



# CROW-HASSAN PARK RESERVE MASTER PLAN



ADOPTED  
JANUARY 7, 2021



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

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

There are nearly 12.5 million annual visits to more than 26,500 acres of park reserves, regional parks and special-use areas in Hennepin and five adjoining counties and 150 miles of regional trails. Current outdoor-recreation activities in regional parks and trails include camping, hiking, cross-country and downhill skiing, tubing, bicycling, in-line skating, horseback riding, nature interpretation, golfing, fishing and swimming. Three Rivers Park District also operates a natural resources management program, which administers the restoration and perpetuation of both native wildlife and plants in order to provide park and trail visitors opportunities for high-quality recreational experiences.

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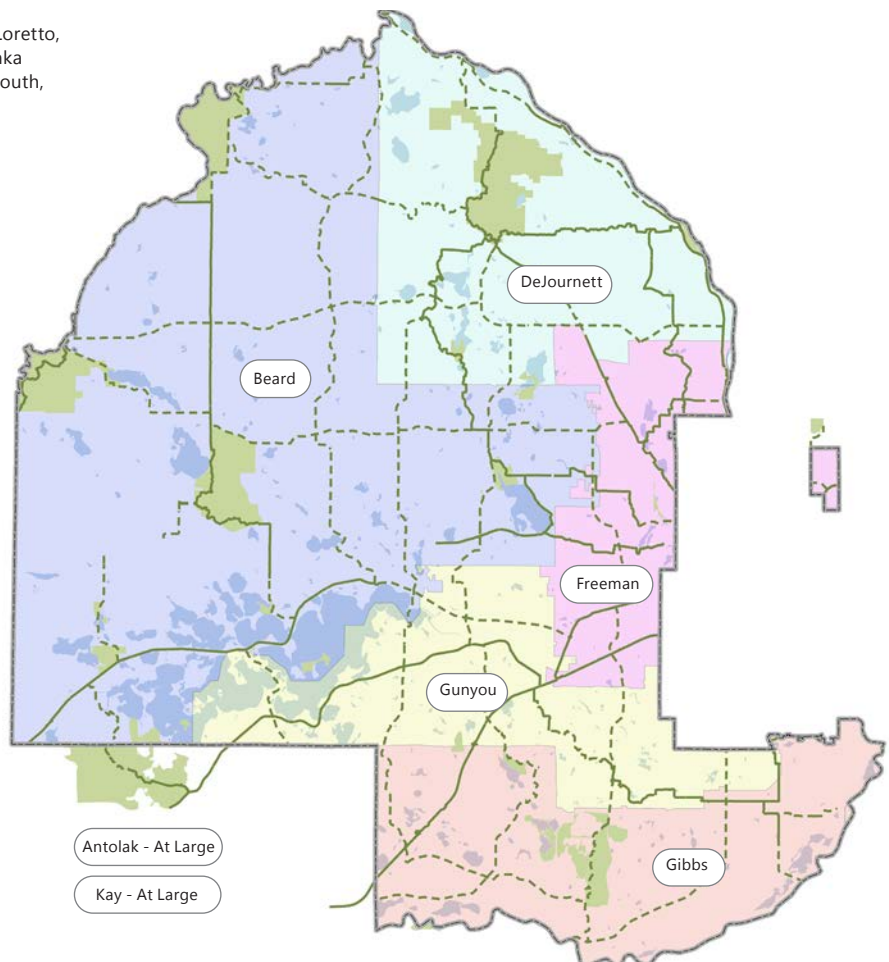
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## EXECUTIVE SUMMARY

### MASTER PLAN



**T**he intent of this master plan is to carry forward the original vision from over 40 years ago which called for growing and supporting Crow-Hassan Park Reserve's prairie landscape and habitat, while integrating the current needs and interests of individuals, community groups and agency partners. Crow-Hassan is one of two park reserves that has been designated 'natural,' the most primitive category of parks with a primary focus on protecting beyond the required 80 percent and restoring large areas of significant and unique natural resources. The plan also reinforces the commitment to ensuring Crow-Hassan's unique standing as an equestrian destination within the Park District's system of parks and trails. To ensure that the master planning work was grounded in this intent and clearly communicates this context in outreach and engagement, three guiding principles were developed at the start of this master planning process and carried through all of the engagement activities and subsequent master planning efforts:

#### Guiding Principles

- Preserve the unique natural resources
- Celebrate the Crow River
- Introduce people to nature and outdoor recreation

#### ENGAGEMENT

Community engagement was integral to the initial phases of the project visioning and early recreation concept development. The park's rural location and diffused targeted user groups presented unique challenges for comprehensive community engagement. To reduce potential barriers of engagement participation and reach a wide range of potential participants within the project timeline, various engagement strategies

were utilized to garner balanced feedback. These included online tools, planned listening sessions and intercept interviews at park events. Personalized direct contact outreach and digital tools played particularly valuable roles in reaching individuals and stakeholders groups. The engagement process involved the general public, current park users, local communities, underrepresented populations, local clubs, advocacy groups and Park District volunteers. Themes emerged and were incorporated into the design recommendations for concept development:

### Engagement Themes

- Protect unique natural resources
- Maintain the rustic quality
- Reduce user conflicts
- Improve accessibility
- Improve signage & wayfinding
- Increase natural resource-based programming, educational and experience opportunities
- Diversify camping options

## RECREATION DEVELOPMENT PLAN

Engagement and stakeholder visioning supported the continued natural resource and equestrian focus of the park while ensuring user safety, minimizing user conflicts, and integrating light-touch education opportunities, expanded accessibility and improved wayfinding. This master plan also identifies ways to improve park user infrastructure that highlights the unique ecological park features while restricting overall park development to preserve its 'natural' context.

A variety of park elements that create an intentional visitor experience and sense of belonging are proposed including; Crow River overlooks, natural resource touchpoints, gathering and rest spaces, curated trail experiences and improved wayfinding.

**Crow River Regional Trail** route is included through the park in a manner that is respectful of exiting natural resources and park user groups. The existing unpaved trail network net mileage will be preserved.

**Trailhead Area** has been enhanced to emphasize the park's 'front door.' Modifications to the trailhead area include separate parking lots for general-use and equestrian users, picnic shelter, ADA nature play

loop, wayfinding signage, vault latrine restrooms, seating, equestrian camping and gathering spaces.

**Bluestem Unit** includes group camp ADA improvements and several individual, hike-in reserveable camp sites. The Bluestem barn is recommended for removal.

**Riverbend Unit** has been enhanced to include a small parking lot for northern park access, relocated non-motorized boat launch, ADA improvements and enhanced camping options, including several reservable sites.

**Dog Off-Leash Area** will be maintained in its current arrangement but includes provisions for parking lot lighting, erosion control measures along the Crow River and fencing near the future Crow River Regional Trail.

**Park Boundary Expansion Area** is proposed in response to adjacent planned suburban expansion and increased regional recreational demand. This boundary expansion positions the park to meet the 10 percent development goal.

**District Nursery** will continue implementing sustainable best practices in the areas of energy and water consumption reduction and natural resources techniques and technology to address climate change.

## OPERATION & IMPLEMENTATION COSTS

The rustic quality, minimal development and light-touch approach limits the need for significant expansion of current park operations. Increased educational programming is planned with staff from Eastman Nature Center and The Landing, in addition to expanded self-guided programming.

### Costs\*

#### Capital Improvements

\$2.75 million

Recreational development plan

#### Existing Annual Operating Costs

\$360,000

Basic facilities, maintenance & natural resource management

#### Additional Proposed Annual Operating Costs

\$160,000

Maintenance costs based full capital improvement implementation

#### Park Boundary Acquisition

~\$2.57 million

\*2019 dollars, does not include Crow River Regional Trail costs.



**“Everybody needs beauty as well as bread,  
places to play in...where nature may heal and  
give strength to body and soul.”**

**John Muir**  
The Yosemite, 1912

# ACKNOWLEDGMENTS

Three Rivers Park District (Park District) gratefully acknowledges the staff, elected officials, community members and other participants who contributed to the Crow-Hassan Park Reserve Master Plan. The Park District extends a special thank you to the individuals listed below who provided guidance, time, questions, and critical insight throughout the process.

## THREE RIVERS PARK DISTRICT

### **Boe R. Carlson**

Superintendent & Secretary to Board

### **Jonathan Vlaming**

Associate Superintendent  
Division of Planning, Design & Technology

### **Luke Skinner**

Associate Superintendent  
Recreation, Education & Natural Resources

## PLANNING

### **Kelly Grissman**

Director of Planning

### **Ann Rexine**

Principal Planner

### **Stephen Shurson**

Landscape Architect

### **Jon Nauman**

Senior Manager of Research & Evaluation

### **Danny McCullough**

Regional Trail System Manager

### **Heather Kuikka**

Administrative Specialist - Planning

## FACILITIES SERVICES

### **Bri Koch**

Park Operations Supervisor

### **Jane Thompson**

Park Services Assistant

### **Amy Nelson**

Facility Supervisor

## NATURAL RESOURCES MANAGEMENT

### **John Moriarty**

Senior Manager of Wildlife

### **Paul Kortebein**

Senior Manager of Forestry & Horticulture

### **Brian Vlach**

Senior Manager of Water Resources

### **Shawn Howard**

District Nursery Operations Supervisor

### **Steven Hogg**

Natural Resources Supervisor - Wildlife

### **Dan Comerford**

Natural Resources Supervisor - Forestry

## MAINTENANCE

### **Brian Brown**

Senior Manager of Maintenance

### **Matt Connor**

Park Maintenance Supervisor

## OUTDOOR EDUCATION & RECREATION

### **Jessica Allen**

Department Coordinator

### **Kim Nowicki**

Outdoor Education Supervisor

### **Bill Walker**

Cultural Resources Manager

## MARKETING & COMMUNITY ENGAGEMENT

### **Deb Vosler (retired)**

### **Becca Conser**

Volunteer Resources Coordinators

## CONSULTANT

PERKINS + WILL

**John Slack**, Associate Principal

**Mo Convery**, Landscape Designer

**Leslie Johnson**, Landscape Designer

## AGENCY STAKEHOLDERS

City of Rogers

**Mike Bauer**, Recreation & Facilities Director/Supervisor

**Jason Ziemer**, City Planner & Community Dev. Coordinator

**John Seifert**, Public Works Superintendent

City of Hanover

**Brian Hagen**, City Administrator

Hennepin and Dakota Counties

State of Minnesota Health Department

Minnesota Department of Natural Resources

Metropolitan Council

## OTHER

Heronwood Field Station, Kalamazoo, MI

John Pennoyer, all photographs unless noted

MN Trail Riders Assoc., Mn Distance Riders Assoc., MN

Horse Council, We Can Ride, Mid-America Paso Fino Assoc.





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## 1

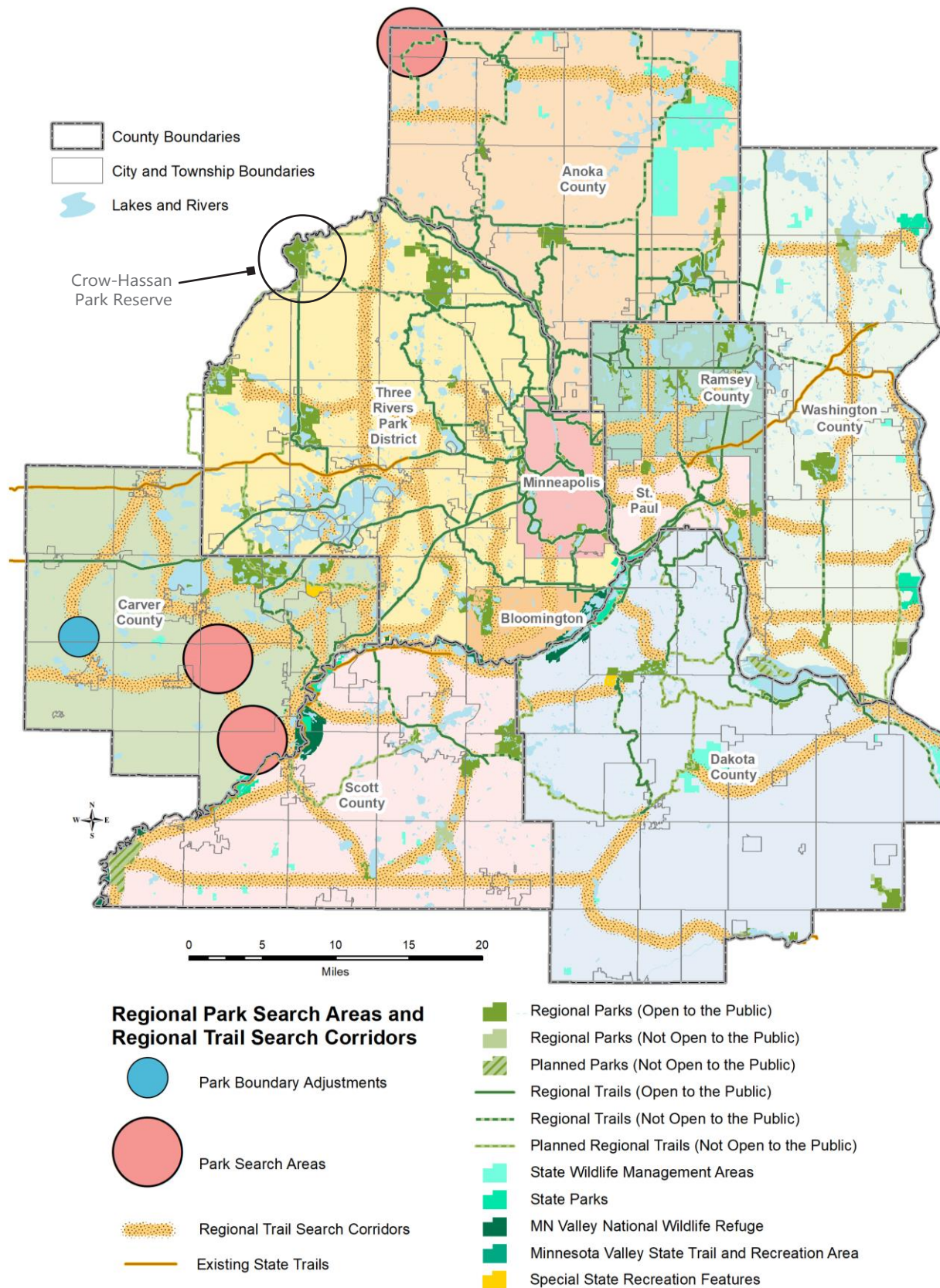
# INTRODUCTION

## PLANNING FRAMEWORK

**CROW-HASSAN PARK RESERVE** - comprised of 2,600 acres of tall-grass prairie, hardwood forest and mature wetlands on the border of Hennepin and Wright counties - is a unique park destination and ecological resource to the Twin Cities Metropolitan Area and Three Rivers Park District system. As the Twin Cities Metropolitan Area continues to develop and expand near Crow-Hassan, and climatic shifts affect the region's natural systems, the need for resilient natural spaces, such as Crow-Hassan, is clearly recognized. Defining Crow-Hassan's unique role in the local, regional, and state system plans and connection to larger regional planning efforts is paramount to ensure Crow-Hassan's continued preservation. This section outlines the connection of the Crow-Hassan Park Reserve Master Plan to the region's park system framework and identifies areas of opportunity for collaboration and systemic support.

### **REGIONAL PARK & TRAIL SYSTEM**

There are currently 389 regional trail miles and 56 regional parks and park reserves comprising nearly 55,000 acres open for public use within the Twin Cities Metropolitan Area's Regional Parks System (Figure 1). Crow-Hassan Park Reserve is one of twelve park reserves open to the public and distinguished by their limited development, distinct natural features, and ecological significance. The Regional Parks System provides a plethora of recreational amenities and educational opportunities for regional residents and visitors alike. The service range and diversity in development of the region's parks highlight the unique natural resources and landscapes of east-central Minnesota.



**FIGURE 1 | 2040 REGIONAL PARK SYSTEM** Source: Metropolitan Council

The ongoing value and public support of the regional park system is indicated by the high levels of use and Regional Park System expansion. There are estimated to be 3.1 million residents within the seven county Twin Cities Metropolitan Area served by Regional Parks System. The parks and trails hosted an estimated 59.8 million visits in 2018. The Regional Park System plans to add an additional 2 regional parks, 1 park reserve, and 116 miles of regional trails in coming years to meet the growing demand and increased population forecasts.

The Metropolitan Council, a regional planning agency, provides policy guidance through the Regional Parks Policy Plan and partial acquisition, development and operation funding through several funding programs. The ownership, development, operations, and maintenance of the regional park system falls to ten implementing agencies consisting of six county park departments, three city park departments and Three Rivers Park District.

### **THREE RIVERS PARK DISTRICT**

Established in 1957, Three Rivers Park District is an independent special park district charged with the responsibilities of acquisition, development and maintenance of regional parks and trails for the benefit and use of the citizens of suburban Hennepin County, the seven-county Twin Cities metropolitan area and the State of Minnesota. The Park District is comprised of more than 26,500 acres of 7 park reserves (including Crow-Hassan Park Reserve), 12 regional parks, 5 special recreation features and 16 regional trails (Figure 2). These parks and trails hosted nearly 12.5 million annual visits in 2018.

The Park District's mission is to promote environmental stewardship through recreation and education in a natural resources-based park system. It remains the only special park district in the State of Minnesota and its primary focus reflects its taxing jurisdiction: suburban Hennepin County. Though an independent agency, the Park District works cooperatively with local communities, counties, public agencies, the Metropolitan Council and the State Legislature to maintain a high level of park service and to ensure long term park planning strategies complement regional planning efforts.

### **THREE RIVERS PARK DISTRICT**

The Park District is charged with preparing master plans for each park and trail unit which adheres to the Metropolitan Council's Regional Parks Policy Plan, as well as other local, county, regional, state and national plans. In addition, each master plan is developed to be consistent with the Park District's Mission, Policy Statement, System Plan and existing projects.

The 2040 System Plan (2020) work envisions a world where all people can connect with nature everyday, emphasized by the following goals:

- You belong here
- Parks matter
- Lead by example

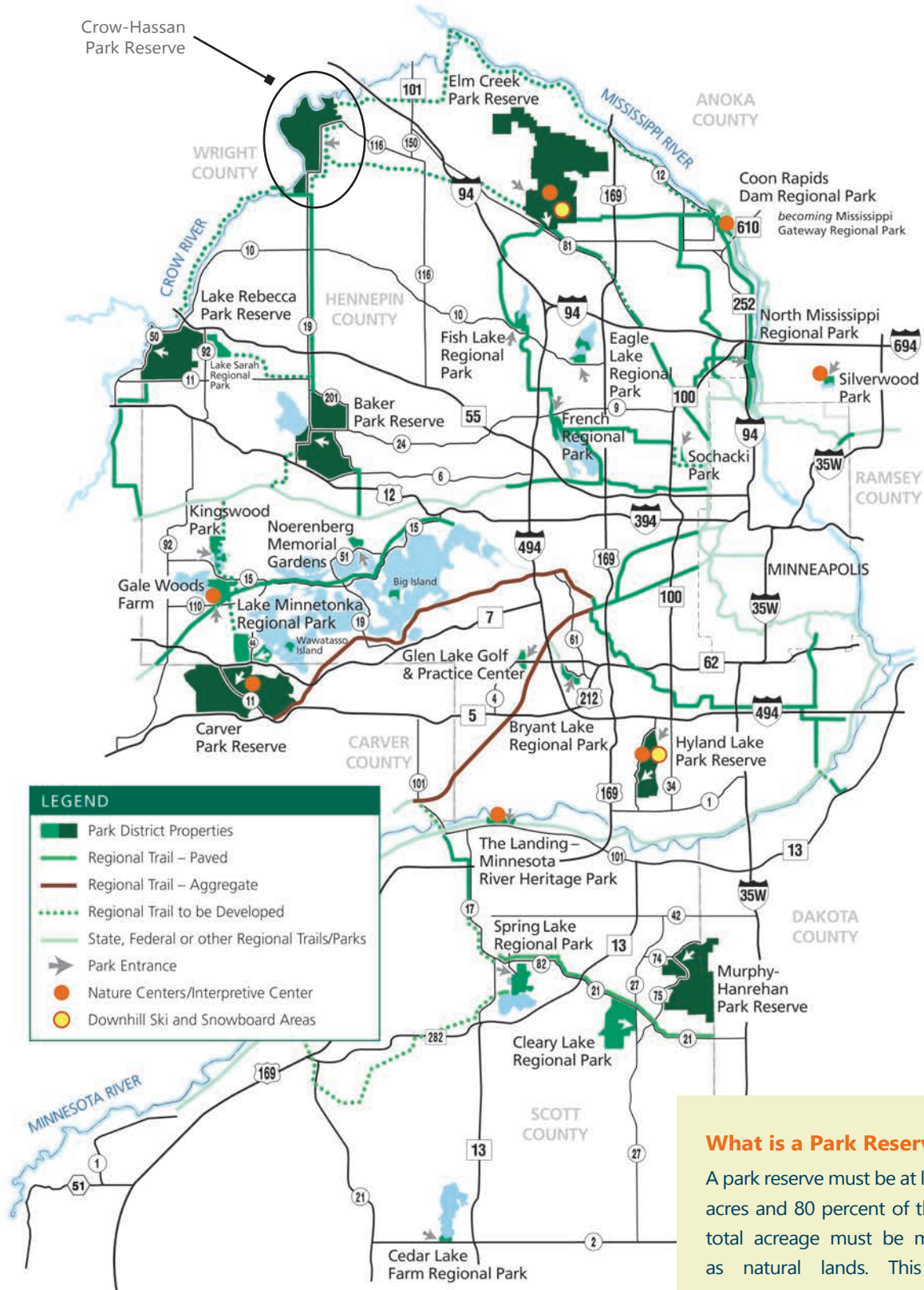
Adherence to this vision in master planning processes can be achieved through focused natural resource management, comprehensive community visioning, forward-thinking outdoor recreation development and systems oriented sustainability practices.

### **Park Reserve Guidelines**

The Park District manages its lands under four categories of regional open space: park reserves, regional parks, special recreation features and regional trail corridors. Park Reserves, including Crow-Hassan, prioritize natural area protection and restoration over active use development and programming.

By definition, a park reserve must comply with the 80/20 development ratio: 80 percent of the total park reserve upland acreage must be restored or retained in a natural state. The remaining 20 percent can be developed for recreational access.

In addition, the Park District utilizes a recreation opportunity spectrum of parks and trails to ensure a wide variety of park settings and offerings are preserved within the broader park system. This essentially provides a framework to classify parks by type and purpose and prevents parks from becoming mirror images of each other. Within the recreation opportunity spectrum, Crow-Hassan is designated as one of two park reserves considered 'natural,' the most primitive category of parks with a primary focus on protecting beyond the required 80 percent and restoring large areas of significant and unique natural resources.



**What is a Park Reserve?**

A park reserve must be at least 1,000 acres and 80 percent of the upland total acreage must be maintained as natural lands. This minimal development protects the ecological functions of the native landscape.

**FIGURE 2 | THREE RIVERS PARK DISTRICT SYSTEM** Source: Three Rivers Park District



## SERVICE AREA & LOCAL PARK SYSTEMS

Crow-Hassan’s current core service area, defined as a 10-minute drive time, crosses county jurisdictional boundaries and includes the growing rural and suburban communities of Rogers, Hanover, Corcoran and St. Michael. The ideal core service area, defined as a 25-minute drive time, reaches further and extends to include all of northern Hennepin County, eastern Wright County, southern Sherburne County and the western edge of Anoka County. The primary service area, defined as a 45-minute drive time, extends northwest to St. Cloud and southeast to Minneapolis (Figure 3).

Within the park’s core service area, there are 32 community, neighborhood, athletic field and county parks spread across four municipalities. These local parks provide active recreation opportunities and flexible open-spaces for their surrounding communities. Features of these parks include playgrounds, picnic areas, flexible fields, walking trails, and athletic facilities. Crow-Hassan’s ecological and nature-based recreation focus provides a complement to these local park facilities. Maintaining Crow-Hassan as a natural area with minimal development ensures diversity within the greater park system and allows it to remain a unique regional resource for ecological education and immersive nature experiences. To further protect and preserve the park reserve’s cherished natural resources from recreational development, the park boundary is proposed to expand in the northeast corner. This area will allow for future additional recreation development.

