and to get updates like survey requests, meeting notices, dog park information, etc.
3. Animal control/trainers provide seminars at dog park
4. Start counting users at each of the dog parks
5. Thanks for the opportunity to comment on planning for Ramsey County Off-leash dog areas. I'm aware of the problems with establishing a dog beach, but also of the potential solutions. The county beach area has great potential
6. RE: otter lake. Issue – Drainage, establish better holding ponds. County Needs to budget for maintenance within the park
7. RE: Otter Lake. Fencing needs to be replaced. Small dogs are able to escape and there are barbs on the top which can cause injury.
8. Otter lake Dog Park Suggestions: Additional parking lot on SW corner, with entry into both large and small parks. Keep newly – proposed trail on east side of otter lake road to the north. Expand larger park to south, closing the north area of the park. Add one more restricted time for small dogs only to the smaller dog park area.
9. RE: Otter Lake. Add additional dog park land to the south, replacing the lower/wetland which can be removed from park and fence off that area. 2nd access point to the south to relieve congestion at entrance. Possible walking path access 2nd entrance from parking lot.

## Appendix D Comments and Charrette Drawings from Public Engagement Meeting at Battle Creek Community Center 9-21-2017

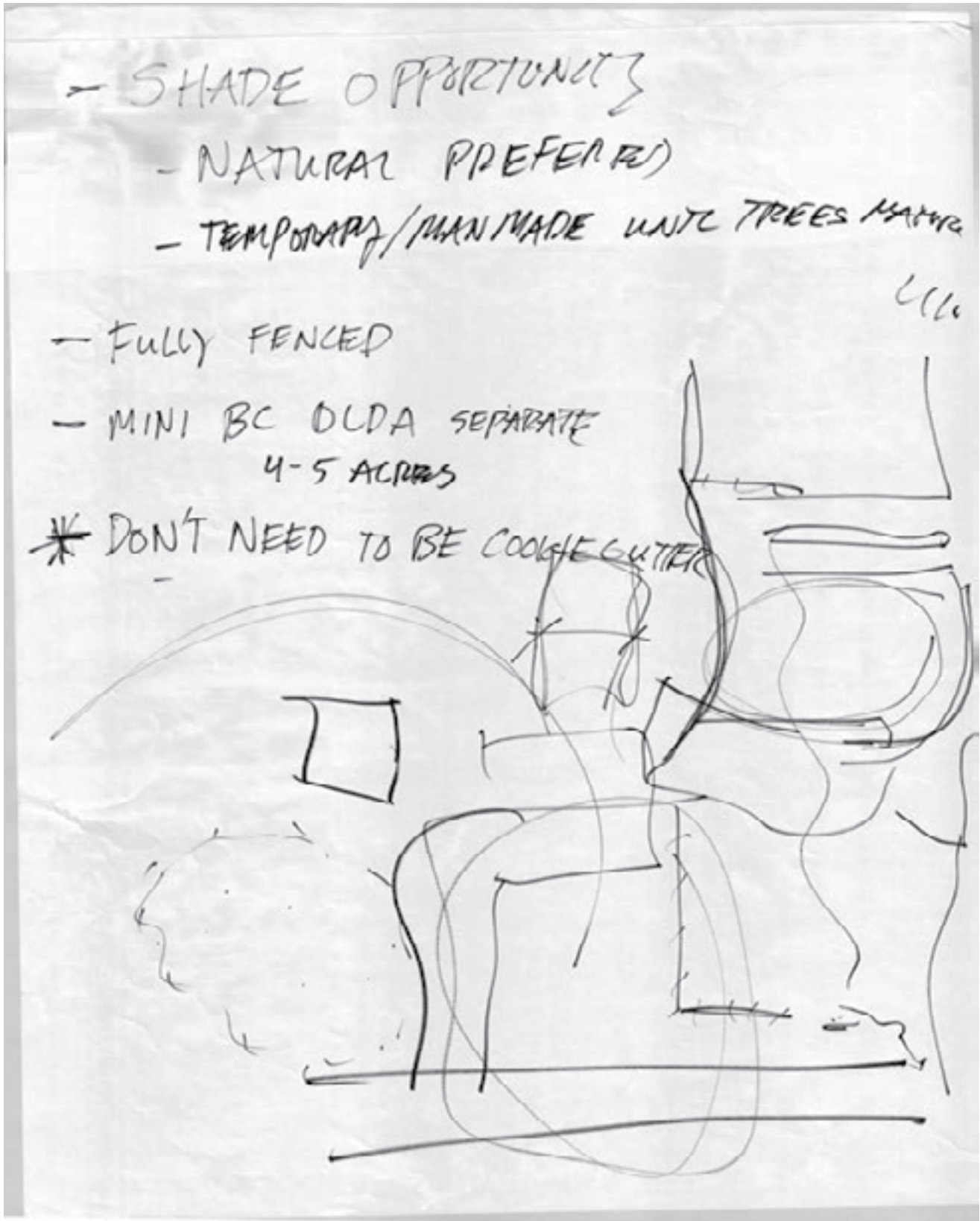
1. Emergency personnel need to know where the park is located when 911 is called (geolocation Markers)
2. Thanks, great meeting
3. Small dog parks with separate entrance, no seating or minimal seating at entrance. Open space as well as paths. Minimal seating throughout so people don't congregate