## PRECEDENT PLANNING DOCUMENTS

The Crow-Hassan Park Reserve Master Plan is consistent with the planning visions of associated regional and state agencies. The following plans were reviewed during the master plan development.

### Met Council 2040 Regional Parks Policy Plan

The Metropolitan Council, under Thrive MSP 2040, identified vision for this region’s future. Included in its planning effort is a focus on expanding and diversifying the regional park system to better meet the needs of the growing Twin Cities’ communities. Specific objectives include:

- Expanding the parks system to conserve, maintain, and connect natural resources identified in the parks plan as high quality or having regional importance.
- Providing a comprehensive regional park and trail system that preserves high quality resources, increases climate resiliency, fosters healthy outcomes, connects communities, and enhances quality of life.
- Promoting expanded multimodal access to regional parks, trails, and the transit network.
- Strengthening equitable usage of regional parks and trails by all our region’s residents, across age, race, ethnicity, income, national origin, and ability.

Within the larger regional system, Crow-Hassan is identified as a large park reserve that is part of the Rural Service Area. With its unique natural resources and growing regional trail connections, Crow-Hassan is well positioned to support the developed outcomes named by the Metropolitan Council.

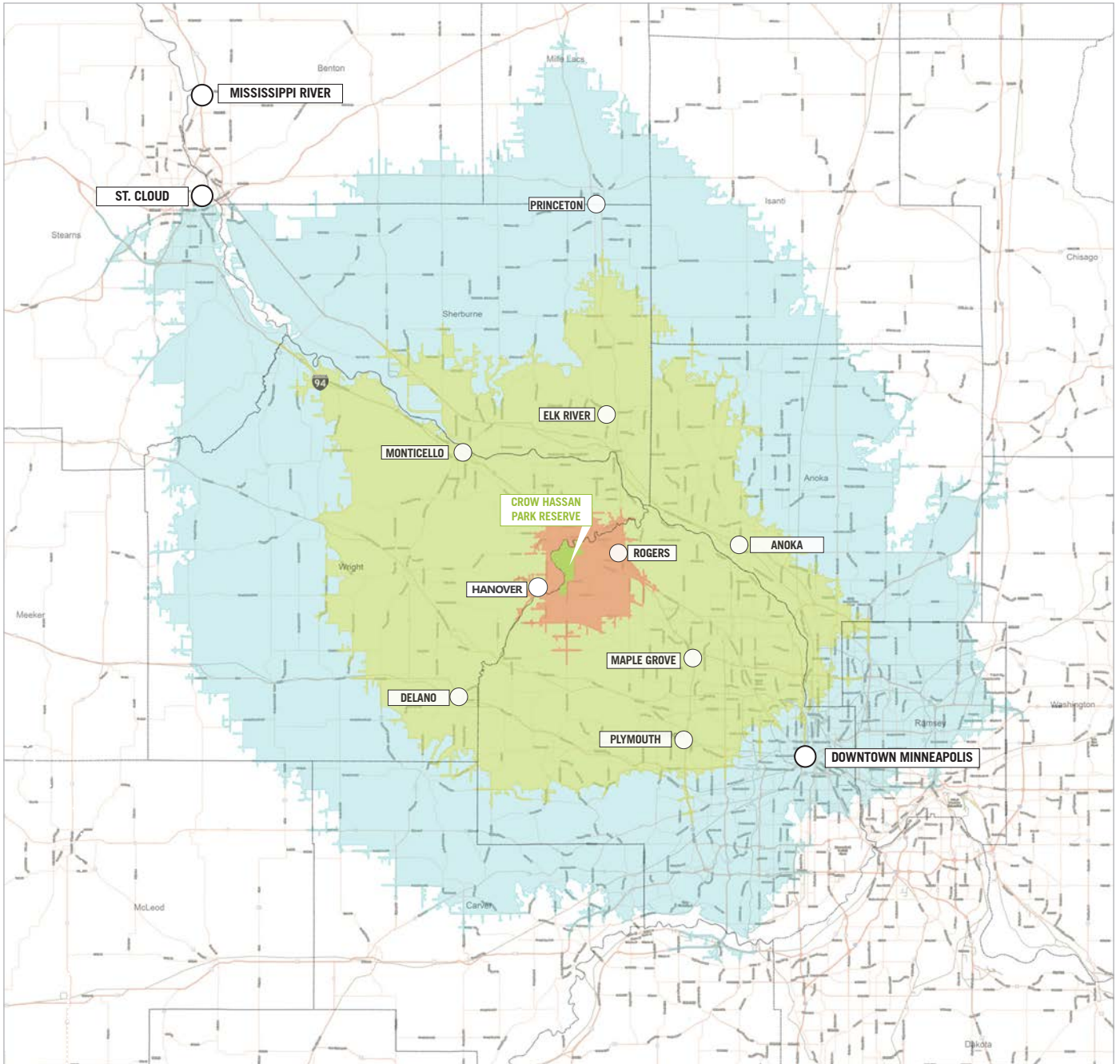
Additionally, this master plan adheres to the planning requirements outlined in the 2040 Regional Parks Policy Plan.

## Local Communities

To ensure consistency with adjacent community planning efforts, the following planning documents were reviewed:

- City of Rogers, 2040 Comprehensive Plan
- City of Hanover, 2040 Comprehensive Plan

These planning documents identified Crow-Hassan Park Reserve as a regional destination and a complement to the existing park systems. Both communities also identified consistent population growth and residential development in the coming decades. The Crow-Hassan Park Reserve Master Plan seeks to maintain this park reserve as a regional and local resource for these changing communities as well as identify potential connections to the growing regional trail network.



**FIGURE 3 | CROW-HASSAN SERVICE AREA**

Source: Three Rivers Park District and PERKINS + WILL

- Current Core Service Area: 10 minute drive
- Planned Core Service Area: 25 minute drive
- Planned Primary Service Area: 45 minute drive

## Regional & State Trails

In support of the Metropolitan Council's intention to expand multi-modal access, this master plan incorporates the planned regional and state trail extensions and design recommendations.

### Crow River Regional Trail Master Plan

When complete, the 32-mile Crow River Regional Trail will fill a gap in both the Twin Cities Metropolitan Area and Greater Minnesota park and trail systems with a route that offers multiple opportunities to 'touch' the Crow River. The regional trail's proposed route stretches from the Luce Line State Trail in Watertown Township to the West Mississippi River Regional Trail in Dayton, connecting Carver, Hennepin and Wright counties through the communities of Minnetrista, Independence, Franklin Township, Delano, Greenfield, Rockford, Rockford Township, Hanover, Rogers and Otsego. The master plan identifies an estimated eight mile section through Crow-Hassan Park Reserve.

### Rush Creek Regional Trail Master Plan

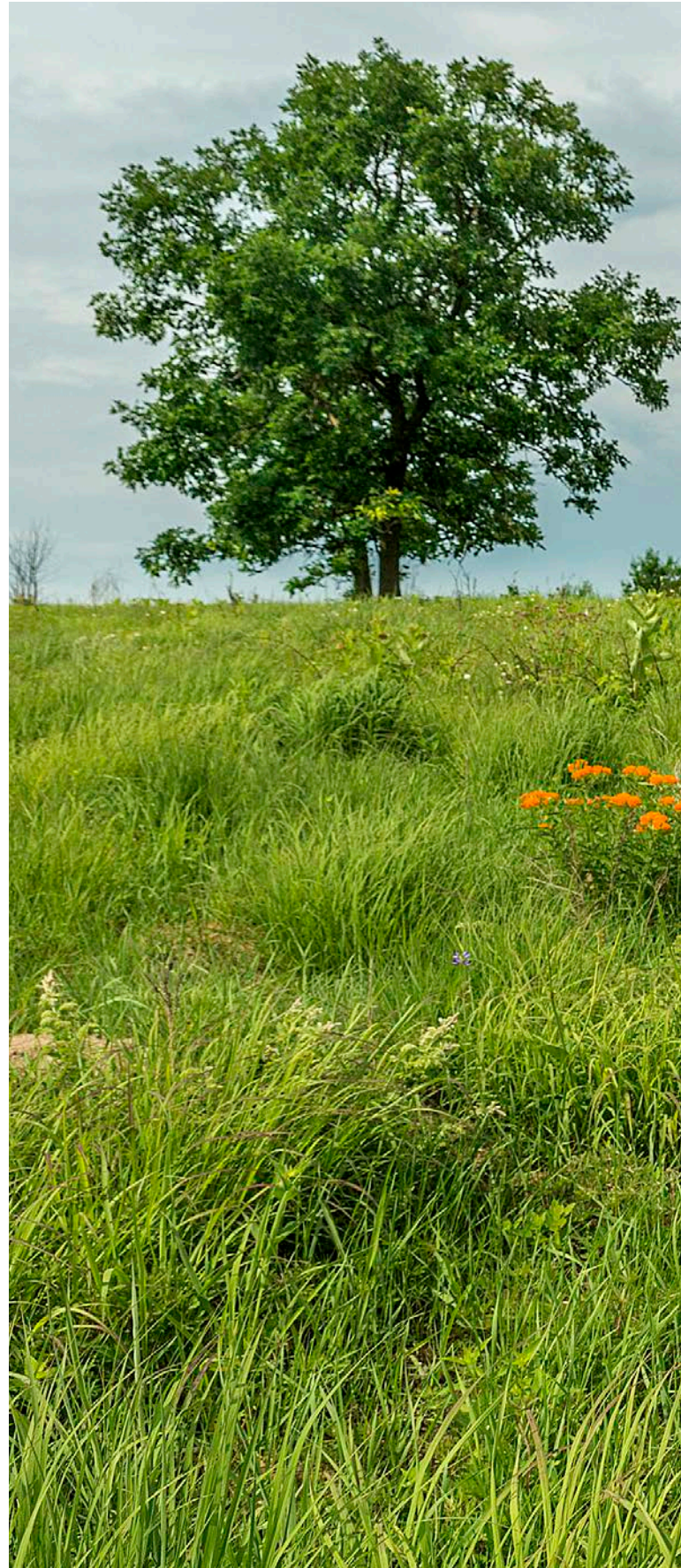
The existing Rush Creek Regional Trail, which measures over nine miles between Mississippi Gateway Regional Park and Elm Creek Park Reserve, is planned to extend an additional 11 miles westward to Crow-Hassan Park Reserve. When complete, it will connect the communities of Brooklyn Park, Maple Grove, Dayton, Corcoran and Rogers. This trail intersects with the Crow River Regional Trail route near the Crow-Hassan trailhead/park entrance.

### Lake Independence Regional Trail Master Plan

The Lake Independence Regional Trail begins/ends at Crow-Hassan's intersection of County Road 19/109th Ave N and Park Drive in Corcoran. This 16-mile regional trail connects to Baker Park Reserve and Luce Line State Trail through Corcoran, Loretto, Medina and Orono. The regional trail is planned to further connect Noerenberg Gardens and Dakota Rail Regional Trail in Orono and Wayzata.

### Crow River State Water Trail

A 7.8-mile segment of the Crow River State Water Trail runs along the Crow River on Crow-Hassan's western edge. The water trail connects to Lake Rebecca Park Reserve 11 miles south at the confluence of the North and South Crow River forks and the Mississippi River Water Trail, Great River Water Trail 10 miles north.





# 2 INPUT

## ENGAGEMENT AND RECOMMENDATIONS

**THE FIRST MASTER PLAN** for Crow-Hassan Park Reserve was developed in 1972, roughly a decade after initial land acquisition began. This early plan outlined the park's transition from agricultural land into the forests, wetlands and prairies that are seen today. The original user experience was focused on visitor education, with a plan for an interpretive nature center and model farm in the south end of the park. While the nature center and farm were never realized, the natural resource park restoration was. The plan was updated in 1998 with increased focus on extending passive recreation areas including hiking trails, group camps and regional trail connections. Despite this shift in the user infrastructure, the ecological focus, connection to the Crow River and potential natural area expansion remained central to the park's long term vision.

The intent of this master plan update is to carry forward the original vision from over 40 years ago which called for growing and supporting Crow-Hassan Park Reserve's prairie landscape and habitat, while integrating the current needs and interests of individuals, community groups and agency partners. To ensure that the master planning work was grounded in this intent and clearly communicated in outreach and engagement, three guiding principles were developed at the start of this master planning process and carried through all engagement activities and subsequent master planning efforts:

### Guiding Principles

- Preserve the unique natural resources
- Celebrate the Crow River
- Introduce people to nature and outdoor recreation



## ENGAGED POPULATIONS

Input from diverse voices and varying levels of familiarity with Crow-Hassan Park Reserve were critical to the development of this master plan update and ensure that this park will continue to be a regional resource for new and current users alike. Community engagement was focused in the initial phases of the project-visioning and early concept development. Engagement strategies were customized to best meet the individual needs of each group.

**General public** represents the full range of potential Crow-Hassan or Park District users. They provide valuable insight into general regional recreation trends or interests. They can also provide insight into barriers to park use and park system needs.

**Current park users** have a high level of familiarity with the park and can provide personal insight into a specific user experience or interest – such as hiking trails or equestrian infrastructure.

**Local communities** adjacent to Crow-Hassan – including Rogers and Hanover – can offer unique insight into the park’s larger community context and historical knowledge of the area. Further, 50 percent of Crow-Hassan’s users are within a 10-minute drive of the park. Local communities provide insight into how to increase park use and user enjoyment for those most likely to use the park with regular frequency. Local communities also assist planners to better understand what local needs are not currently being met and what is in place and planned locally, so Park District efforts are non-duplicative.

**Underrepresented populations** include individuals District-wide that are female, people of color, are ages 18-34 and 60+, and/or have a household income less than \$50,000. Diverse engagement methods and targeted communications were used to reach underrepresented groups and ensure their voices were heard in the planning process. Their insight is critical to developing a park that is welcoming and relevant to new users and all sectors of the population.

**Local clubs and advocacy groups** are groups of individuals who self-organize around a specific activity or interest, including but not limited to,

hiking clubs, equestrian organizations or naturalist groups. The unique features of Crow-Hassan, such as the restored mature prairie and the Crow River, make it a particularly important resource and destination. Local clubs and advocacy groups provide expertise regarding the wants and needs of a specific interest as well as larger context to the importance of park’s plan for specific systems.

**Park District volunteers** is a dedicated group of volunteers that work in a variety of capacities throughout the Park District. This community of individuals provides unique insight into the park’s role within the District, user needs and the park’s condition.

## ENGAGEMENT STRATEGY

The park’s rural location and diffused targeted user groups presented unique challenges for comprehensive community engagement. To reduce potential barriers of engagement participation and reach a wide range of potential participants within the project timeline, various engagement strategies were utilized to garner balanced feedback from Park District volunteers, existing park users, prospective park users, surrounding communities and advocacy groups. These included online tools, planned listening sessions and intercept interviews at park events. Personalized direct contact outreach and digital tools played particularly valuable roles in reaching individuals and groups.

## ENGAGEMENT TOOLS

Various participation tools were utilized to garner feedback from diverse user groups including digital and in-person outreach.

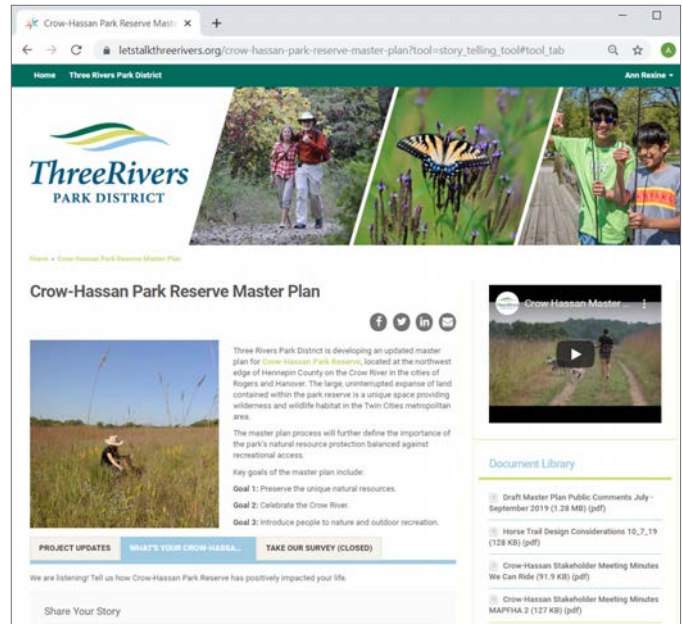
**Let’s Talk website**, a third-party online engagement platform, provided a project webpage as a landing space for master plan background, timeline, meeting agendas, minutes, feedback loop, project updates and video. The website received over 8,500 visits from August 2018 – December 2019 (Image 1, next page).

**An online survey** was available from August – November 2018, and garnered over 1,225 responses (under separate document).

The survey asked participants to validate the master plan guiding principles, describe recreational activities important to Crow-Hassan (now and in the future) and then what may be needed to improve the park visitor experience. Published on the Let's Talk website, the survey was advertised through a variety of methods:

- **Direct connection** to local advocacy groups that currently use, or might potentially use Crow-Hassan provided a personal engagement touchpoint. All contacted groups are self-organized and have an online presence. Contact was established with group leaders, with an invite to participate in the online survey and provide follow-up feedback. Groups included; Minnesota Search and Rescue Dog Association, Women Who Hike Minnesota, Minnesota Trail Riders Association (equestrian), Minnesota Trail Sisters (equestrian), Wild Ones Big River Big Woods (naturalists), Minnesota Master Naturalists, Minnesota Chapter of Wildlife Society's Women of Wildlife, Minnesota Wildflowers, Minnesota Naturalists, Pollinator Friendly Alliance, Northwest Trails Association (snowmobile), Foxtailers Snowmobile Club, North Star Ski Touring Club (cross country ski), River Ramblers (canoe/kayak) and Twin Cities Paddlers (canoe/kayak). Many of these organizations pushed the online survey out by sharing the web link on their own social media or emailing their individual group members.
- **Municipal partners**, including the cities of Rogers and Hanover, published general Crow-Hassan master plan information, provided the online survey information on their social media and advertised directly to registered city park and recreation program participants.
- **External and internal intersections** provided an avenue to reach current park users. A postcard was generated to hand out at events and in-person to park visitors as a feedback loop to the website and survey (Image 2). An email list and subsequent blasts were generated for the following permit holders; dog off-leash area, horse trail and cross-country ski.

The Crow-Hassan Facebook page, moderated by the Park District, also posted the online survey invite.



**IMAGE 1 | The project website provided online space to inform and provide feedback opportunities.**

Source: Three Rivers Park District



**IMAGE 2 | Postcards were generated to hand out at events and in-person within the parks.**

Source: Three Rivers Park District

Staff were also invited to participate in the online survey. A press release was issued on October 15, 2018 detailing the master plan and linking to the online survey. Notice was also provided through the Park District eNewsletter.

**Event input** garnered feedback from Park District users who might not otherwise participate in online engagement and/or need visually based engagement strategies. Project team members attended several events to complete in-person engagement activities.

- Big Woods Halloween**, hosted annually by the Park District, is held at Eastman Nature Center within Elm Creek Park Reserve. This event provided an opportunity to capture input from children and families within Crow-Hassan’s planned core service area (25-minute drive). The event draws a diverse group of families and children from the Twin Cities Metropolitan Area. The engagement was focused on recreational activity selection to gauge interest in low-impact park development. Participants were presented with 28 potential dream park activities that could be held at Crow-Hassan (Image 3). These included existing park activities including hiking, horse back riding, paddling and insect tagging - and new activities including canoe trips, story time and pop-up sauna. An estimated 120 people of all ages were engaged in the process with about 40, predominately children, taking direct participation in the engagement activity. Those not wishing to participate in the activity selection were presented with a postcard take-away. There was a measured increase in website activity in the days following the engagement event.
- Autumn Woods Classic**, also hosted by the Park District, is an annual race at Elm Creek Park Reserve. This event provided an additional opportunity for in-person outreach to current and potential Crow-Hassan users within the park’s service area. Held at a booth near the race’s finish line, participants were engaged in conversation by project staff. They were informed about the master planning project and asked to name a park activity that would bring them to Crow-Hassan. The participants’ responses were recorded for analysis. Participants were also invited to participate in the online survey. An estimated 60 people were directly engaged in the event. There was a measured increase in website activity in the days following the engagement event.

**Extended conversations** provided authentic and intentional feedback. Project staff hosted and attended a variety of extended conversations including listening sessions with Park District staff, volunteers and stakeholder user groups and adjacent municipality meetings.



**IMAGE 3 | The Big Woods Halloween event engaged youth participants to better understand recreational education and programming opportunities.**

Photo credits: Perkins + Will



- **Listening sessions** included opportunities to better understand park user's input regarding specific Crow-Hassan areas of interest. Prior to concept development, invited Park District volunteers, which included a mix of naturalists and Park District horse patrolers, were asked to participate in a listening session with master plan team members (Image 4). After presenting a basic overview of the project, the group of 18 participant volunteers were asked to work through two engagement activities. The first was a series of common problematic park scenarios and proposed park changes. The second was an exercise where volunteers were asked to identify strengths, weaknesses, opportunities and threats on a Crow-Hassan map to better understand the park's contextual complexities.

In another listening session, Park District educators convened to brainstorm new and innovative public programming ideas for Crow-Hassan. This type of listening session provided space for staff to creatively approach new educational and programming ideas.

Equestrian stakeholder user groups, who expressed an interest in further conversing about proposed park improvements that could impact the unpaved trail network, participated in several listening sessions with project staff. These conversations served to strengthen the master plan, as they primarily resulted in design recommendations for the Crow River Regional Trail, equestrian parking lot and trail etiquette suggestions.

- **Municipal and agency coordination** ensures that the master plan is consistent with ancillary government organizations with vested stake in Crow-Hassan. The cities of Rogers and Hanover provided feedback through phone conversations, in-person staff meetings with staff, advisory boards and elected officials. As part of the jurisdictional review process, both cities reviewed the master plan and support is documented in Appendix A. To ensure that the master plan's development was consistent with the planning goals as well as rules and regulations of state and local agencies, Hennepin and Dakota Counties, the State of Minnesota Health Department and MnDNR

provided feedback through phone conversations and email throughout the planning process. Specific features proposed in the master plan - including proposed changes to the camping areas and changes to Crow River access - were reviewed with the appropriate agencies. Municipal and agency coordination will continue to be important as proposed capital projects become realized such as additional property acquisition and connection of the planned Crow River Regional Trail to local and regional community assets and facilities.

### ENGAGEMENT THEMES

Following the various community engagement events, online survey, listening sessions and municipal and agency input, an internal Park District master plan working group reviewed the data and identified the primary themes shared across engagement tools. Primary themes emerged through this review and became the primary design recommendations for concept development.

- **Protect unique natural resources.** The most consistent and dominant theme across all engagement strategies was an interest in protecting the current natural resource features of the park. Feedback from the adjacent communities, current users and expert park volunteers identified the park's natural resource features as the primary draw of users from around the region and an invaluable resource for the region's natural systems.
- **Maintain the rustic quality.** Current users identified the park's rustic condition and the immersive experience of the park's natural systems as a primary draw for their visits. This was consistent across existing user groups including hikers, equestrian riders and volunteers. A common comment seen in survey responses was, "keep the park just as it is."
- **Reduce user conflicts.** Current users and volunteers communicated the occurrence of ongoing user conflicts seen throughout the park, particularly in the trailhead parking area. Equestrian users requested increased separation between themselves and other users for safety, including a separate parking area. With the addition of the Crow River Regional Trail



**IMAGE 4 | Listening session provided opportunity to hear user's first-hand knowledge and to problem solve together.**

route through the park, there was great concern how bicycle traffic would interfere with the existing park users and a desire to ensure a level of separation for cyclists, hikers with dogs on-leash and equestrians.

- **Improve accessibility.** The primary barrier of Crow-Hassan use across engagement materials was the lack of accessible infrastructure. The current unpaved trail system's rustic quality and often times uneven natural surfacing prevents those individuals with varying levels of mobility from using the park. This includes people with disabilities, families with strollers, young children and aging adults.
- **Improve signage and wayfinding.** Survey responses and feedback from listening sessions indicated a strong interest in improved wayfinding throughout the park. Current users communicated concern with current wayfinding and a high occurrence in users becoming lost or disoriented during their visit. Requested features included increased park map kiosks, trail markings and overall planned park circulation routes.
- **Increase natural resource-based programming, education and experiential opportunities.** Results from the survey, listening sessions and events all indicated a strong interest in increased natural resource-based programming, education and experiential opportunities within the park, particularly for youth and adults. For prospective users, a lack of programming and support for families was a primary barrier of park use.

Survey participants, in particular, expressed an interest in learning about the history of the park and desired interpretive features to bolster their knowledge of the park's ecology. There was also significant interest in play features being added to the park. However, many specified that the play features should be minimal or educationally focused.

This same light-touch focus was seen in the intercept engagement results. Insect netting, butterfly tagging, dog sledding, bird watching and horseback riding were the top requested dream activities for children. Camping, pop-up saunas, paddling and bicycle trails were the top requests from the adult participants.

- **Diversify camping options.** Current users expressed an appreciation and ongoing interest in group camping options in the park. There is great interest in expanding the camping options of the park to provide individual camping options, for both hikers and equestrian users. There was also requests for alternative camping options including cabins and yurts.

#### **PUBLIC COMMENT PERIOD**

The draft master plan public comment period ran 45 days from July 22 - September 5, 2019. Feedback received (under separate document) resulted in follow up stakeholder listening sessions to better guide design recommendations provided in Chapter 5 regarding the Crow River Regional Trail and equestrian infrastructure.

# 3

## RESEARCH

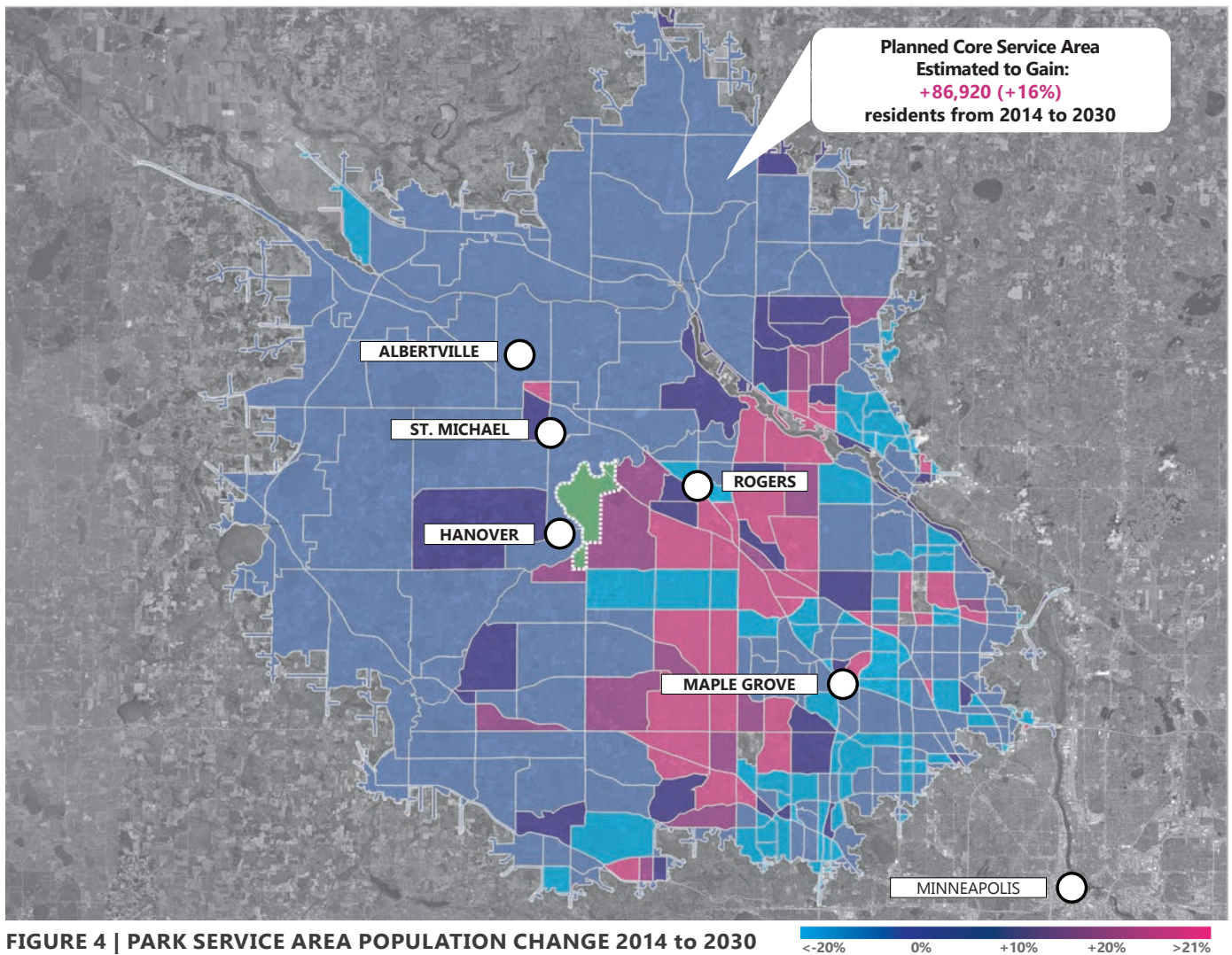
### TRENDS, DEMANDS, & FORECASTS

**S**INCE ITS INITIAL ACQUISITION IN THE 1960s, Crow-Hassan Park Reserve has served the changing interests and needs of park visitors throughout Minnesota while developing into an ecological gem in the Park District and greater Metropolitan Area park systems. Currently, the unique, resilient natural features of this park make it exceptionally well positioned to support growing interest in immersive nature-based recreation activities as well a burgeoning interest in outdoor education programs for all ages. The development of the Crow River and Rush Creek Regional Trails and connection to the Lake Independence Regional Trail on the western edge of Hennepin County will increase Crow-Hassan's connectivity to the Metropolitan area and the Park District system and increase overall park visitation.

Additionally, the systemic conditions in and around the park are changing. Recent population, municipal development, and climate projections indicate that there may be increase levels of stressors, including potential increased visitation and extreme weather conditions, in coming years. Understanding these factors and incorporating potential mitigation strategies into the master plan are necessary to ensure the park remains an ecological gem for generations to come.

#### POPULATION

Located on the western edge of Hennepin County, Crow-Hassan Park Reserve serves visitors primarily from the greater Twin Cities Metropolitan Area. According to a 2014 park user survey, 86 percent of the estimated 68,000 park visitors were residents of suburban Hennepin or Wright counties. While the population of the statewide population growth has slowed, the population in the greater metropolitan



**FIGURE 4 | PARK SERVICE AREA POPULATION CHANGE 2014 to 2030**

Source: Three Rivers Park District

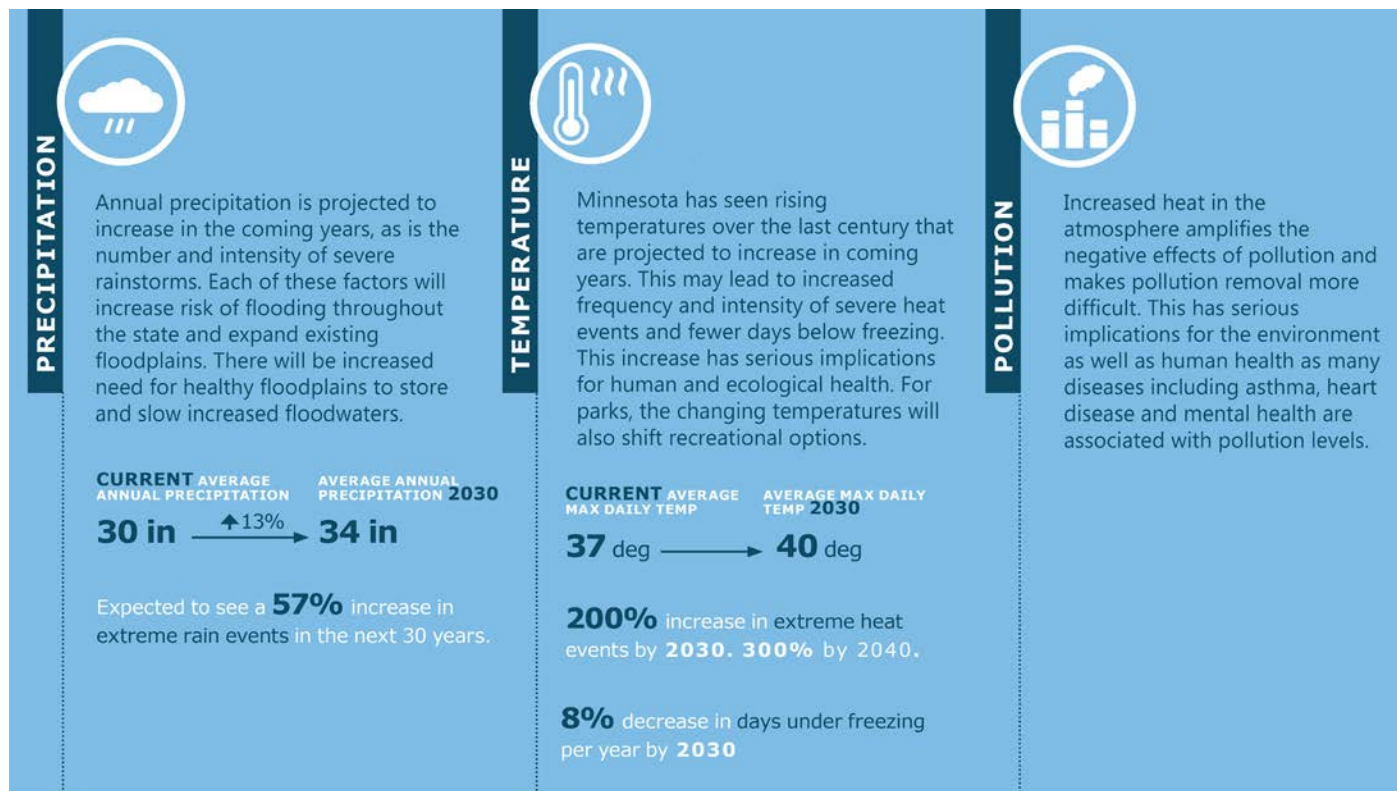
area, including the park’s planned core service area (25-minute drive), has seen population growth which is expected to continue in coming years (Figure 4). According to the Metropolitan Council’s population forecasts, the Twin Cities Metropolitan Area will be home to almost 3.7 million people by 2040, a gain of 824,000 residents from 2010. Growth in suburban edge communities, including those adjacent to Crow-Hassan Park Reserve, are projected to experience particularly high growth.

Representative of these larger population patterns, the communities directly adjacent to the park, including the cities of Rogers and Hanover are transitioning from rural, agricultural lands into residential and suburban development. Comprehensive Plans for these cities indicate a significant change in the planned land use in properties directly adjacent to the park. These

growing communities may increase overall use of the park and thus place increased stress on the park’s services. Growth adjacent to the park does offer the opportunity to improve connections to these communities’ growing network of public open and green space and offer a unique park experience to complement the existing area parkland infrastructure, much of which is heavily developed.

The Twin Cities Metropolitan Area’s senior population will double in the coming years, and, for the first time ever, there will be more seniors than children. Seniors have twice as much leisure time than other adults which equates to a large recreational market demand.

The Twin Cities are also growing more racially and ethnically diverse. There was a 1.6 percent growth in white/non-Hispanic populations in Minnesota between 2000-2010, compared to 54.3 percent growth of



**FIGURE 5 | REGIONAL CLIMATE PROJECTIONS**

Source: NOAA National Centers for Environmental Information Climate Toolkit & Perkins + Will

non-white/or Hispanic populations during the same period. Further, one-third of the Metropolitan Area's population growth is attributed to immigration into the Metropolitan Area (Metropolitan Council, 2018). To remain relevant into the future, Crow-Hassan must define its programming and outreach within this population context. Crow-Hassan's service area demographics are further defined in Appendix B. It is vitally important to incorporate the wants and needs of these new and/or growing communities into any planning effort to ensure the highest level of inclusion in the park system and a high level of public service in coming years.

### ACCESSIBILITY

According to the 2010 census, 54 million people (approximately 1 in 5 people in the United States) identified as having a disability that, "significantly limited one or more major life activities, such as walking, seeing, hearing, breathing, and thinking," (USDA, Accessibility Guidebook). This includes individuals using wheelchairs, crutches, canes, walkers, and other mobility devices. Furthermore, by 2030, 80 million people in the United States will be older than

65, and be more likely to develop limitations to their mobility (USDA, Accessibility Guidebook). The Crow-Hassan Master Plan seeks to ensure that the park can be experienced by everyone.

Crow-Hassan is committed to providing a spectrum of recreational opportunities that meet the needs of a diverse public and protect the natural resources of the park. Accessible camping facilities, trails, and play features are planned along carefully curated routes in the park that allow all users to sample a wide range of the park's spectacular offerings.

### CLIMATE

According to the Environmental Protection Agency, Minnesota is expected to experience significant change in the State's climatic conditions in coming years (Figure 5). The EPA has projected an increase of 13 percent in overall precipitation by 2030 and 57 percent increase in the frequency of extreme precipitation events by 2040. This will increase the overall storm water burden on regions natural areas and infrastructure. As a result, the health of the larger Metropolitan Area's flood plains, including the flood

plain along the Crow River, will become ever more valuable and should be protected.

Consistent with worldwide trends, Minnesota is also expected to see an increase in overall temperatures. The average maximum daily temperature is expected to raise 3 degrees, the frequency of extreme heat events is expected to increase by 200 percent, and the number of days below freezing is expected to decrease by 8 percent by 2030. These changes have significant implications for ecological and human health of the region. All species are expected to experience some level of change or stress with the climatic shifts. However, plant and animal communities at the edge of their climatic zone range are at particularly high risk for habitat loss. Crow-Hassan's uniquely diverse and resilient plant communities, particularly the prairie plantings, make it an invaluable resource to the region and stand as a regional example of how parks' ecological design can be responsive to future climatic conditions.

Further, growing communities, increase in overall temperatures, and potential loss of mature natural areas will intensify the pollution burden throughout the state. Expansive, highly-resilient, natural areas, like Crow-Hassan, are vital to mitigating pollution through carbon sequestration. In addition to this ecological function, the open spaces stand as enduring places to users to learn about natural systems and their functions in the face of changing climates.

## **EDUCATION**

The unique ecological history, successful restoration, and resiliency of the park's systems make it an invaluable resource for ecological education. This Master Plan explores ways in which educational opportunities, specifically related to telling the story of the park's transformation, can be integrated into the user experience. This design strategy is consistent with a growing public interest in ecological education opportunities and research supporting its importance.

Outdoor education has been on the rise for the past couple of decades throughout K-12 education. This movement has been spurred on by the 2005 book, *Last Child in the Woods*, by journalist Richard Louv.

In the book, he discusses that children are increasingly disconnected from nature, which he terms, "nature-deficit disorder." Since the book's publication, a multitude of institutions have guided key trends in outdoor education. The Children and Nature Network, for instance, is an organization devoted to "a world in which all children play, learn and grow with nature in their everyday lives." They have been one of the leaders in advocating for the mental and physical benefits of outdoor education, as well as the value in terms of cognitive development and stress reduction.

Many organizations, such as Science of Nature-based Learning Collaborative Research Network, Cloud Institute and Center for Green Schools focus on outdoor learning, natural history, and teaching children how to identify their local plant and animal species, while others seek to ensure that there is equitable access for all to nature areas. Many schools have supported these efforts through integrating these nature-based learning ideologies into their curriculum.

The benefits of environmental education are not limited to children. There is growing research to support that multi-generational and intergenerational environmental education opportunities can foster environmental stewardship, spark volunteer-ism, and improve social and health outcomes for participants.

## **COMMUNITY SUPPORT**

### **Group Gathering and User Interaction**

There is growing evidence in social science and planning research that public, openly accessible spaces for group gathering, movement, and spontaneous social meetings are invaluable to the health and well-being of communities. These spaces create a social infrastructure that allows users to not only feel more connected to each other but also the spaces that they use. This connection is paramount to the continued support of this unique park space and ecological resource. This master plan explores ways to thoughtfully integrate small community gathering spaces into this ecologically focused park.

## RECREATION

### National

The Outdoor Recreation Participation Topline Report (2018) describes a growing interest in outdoor activities such as trail running, camping, fishing, etc. over organized sports (Figure 6). In 2017, 49 percent of Americans (146.1 million individuals) participated in at least one outdoor activity, totaling 10.9 billion outings, which continues three years of growth in outdoor activities. The most popular activities for Americans are running, jogging and trail running. The report discusses that among recreational participants and “aspirational participants” (those who did not participate, but have interest), there is a decreased interest in sports, fitness and leisure activities in favor of outdoor activities. At all age levels of aspirational participants, camping was ranked in the top three of their most preferred recreational activity, with hiking, backpacking, fishing and canoeing measuring in the top ten. Of those listed, currently Crow-Hassan Park Reserve supports camping, hiking, trail running and canoeing.

Adults are also more likely to engage in outdoor activities if they were introduced to the outdoors as children. Thirty-eight percent of adults who grew up participating in outdoor experiences continued to do so into adulthood. Crow-Hassan’s rustic nature, including unpaved trail system, currently lacks supports for family user groups and thus limits the potential exposure of children to Crow-Hassan’s ecological sites and park features. Improving the accessible infrastructure in the park where appropriate and adding light touch features to support all age use could help bolster children’s experience of the park space and potentially create a more active adult user base.

### State

The 2014-2018 Minnesota’s State Comprehensive Outdoor Recreation Plan (SCORP) published by the Minnesota Department of Natural Resources explores statewide trends related to outdoor recreation opportunities. Continued urban growth seen in the Twin Cities Metropolitan Area means that outdoor activities attracting largely rural-based participants, such as hunting and snowmobiling, will gain fewer new participants than activities attracting both urban

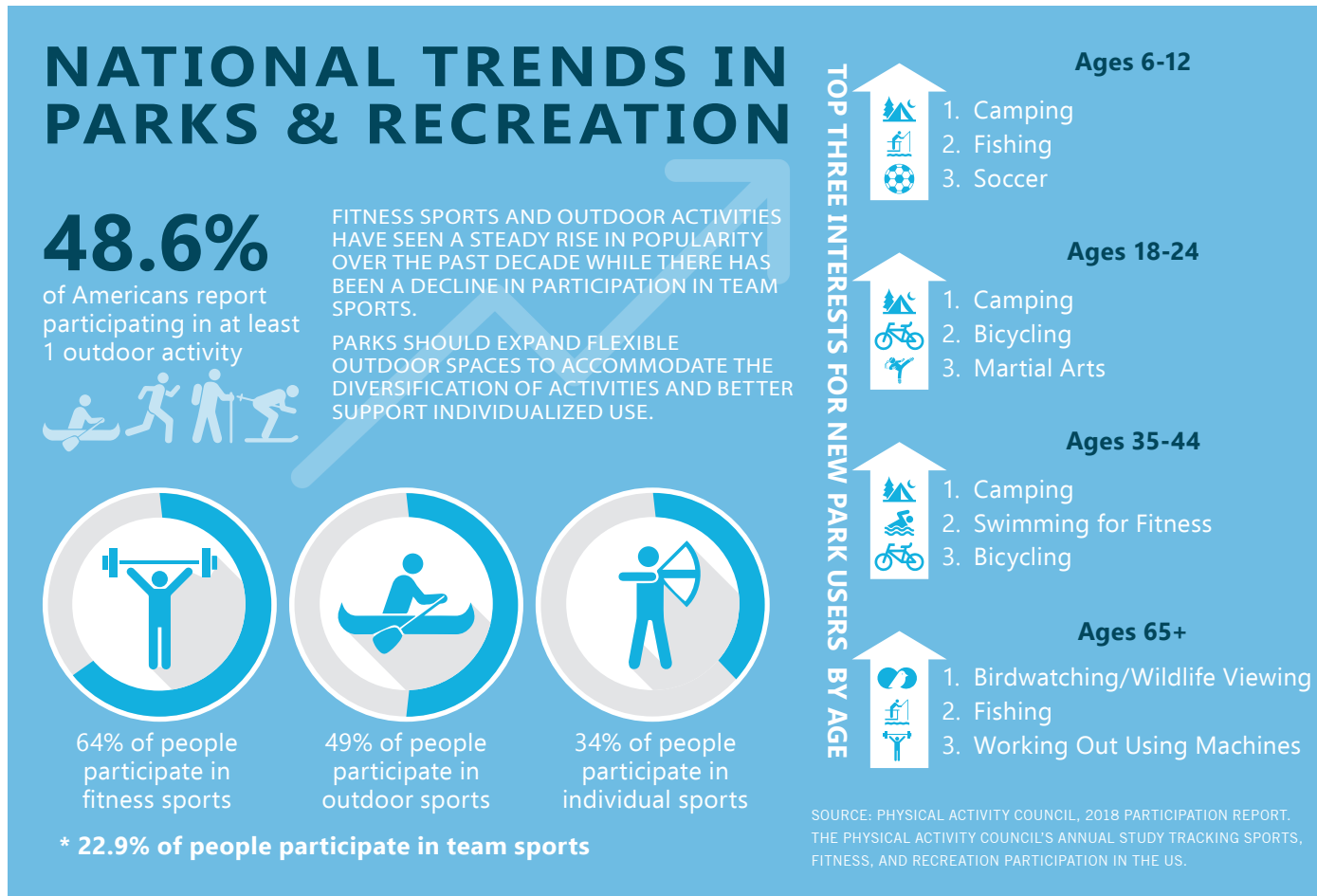
and rural-based participants, such as camping, fishing and boating. Minnesota trends also reflect the overall national trend in declining per-capita participation in outdoor activities, particularly among young adults (20-45) and their families. The decline is not as pronounced in Minnesota, but it is still present.

In recent years, there has been an increase in popularity of camping structures – yurts and camper cabins – in camping areas throughout the state. These structures have the benefit of extending the campsites to full four-season use, reducing the equipment requirement for visitors, and potentially serving a wider audience of users with a less rustic camping option (Appendix C). These structures also have the potential to limit the overall user footprint in a camping area to the contained structures.

### Regional

The 2040 Regional Parks Policy Plan describes goals and strategies for the regional parks, as laid out by the Metropolitan Council. These aims also align with goals developed in Thrive MSP 2040. The Regional Parks Policy Plan recognizes the region’s growing diversity. However, historic rates of outdoor recreation participation for people of color are lower than expected. The fastest growing segments of the population are new immigrants, people of color and Hispanic/Latinos. These groups have historically had lower than expected participation rates in outdoor recreation activities. For the Regional Park System to remain relevant in the future, it is important to meet the needs and interests of these groups.

The Regional Parks System recognizes the need to address climate change in the region through conservation, maintenance, and enhancement of the park system through planning and management efforts. The park system already provides ecological value and resiliency to the region through carbon sequestration, stormwater management, urban heat island mitigation, biodiversity enhancement and improvements to air and water quality. Moving forward, the Metropolitan Council and its partners seeks to quantify these services and facilitate policy that supports these efforts.