4. We need a stronger fence at the Battle Creek Dog Park. Thank you for this spectacular park.
5. Battle Creek needs more security for the parking lots. Despite the camera, cars are still getting broken into
6. Would like water for dogs. Do not cut tall weeds – limit to grassy areas. Natural paths
7. Take picnic tables out of common big areas – there is one up in a secluded area (that's good!) the one in the upper meadow should be moved to. People congregate and the problems arise from people gathering and not exercising their dog
8. Little Library Installation for informational material
9. Minimize places where people will sit and congregate. When dogs congregate in one place, problems can arise. Best to keep moving. Ok for benches in various places, but not to create an area where people gather. Natural paths are best! Dirt paths, wood chips. No asphalt – gets too hot on dogs feet in summer, slippery in winter
10. It would be nice if Ramsey County could help with pulling up the plants that have burrs on them that would be helpful. Add to Rules: no digging.
11. In my perfect world, it would be nice to have a little station where we could rinse the dogs off after leaving the park with warm water. That is only needed in a park with swamps. (like BC) places where dogs get muddy
12. Battle Creek Off-leash dog area just needs more attention from the county. Most users love it the way it is; though the volunteers could use more assistance from the county. For example, access to a wood chipper to dispose of the buckthorn trees would be good, or putting down sand on the slippery paths in the winter would make park better
13. Thank you for the awesome BC dog park
14. Water at Battle Creek. Poison Ivy Removal. Ice Reduction in Winter. Please help.