**FIGURE 6 | NATIONAL RECREATION TRENDS** Source: Perkins+Will based on Outdoor Recreation Participation Topline Report (2018)

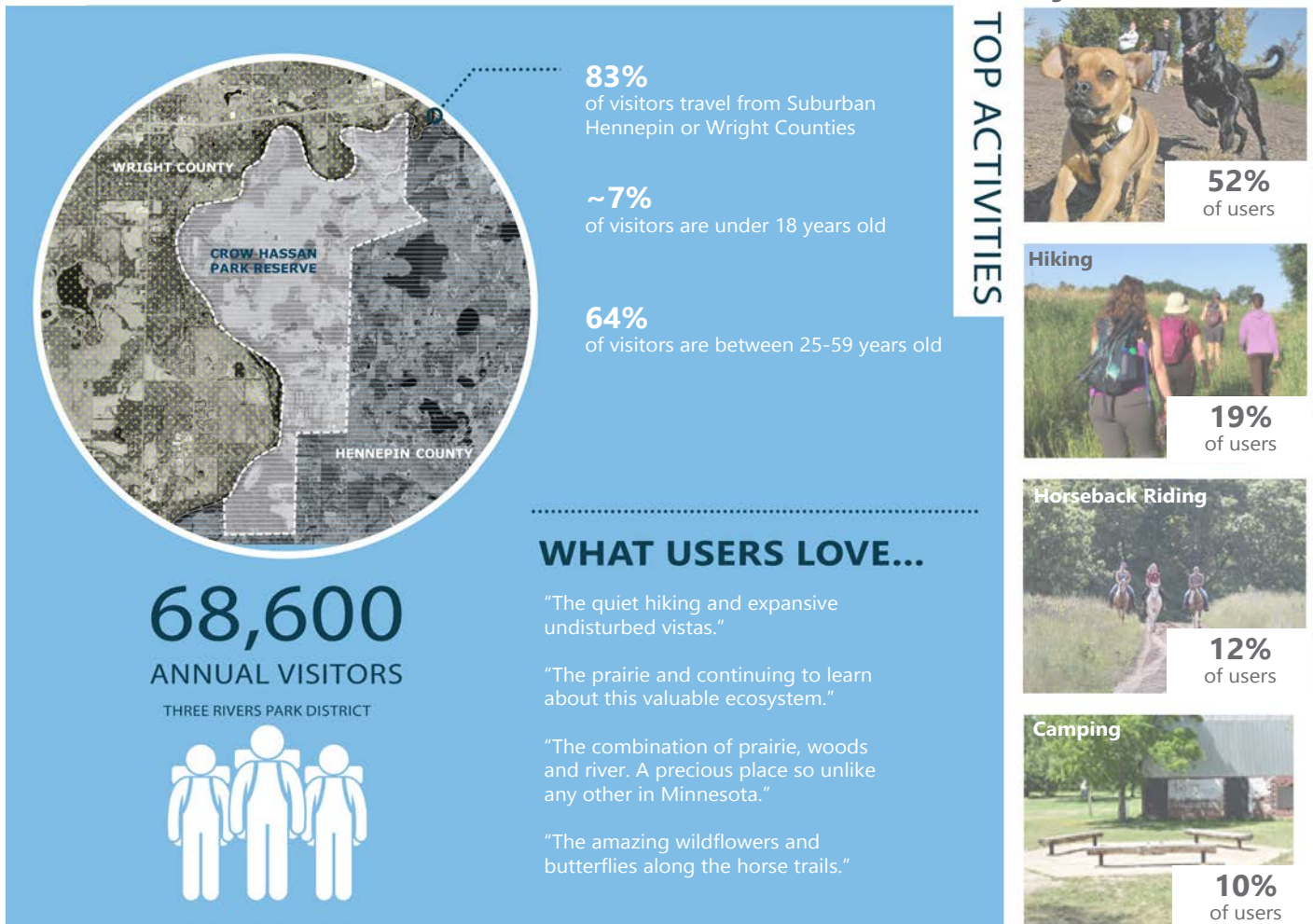
### Park District

Reflective of larger national and regional trends, the Park District has seen an increase in participation in outdoor recreation activities in the past five years. Nature-based recreation - such as hiking and paddling - saw particularly large increase in participation rates (Table 1). Hiking, equestrian and dog off-leash areas are the top three activities in Crow-Hassan. This master plan expects the user trends at Crow-Hassan will mimic the trends seen in suburban Hennepin County. The master plan explores ways to better support these user groups while providing space for new potential user groups. These recreational needs should be balanced with the ecological resources and restricted development of the park.

Suburban Hennepin County Recreation Participation Trends (2013-2018)		
	Hiking/walking	32%
	Paddling (non-motorized)	15%
	Camping (tents)	10%
	Dog off-leash Area	10%
	Horseback riding	8%

**TABLE 1 | Activity Participation Trends**  
Source: Three Rivers Park District





**FIGURE 7 | CROW-HASSAN PARK RESERVE VISITOR SUMMARY** Source: Perkins + Will based on Three Rivers Park District 2018 data

**Crow-Hassan Park Reserve**

Crow-Hassan’s rustic character has long made it a destination park in the region and particularly popular for adult users (Figure 7). The park hosts an estimated 68,600 annual visitors. Visitation to Crow-Hassan is unique in that there are fewer children and more adults ages 45-59 and greater than 75, than what is expected compared to the core service area demographics. This is opposite of many regional parks and park reserves and supports the notion of providing a variety of settings and levels of development within the broader park system. Crow-Hassan is essentially serving a niche visitor-ship who may not have their desired recreation offerings served elsewhere. There is room to grow visitation of people that are African American/Black, Asian or Hispanic, as these community groups are not yet reflected in the Crow-Hassan visitor data, as is

expected. However, at a District-wide level parity has been reached for each of these community groups or is on-target to do so within the next five years.

Reflective of the adult user population, top park activities include hiking, dog off-leash area visits, horseback riding and group camping. All of these activities have seen increased rates of participation in the past 5 years within the Park District.

Crow-Hassan is particularly unique in its support of the equestrian community. The park’s size, unpaved trail network, camping options, and lower overall rates of visitation have made it friendly to the equestrian user community. According to the 2018 summer park user survey, 12 percent of users participated in horseback riding at Crow-Hassan at least once during the previous year. Many of the other regional parks

once friendly to equestrian users have expanded trail accessibility to bicyclists to respond to the needs of the adjacent developing communities. This contributed to reduced equestrian ridership in these parks. The Park District intends to continue to operate Crow-Hassan as an equestrian destination within the Park District.

As the Metropolitan Area continues to increase in population and interest in programs and activities present at Crow-Hassan continue to increase, overall park visitation is expected to grow. It is the intent of the master plan to continue to support the park's current users while identifying low-impact ways to better support visitors of all ages, abilities, and familiarity with the park.

## **TRAIL CONNECTIONS**

### **Crow River Regional Trail**

With the extension of the Crow River Regional Trail, Crow-Hassan Park Reserve will become better integrated into the greater Metropolitan Area park and trail system. The Crow River Regional Trail Master Plan identifies an estimated eight mile segment through Crow-Hassan Park Reserve.

This connects Crow-Hassan to Lake Rebecca Park Reserve and further to the Luce Line State Trail and West Mississippi River Regional Trail.

According to the Crow River Regional Trail Master Plan, the regional trail will generate 290,000 annual visits from users from the larger Twin Cities area when completed. While not all of these users are expected to travel through Crow-Hassan Park Reserve, the park will still see a portion of these users and thus an increase in visitor counts when the trail is opened.

### **Rush Creek Regional Trail**

Similar to the Crow River Regional Trail, the planned extension of the Rush Creek Regional Trail will increase connectivity of Crow-Hassan to the larger regional park system. The plan extends the existing Rush Creek Regional trail 11 miles westward from Elm Creek Park Reserve to Crow-Hassan Park Reserve. This trail's planned to intersect with the Crow River Regional Trail route on the eastern side of the Crow-Hassan Park Reserve, near the main trailhead entrance. According to the 2008 Rush Creek Regional Trail Master Plan,

it is projected that when completed, regional trail visitation will be approximately 1.2 million annual visits by the year 2030. The plan identifies hikers, bicyclists and joggers as the primary user groups for this trail.

### **Lake Independence Regional Trail**

The 16-mile paved Lake Independence Regional Trail is a linking trail that connects Crow-Hassan Park Reserve, Baker Park Reserve and the Luce Line State Trail. The 10-foot-wide paved trail supports walking, jogging, hiking, dog-walking, in-line skating and bicycling and generates 26,400 annual visits. By 2040, the Lake Independence Regional Trail service area is projected to grow from 138,557 people to 184,590. Currently, 50% of the trail users live within 1.5 miles of the trail and 75% of the trail users live within 6.1 miles of the trail.

A turf trail for horseback riding and hiking runs parallel within Baker Park Reserve, south of County Road 115.

A planned trail extension will bring the trail south from the Luce Line State Trail to the Dakota Rail Regional Trail.

### **Crow River State Water Trail**

While specific user counts are not currently collected on this trail, the MnDNR does outline larger goals for trail development that are applicable to the Crow River State Water Trail. According to the 2015 MnDNR System Plan, the MnDNR is hoping to improve integration of state trail systems into regional and city recreation areas to increase usability and better support diversity in user groups. While the current connection between the water trail and Crow-Hassan's current park amenities are limited, there is great opportunity to better integrate the Crow River State Water Trail into the park and thus support paddling traffic in the region. While the master plan does not detail exactly how to accomplish this, the Park District is supportive of this integration.



# 4

## EXISTING CONDITIONS CURRENT CONTEXT

**CROW-HASSAN PARK RESERVE** has experienced tremendous change over time (Figure 8). Thoughtful natural resource planning and restoration, as well as a growing public appreciation for natural spaces and outdoor recreation, has transformed the park into the regional resource we know today. Understanding the historical context and the current conditions was paramount to this master plan.

### CULTURAL RESOURCES

The human history of the Crow-Hassan Park Reserve land reaches back thousands of years. Crow-Hassan's physical landscape has undergone a number of transformations, with traces of these past identities embedded in its environment. For countless generations, this former Minnesota Big Woods landscape was home to indigenous Dakota people who left their imprint on naming vernacular. The word "Hassan" is an anglicized reference for the sugar maples that comprised the Big Woods landscape and the Crow River is named for the bird known to be the "marauder of newly planted corn."

By the 1850s, this part of Minnesota was beginning to be converted to farmland by Euro-American settlers. Several lumber mills operated along the Crow River as the forest was cleared for agriculture. Steamboats were the only means of hauling passengers and freight during the early 1850s. Paddle wheel boats brought provisions on the Mississippi River from St. Anthony Falls to nearby Dayton where the goods were transferred to rowboats and carried up the Crow River. These rowboats regularly ran supplies from Dayton to Rockford, past land now known as Crow-Hassan Park Reserve, for about two years.



**FIGURE 8 | CROW-HASSAN LANDSCAPE TIMELINE** Source: Three Rivers Park District and Perkins+Will

Around this same time in 1855, the City of Hassan was planned to be built along the banks of the Crow River within Crow-Hassan Park Reserve’s current boundary. However, despite all its perceived advantages, the City of Hassan never came to be. Like countless other land speculations, the site was overrated to boost land values and increase profit. The platted City of Hassan never materialized beyond the paper map that today memorializes a once grand vision.

While settlement near a river was preferable, it also came at a price. Fluctuating river levels on a yearly and seasonal basis lead to hazardous conditions. Due to the variability and unpredictable nature of the Crow River, high-density settlement did not end up occurring. The introduction of the railroad eventually lead to the abandonment of most inland water transport on the Crow River. The railroad, however, did shape the subsequent agriculture land use of Crow-Hassan’s landscape for the next 100 years – providing transportation means to send harvested grains to the Twin Cities milling district for distribution nation-wide.

Beginning in the 1960s, the Park District began assembling Crow-Hassan Park Reserve’s former agriculture landscape into the carefully cultivated, vibrant landscapes we now recognize today. Yet remnants of the former Euro-American farmsteads, and other archaeological sites throughout Crow-Hassan are fundamental to providing a holistic experience of the park.

Known cultural resource sites that tell the Crow-Hassan story include the St. Peter Road/old school location, the Becker farmstead, four corners site and Riverbend barn – among others. Learning to read these various cultural and historical footprints helps explain the dynamic natural resource changes and tells the story of this remarkable landscape.

The only recorded cultural resource site occurred as part of a County Road 116 project in 2001. The Office of the State Archaeologist recorded artifact scatter at one site east of County Road 116 known as the Berning farmstead (site 21HE336). Deposits date to a 1940s farmstead outbuilding, which occupied the site from the late nineteenth through late twentieth centuries.

## NATURAL RESOURCE FEATURES

The unique natural resources and qualities of the park are central to Crow-Hassan's identity and beloved role within the regional park system. Comprised of agricultural land at the time of Park District acquisition, the park has been transformed into a dynamic landscape of floodplain and upland forests, wetlands, open meadows and river shoreline and regionally recognized restored prairie (Figure 9 & Table 2). This design and development has supported the reintroduction and resurgence of regionally significant plant, insect, and animal species - including trumpeter swans, plains hog-nosed snakes and the regal fritillary butterfly. It is the intent of this master plan to support the ongoing natural resource management efforts to allow these ecological systems to continue and thrive.

### Crow River

Defining the boundary between Wright and Hennepin counties, the Crow River remains an important natural resource asset to the western Twin Cities. The Crow River is a tributary of the Mississippi River and drains a watershed of approximately 2,700 square miles through eight Minnesota counties. Comprised of the North, Middle and South forks, the North and South forks converge at Lake Rebecca Park Reserve – with the

North Fork flowing northeast to the Mississippi River, past Crow-Hassan Park Reserve for eight miles.

In addition to being a regional recreation destination for river paddlers, the Crow River forms a wildlife corridor for fish and water fowl (Image 5). Bald eagles, walleye, otters and beavers are just a few of the myriad of wildlife that call this river corridor home.

### Recreated Prairie

Within the past ten years, over 280 acres of prairie have been recreated – effectively completing the original vision for the Crow-Hassan prairie landscape at over 1,200 acres. Typical prairie plant blooming compositions found in the landscapes change throughout the year and include both grasses and wildflowers. Dominant grasses include big bluestem, little bluestem, Indian grass, sideoats gramma and Canada wild rye.

Main wildflowers found blooming from May through October include wild lupine, butterflyweed, prairie phlox, purple prairieclover, white prairieclover, rough blazingstar, gray goldenrod, showy goldenrod, gray headed coneflower and azure aster. There are another 15 species of grasses and sedges and over 90 additional species of wildflowers that bloom from early May through October.



**IMAGE 5 | The Crow River provides opportunity to view bald eagles, otters beavers and a variety of fish species.**

Image credit: Three Rivers Park District

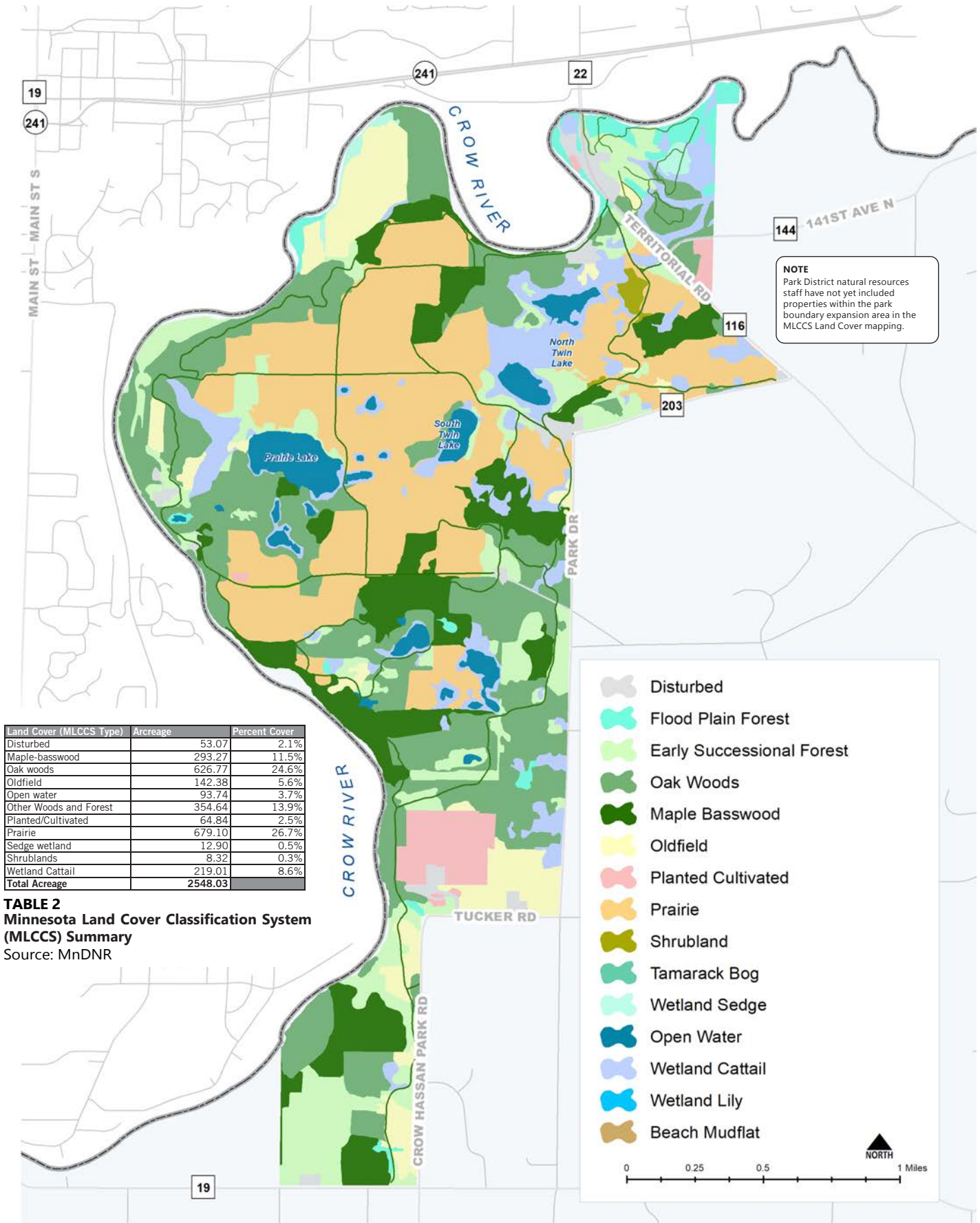


FIGURE 9 | 2014 MLCCS LAND COVER

Source: MnDNR & Three Rivers Park District

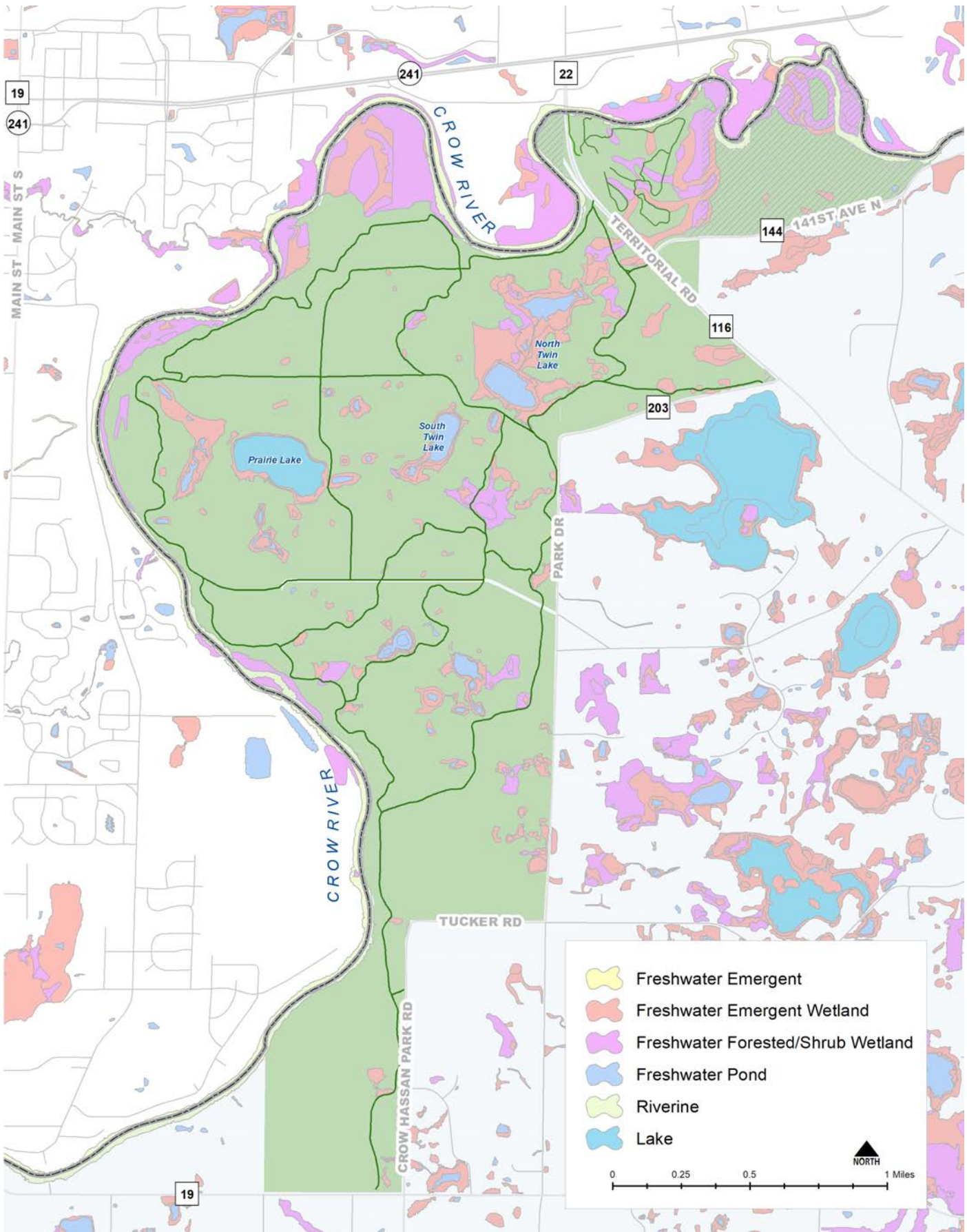


FIGURE 10 | WETLAND TYPE

Source: National Wetland Inventory & Three Rivers Park District

## **Wetlands**

Crow-Hassan Park Reserve has a diversity of wetlands that provide significant ecosystem value to the natural resources found within the park (Figure 10). These range from seasonally flooded to permanently inundated wetlands. Due to the restoration and maintenance work performed on the upland areas by Park District natural resource managers, most of the wetlands are surrounded by high quality native prairie and forested habitats. The ecosystems and connectivity provided within these wetlands are increasingly important for the wildlife and water quality within Crow-Hassan Park Reserve as pressures from development around the park increases.

In order to better manage the wetlands within Crow-Hassan Park Reserve, several water control structures have been strategically placed. The water control structures are a tool that allow natural resource managers to conduct drawdowns and manipulate water levels to create disturbance and mimic historic occurrences. The objectives of the wetland management are to enhance the wetlands for wildlife use by improving emergent and submersed aquatic plant communities, provide diverse aquatic invertebrate communities, help control invasive species and manage fish populations. On occasion, herbicide is utilized in order to manage invasive emergent plants such as cattail and phragmites.

North Twin Lake, one of the larger wetland complexes within Crow-Hassan, resides at the northern end of the park. Starting in 2018, the Park District began an aggressive project to replace the North Twin Lake water control structure, eliminate wetland non-native species – including hybrid cattail, phragmites and reed canary grass - and seed with native species including rushes, sedges and wildflowers.

Wetlands provide many benefits to Crow-Hassan Park Reserve ecosystem, directly benefiting wetland wildlife such as mammals, birds, reptiles and amphibians and invertebrates. Other impacts of these wetlands are indirect such as improving the water quality, aesthetic viewing for the public and educational opportunities.

## **Reforestation**

Park District forestry staff have planted over 290 acres of tree and forest plantings within Crow-Hassan Park Reserve since 1980. While the primary natural resource management focus at Crow-Hassan is the establishment and maintenance of prairie, the southern third of the park has been designated as a forest cover. Nearly all the available open areas in this part of the park have been planted, except for roughly 36 acres of grassland just north of County Road 19. These will be planted over the next 10 years as plant material and staff allow. All Park District reforestation plantings use a diverse mix of trees and shrubs. Each planting consists of 45-60 different species, depending on availability.

## **District Nursery**

Established in 1977, the Park District's plant production nursery is located within Crow-Hassan Park Reserve. The nursery's 55 acres of sandy soil make it ideal to produce large bareroot plant material. Each year the nursery produces 40,000 - 50,000 tree and shrub seedlings, 10,000 - 12,000 large bareroot trees and shrubs, 150 - 200 tree spade sized plants and 10,000 annuals and perennials. This material is used for landscape, forest and shade tree establishment throughout the Park District.

The nursery currently relies on adjacent well water and natural gas for the primary heating and water needs. Both of these sources are limited in terms of long-term sustainability and ongoing incurring costs. Alternative energy and water sources to replace or supplement the nursery's operations was examined as part of this master plan.

## **Habitat**

Crow-Hassan's diverse land cover lends itself to supporting a robust population of flora and fauna. The mature prairie and forests have supported habitat for protected species and include a variety of mammals, birds, reptiles, amphibians, insects and plants. These species vary from federally protected, species of special concern and species of greatest conservation need (Table 3, next page).



Mammals	
<b>Federally Protected - Threatened</b>	
Northern long-eared bat (Image 7)	
<b>State Protected - Species of Special Concern</b>	
Least weasel	Little brown bat
Big brown bat	
<b>Species of Greatest Conservation Need</b>	
Silver-haired bat	Hoary bat
Red bat	White-tailed jack rabbit
Birds	
<b>State Protected - Endangered</b>	
Henslow's sparrow	
<b>State Protected - Species of Special Concern</b>	
Red-shouldered hawk	Trumpeter's swan
Lark sparrow	Acadian flycatcher
<b>Species of Greatest Conservation Need</b>	
Le Conte's sparrow	Grasshopper sparrow
Upland sandpiper	American bittern
Veery	Chimney swift
Black tern	Common nighthawk
Northern harrier	Sedge wren
Yellow-billed cuckoo	Black-billed cuckoo
Olive-sided flycatcher	Bobolink
American kestrel	Common loon
Purple finch	Yellow-headed blackbird
Wood thrush	Least bittern
Belted kingfisher	Eastern towhee
Western grebe	Red-necked grebe
Prothonotary warbler	Virginia rail
American woodcock	Dickcissel
Field sparrow	N. rough-winged swallow
Eastern meadowlark	Western meadowlark
Brown thrasher	
Reptiles	
<b>State Protected - Threatened</b>	
Blanding's turtle (Image 8)	
<b>State Protected - Species of Special Concern</b>	
Plains hog-nosed snake	Bullsnake (Image 6)
Insects*	
<b>Federally Protected - Endangered</b>	
Rusty patched bumble bee (Image 9)	
<b>State Protected - Species of Special Concern</b>	
Leonard's skipper	Regal fritillary
*A large diversity of insects are found in Crow-Hassan	
Plants	
<b>State Protected - Threatened</b>	
Kittentails	

**TABLE 3**  
**Crow-Hassan Species Status**  
 Source: MnDNR



**IMAGE 6 | Park District staff and Minnesota Conservation Corps posing with bullsnakes.**  
 Image Credit: Three Rivers Park District

**Species Reintroductions**

To support improved population counts of endangered or protected species, Park District natural resource staff have several wildlife assisted migration projects happening at Crow-Hassan. The park master plan supports the continued protection of the areas central to the species reintroduction.

Park District natural resource staff have reintroduced species at Crow-Hassan since the early 1980s. Beginning with trumpeter swans, several recent wildlife assisted migration projects are currently being monitored at Crow-Hassan, most recently butterflies and snakes. While these assisted migration projects and their measurement of success is ongoing, initial population surveys have provided positive feedback.

- **Trumpeter Swan (Cygnus buccinator).** Trumpeter swans were introduced in the early 1980s and were managed throughout the Park District. The population is now widespread throughout the state. Several pairs regularly nest in Crow-Hassan wetlands.

- **Bullsnake (*Pituophis catenifer sayi*).** Bullsnares were introduced on the Crow-Hassan prairies in 1991 with snakes relocated from Sherburne National Wildlife Refuge. The population has grown and it is now common to find bullsnares in the prairie portions of the park (Image 6).
- **Regal Fritillary (*Speyeria idalia*).** While many high-profile butterflies, like the monarch, have wide reaching migration patterns, the regal fritillary's territory is quite small. Currently on the state's species of concern list – many believe they will become further threatened due to continued habitat loss. To successfully introduce the regal fritillary to Crow-Hassan, Park District natural resource staff planted over 10,000 prairie violets, the preferred nectar source for this butterfly. In the two years since their the initial release, the Crow-Hassan regal fritillary population of 29 (24 females, 5 males) has grow to over 1,000 (2018).
- **Plains Hog-Nosed Snake (*Heterodon nasicus*).** In the footsteps of the successful reintroduction of bullsnares at Crow-Hassan in 1991, Park District wildlife staff are working to establish the Plains Hog-Nosed Snake. It is the goal to further establish a diverse functioning ecosystem with more natural predators. In 2017, Park District natural resource staff released 5 females and 6 males. This species will take many years to establish a countable population.
- **Leonard's skipper (*Hesperia leonardus*).** Listed on the state's species of special concern, the leonard's skipper butterfly was targeted for assisted migration to Crow-Hassan. In August of 2018, 15 females and 5 males were released. As a grassland species, the leonard's skipper's territory is threatened by loss of habitat. Due to the abundance of blazing star (*Liatris* species) at Crow-Hassan, the preferred nectar choice by adult Leonard's Skippers, Park District staff are hopeful for this species introduction's success.



IMAGE 7 | Northern long-eared bat Image credit: Google



IMAGE 8 | Blanding's turtle Image credit: Google

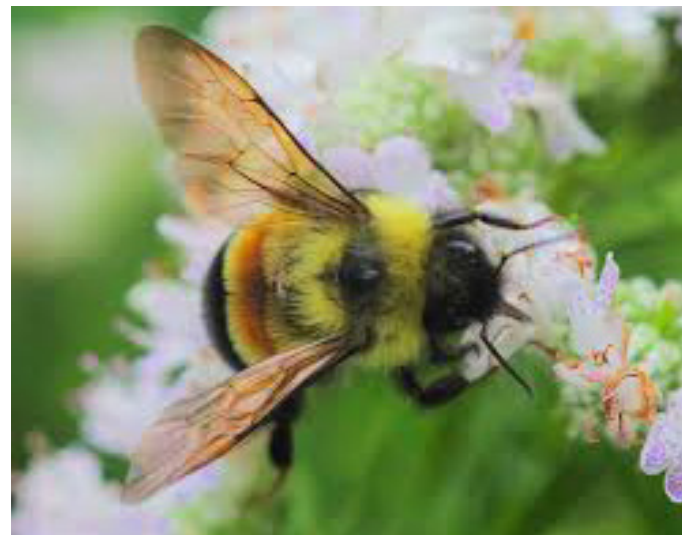


IMAGE 9 | Rusty patched bumble bee Image credit: Google

**PARK DEVELOPMENT LAND USE**

By definition, a park reserve such as Crow-Hassan, must comply with the 80/20 land use ratio - meaning 80 percent of the total upland acreage must be restored or retained in a natural state and the remaining 20 percent can be developed. This calculation provides an understanding of the existing recreational land use development impact and helps determine whether new initiatives are allowable. Crow-Hassan is further designated as one of two park reserves considered, 'natural,' the most primitive category of parks with a primary focus on protecting beyond the required 80 percent. Currently, Crow-Hassan development occupies 11.5% of the total upland acreage (Figure 13 & Table 4).

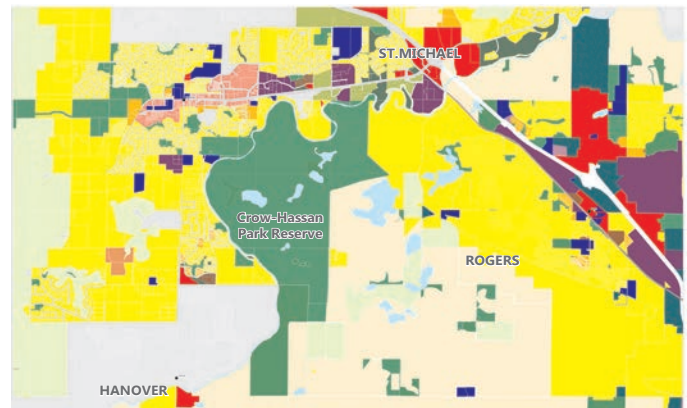
Crow-Hassan currently offers recreational opportunities for all seasons. In warm weather months, park visitors enjoy hiking on unpaved trails (with/without dogs on-leash), horseback riding, visiting the dog off-leash area, camping, paddling the Crow River and utilizing the paved Crow River Regional Trail segment. During winter months, and seasonally dependent on snow and trail conditions, park visitors additionally enjoy snowmobiling, snowshoeing, cross country skiing, dog sledding and skijoring. This recreational development and associated support facilities such as maintenance areas, roads, buildings and utilities, are part of the developed acreage.

To protect the central natural resource features of the park, development has been centralized around the dog off-leash area, unpaved trails, camping areas, trailhead and park roads. These areas are highly used by hikers, equestrian riders, campers and dog owners. In addition, the Park District utilizes 55-acres for nursery operations south of the trailhead.

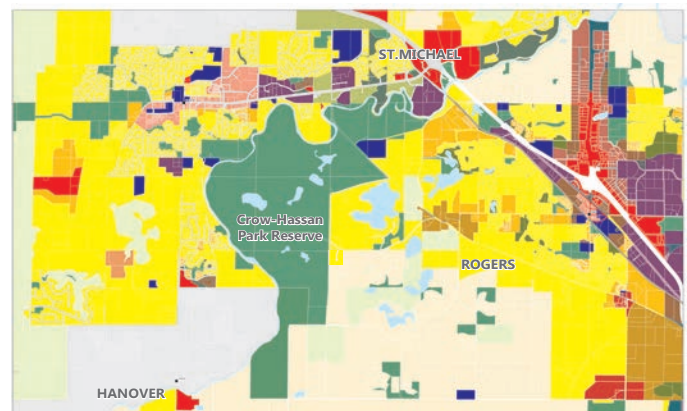
To maintain a minimal development imprint while improving basic recreational infrastructure, the master plan aims to work within these existing development areas and leverage the existing circulation infrastructure. Additional details regarding new park inholdings and how those affect the 80/20 land use ratio are further described in Chapter 5.

**ADJACENT LAND USE**

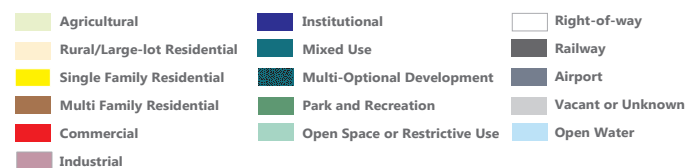
Located on the border of Hennepin and Wright Counties, Crow-Hassan is on the western most edge of the Twin Cities Metropolitan Area. This part of the Twin Cities has long been dominated by agricultural, large lot residential and commercial land uses near municipal cores (Figure 11). Anticipated suburban expansion, in the form of low to medium density residential, is expected along the eastern edge of Crow-Hassan Park Reserve within the City of Rogers (Figure 12). While this development pattern does not conflict with the current park use, it does have environmental implications including, but not limited to, increases in stormwater, pollution and user burden on the park. For these reasons, importance is placed on ensuring the park's natural resources focus into the future. The Park District is developing a toolkit with goals and strategies to guide future adjacent land use development.



**FIGURE 11 | EXISTING LAND USE** Source: Comp Plans



**FIGURE 12 | FUTURE LAND USE (2040)** Source: Comp Plans



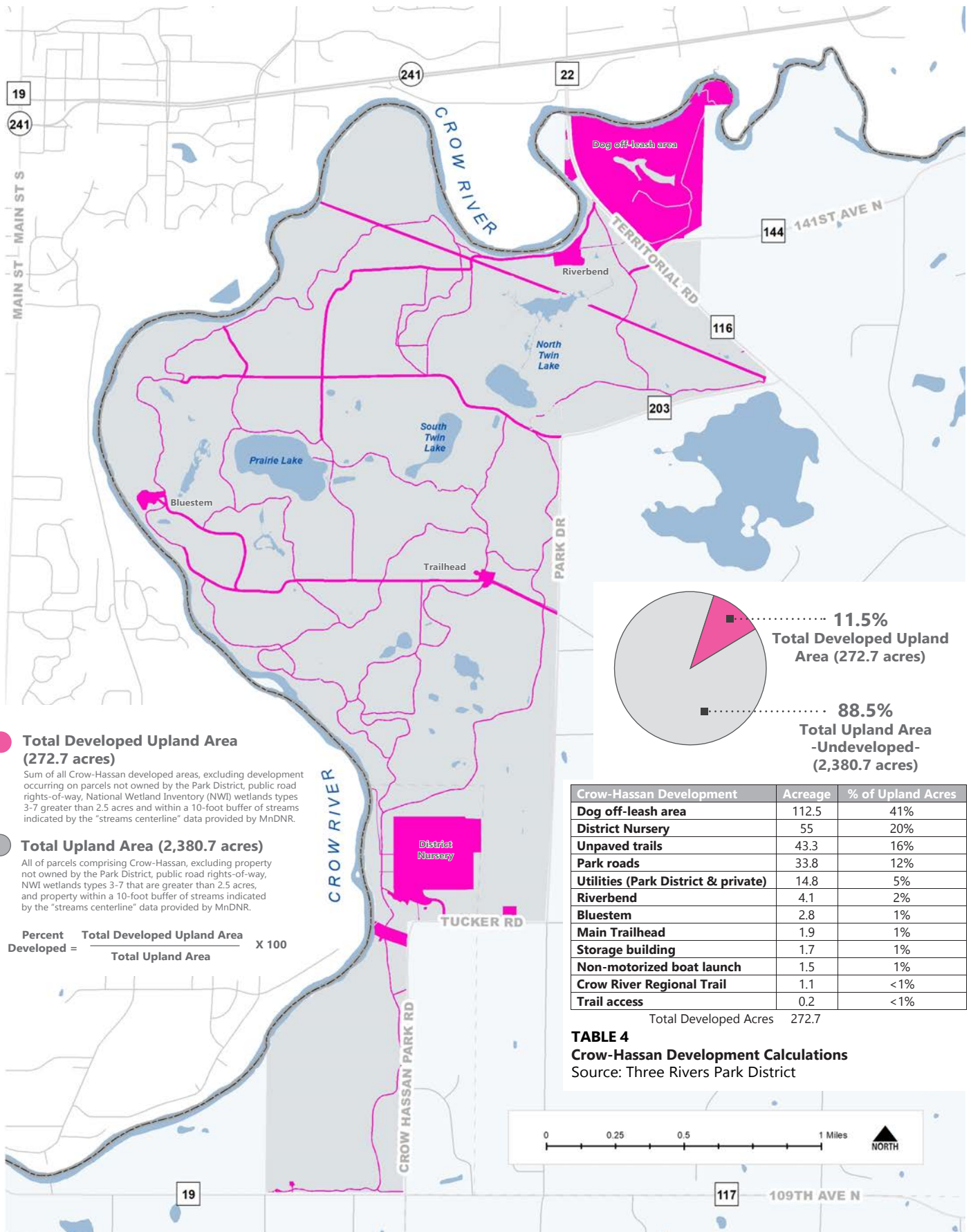


FIGURE 13 | CURRENT CROW-HASSAN LAND USE RATIO (80/20 Map)

Source: Three Rivers Park District



# 5

## DESIGN GUIDANCE

### DEVELOPMENT CONCEPT

**CROW-HASSAN PARK RESERVE'S** resilient ecological systems, planned regional trail integration and rustic quality make it a unique environmental and recreational destination within the Twin Cities Metropolitan Area and Park District. This master plan identifies ways to improve park user supports that highlight unique park features while minimizing overall park development. Community engagement and stakeholder visioning supported the park's, guiding principles and continued ecological focus while integrating light-touch educational opportunities, expanded accessibility and improved wayfinding.

#### Guiding Principles >> Design Guidance

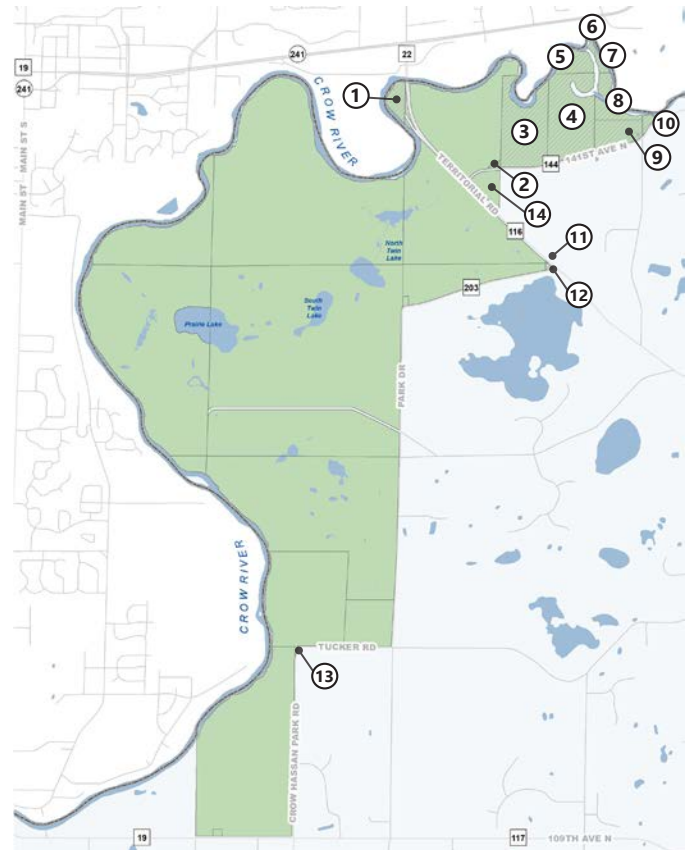
- **Preserve the unique natural resources**
  - Protect and restore native plant and wildlife communities.
  - Identify and protect cultural resources.
  - Incorporate sustainable design principles into planning, design, construction and maintenance.
- **Celebrate the Crow River**
  - Provide river viewsheds to better understand the river and upland contextual relationship.
  - Provide better river access to support paddling and educational programming efforts.
  - Interpret how human inhabitants depended on the Crow River.
- **Introduce people to nature & outdoor recreation**
  - Maintain existing recreational offerings.
  - Provide design guidelines for the Crow River Regional Trail through Crow-Hassan.
  - Define areas where improvements can be made to better accommodate a variety of park visitors.
  - Establish locations throughout the park that allow nature experiences.
  - Establish a wayfinding package that informs, educates and reduces user conflicts.

Recommended park improvements are based on Crow-Hassan’s long term vision and will be implemented based on available funding and Park District priorities. To minimize overall development area and the associated potential negative natural resource impact, the proposed features have been centralized around the existing development areas and, where possible, fit within existing development footprints. At the time of implementation, all additional park features are intended to be designed to minimize user conflicts, ensure safety, limit overall impact and be minimal in scale. The Park District is committed to continuing engagement with park users during design development.

**PARK BOUNDARY**

As a park reserve, development for recreation must be limited to under 20 percent of total upland acreage while at least 80 percent of the park reserve be retained to a natural state. Crow-Hassan’s goal is to further restrict development to allow for an immersive nature experience in recognition of its ‘natural’ designation within the recreation opportunity spectrum (ROS) (see Chapter 1 for further ROS information). This was supported by the engaged public who strongly recommended that ecological features of the park be prioritized and that recreation associated development be kept as near or less than 10 percent as possible. As of summer 2019, the park reserve had 11.5 percent development, which slightly exceeds the ROS development goal. Any additional development requires thoughtful consideration of existing and planned facilities and their long-term relevancy. In an effort to respond to adjacent planned suburban expansion and increased regional recreational demand - a park boundary expansion is proposed. This boundary expansion positions the park to meet the 10 percent development goal, at the same time providing new active recreation opportunities, east of Territorial Rd.

The Park District maintains a list of properties for future park boundary inclusion (inholdings) and divestment (surplus) (Figure 14 & Table 5). Inholdings are parcels currently not owned by the Park District, but are considered for acquisition on a willing-seller basis. A 12-acre property, previously identified by the Park District as surplus, has been included in this master plan update and can be sold, transferred or otherwise divested at a future date. Several properties are identified for partial acquisition and as such, their valuations have been calculated based solely on acreage.



**FIGURE 14 | CROW-HASSAN INHOLDINGS**

Source: Three Rivers Park District & Hennepin County

INHOLDINGS			
#	PID	Acreage	Market Value (2019)
1*	1812023110001	9.26	\$87,000
2**	1712023240001	0.97	\$257,000
3***	1712023120001	59.0	~\$1,038,000
4***	1712023110001	65.1	~\$474,000
5	0812023440001	12.96	\$17,800
6	0812023440002	1.22	\$1,200
7	0912023330001	2.85	\$2,900
8	1612023220001	14.94	\$50,600
9	1612023230001	20.88	\$137,900
10	1612023240005	2.9	\$256,000
11***	1712023410001	0.06	~\$240
12	2012023110002	0.63	\$235,000
13	3112023120006	0.25	~\$8,800
		191.02 ac	\$2,566,440

Properties 3-10 identified per City of Rogers 2040 Comp Plan Update (new inholdings).  
 \* Property requires significant environmental clean-up, current use gun club.  
 \*\* Purchase by Park District currently being negotiated.  
 \*\*\* Partial property acquisition proposed, market value estimated based on acreage.

SURPLUS			
#	PID	Acreage	Market Value (2019)
14	1712023240002	12.62	Not available

**TABLE 5 | Property Summary**  
 Source: Hennepin County

The northeast corner of Crow-Hassan has been identified as an area where park expansion is proposed (inholdings #3-10). Following the direction of the City of Rogers' 2040 Comprehensive Plan, the Park District included several new inholding properties east of the dog off-leash area, thus expanding the current Crow-Hassan park boundary by approximately 180 acres. At time of acquisition and recreation development, the Park District, in coordination with the City of Rogers and Met Council, may consider whether it is appropriate to dedicate all parkland east of Territorial Road as a new regional park, separate from Crow-Hassan to best accommodate future suburban expansion and regional recreation trends. Due to the anticipated timing of these acquisitions, this consideration is likely 20+ years away.

Within this northeast expansion area is property owned by Metropolitan Council Environmental Services (MCES). A future regional Crow River wastewater treatment plant adjacent to Crow-Hassan Park Reserve is anticipated by 2030 which will serve Rogers and portions of Corcoran and Dayton. In preparation for this facility expansion, MCES purchased approximately 97 acres north and south of 141st Ave. N. – adjacent to Crow-Hassan Park Reserve. MCES envisions that the wastewater treatment facility footprint will require use of acreage south of 141st Ave. N. and potentially an additional 12 acres of Park District surplus property directly west. A land exchange between MCES and the Park District may be required as part of the wastewater treatment project. To date, the Park District and the City of Rogers are supportive of a land exchange which results in additional parkland Crow-Hassan Park Reserve.

### **NATURAL RESOURCE PLAN**

A primary objective of this master plan is to ensure continued growth and support of Crow-Hassan's natural features and habitat. Stewardship activities include protecting and restoring native plant and wildlife communities, identifying and protecting cultural resources and developing recreation facilities appropriate to a rustic park reserve. To reduce natural resources impacts during a facility's life span, stewardship activities also incorporate sustainable design principles into planning, design, construction, and maintenance of all Park District facilities and infrastructure.

To this end, specific ecologies within the park have been identified for specific protection designations. In addition, Park District natural resource staff utilize MLCCS mapping data to provide a park-wide plant communities vision to manage towards.

### **Natural Area Classifications**

Natural resource land-based designations are classified for park reserves Park District-wide. Significant natural resources occur within these areas and are managed as three sub-zones. Their locations within Crow-Hassan provide natural resource management, and recreational development and operational guidance (Figure 15).

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

Recreational development is not allowed to compromise the integrity of the key environmental components, but management may be necessary to restore or preserve the components. Recreational development opportunities are possible as long as the recreational activity and physical development are compatible with the preservation of the natural resources within the key environmental components. As such, the Crow River Regional Trail route proposed through key environmental component areas is viewed as acceptable, as long as its implementation is coordinated with Park District natural resources staff.