- SMALL DOG / BIG DOG SEPARATE ENTRANCES
- ~~DO NOT~~ KEEP PEOPLE RUNNING
- NOTHING AT ENTRANCE; GET PEOPLE TO OTHER AREA
- ENTRANCE SEQUENCE
- DIVERSE TERRAIN
- OVERUSE LEADS TO EROSION
- NO PAVILION; NATURAL TREES PREFERRED
- \* WATER - BOTH PEOPLE + DOGS
  - IN THE OLDA
- USE AVAILABLE PARKING TO CONTROL USER #s
- NATURAL TRAILS
  - WOOD CHIPS
  - GRAVEL



— OUTSIDE OLDA  
— LIGHTING

— LENGTH OF STAY

— 30 - 2 HRS

— 20 MIN LAP DURATION - 2 TO 3 LAPS OK



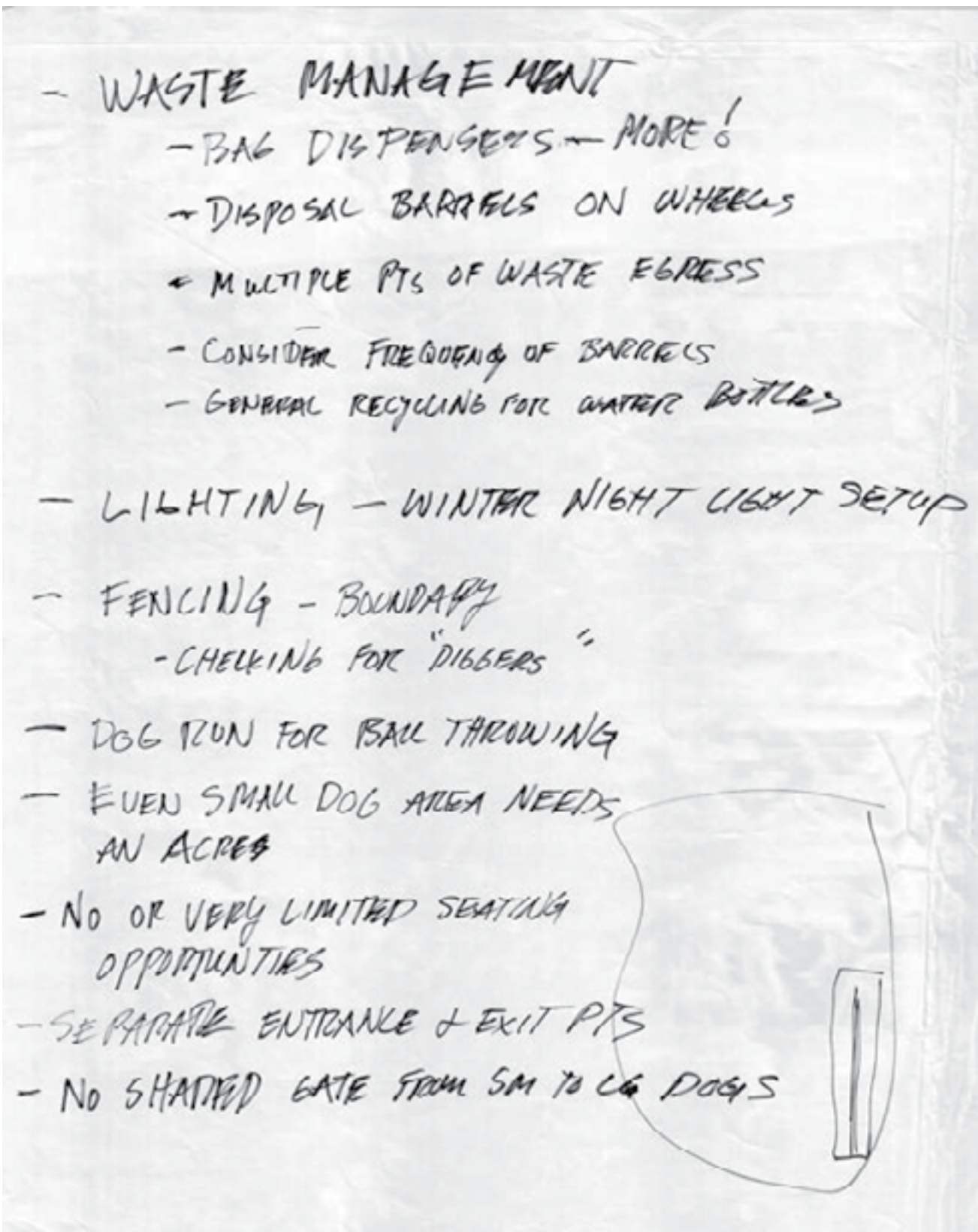
— WATER PLAY - AERATION?

— NO ALGAE

— NO MUD & WEEDS

— KEEP MONITORING WATERSHED WATER







### Volunteer Groups:

- Are needed
- ~~find~~ balancing Maint between Staff & vol.
- get more volunteers.
  
- interior trail Signage
- Maps
- Separate double gates work
  - 1 for in
  - 1 for out
- Dog fountain @ Entrance or ~~the~~ Main sitting area
- All Fenced in
  - wire & chainlink work
  - no angle or corners (Reduce dogs to be ~~contained~~ <sup>contained</sup>)
    - Reduce
- Dog Signage/Educational in larger areas
  - help avoid fights
- TREAT NATURAL WATER SOURCES
- Reduce amount of picnic tables
- Bridges - natural material
  - no-metal

9/21/17

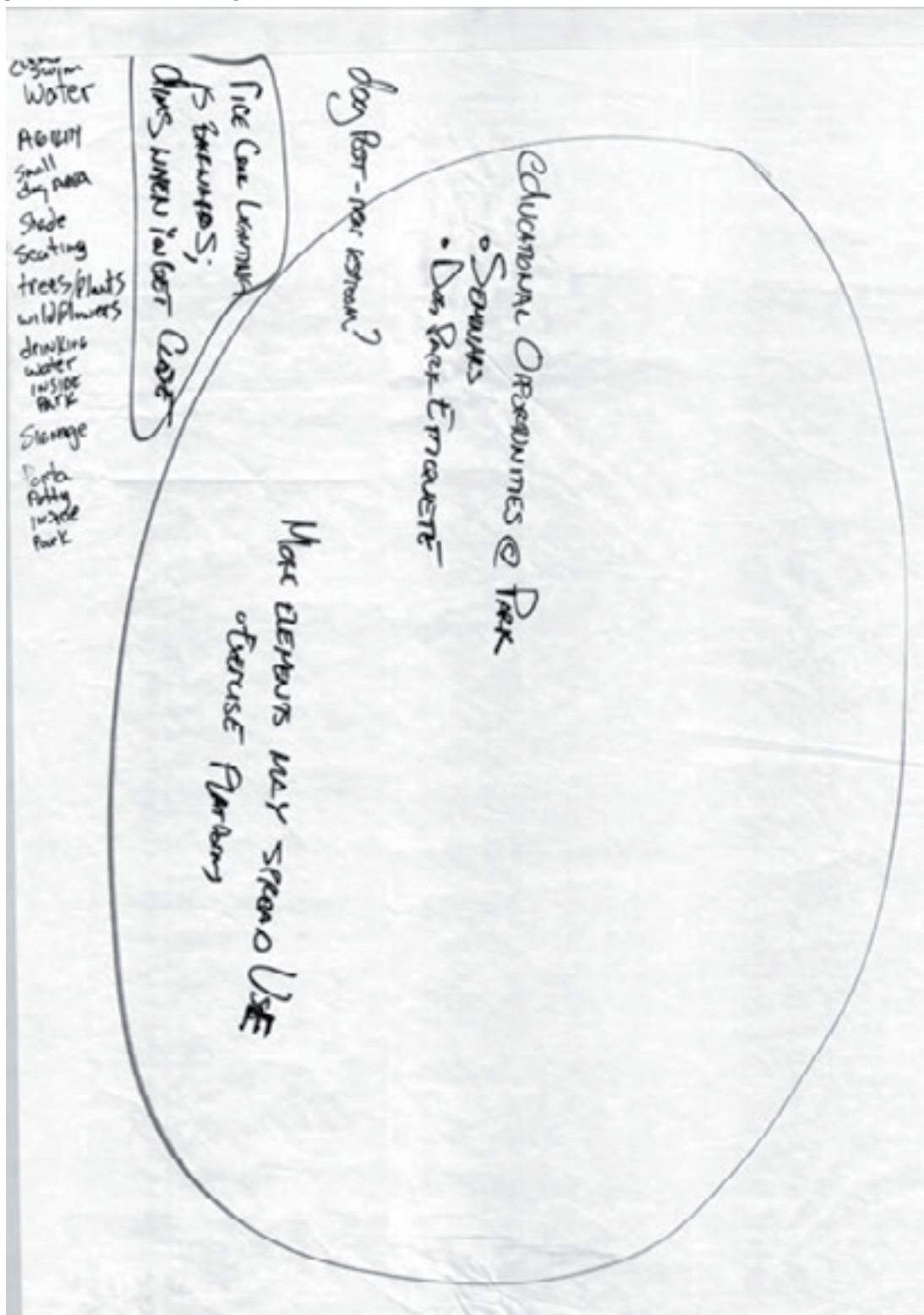
- Benches - inside park  
 (add to park - more seating)  
 - (small benches 1-2 people)

Have:  
 Option for small dog area.