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

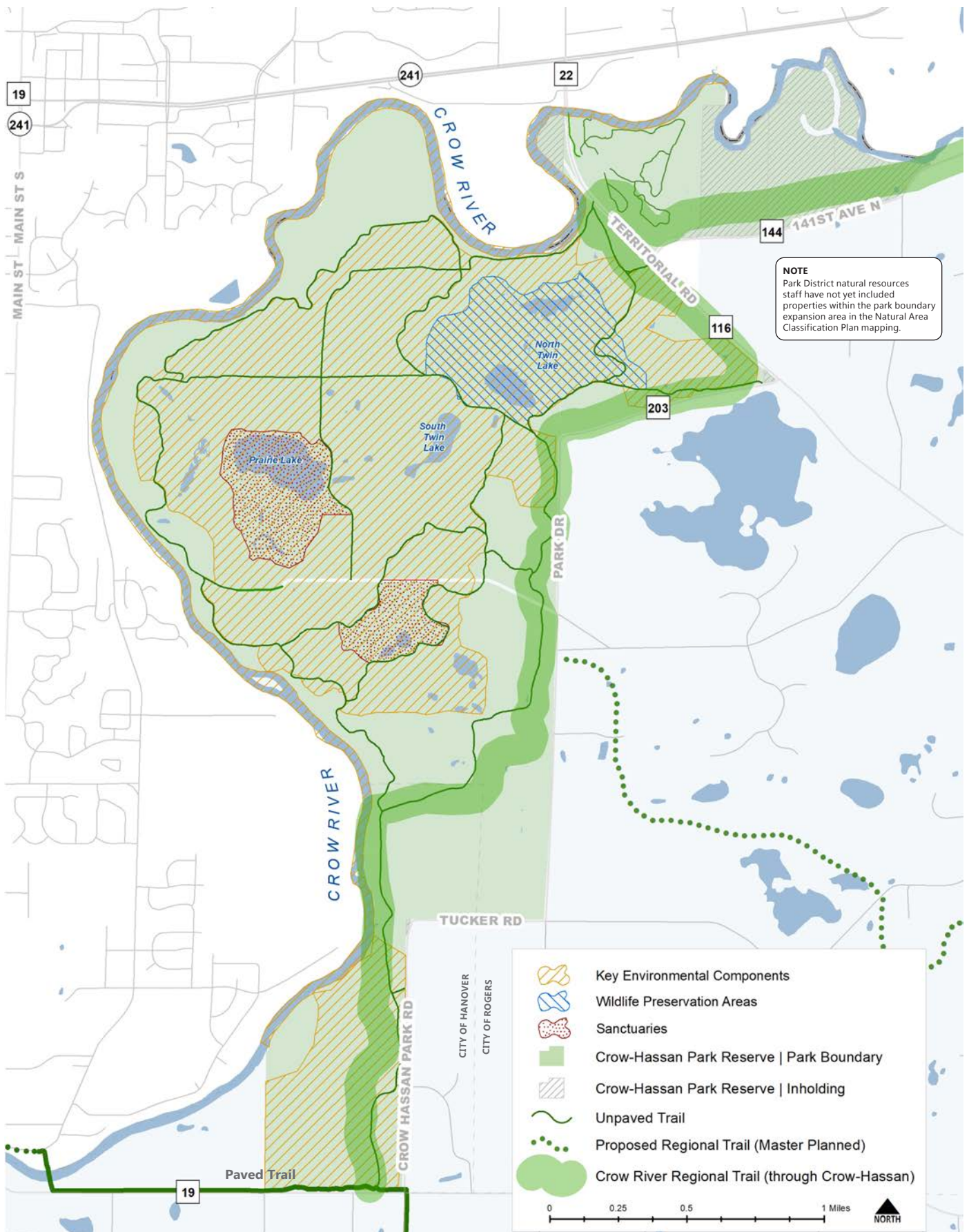


FIGURE 15 | NATURAL AREA CLASSIFICATION PLAN

Source: Three Rivers Park District



The Crow River, in addition to Crow-Hassan's lakes, prairies and maple-basswood forests have been identified as key environmental components.

**Wildlife Preservation Areas** are sensitive ecological areas that are closed to the public during certain times of the year (primarily spring and summer) to ensure that habitats for sensitive wildlife species are protected from disturbance during critical times in their life cycles (mating, nesting, rearing of young). While trails may be allowed in wildlife preservation areas, they may be closed seasonally. Year-round recreational activities and facilities are not allowed in areas under this classification. The large North Twin Lake wetland and surrounding prairie complex has been designated as a wildlife preservation area.

**Sanctuaries** are areas designed to protect significant plant communities and associated wildlife from the impacts of human activity. Development is not permitted, and natural resources management is specialized to address specific plant community and/or wildlife needs. Visitation by people is permitted only on a very limited basis for scientific investigation, educational instruction, or management requirements. Two (2) areas have been designated as sanctuaries within Crow-Hassan which include; Prairie Lake (and its surrounding landscape) and the central maple woods.

**Temporary Protection Zones** are areas that function like wildlife preservation areas, but are intermittent. This could be to protect a raptor or crane nest along a trail, concentration of animals, or to keep people away for a rare flowering plant. Areas that become regular annual closings should be upgraded to wildlife preservation areas without requiring a master plan amendment.

### **Plant Communities Concept Plan**

The Park District has considered various objectives for plant community restoration and management since its formation. These objectives have changed over time as staff follow adaptive management practices and base future decisions on current projections. An updated Natural Resources Operations Plan further identifies specific goals for park reserves throughout the Park District system. This long-term visioning provides natural resources management consistency across the park system. Managed areas will include prairies, wetlands and forests, with prairie communities being a primary focus of Crow-Hassan. Prairies may include a variety of prairie communities depending on soil and hydrology of a specific area. Forested areas may also include a multitude of forest communities including maple-basswood and oak-aspen, as well as different forest age structures. Contemporary forest objectives emphasize promoting native forest communities that can replace themselves with minimal outside direction or inputs. The locations and types of forests and open areas were subsequently determined by the Park District's Natural Resources Department and are reevaluated on a prioritized short, mid and long term schedule (Figure 16).

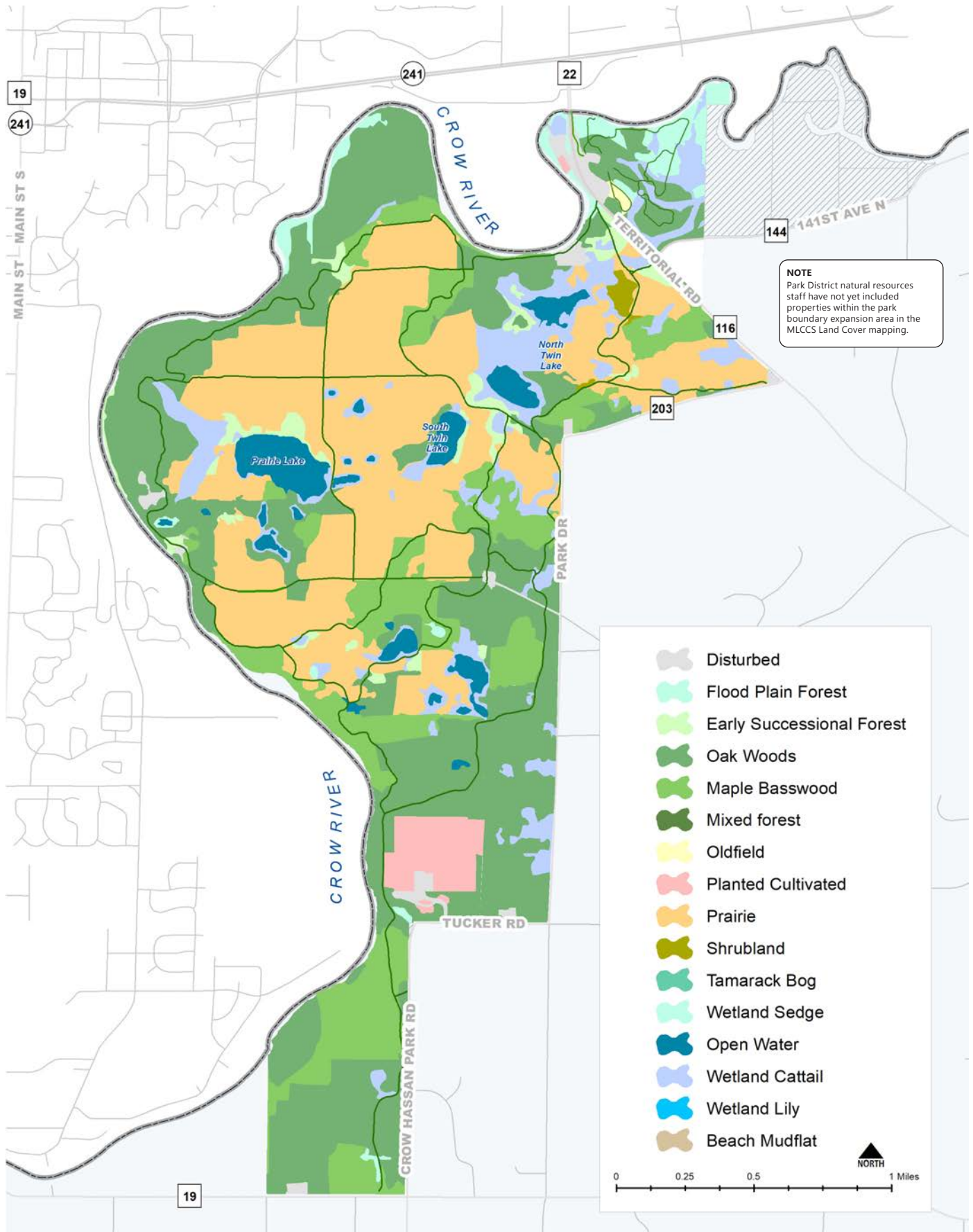


FIGURE 16 | PLANT COMMUNITIES CONCEPT PLAN

Source: Three Rivers Park District

**RECREATIONAL DEVELOPMENT PLAN**

Crow-Hassan Park Reserve’s managed prairie, wetland and forest landscapes offer visitors a truly unique opportunity to experience a diverse set of natural resource systems in one park visit. However, being an ecologically focused park with sensitive, rare habitats, it is imperative that access to these spaces is minimized to reduce overall system stress or user impact. This plan seeks to highlight a variety of park elements that create an intentional visitor experience, while being respectful to the natural resources (Figure 17). Flexibility is intended for all proposed elements within the recreation development plan to allow for current demands, trends and/or updated design considerations.

**1. [Further Refined] Crow River Regional Trail**

Consistent with the Crow River Regional Trail Master Plan (2017), an eight-mile trail segment is planned through Crow-Hassan. The regional trail will adhere to regional trail design guidelines which specifies a 10’ multi-use trail, intended for non-motorized uses such as bicycling, walking and rolling.

After extensive assessment of the current natural resources systems, existing unpaved trail network and topography, a general corridor has been established. The intent is to locate the Crow River Regional Trail near the park reserve’s eastern side between the unpaved trail and road shoulder, avoiding direct adjacency to both. The one exception is from the southern boundary of the park to the District Nursery, where the regional trail is more interior to the park and provides a Crow River touchpoint.

The intent is to preserve the unpaved trail network mileage for hikers and equestrians. Bicycles will only be permitted on the Crow River Regional Trail. When the regional trail is funded and enters the design development phase, the exact alignment and surfacing will be finalized and may require adjustments to the existing unpaved trail network. While the regional trail surface is envisioned to be paved, this will be reevaluated during the design phase to determine if aggregate may be a viable alternative to protect the park’s rustic qualities. Additional design considerations may be necessary to minimize park user conflicts, which will also be further explored during the design

phase. Due to potential user conflicts between the paved and unpaved trails, additional public and stakeholder engagement will occur as part of the design development phase. The following design guidelines are recommended:

<b>Regional Trail Recommendations</b>	
<b>Minimum Distance</b>	A distance of no less than 50’, 100’ preferred, is recommended between the paved and unpaved trail system. On an exception basis, if there are critical/sensitive natural resource areas, this may be reduced to 20’ for short segments. On-site field assessment is needed to determine if vegetative screening, fencing or wide open viewsheds are best between the trail systems.
<b>Intersection Treatments</b>	Minimize intersections between paved regional trail and unpaved trails. Provide ample sight-lines with advanced warning for users to see each other when the paved regional trail crosses the unpaved trail. Additional design and operational solutions may be considered.
<b>Signage</b>	Consider additional trail etiquette signage indicating expectations for interactions between park user groups (equestrians/bicyclists, etc.) and signage requiring all trail users to yield for equestrians. Add additional signs (where needed and are appropriate) that clearly indicates what uses are allowed on each trail.

**2. [Further Refined] Trailhead Area**

For those exploring Crow-Hassan’s natural resource interior, the trailhead is their connection point to the park’s context. As such, a thoughtful and coherent design, clear circulation and wayfinding features are fundamental to receiving park visitors and orienting them to their surroundings. This plan recommends that the park entrance be renovated to improve the park visitor experience for seasoned and new park visitors alike. This includes improved and use-separated parking, map wayfinding features, user infrastructure support, clear trail entrance points and developed group gathering areas. While most of these features are present in the current trailhead area, their disparate placement and unmarked locations make it difficult for users to easily navigate the trailhead and locate available resources.

- **[Renovated & New] Parking Lots.** There is currently one gravel parking area at the trailhead for all user groups. During community engagement, users communicated a strong interest in parking improvements. There was particular concern about ongoing parking conflicts between equestrian and general park user groups created by a lack of parking lot organization and space delineation.

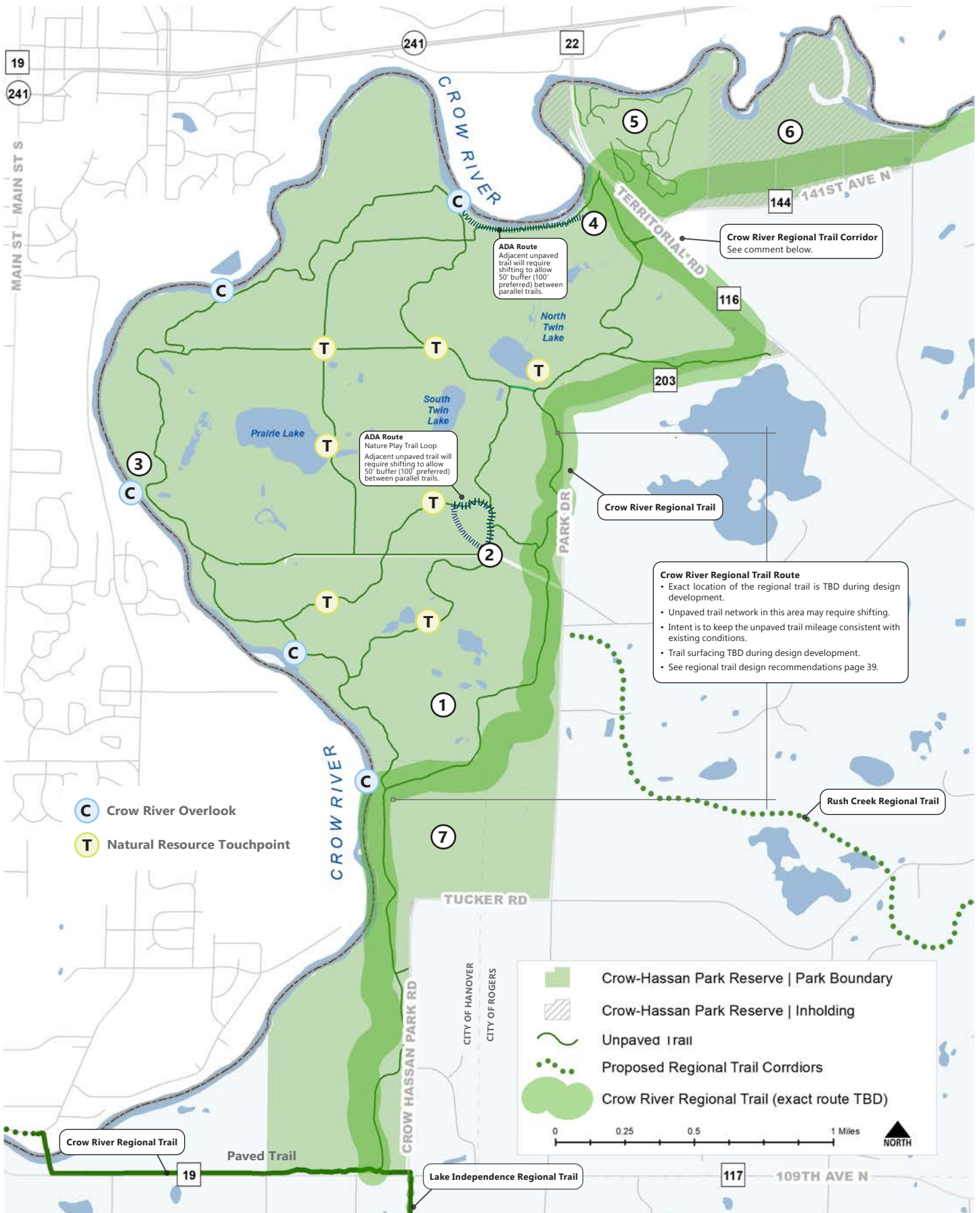


FIGURE 17 | RECREATIONAL DEVELOPMENT PLAN Source: Three Rivers Park District

Additional concerns also included safety of horses, bicyclists and children/young families.

Crow-Hassan is one of the leading parks for horseback riding in the Twin Cities Metropolitan Area and as such, right-sized and well designed parking facilities for horse trailers is critical. This plan recommends separation of equestrian and general park user parking. The existing gravel parking lot will be renovated and improved to accommodate equestrian users and support facilities. Public input will be gathered during design development. Community engagement also revealed the demand for individual equestrian camp sites. These sites are proposed adjacent to, and in conjunction with, the reconstructed equestrian parking lot (Image 10).The following design guidelines are recommended for the equestrian parking lot:

[Reconstructed] Equestrian Parking Lot
<ul style="list-style-type: none"> <li>• Renovate existing gravel parking lot to accommodate between 25-30 truck/trailer stalls.</li> <li>• Stall layout should emphasize pull-through circulation patterns.</li> <li>• Estimated length required for stalls is between 60-65'.</li> <li>• Width required for stalls must allow for equestrians to tack up/down with their horses.</li> <li>• Provide water service, vault latrine restrooms, high-lines, mounting blocks and direct access to unpaved trail network.</li> <li>• Provide a centralized socialization space for equestrians, with clear sight lines to their horse trailers. Space could include seating, high-lines, picnic tables and fire ring(s).</li> <li>• Provide several reserveable equestrian camp sites adjacent to the equestrian parking lot (Image 10).</li> </ul>

A separate, new gravel parking lot - buffered from the equestrian parking lot - will be constructed to the east along the entrance road for general park users (non-equestrians). The following design guidelines are recommended for the general use parking lot:

[New] General Use Parking Lot
<ul style="list-style-type: none"> <li>• Construct new gravel parking lot (30-50 standard vehicle stalls) which can be phased based on demand and recreation development.</li> <li>• Appropriate turn radii and drop-off zone for emergency vehicles and school buses.</li> <li>• Stall and row delineation could include parking bumpers, rope fencing, embedded concrete strips or paint striping.</li> <li>• Other visitor amenities should include, but are not limited to; additional seating, vault latrine restrooms, water access and regional trail kiosk (Level A to also include general Crow-Hassan park information).</li> </ul>

When funding is secured and the separate parking lots are being designed, the final parking lot designs will be adjusted based on projected demand, ADA requirements and current design standards.

- **[New] ADA Nature Play Trail Loop.** A half (0.5) mile ADA trail loop will start and end from the general use parking lot and highlight some major features of the park. The loop includes mature forest and prairie touchpoints, various historical and culturally significant sites and a nature play features. To conform to Crow-Hassan’s rustic setting and ADA requirements, the trail will be constructed of natural materials that create a firm and stable surface such as compacted crush stone and/or gravel.

The nature play part of the ADA trail loop is a series of small-scale trailside spaces that are comprised of natural elements - such as boulders or downed logs - that visitors can interact with (Image 11). These trail side nodes encourage visitors to learn about natural materials and build/stretch their own physical abilities through interaction with their natural surroundings.

- **[New] Picnic Shelter.** A non-reservable group picnic shelter is planned adjacent to the general use parking lot. The picnic shelter is planned to accommodate up to 60 people and includes movable picnic tables, trash receptacles, grills and water service. Its location adjacent to the general use parking lot makes it an excellent gathering area for educational programs, school groups and events.

More informally, this picnic shelter can also act as a protected staging area for various day users as they begin or end their park visits. This is particularly valuable for those users needing additional support such as family groups, users with limited mobility or those with recreation equipment.

There is a small existing enclosed structure at trailhead area, named Joe’s Place, that was used for recreational staging and currently for natural resource staging. When the picnic shelter is constructed, this building has been identified for removal. The new picnic shelter should incorporate current staff staging needs.

**3. [Enhanced] Bluestem Unit**

The popular Bluestem group camp area is a unique camping destination in the Park District system. Located adjacent to the Crow River, the camping



**IMAGE 10 | Visualization of proposed equestrian camping area.**

Image credit: Perkins + Will



**IMAGE 11 | Example of the proposed nature play loop, which is fully ADA.**

Image credit: Perkins + Will

area is to remain at its current 80 visitor capacity (equestrian and general use) with proposed ADA enhancements. Several individual, hike-in, reserveable camp sites are also recommended in this general vicinity (for general use and/or Crow River State Water Trail river paddlers). Support facilities such as water and bathrooms should be shared between the hike-in sites and the group camp.

The barn adjacent to the camping area was identified to have no cultural significance and is determined to be obsolete. To avoid continued maintenance costs, the barn should be removed. Materials from the barn may be salvaged and used for the new picnic shelter, benches or other new park additions.

#### 4. **[Enhanced] Riverbend Unit**

The Riverbend unit includes an existing group camp area and barn. Proposed improvements are a direct result of public engagement that suggested a desire to provide better access to Crow-Hassan's north entry. Self-guided interpretive features (highlighted on page 47-48) further tell the story of this unit and its history.

- **[New] Northern Access Parking Lot.** To accommodate the demand for a safe, northern park access point, a small gravel parking lot is proposed with capacity to serve 25 vehicle stalls. The parking lot will support general park users seeking to access the northern parts of the park (hikers, dog-on leash trail users, Crow River paddlers and Crow River Regional Trail users). This parking lot is not intended to accommodate trailers.
- **[Enhanced] Riverbend Group Camp.** The Riverbend camping area is a highly-used group camp adjacent to a historic barn, utilized often by equestrian groups. The group camp is to be maintained for group camping (equestrian and general use) and updated to meet ADA accessibility improvements. This plan recommends that the Riverbend group camp occupancy be maintained at 50 visitors.
- **[New] Individual, Reserveable Camp Sites.** To accommodate individual camping requests while maintaining minimal development patterns, the plan calls for several individual, reserveable sites to be added with at least one (1) being fully ADA accessible. Adding the non-electric, rustic individual campsites to this location improves camping opportunities for general tent campers, Crow River paddlers and Crow River Regional Trail bicyclists. The current water service and restrooms are sufficient to meet the needs of the additional camp sites. While this plan does not explicitly include yurts/cabin development, they could be added at future date.
- **[New] ADA Non-Motorized Boat Launch.** This plan relocates the non-motorized boat launch to an area south of Territorial Road and adjacent to the newly proposed northern access parking lot, Crow River Regional Trail route, and Riverbend camping options. This location provides visibility from the new parking lot, supports overnight paddling trips with the addition of individual, reserveable camp sites, general park wayfinding and accessibility. The



**IMAGE 12 | Dog-off leash area users comprise the largest portion of Crow-Hassan visitors.**

Image credit: TRPD

adjacency to the Crow River Regional Trail allows for better trail connections and allows for potential programming extension for paddle to pedal trips. This launch is primarily for take-outs due to the Crow/Mississippi River confluence proximity.

- **[New] ADA Northern River Trail Segment.** Beginning at the northern access parking lot and running through the Riverbend camping area, the northern river trail segment is a 1.25-mile route in and 1.25-mile route back which is fully ADA accessible (2.5 miles total). This trail includes a scenic Crow River overlook and a view shed of the mature prairie. Similar to the nature play loop at the trailhead, this trail segment will be comprised of fully ADA compliant natural surfacing and include places to sit and observe the natural setting.

**5. [Enhanced] Dog Off-Leash Area**

The existing dog off-leash area is a very popular regional destination (Image 12). This plan maintains the dog off-leash area in its current configuration and to the same general level of development.

There were requests for fencing around the dog off-leash area, however it is recommended that the only fencing proposed be between the dog off-leash area and the planned Crow River Regional Trail when constructed. Berming and vegetative plantings are recommended in conjunction with fencing to reduce user conflicts. Community engagement revealed a large number of users specifically utilize this dog off-leash area because it is the only one in the Park District system that is unfenced.

Erosion control measures are needed along the Crow River edge due to flooding events which create unsafe conditions for dog off-leash users. The existing dog off-leash parking area with a capacity of ninety-three (93) vehicles should be maintained in its current arrangement. While there is significant use of the dog off-leash area, the current sizing is appropriate for the current visitors and can accommodate additional parking needs for Crow River Regional Trail users. Parking lot lighting should be installed at the time of parking lot renovation.

**6. [New] Park Boundary Expansion Area**

The proposed new inholdings are predominately located within the Crow-River floodplain. As a result, development within this area is limited to park features that can withstand future flood events. The Park District will consider additional development to meet recreation demand once inholdings are acquired. Typical active recreation may include paved trails and picnicking with reservable areas.

An archery range is planned in this general area with the opportunity to internally program and partner with outside organizations. This location has the added benefit of being separated from the primary park circulation, thus protecting all user groups. The exact type and skill level of the archery range will be determined at time of design development, as Wright County recently added an entry level range at Riverside County Park. As such, an intermediate and/or advanced archery range may be more appropriate within Crow-Hassan.

The extension of the Crow River Regional Trail also is planned to traverse the park boundary expansion area, providing an added layer of circulation and recreational offering.