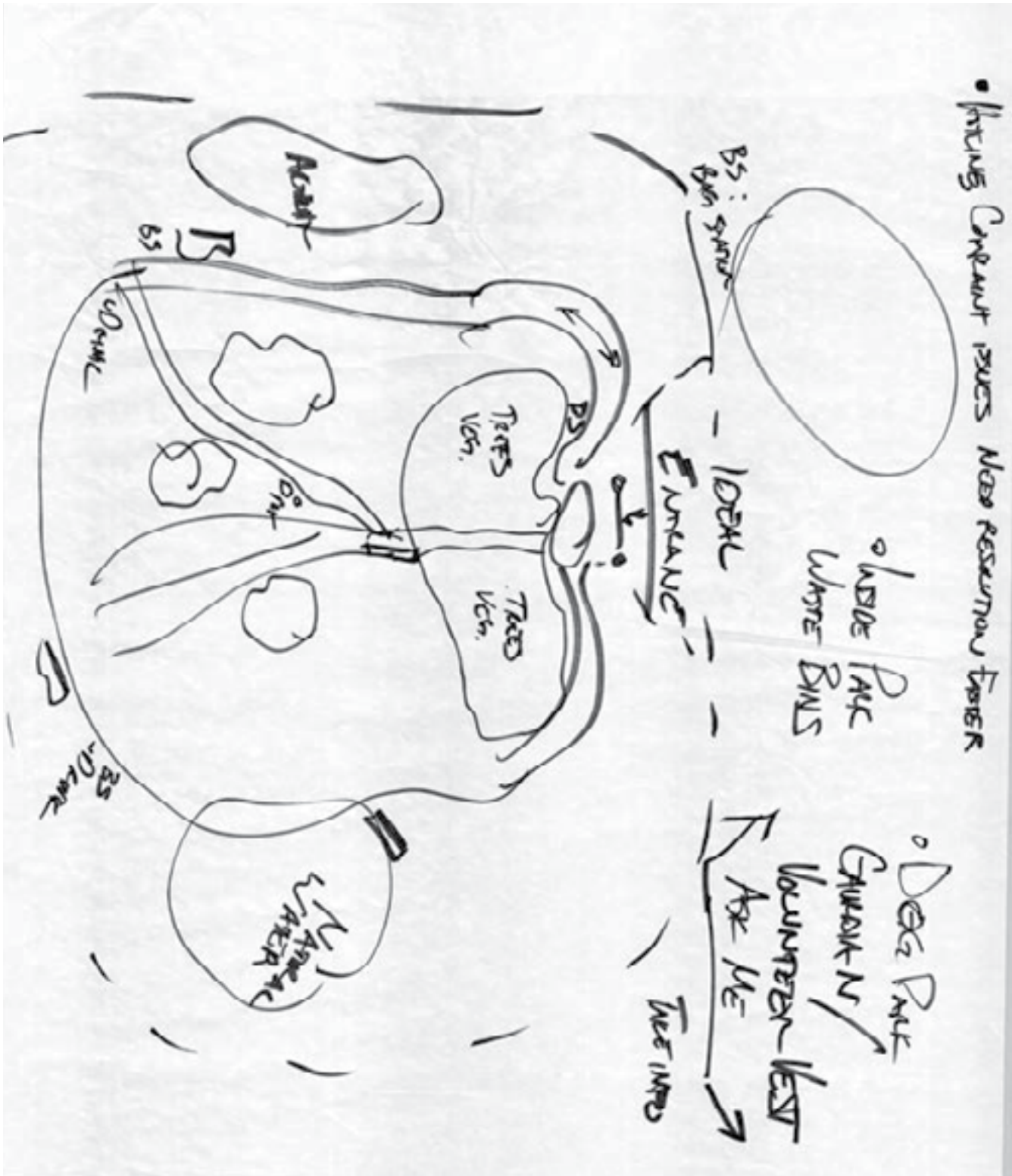
**NO ASPHALT!!**  
 (- only into areas for Entry/Seating)

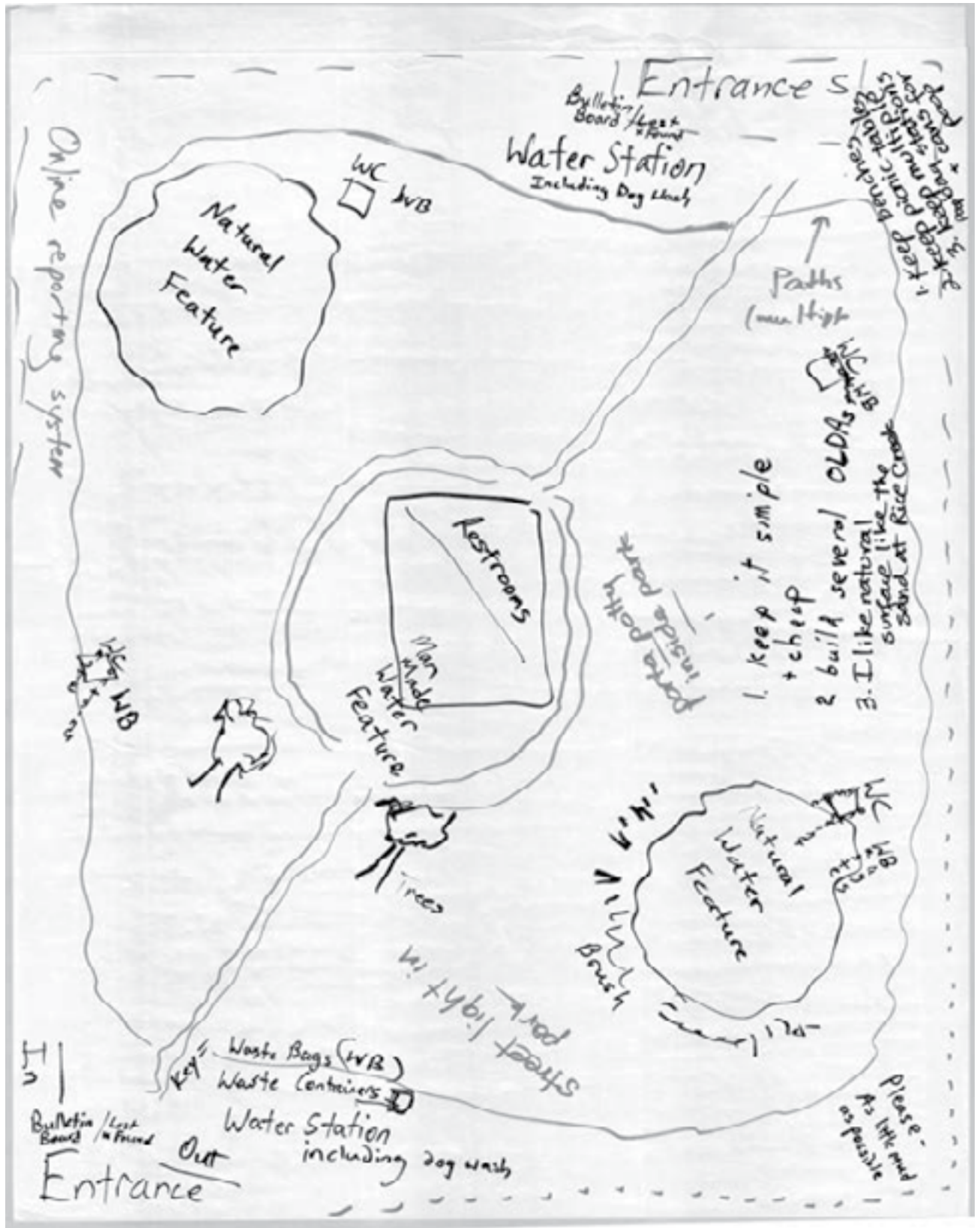
- Natural v.s. man-made water area: Washing area. - outside of gates  
 - multi areas.  
 not near gate entrances
- Small water feature
- Natural water not runoff
- INCREASED SAFETY  
 - Camera's
- \* MORE DISPENSER & Recycle bags
- + Educational signs for proper dog use
- \* Safety of kids (should they be allowed under a certain age).