**7. [Enhanced] District Nursery**

The District Nursery will continue to lead by example in areas of energy and water consumption reduction, collection, propagation and planting techniques and technology, and in addressing climate change and effects on plants within Park District parks. Sustainable energy reduction features for consideration at the District Nursery include photo-voltaic energy generation (solar), water harvesting & biogas production (Appendix D). In addition, strong partnerships with school districts and/or universities/higher education offer an opportunity to expand natural resource research and education in conjunction with youth and adult programming. The District Nursery currently accommodates thirty two (32) vehicles in a gravel lot west of the primary nursery building. It is closed to the public and only accessible to Park District staff. This plan identifies occasional public programming at the District Nursery for specific events. Once programming plans are identified, expansion of the parking capacity may be required.



## WINTER RECREATION

Snowmobiling along the periphery of Crow-Hassan will remain until such time it no longer connects to a broader snowmobile network. All other winter recreation including horseback riding, cross-country skiing, snowshoeing, dog sledding and skjoring are also proposed to continue - weather and snow conditions permitting.

## ADDITIONAL PARK-WIDE DEVELOPMENT

There are several additional recreational components that are found throughout Crow-Hassan. These elements provide an additional layer of purpose to connect visitors to the Crow River, provide further explanation of the unique natural resource landscape and help narrate Crow-Hassan's story.

### Crow River Overlooks

To better connect visitors to the Crow River, the plan identifies six (6) overlook points that provide river viewsheds. Once established, or in some cases reestablished, these overlook areas require routine clearing of trees and brush along the river bank to ensure clear sight lines. The overlooks should be designed to support small groups – under eight visitors - at one time. Additional opportunities to view the Crow River and adjacent landscapes provides visitors with a better understanding of river and upland contextual relationships.

### Natural Resource Touchpoints

Key natural resource locations (touchpoints) along the existing unpaved trail network have been identified throughout Crow-Hassan. These touchpoints allow visitors to visually and physically experience the park's unique natural resources. Light-touch amenities such as trailside bird blinds and small viewing area barriers are proposed, to create specific habitat viewing areas, heighten the user experience and limit the user footprint (Image 13).

### Gathering and Rest Spaces

Community engagement and stakeholder visioning identified the desire for more developed gathering spaces, which are sensitive to the natural quality of Crow-Hassan. These gathering spaces offer opportunities to interact around a shared interest or activity and can be realized formally via the proposed picnic shelter, or more informally at Crow River overlooks or natural resource touchpoints. Rustic seating is proposed along the ADA routes, providing critical points to rest, socialize and enjoy the park's surroundings.





**IMAGE 13 | Visualization of a natural resource touchpoint adjacent to a wetland.**

Image Credit: Perkins + Will

## Curated Trail Experiences

To assist in developing improved wayfinding and to better curate the user experience, existing unpaved trail routes of varying lengths and interest were identified that highlight themed narratives. Educational delivery methods may include digital technology and/or physical signage.

- **Natural Resource Education Route**

Beginning from the trailhead parking area, multiple routes allow visitors opportunities to experience several natural resource ecosystems, the Crow River and District Nursery. As the District Nursery serves a working function for the Park District, public access is restricted, but can be narrated through interpretation from the periphery (Figure 18). The 1.75 mile loop, is identified as an 'easy route,' manageable for most ages and abilities, however it does not fully meet ADA guidelines. The easy route is expected to be cleared of debris, have even surfacing, maintained to a minimum 10' trail width and have limited grade variates.

### 1.75 mile route

1. Trailhead (with access to picnic shelter)
2. Wetland touchpoint

### 3.5 mile route

3. Mature prairie touchpoint
4. Developing prairie touchpoint
5. Crow River overlook
6. Maple-Basswood forest touchpoint

### 5 mile route (add-on to 3.5 mile route)

7. District Nursery educational area

- **Water Resources Route**

This advanced 8 mile loop was designed for visitors interested in exploring park elements which provide opportunity to view and 'touch' water via a varied landscapes including forest and prairie. (Figure 19).

1. Crow River overlook
2. Crow River overlook (Platted Hassan Town Site)
3. Prairie Lake wetland touchpoint
4. Crow River at-grade touchpoint
5. Crow River overlook rest & picnic area
6. North Twin Lake wetland touchpoint

- **Resource Interpretation Route**

To showcase important pieces of the park's resources, a self-guided, 5 mile, interpretive walking/horseback riding trail loop is proposed. This trail conveys Crow-Hassan's cultural and natural history to park visitors by connecting significant resources. (Figure 20).

Educational delivery methods, while similar to the other curated trails, will also include large interpretive panels with space to explore each site's story in greater depth. The Resource Interpretation Loop visits the following sites:

1. **Becker Farm**

The former location of the Becker family farmstead site highlights the history of the area's agricultural settlement (Image 15).

2. **Platted Hassan town site**

This stop describes early Euro-American settlement patterns and the proposed town of "Hassan" that was platted, but never built (Image 14).

3. **Crow River overlook**

The overlook demonstrates how human inhabitants, including indigenous peoples and Euro-Americans, depended on the Crow River.

4. **Four-Corners prairie overlook**

This overlook shows one of small pockets of original prairie (pre Euro-American settlement) in the park, one of the only examples within the Park District.

5. **St. Peter Road / old school**

The St. Peter Road / old school location exemplifies how Euro-American communities formed and how they maintained their social connections.

6. **Big Woods touchpoint**

Situated near a forested wetland overlook, this site tells visitors about the Big Woods landscape ecosystem that existed before Euro-American settlement.

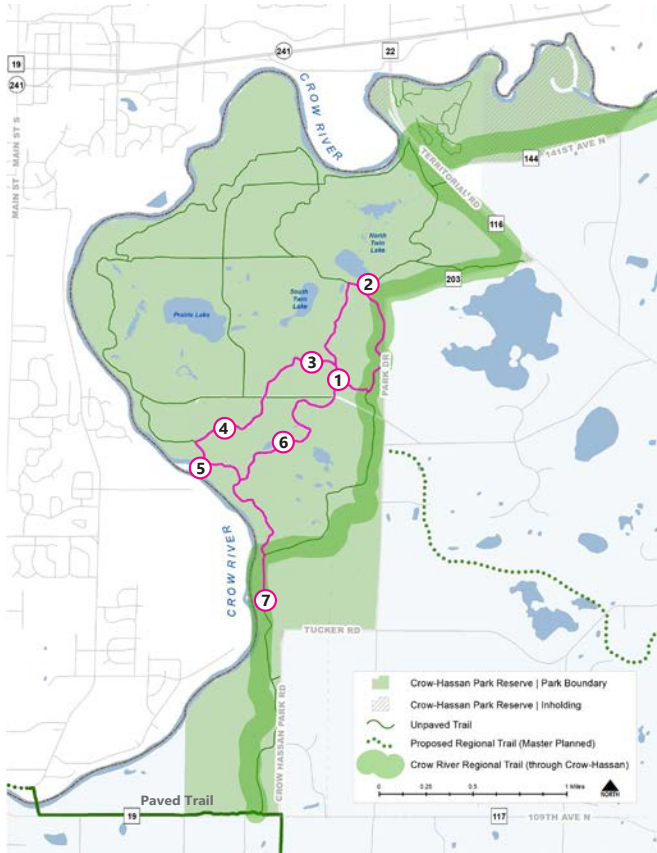


FIGURE 18 | NATURAL RESOURCE ROUTE

Source: TRPD

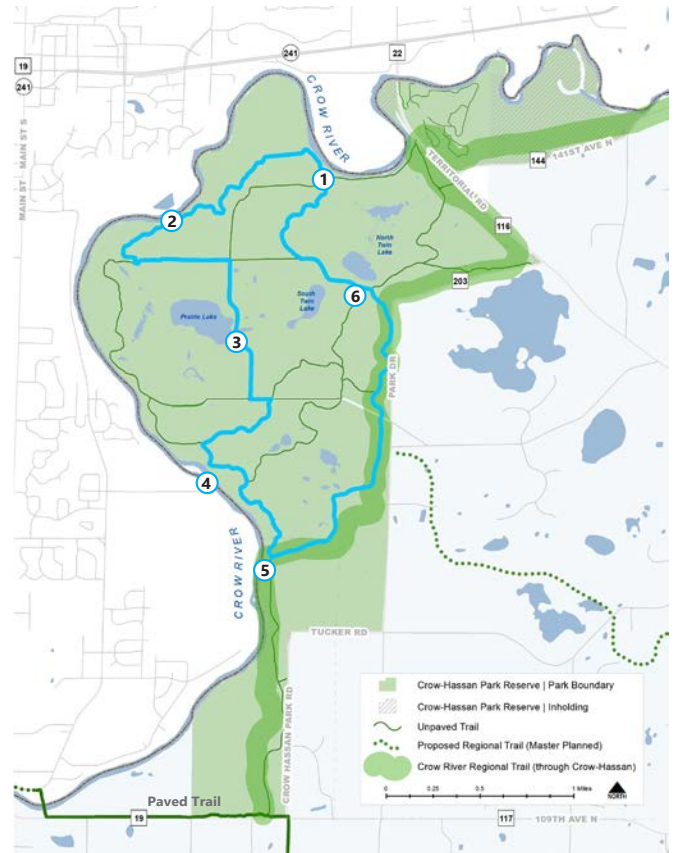


FIGURE 19 | WATER RESOURCES ROUTE

Source: TRPD

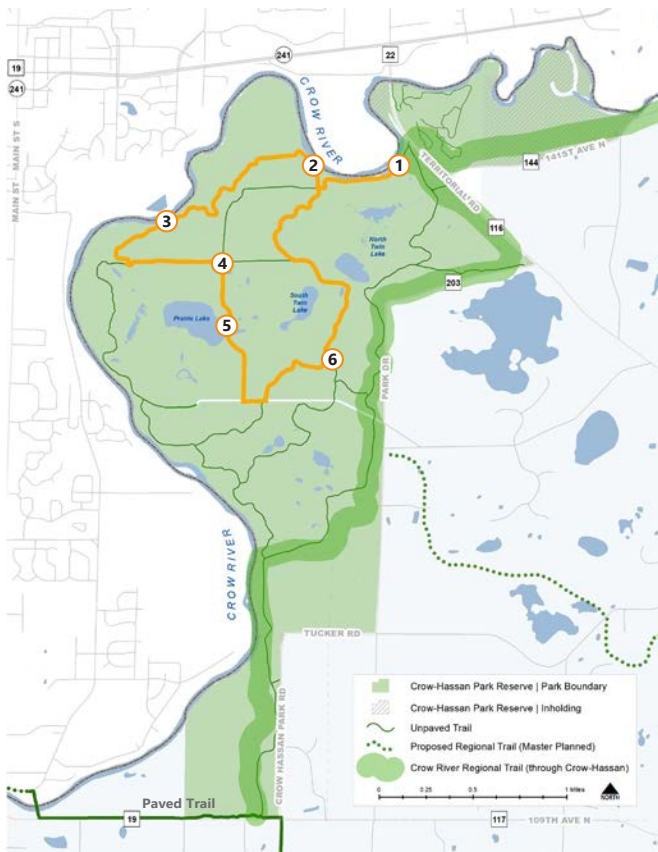


FIGURE 20 | RESOURCE INTERPRETATION LOOP

Source: TRPD

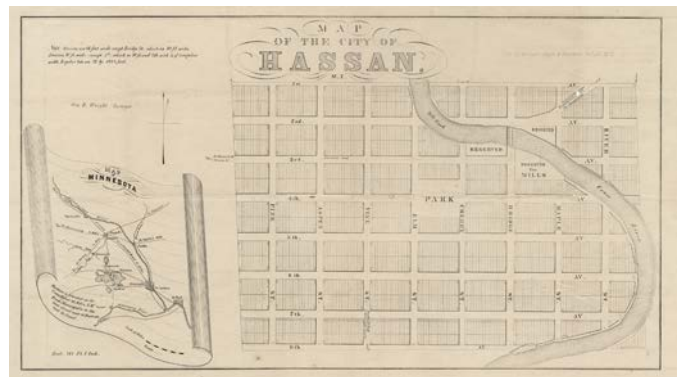


IMAGE 14 | Platted Hassan town site. Minnesota Historical Society



IMAGE 15 | Becker farmstead site adjacent to the Crow River circa 1953

## Wayfinding

Wayfinding measures, usually in the form of signage and markers, help users locate themselves in the park. This maximizes the visitor experience and improves their ability to navigate confidently throughout the park. This assists in park safety and provides easier access in and out of Crow-Hassan Park Reserve. Additionally, making the trails easy to navigate helps keep users on the paths, which protects the park's valuable natural resources and ecosystems.

The Crow-Hassan Master Plan recognizes the need for improvements to current wayfinding. Improved wayfinding throughout the park, from park entrance to trailside markers was a top request during the community engagement. The master plan seeks to introduce and reinforce wayfinding elements suited to the park's rustic aesthetics. To achieve this aim, the plan establishes levels of wayfinding in the park.

Placement of wayfinding elements should be coordinated to minimize any natural resource impacts, ensure compliance with maintenance practices, ensure branding guidelines and maintain sensitivity to any habitat/nesting site needs.

### Monument Sign

To indicate substance and importance, the monument sign is used at park entrances throughout the Park District (Image 16). This sign includes the park's official name, address number, significant points of interest and is placed on a field stone base. This type of sign is proposed at the intersection of Park Drive and the entrance road to the trailhead area - which will replace the smaller entrance sign that is currently located there.

### Entrance Sign

Entrance signs, which are typically located on wooden posts, indicate secondary park entrances or specific park sites. These signs are currently located at the dog off-leash area, Riverbend group camp and District Nursery entrance. A modified version should be created for Riverbend when proposed changes are implemented, including the relocated non-motorized boat launch and northern access parking lot.

### Trail Directional Markers

The trail directional markers consist of a post structure depicting the direction, unpaved trail name and distance to major destinations on the trail (Image 17 example). Important to the park-wide wayfinding suite, directional markers play a critical role in the curated trail loops - providing users with clearly defined routes. Directional markers will be located at major trail intersections and park landmarks and should be branded and designed as part of the wayfinding suite.

### Trail Intersection Markers

The trail intersection markers are small, simple signs that identify the unpaved trail at trail intersections or along the trail pathways (Image 18). These should be located throughout the park trail system, particularly at minor trail intersections. As with the other signage, these should be branded and designed as part of the wayfinding suite and may include park-wide maps.

### Regional Trail Signage

Designed to promote and orient regional trail users, the shed kiosks and directional poles have become a recognizable symbol and branding tool for the Park District (Image 19). The trailhead provides a nexus point of two regional trails (Crow River and Rush Creek) and subsequently directs a Level A configuration near the general use parking lot. This includes two (2) shed kiosk structures and a directional pole. As this is the trailhead for Crow-Hassan as well, panel space should serve a dual purpose between the regional trail network and park information.

The Level B configuration is a modified version of the larger Level A, and includes a small shed kiosk and one directional pole. Level B locations are recommended at the dog off-leash area and at the regional trail entrance near the southern park boundary at the northwest intersection of County Road 19 and Crow-Hassan Park Road. Signage text should include highlights of the park, in addition to its traditional regional trail system text.

### Other Signage

All other signage that is needed for routine operations should be branded and designed as part of the wayfinding suite, in coordination with current marketing and communications branding guidelines.



IMAGE 16 | Monument sign



IMAGE 17 | Trail directional marker



IMAGE 18 | Trail intersection marker



IMAGE 19 | Regional trail signage



# 6

## PLAN SUPPORTS OPERATIONS, PROGRAMMING & MAINTENANCE

### OPERATIONS, PROGRAMMING & MAINTENANCE

at Crow-Hassan is based on the mission to introduce people to nature and outdoor recreation while protecting and maintaining the unique natural resources of the park. The Park District operates Crow-Hassan Park Reserve using a wide variety of professional staff and in accordance with the Park District's policies, guidelines and ordinances. The ordinances provide for the safe and peaceful use of the parks and corresponding facilities; for the educational and recreational benefits and enjoyment of the public; for the protection and preservation of the property, facilities and natural resources; and for the safety and general welfare of the public. The park is operated year-round and provides a variety of self-directed and the occasional staff-led outdoor recreation and natural resource education opportunities. The main recreation areas identified in the park concept's development areas serve as a hub of activity and programming and see the greatest investment in programming and maintenance. Investment in the majority of the park land will be related to natural resource restoration and management. Park staffing levels will fluctuate to account for the desired level of activity and programming in the various park areas as well as seasonal use patterns, maintenance requirements, resource goals and available funding.

#### Operations, Programming & Maintenance Costs

##### Existing Annual Operating Costs

\$360,000\*

Basic facilities, maintenance & natural resource management

##### Additional Proposed Annual Operating Costs

\$160,000\*

Maintenance costs based full capital improvement implementation\*

**TOTAL: \$520,000/year\***

\*2019 dollars

## BASIC OPERATION SERVICES

The rustic quality and minimal development of Crow-Hassan as well as the light-touch approach taken in this master plan limits any need for expansion of current park operations. The park will remain open year-round for public use and is envisioned to maintain the current hours of operation, 5am -10pm.

Currently there are no staffed locations at Crow-Hassan Park Reserve outside of the District nursery and standard park patrolling. The primary operations cost associated with this park comes from park patrol and oversight from Park Operations. These activities are estimated to be \$15,000 annually (2019 dollars).

The master plan maintains the current operation level of the park as proposed improvements are generally self guided recreation opportunities and as such there are no staffing changes anticipated at this time. The expansion of the camping options and estimated increase in annual user counts are anticipated to minimally increase to the operations oversight of the park. These changes will increase overall maintenance (see further maintenance details).

## EDUCATIONAL PROGRAMMING

This park is an excellent destination for users to fully appreciate unique natural habitats. Through increased educational programming with interpretive naturalists and historical interpreters, the mysteries of the early people of the area, the Crow River, the restored prairie and the Big Woods remnant habitat will come to life. Staff from Eastman Nature Center and The Landing will provide programs with professional interpreters.

In addition, expanded self-guided educational programming is planned. This master plan identifies a series of trail routes – using the current trail system - to maximize the user experience and highlight the natural resource features with minimal additional infrastructure or services. The touchpoint approach allows users to have an immersive educational experience and increases connectivity between the user and the surrounding natural landscape. Highlights of these routes include immature prairie growth, Crow River overlooks and wetland viewing areas. The plan also identifies an interpretative trail to

tell the transformation story of Crow-Hassan from Big Woods to agricultural land to the landscape currently in existence today. The interpretative trail includes trailside interpretative panels providing an overview of a specific historically important features. As these routes are self-guided, there is no additional staffing costs incurred with their inclusion.

The master plan also identifies expanded ecological adult programming. These existing and additional future educational programming may include, but are not limited to:

- Wood cock walks
- Bird hikes
- Bioblitzes
- Monarch tagging (Image 20)
- Wagon rides
- Coyote howls
- Full moon hikes/walks
- Crow River canoe trips
- Beginner camping programs
- Wildflower rambles
- Prairie picnics
- Prairie seed collecting
- Butterfly count
- Telemetry/turtles
- Wellness hike in the prairie

The expanded educational programs will include a focus on promoting Crow-Hassan Park Reserve’s resilient ecological design as a educational resource for the region. Many of these offerings are envisioned to generally fund themselves, as such, no new or additional programming expenses are envisioned.



**IMAGE 20 |** Monarch butterfly tagging.  
Source: Three Rivers Park District



## MAINTENANCE

The Park District will maintain the park in a safe, clean and usable manner. Maintenance is as important as basic services operation and education programming in respect to providing high quality customer service and meeting park user's expectations. Crow-Hassan's ecological features – including the mature prairie and recent reforestation - introduce unique maintenance needs to this park.

### General Maintenance

The general maintenance plan for Crow-Hassan calls for maintaining it consistent with other park reserves. This generally includes a combination of routine maintenance, seasonal condition assessments and inspections and specialized maintenance related to the park's features. The annual maintenance cost for Crow-Hassan is currently estimated to be roughly \$170,000 (2019 dollars).

The major functions of the current maintenance plan include, but not limited to:

- Mowing and trimming trails, trailheads, and reservation group camps
- Trail surface maintenance, brush trimming
- Sign maintenance
- Building maintenance & cleaning
- Roads and parking lot maintenance
- Dog off-leash area maintenance
- Firewood hauling
- Hazard tree removals and storm clean-ups
- Erosion control
- Snow plowing
- Trash/recycle/litter pick-up
- Reservation site clean-up and preparations
- Well maintenance

As all current programming and primary park features are retained in the master plan, all previously listed maintenance practices remain applicable.

To account for the additional park features, this master plan expands the existing maintenance plan to include:

- Winter trail maintenance for the planned eight-mile segment of the paved Crow River Regional Trail route

- Maintenance of trailhead amenities
- Picnic shelter maintenance
- Nature play trail maintenance
- Trail surfacing maintenance for the three miles of ADA accessible trail
- Expanded parking lot maintenance
- Individual and equestrian camping expansion

These additional maintenance responsibilities are expected to add \$65,000 in annual maintenance costs. This would also require the addition of one full time staff and three seasonal staff at a cost \$95,000. Thus, the total cost of increased maintenance would be \$160,000, essentially doubling the existing maintenance costs for the park.

### Natural Resource Maintenance

The Park District's wildlife and forestry sections conduct a number of management activities in the prairies, woodlands and wetlands (Image 21). The Park District's water resources section conducts water monitoring and well testing in the park. The activities have an annual cost of approximately \$175,000 per year (2019 dollars). These activities include:

- Prairie burns – approx. 300 acres per year
- Invasive species control – chemical and mechanical – prairies and woodlands
- Seed collecting
- Over seeding
- Tree planting
- Vegetation surveys
- Animal surveys
- Water sampling
- Deer management
- Wetland water level control

Future projects may include additional tree planting at the south end of the park and additional savanna work in the north. The master plan maintains these current projects. There is no expected increase to the annual cost.

## SUSTAINABILITY

The Park District Sustainability Plan (2016) guides efforts toward achieving established sustainability goals and targets by outlining broad strategies for organizational implementation. The following goals provide guidance and intent to Park District' sustainability efforts in respect to regional parks and reserves:

- Manage and operate parklands and facilities in a manner that ensures the ecologic, financial and social integrity of the park system in perpetuity.
- Reduce dependence on fossil fuels to minimize greenhouse gas emissions and reduce public expenditures.
- Reduce the amount of waste sent to the incinerator and landfill to minimize costs and reduce Greenhouse Gas emissions.
- Preserve groundwater and surface water resources to ensure current and future water needs can be met.
- Reduce Park District environmental impacts to demonstrate or model Park District's commitment to sustainable environmental stewardship.
- Provide opportunities for public education and involvement in Park District sustainability initiatives.
- Design and plan park facilities, amenities and trails to maximize the public ability to use non-motorized transportation and to meet the Park District's goal of sustainable environmental stewardship.

The Park District strives to utilize appropriate sustainable best management practices and guidelines such as the Minnesota Sustainable Building Guidelines (B3 Project) and Leadership in Energy and Environmental Development (LEED) Rating System on construction projects. For park reserves, best management practices may include utilizing porous pavement, rain gardens, recycled construction materials, using native plant materials, smart and responsible water consumption, connectivity to the regional trail system as well as mass transit and using sustainable building techniques. In addition, the Park District has an active solid waste management plan geared toward reducing waste and increasing recycling and compost.



**IMAGE 21 | Natural resource management includes annual prairie burns at Crow-Hassan**  
Source: Three Rivers Park District.

Garbage and waste will be collected and disposed of in accordance with best management practices and all applicable laws. Garbage and recycling bins will be located throughout the park to make participation convenient and easy.

Additionally, this master plan identifies the nursery facilities as a key location for sustainability innovation. The current facility uses well water and natural gas as its main water and heating needs. Consistent with the 2016 Sustainability Plan, this master plan identifies several sustainable water, electrical, and heating sources that could replace or supplement the existing sources (Appendix D). Some of these include rain water catchment, passive irrigation, and solar panels. In addition to reducing energy consumption, the nursery facility could stand as a national example of how to transition existing nursery facilities to a net-zero model.

## **PUBLIC SAFETY**

The Park District provides a safe environment for park users, protects the park's resources and educates park guests on park rules and expectations.