## Appendix E Comments and Charrette Drawings from Public Engagement Meeting at the New Brighton Community Center 10-4-2017











- less emph. on larger free play areas
- MORE trails -
  - Wider - ~~to~~ min 8-10' min
  - loops
  - maps
- \* Sitting areas should be in the OLDA further.
  - creates less gathering of Dog Fights
- \* prefer trees over hard structure
- \* lights.
  - Depends on park
  - Could be a safety problem with lights
- \* like the mail boxes throughout the park
- \* Education kiosk boards
- \* Porta potty - in dog park area
- \* post dog Safety & Education
- \* like variety in dog parks. small to large  
 offer different amenities



### Appendix F Comments Recieved From Final Draft Open Comment Period

1. What kind of feedback are you soliciting? I just read the survey results and the report, and thank you, it is really a good set of information. But now, as I said, what kind of feedback are you asking for?

There are a group of us in St. Paul's District 10 who have been meeting to try to establish an OLDA in or adjacent to Como Regional Park aand I would like to forward this for their review.

2. Thank you for continuing to provide recreational opportunities for people and their dogs in the Ramsey County off-leash dog areas.

First, I'm disappointed that more wasn't done to find new opportunities for aquatic exercise areas. As you know, the City of White Bear Lake has been providing a dog beach on a wonderful spot with clear water and a sandy bottom, but has been under pressure from several neighboring residents to move it to a place that's not so near their homes. It would be great if an alternate site could be found and developed to satisfy both dog owners and neighborhood residents.

Second, although I've been involved in buckthorn removal at Otter Lake dog park--including cutting, treatment of the stems with herbicide, and removal of the slash offsite--I don't know what the following sentence in the master plan means: "Restoration within the off-leash dog area is difficult because of the consistent heavy use and apprehension for herbicide use on invasive vegetation." And I believe that the following statement is incomplete: "Past restoration within the off-leash dog area has been limited and consisted of some cutting and stacking of buckthorn on site."

Third, I don't believe there's any disagreement from dog owners on the need to fence-off muddy wetland areas in the dog parks. Several such areas have been fenced-off in Otter Lake dog park without controversy. There's no need to make the process seem so complicated or controversial as in the following statement: "To preserve wetlands, access to these areas should be permanently closed to regain plant growth and for continued protection of wetland habitat."

Fourth, in relation to the point about wetland conservation that's been made in the plan, I think that there's potential to develop one or more of the larger wetland areas in Battle Creek dog park for improved aquatic recreation, rather than for improved wetland conservation. Although our family dogs aren't swimmers, I've watched many times with delight as people and their dogs play in and out of the water in these ponds. There's nothing like it.

Finally, despite the critical nature of my comments above, the thing I'd like most to say, again, is thank you for continuing to provide recreational opportunities for people and their dogs in the Ramsey County off-leash dog areas.

3. Should not have included peoples email addresses in the final document.  
Love that someone listed their primary language as Husky. Good one.
4. I would like to thank everyone involved in this process. I really appreciate the time and effort put into understanding, conserving, and improving our dog p arks. As for comments; I read the report briefly and I have some first impressions, however, I do need additional time to do further analysis.
  - 1) Equity Plan- Community Outreach: Battle Creek is a model of cultural and ethnic diversity. We have sizeable Asian, Black, Hispanic, Muslim (best guess by dress), and many other ethnicities including Canadian. We also have a LGBTQ population. Elderly people frequent the park as do young people. We have a number of disabled individuals on a regular basis. All people are welcome.
  - 2) Open Space Preservation: At Battle Creek we have volunteers pull Buckthorn up by the roots. Much

work is done to encourage natural plants, grasses, milkweed and trees. Of course more help would always be welcome.

Erosion is a problem, but I personally believe, amateur eradication of erosion can be troublesome. Case in point, the swimming hole at Battle Creek. Logs used to "stop erosion" create safety hazards for people and dogs trying to reach the water. There should be at least one straight access to water that is not obstructed. Seniors, people with disabilities, children, and others should be considered when building erosion breakers.

Trails are a similar issue. I'd like guardians to work with professionals to come up with solutions to trail issues. Not two groups each working alone.

Please do not fill in any wetlands for dog parks even if you can. Preservation of the natural state is important.

3) As the population of the St Paul metro area grows, use and number of dogs per person increases. Week-end are sometimes packed with families, strollers, multiple dogs. Each year use increases exponentially. We have several commercial dog walkers who use the park daily. We also have people who bring packs of huskies or other breeds and just let them run. Many of the "rules" are completely ignored. Perhaps we should revisit the rules and the placement of rule signs so we have better hopes of some type of compliance.

That's all for now more to come with further analysis.

5. \* Most of this looks good.

\* Fencing should be installed regardless of any buffer area for safety of the dogs.

\* It'd be nice to have drinking water \*inside\* the fenced area, not just outside of the entrance. Right next to the entrance on the inside is fine - it doesn't need to be in the middle or anything, just not require actually exiting through the gates to access.

\* While providing double-gated entrances is good, there is also a need to teach people how to use them - I constantly see people opening the second gate while the first is still open.

\* The hours of operation REALLY need to be expanded. 30 minutes after sunset is before people even get off work in the winter, much less home to pick up the dog, then to the dog park, then an hour or so in the park. As you might expect, nobody actually follows this rule currently as a result. I would suggest just using times - either 5 or 6am to 10pm.

\* With respect to fees, I don't mind paying one to use "area dog parks", but I definitely DO mind paying a bunch of different fees for parks managed by different government entities. One of the biggest reasons I use the Ramsey County ones is to avoid that headache. A donation system sounds nice. I would expect to make any donations online with a credit card, but others surely would prefer cash or check on-site, so both options should be available. If you went to a fee, there really ought to be a reciprocity arrangement with the municipal ones in Oakdale, Stillwater, and Woodbury. It should be noted that the statement on page 25 that a vehicle entry permit is required for the two in Anoka County is incorrect - they are associated with parks that require a permit, but the dog park itself is exempt.

\* For the volunteer program, it's generally unclear to the public what the relationship is between the county and volunteer groups, who is responsible for what, and who should be contacted either with concerns or how to help - that's just a communication issue.

6. These plans look dynamite and we are pretty excited about it all.  
Water and some shade!  
There are many dogs in my neighborhood (snell-ham) and we'd love a place we did not have to DRIVE to.  
I have 2 Boston Tertiars and we frequent many of the DP'S. Today we brought a jug of water and did a little clean up.  
THANK YOU for your work on this project, it is much appreciated.

7. I want to thank you and others for all the work that's been done to discuss the off-leash dog areas. I am a dog person who thinks dogs in the US have a long way to go being socialized and such compared to many places in Europe (for example). I've loved taking our dog to the off leash dog parks and I think they are phenomenal. We've frequented Arkright mostly and Battle Creek now and again.

I love our natural areas and having room to run. I also like having wet areas that can be chosen or not chosen--there are days/times when I don't want a wet dog to deal with in the car. While I applaud being open minded in discussion and presenting options, in reviewing the whole discussion, presentation and plan as well as feedback, I feel strongly that we do not need and shouldn't have an amusement park for dogs. I'm not against some agility but i really didn't like the fake pools which were called Man-Made water play or Combination. I strongly feel it's a waste of tax payer dollars that could be better used elsewhere rather than a special interest group for dogs.

I love my pet and most every dog I meet and I love our dog parks. I'd like to see more dog parks and a dog friendly attitude across the United States starting in Ramsey County, but please don't go overboard and spend incredible dollars to build some amusement park for dogs when dogs can be well served otherwise and our people programs and tax base is what it is.

That's my opinion and feedback on the off-leash area plan. Thank you and your staff once again for having an open ended discussion to determine likes/dislikes and perceived needs.