### **Public Safety Plan**

Public safety officers utilize a variety of specialized patrol methods to ensure ongoing safety in Park District parks. In addition to routine patrol, Park District public safety officers may be dispatched through the Hennepin County Dispatch System to respond to incidences as they occur. Public safety officers will be supported by volunteer trail patrollers which assist with patrol and incident response.

While the Park District will assume the lead role in providing public safety services to Crow-Hassan Park Reserve, a statewide mutual aid program assists to facilitate assistance and sharing public safety resources from surrounding police agencies in times of emergency or other unusual conditions. Under this program and as part of the broader envisioned partnership between the Park District and the City of Rogers, City of Rogers Police will also play a key role in responding to incidents and providing support for large events. This is an essential partnership as City of Rogers Police may be better positioned to provide quick routine patrols and timely response

in emergency situations simply due to the close proximity of their officers to the park compared to Park District public safety officers. In addition, Hennepin County Water Patrol will provide patrol and emergency services for any water related event that may occur on or in the Crow River. There is no expected increase to the annual cost.

## **PUBLIC AWARENESS**

The Marketing & Community Engagement Department manages a centralized marketing communications function that oversees the Park District's website, public relations, marketing, media relations, social media, brand management, event planning and promotion.

A number of effective marketing and outreach tools are used to promote the Park District, including but not limited to, events calendars, maps, digital and social media, direct mail, press releases, a centralized reservation system, brochures, advertising and on-site promotion. Promotional pieces will highlight how to get to the park via foot, bike, transit and car.

The Park District collaborates with a wide array of community, business and government organizations to promote its facilities, programs and services, and to educate the public about its resources. The Park District also works with the Metropolitan Council Regional Parks System, the State Office of Tourism and other partners to leverage shared opportunities for creating awareness and visibility.

Additionally, a focus is placed on developing partnerships and programming opportunities that allow the Park District to better serve all residents of Suburban Hennepin County, especially those with less access to its facilities and programs.



regal fritillary



# 7

## IMPLEMENTATION ESTIMATED COSTS & FUNDING

**THE CROW-HASSAN MASTER PLAN** takes a very light approach to future development and park planning with a focus on supporting the natural resource systems and existing natural conditions of the park. To this end, additional developed park features were minimized and those additional features are limited in size and scope. The additional features of the park can be implemented over time as funding becomes available and planned renovations are completed. As a result, there is minimal change in overall maintenance costs for the park. This chapter lays out the associated responsibilities for the Park District, as well as estimated costs and funding plan.

### Acquisition & Capital Improvement Costs

**Park Boundary Acquisition** ~\$2.57 (2019 dollars)

**Capital Improvements** \$2.75 (2019 dollars)

**\$5,320,000 TOTAL**

### ACQUISITION

Identified inholdings will be considered on a willing-seller basis and dependent on available Land Acquisition Development Betterment Funds and external acquisition funds administered by Met Council. Acquisition costs for all identified inholding properties is estimated to be \$2.57 million (2019 market values).

A land exchange between MCES and the Park District may be required as part of the Crow River wastewater treatment project. To date, the Park District and the City of Rogers have expressed support for the proposed land exchanges that will result in a boundary change for Crow-Hassan Park Reserve. Appraisals and compensation negotiations will be required as this project moves from planning to implementation.

## CAPITAL IMPROVEMENTS & FUNDING PLAN

This plan envisions continued resource restoration and minimal development. The majority of the park's infrastructure is to be maintained in its current condition. The costs outlined are for projects only (picnic shelter, Crow River Regional Trail construction, etc.) and do not include the costs associated with maintaining or operating these investments (Table 6). While there is interest by the Park District to move forward with implementing the master plan, there are not dedicated funds to do so immediately. All Crow-Hassan capital improvement projects not funded through outside grants, fundraising and partnerships compete internally with other District-wide projects through the annual capital improvement plan (CIP).

### Implementation Timing

The trailhead parking improvements with separate equestrian parking is a priority. The monument sign should also be prioritized to elevate the visitor experience. Ancillary capital improvements to this area may be phased, as the Crow River Regional Trail and additional education programming is implementation. Other capital improvements are at the discretion of available funding and as demand warrants.

### Implementation Partners

This plan includes amenities and opportunities at the regional scale and state scale. The Park District will explore partnership opportunities which support implementation of the master plan. Potential partners could include the Minnesota Department of Natural Resources; the Metropolitan Council; Hennepin County; local school districts; regional colleges and universities; municipalities; non-profits; community groups; businesses and other partners.

## OPERATIONS & MAINTENANCE

Operations and maintenance costs for Crow-Hassan Park Reserve will continue to be covered through the Park District's Operating Budget. The Operating Budget's primary source of funds are property taxes with some revenue from the State of Minnesota as part of the Operations and Maintenance Fund allocations from the Metropolitan Council. When the plan is fully implemented, annual operations and maintenance costs are estimated to be \$520,000/year (2019 dollars). A detailed operations and maintenance summary is available in Chapter 6.

<b>Crow River Regional Trail</b>	
Stand alone 8-mile regional trail project not included in Crow-Hassan Park Reserve master plan budget. For reference, project includes at minimum; \$4,000,000 pavement, (1) Level A \$55,000, and (2) Level B \$60,000	--
<b>Trailhead</b>	
<b>Equestrian parking lot</b> Gravel, 25-30 truck/trailer spaces, several equestrian camp sites, water service, vault latrine restroom, high-lines, water service, picnic tables & fire ring(s)	\$350,000
<b>General-use parking lot</b> Gravel, 30-50 vehicle spaces with user enhancements (i.e. signage, concrete work, vault latrine restroom, seating)	\$350,000
<b>ADA Nature Play Trail Loop</b> ADA accessible, 0.5 miles with play features	\$200,000
<b>Picnic shelter</b> Picnic tables, grills, trash receptacles, water service, 60 person capacity	\$300,000
<b>Bluestem</b> ADA enhancements, several hike-in reserveable sites	\$45,000
<b>Riverbend</b>	
<b>Northern access parking lot</b> Gravel, 25 vehicle parking spaces	\$40,000
<b>Riverbend camping</b> ADA enhancements and several additional individual, reserveable sites	\$45,000
<b>Easy Trail Routes</b> Even surfacing, limited grade variation, 10' wide trails	\$100,000
<b>Relocated non-motorized boat launch</b> ADA accessible	\$175,000
<b>ADA Northern River Trail Segment</b> ADA accessible, 2.5 miles (there and back)	\$400,000
<b>Dog off-leash area</b>	
Erosion control measures along Crow River	\$10,000
Parking lot lighting	\$120,000
<b>Archery range (+ gravel parking area)</b> Intermediate and/or advanced facility	\$20,000
<b>District Nursery Innovation</b>	
<b>Solar roof installation</b>	\$200,000
<b>Other:</b> i.e. biogas production, solar, wind, water harvesting (App. D)	TBD
<b>Crow River Overlooks</b> Vegetative clearing, minor earthwork, seating and/or picnic accommodations (approximately 6 locations)	\$50,000
<b>Natural Resource Touchpoints</b> Wildlife viewing facilities/infrastructure and/or trail pull-offs with minor earthwork (approximately 7 locations)	\$70,000
<b>Gathering Spaces</b> Rustic seating	\$10,000
<b>Curated Trail Experiences</b> Destination specific support facilities including wayfinding signage and seating where appropriate (approx 20 locations)	\$150,000
<b>Wayfinding</b>	
Monument sign	\$35,000
Modified Riverbend entrance, various trail directional, trail intersection and other signage	\$75,000
<b>TOTAL \$2,745,000</b>	

**TABLE 6 | Capital Improvement Cost Summary**

Source: Three Rivers Park District

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# APPENDIX A

## RESOLUTIONS OF SUPPORT





## RESOLUTION NO. 2020-43

**A RESOLUTION OF SUPPORT FOR THE  
CROW-HASSAN PARK RESERVE MASTER PLAN**

**WHEREAS**, The City of Rogers recognizes Crow-Hassan Park Reserve as an important component of the regional parks system providing natural resource protection and nature-based recreation to the residents of the City and the region; and

**WHEREAS**, City staff have been working in partnership with Three Rivers Park District in development of the master plan to ensure the park's guiding principles of preserving the unique natural resources, celebrating the Crow River and introducing people to nature and outdoor recreation match Roger's community values; and

**WHEREAS**, The City of Rogers recognizes that Three Rivers Park District has gathered significant public input in the development of the Crow-Hassan Park Reserve Master Plan; and

**WHEREAS**, The City of Rogers recognizes that Three Rivers Park District has drafted the Crow-Hassan Park Reserve Master Plan and accepted and responded to public comments appropriately; and

**WHEREAS**, The Crow-Hassan Park Reserve Master Plan is consistent with other approved local and regional plans; and

**WHEREAS**, The Crow-Hassan Park Reserve Master Plan and includes greater access to the park, programing and future expansion; and

**WHEREAS**, the City of Rogers supports the acquisition, design, implementation and operation of the Crow-Hassan Park Reserve pursuant to the Master Plan; and

**THEREFORE, BE IT RESOLVED**, that the City of Rogers supports the Crow-Hassan Park Reserve Master Plan.

Moved by Councilmember Jakel, seconded by Councilmember Klick.

The following voted in favor of said resolution: Eiden, Gorecki, Ihli, Jakel and Klick

The following voted against the same: none

The following abstained: none

Whereupon said resolution was declared duly passed and adopted, and was signed by the Mayor, and attested by the Clerk dated this 26<sup>th</sup> day of May, 2020.

ATTEST:

Stacy Scharber  
Stacy Scharber, City Clerk

[Signature]  
Mark Ihli, Mayor

**CITY OF HANOVER  
COUNTIES OF WRIGHT AND HENNEPIN  
STATE OF MINNESOTA**

**RESOLUTION NO 01-07-20-08**

**SUPPORT FOR THE CROW-HASSAN PARK RESERVE MASTER PLAN**

**WHEREAS**, The City of Hanover recognizes Crow-Hassan Park Reserve as an important component of the regional parks system providing natural resource protection and nature-based recreation to the residents of the City and the region; and

**WHEREAS**, City staff have been working in partnership with Three Rivers Park District in development of the master plan to ensure the park's guiding principles of preserving the unique natural resources, celebrating the Crow River and introducing people to nature and outdoor recreation match Hanover's community values; and

**WHEREAS**, The City of Hanover recognizes that Three Rivers Park District has gathered significant public input in the development of the Crow-Hassan Park Reserve Master Plan; and

**WHEREAS**, The City of Hanover recognizes that Three Rivers Park District has drafted the Crow-Hassan Park Reserve Master Plan and accepted and responded to public comments appropriately; and

**WHEREAS**, The Crow-Hassan Park Reserve Master Plan is consistent with other approved local and regional plans; and

**WHEREAS**, the City of Hanover supports the acquisition, design, implementation and operation of the Crow-Hassan Park Reserve pursuant to the Master Plan; and

**NOW, THEREFORE, BE IT RESOLVED**, that the City Council of the City of Hanover, Minnesota, hereby supports the Crow-Hassan Park Reserve Master Plan.

Adopted by the City Council this 7<sup>th</sup> day of January, 2020.

APPROVED BY:

  
\_\_\_\_\_  
Chris Kauffman, Mayor

ATTEST:

  
\_\_\_\_\_  
Brian Hagen, City Administrator

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# APPENDIX B

## SERVICE AREA DEMOGRAPHICS



B

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2018 Park Visitor Survey Data (Summer Only)		Current Core Service Area 50% of visitors travel than 10 minute				Planned Core Service Area 50% of visitors travel less than 25 minute		Planned Primary Service Area 75% of visitors travel less than 45 minute		Suburban Hennepin County Three Rivers Primary Focus/Jurisdiction	
Total Visitors/People	19,569	42,528	100.0%	445,002	100.0%	1,904,956	100.0%	769,836	100.0%		
By Age:											
Children	1,409	13,916	32.7%	123,107	27.7%	461,279	24.2%	184,137	24.0%		
Adults	18,160	28,612	67.3%	321,895	72.3%	1,443,677	75.8%	585,699	76.1%		
<10 years old	665	12,302	17.1%	81,644	14.7%	286,104	13.3%	104,797	13.1%		
10-17 years old	2	10,849	15.0%	76,677	13.8%	279,282	13.0%	97,212	12.1%		
18-34 years old	2,564	12,369	17.1%	104,873	18.9%	473,647	22.1%	156,371	19.5%		
35-44 years old	2,113	12,096	16.8%	77,812	14.0%	283,405	13.2%	103,842	12.9%		
45-59 years old <sup>1</sup>	6,106	15,027	20.8%	123,065	22.2%	452,158	21.1%	179,214	22.3%		
60-74 years old	2,524	7,403	10.3%	66,678	12.0%	261,828	12.2%	108,453	13.5%		
≥75 years old <sup>1</sup>	509	2,098	2.9%	24,546	4.4%	109,611	5.1%	52,221	6.5%		
By Gender:											
Female	10,567	36,422	50.5%	282,722	50.9%	1,087,503	50.7%	411,957	51.4%		
Male	8,982	35,722	49.5%	272,573	49.1%	1,058,532	49.3%	390,153	48.6%		
By Race (adults only):											
African American/Black	333										
American Indian or Alaska Native	-	455	1.6%	21,277	6.6%	112,032	7.8%	43,309	7.4%		
Asian	372	146	0.5%	2,052	0.6%	13,694	0.9%	3,327	0.6%		
Pacific Islander	-	808	2.8%	17,470	5.4%	81,677	5.7%	37,017	6.3%		
White	18,199	11	0.0%	143	0.0%	720	0.0%	286	0.0%		
Other	2	26,606	93.0%	270,142	83.9%	1,168,652	80.9%	476,564	81.4%		
Multiple	313	14	0.0%	370	0.1%	2,061	0.1%	884	0.2%		
Hispanic/Latino/Spanish		17	0.1%	873	0.3%	5,047	0.3%	1,872	0.3%		
Hispanic		555	1.9%	9,568	3.0%	59,794	4.1%	22,440	3.8%		
Household Income (# of households):											
Income < \$50K <sup>1</sup>	2,524	5,546	22.2%	64,709	31.5%	304,763	36.8%	108,566	33.6%		
Income \$50K-149K	13,718	14,341	57.3%	108,497	52.8%	404,080	48.8%	157,571	48.7%		
Income ≥ \$150K	3,307	5,126	20.5%	32,313	15.7%	119,861	14.5%	57,375	17.7%		

<sup>1</sup> Underrepresented at Three Rivers parks in 2018

<sup>2</sup> 2010 US Census

<sup>3</sup> 2015 American Communities Survey

<sup>4</sup> Does not include approx. 1.4% of the households within the 45 minute service area which are outside of the 9-county metropolitan area.

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# APPENDIX C

## CAMPING ASSESSMENT





## EXISTING CONDITIONS

Bluestem and Riverbend group camps at Crow-Hassan are highly sought-after resources for recreating guests and are regularly used. However, both group camps have existing design limitations that restrict overall accessibility and limit use to larger groups who can financially support this activity.

The current Crow-Hassan 'drop-in' site for individual use, adjacent to the main trailhead parking lot, offers a high degree of exposure (limited privacy) and is under-utilized.

### Bluestem Group Camp

Capacity: 80 people

#### Occupancy Rates\*

##### Memorial Day – Labor Day (peak)

- 89 Days (subtracted 1.5 weeks due to maintenance): 28%
- Weekends/Holidays: 83%
- Non-Peak (weekends only): 61%

### Riverbend Group Camp

Capacity: 50 people

#### Occupancy Rates\*

##### Memorial Day – Labor Day (peak)

- 89 Days (subtracted 1.5 weeks due to maintenance): 35%
- Weekends/Holidays: 79%
- Non-Peak (weekends only): 67%

\*2018 Data

## COMMUNITY ENGAGEMENT

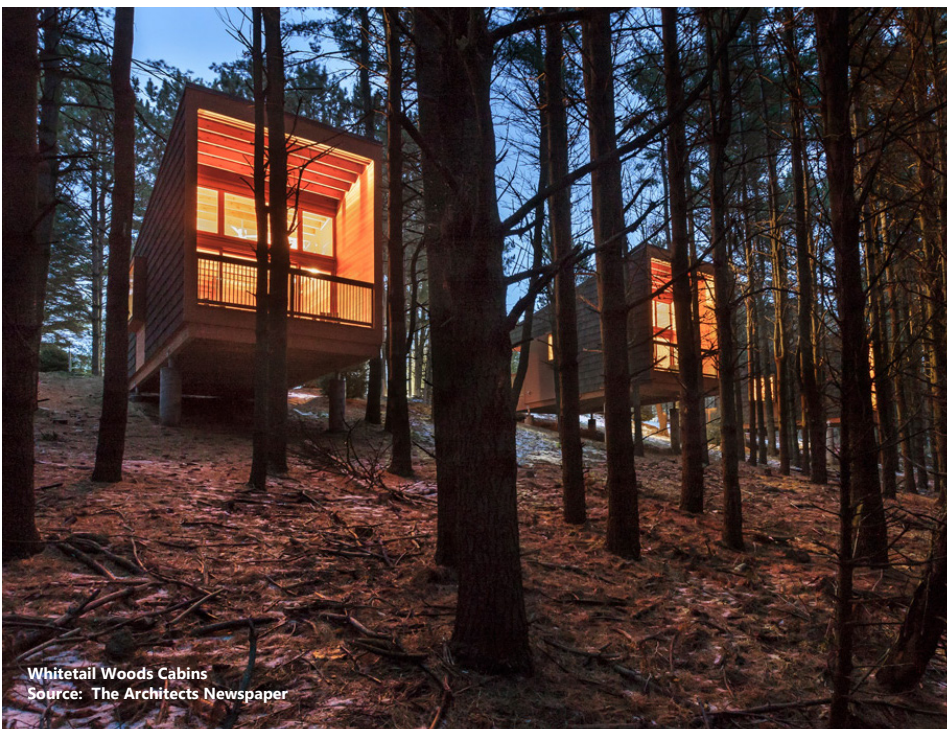
### Individual camping was the top request from the user survey.

Respondents provided robust feedback to the question, "What activities and/or amenities would you like to see at Crow-Hassan Park Reserve if they were available?" (942 responders - could select more than one option)

- Individual, drop-in, horse use camping sites (359 responses),
- Individual, reserveable, horse use camping site (351 responses),
- Individual, drop-in, general use camping sites (203 responses),
- Individual, reserveable, general use camping sites (206 responses).

There was also a significant number of requests for expanded four-season camping options (camper cabins, yurts or similar).

## PRECEDENT STUDY | WHITETAIL WOODS REGIONAL PARK, DAKOTA COUNTY



Whitetail Woods Cabins  
Source: The Architects Newspaper

### Background

- Currently 3 cabins - expanding to 5 in 2019/2020.
- Open year-round with a 2 week closure in November for maintenance.
- 88% occupancy rate (2018)
- Construction cost: \$81,000/ cabin (2018).
- No major security concerns but the park is regularly patrolled.
- No ecological footprint concerns.
- Coded locks.

## GROUP CAMPING



### Maintain Group Camps (PROS)

- Maintains existing high occupancy rates
- Maintains existing operations & maintenance
- Provides unique camping option in Twin Cities metro for groups (ex. horse use, scouts, etc)
- Large footprint for versatile and flexible use

### Maintain Group Camps (CONS)

- Noise and level of activity
- Limits potential users to groups (cost and patterning)
- Limits existing programming and occupancy patterns

## INDIVIDUAL CAMPING



### Provide Expanded Individual Camp Sites (PROS)

- Higher accessibility for more users (general use, horse)
- Cost effective (design and users)
- Allows for better integration into adjacent programming (paddlers, cyclists)
- Highly flexible design options

### Provide Expanded Individual Camp Sites (CONS)

- Potential larger user footprint (multiple sites)
- Potential user conflicts
- Concern for managing transient communities/safety
- Limited seasonal use
- Operation and maintenance

## CAMPER CABINS | YURTS



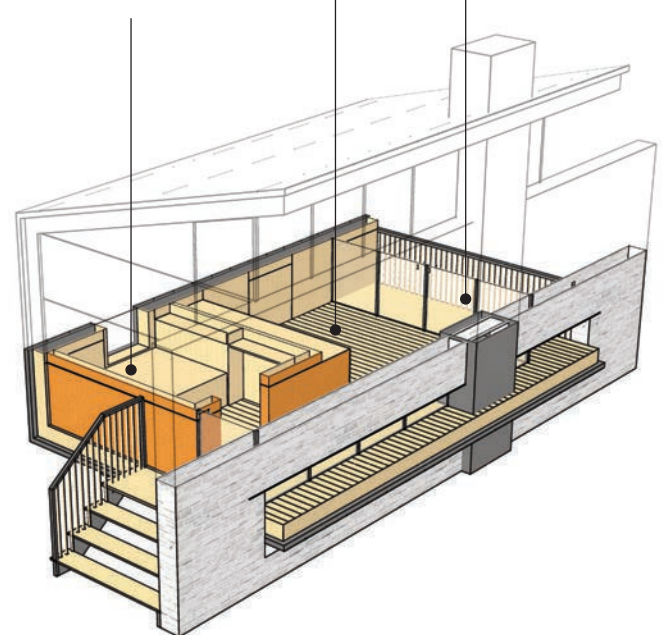
### Provide Camper Cabins | Yurts (PROS)

- Reduces user footprint (defined camp boundaries)
- Four-season use
- Unique option – potential to reach broader user base
- Ability to control access to facilities
- Allows for better integration into adjacent programming (river paddlers, cyclists)
- Revenue potential
- High popularity and demand in the Twin Cities metro

### Provide Camper Cabins | Yurts (CONS)

- Higher cost to users
- Potential higher cost of maintenance
- Potential conflict compatibility with the Park District's ROS (Recreation Opportunity Spectrum)

ENCLOSED BUNK SLEEPING AREA    LIVING AREA    DECK



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# APPENDIX D

## DISTRICT NURSERY RESILIENCY ASSESSMENT



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Established in 1977, the Park District's plant production nursery is located within Crow-Hassan Park Reserve. The District Nursery currently relies on adjacent well water and natural gas for the primary heating and water needs. Both of these sources are limited in terms of long-term sustainability and ongoing incurring costs. Alternative energy and water sources to replace or supplement the District Nursery's operations were examined as part of this master plan and may be implemented at a future date.

### Biogas Production (Standard Biodigester)

Feedstock - Grass Silage w/ Some Manure

40 Acres Harvested Once Annually

3 Tons Per Acre

50% Dry Matter

120 Tons

Output (Potential Biogas - Natural Gas Equivalent)	850,000 Therms / Yr
Demand (Natural Gas)	765,000 Therms / Yr

### Photovoltaic Electricity Generation

Land Area w/ PV (Ground Mount - Full Sun)

3,500 SF

Output (Potential Electricity)	62,000 kWh
Demand (Electricity)	62,000 kWh

### Wind Turbine Electricity Generation

20 KW Turbine (10 Meter Rotor Diameter)

10 M or 32.8 Ft Rotor Dia

Output (Potential Electricity)	30,000 kWh
Demand (Electricity)	62,000 kWh

### Water Harvesting (Greenhouse + Garden)

Water Harvested from Roofs (May Through September)

Greenhouse

Greenhouse HeadHouse

West Shed

NorthWest Shed

North Building

Total Roof Area 28,500 SF

Output (Potential Rainwater Harvest)	280,000 Gal / Yr
Demand (Potential Irrigation Water)	245,000 Gal / Yr
Greenhouses	146,000 Gal
Vegetable Garden (6,000 SF - 10,000 Lb / Yr Production)	100,000 Gal

### Water Harvesting\* (Tree Nursery)

Annual Average Water Demand 4,808,000 Gal

Deduct Building Demand (10 Full Time People - 250 Days / Yr)

30,000 Gal

Deduct Greenhouses 146,000 Gal

Annual Open Tree Nursery Demand (Annual) 4,632,000 Gal

619,251 CuFt

Demand (1 Month) Open Nursery (5 Month Average) 123,850 CuFt

Pond Area (1'-0" Deep Irrigation Area - 1 Month of Demand) 2.8 Acre

Pond Area (1'-0" Deep Irrigation Area - 2 Month of Demand) 5.7 Acre

\*Assumes Irrigation from May through September

\*\*All Calculations are Order-of-Magnitude Calibrated. They are intended only to demonstrate potential and facilitate decisions about further exploration + validation



WATER HARVESTING : CATCHMENT POND



WATER HARVESTING : CISTERN TO IRRIGATION



ENERGY: BIODIGESTER



ENERGY: TURBINE



ENERGY: PHOTOVOLTAIC