

Lake Marion Creenway

MASTER PLAN

ADOPTED BY THE DAKOTA COUNTY BOARD OF COMMISSIONERS AUGUST 20, 2013





Lake Marion Creenway

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Lake Marion from existing Juno Trail





OVERVIEW

The Lake Marion Greenway travels 20 miles through Burnsville, Savage, Credit River Township, Lakeville and Farmington. Today, the land use context is a mix of agriculture, developed residential, commercial, office and industrial areas. Four miles of the greenway follow the South Creek in Farmington, which is a designated trout stream. The Lake Marion Greenway will link the Minnesota River and the Minnesota River Greenway to Murphy-Hanrehan Park Reserve, Ritter Farm Park, Lake Marion, downtown Lakeville, South Creek and downtown Farmington, where it will connect with the North Creek Greenway. Like all Dakota County greenways, the Lake Marion Greenway is envisioned to provide multiple benefits to water quality, habitat, recreation and nonmotorized transportation.

The master plan:

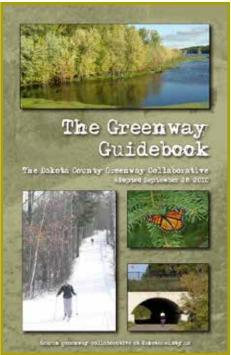
- ► Expresses an integrated vision for recreation, nonmotorized transportation, habitat and water quality.
- ▶ Determines preferred regional trail alignment and design.
- ► Provides strategies for interpretation, resource stewardship, development, land acquisition and operations.
- ► Estimates project costs.
- ► Satisfies requirements for Metropolitan Council regional destination trail and greenway planning.



The Lake Marion Greenway is shown in red.







Dakota County Greenway Vision

With the 2008 Park System Plan and 2010 Greenway Guidebook, Dakota County has established a progressive vision for an interconnected system of open space corridors — greenways. We need look only as far as Minneapolis' Grand Rounds to realize the powerful legacy of community benefits that greenways can bestow.

Dakota County Park System Plan

The 2008 Dakota County Park System Plan established the foundation for a county wide greenway network by envisioning regional greenways that connect parks, schools, local trails and libraries through the nonrural portions of the county. Dakota County's greenway vision suggests 200 miles of regional greenways, 2/3 of which are on land currently in public or semipublic ownership. A priority is to implement more than 50 miles of greenways by 2020.

Dakota County Greenway Collaborative: the Greenway Guidebook

In 2010, Dakota County adopted the Dakota County Greenway Guidebook as a framework for greenway development. The guidebook establishes a framework for a collaborative approach to governance, stewardship, design and operation of greenways.





PLANNING CONTEXT

The Lake Marion Greenway travels through the cities of Burnsville, Savage, Lakeville and Farmington, and Credit River Township. Several planning efforts affect the greenway's future development:

- ► Metropolitan Council 2030 Regional Parks Policy Plan, December 2010
- ▶ Dakota County Park System Plan, 2008
- Dakota County Greenway Guidebook, 2010
- ▶ Dakota County 2030 Transportation Plan
- ► City of Burnsville 2030 Comprehensive Plan
- ► City of Farmington 2030 Comprehensive Plan
- ► City of Lakeville 2030 Comprehensive Plan
- ► Scott County 2030 Comprehensive Plan
- ▶ Murphy-Hanrehan Park Reserve Master Plan, Three Rivers Park District
- ▶ Dakota County Riparian and Lakeshore Protection, Restoration and Enhancement Project
- Vermillion River Management Plan



GREENWAY MASTER PLANNING

The year long planning process was a collaborative effort of multiple agencies and jurisdictions. Dakota County led the process with advice from a technical advisory group formed to guide the master plan.

Local jurisdiction input

A technical advisory group met during each phase of master planning to provide guidance, provide insight into technical questions, explore options, identify partnership opportunities and discuss concurrent projects. In addition to providing specific guidance, the TAG institutionalized a collaborative planning process and established relationships across agencies with a stake in implementing the master plan. TAG meetings were held on September 11, 2012, November 14, 2012, and February 27, 2013 and April 9, 2013

January 2013 open house

The first open house was Jan. 24, 2013, at the Lakeville Water Treatment Facility. About 40 people participated in the first open house. Most attendees were residents of Lakeville or Burnsville who had received direct mailings about the open house, as notification was send to all addresses within 500 feet of the greenway. Overall, attendees were in favor of the greenway but wanted to know more about the

Technical advisory group

A technical advisory group met regularly, including representatives from:

- ► City of Burnsville
- Scott County
- ► City of Lakeville
- ► City of Farmington
- ► Three Rivers Park District
- Dakota County ParksDepartment
- ► Dakota County Office of Planning
- Vermillion River Watershed Joint Powers Organization

specific alignments and timing for construction of the greenway trail. Many attendees liked the idea of a greenway trail along the Canadian Pacific Railway corridor and expressed interested in helping that come to reality. A few attendees raised concerns about property values and conflicts with adjacent land uses.

- ► Specific comments included:
 - ▶ General comments: There will be long-term benefits of the greenway; there is a desire for tourism in the area.
 - ► Transportation related comments: A strong desire to include in the Canadian Pacific Railway corridor a trail; preserving soft surface trails in Ritter Farm Park; the importance of and desire for connections between Downtown Farmington and downtown Lakeville; the desire for grade-separated crossings of busy roads; the desire for pedestrian loop trails.
 - ▶ **Natural resources comments:** There is a desire to keep the greenway natural-looking when it is implemented and to improve water quality in the corridor.
 - ► **Greenway facilities comments:** More trees are needed along existing paths; rustic signs would be cool; keep lighting to a minimum.

Stakeholder meetings

Meetings were held with key stakeholders during the process to discuss specific issues. Summaries of the meetings can be found in the appendix. Groups included:

- City of Lakeville staff, Dec. 14, 2012
- ► City of Lakeville Park and Recreation Commission, Jan. 2, 2013



- ► Three Rivers Park District, Dec. 17, 2012
- ▶ MOM Brands, Jan. 9, 2013
- ► Lakeville School District, Jan. 16, 2013
- ► Canadian Pacific Railway, numerous conversations
- ► South Creek landowners

May 2013 open house

The second open house was May 28, 2013, at the Lakeville Water Treatment Facility. Residents within 500 feet of the greenway alignment again were notified of the open house by mail.

Input on the draft master plan generally was supportive, though several concerns were raised. Many residents who live along Juno Trail attended the May 28 open house and voiced the following concerns:

- » Reference to area as "other public ownership" is incorrect, it is an easement on private land
- » Master plan indicating the greenway will be open 24 hours a day, prefer current hours of 5 a.m. to 10 p.m.
- » Implication that Dakota County will acquire a 30-foot trail easement (the current trail easement is 20 feet wide in the Juno Trail area)
- » Design changes benches, lighting, landscaping, signage would be on private property, obstruct lake views, or hinder private dock installation/removal
- » Enforcement leash dogs, curfew, crime
- » Liability
- » Increased use

Other comments and concerns included: the need for a grade separated crossing at Dodd Road south of 207th street due to proximity to a school, traffic speed and volume; interest in water quality improvements for the pond near 207th and Dodd Road; concern about the soft surface trail alignments in Ritter Farm Park; and location for model airplane flying.

Project Web site

A project Web site established at www.hkgi.com/projects/dakota for the North Creek and Minnesota River Greenways in 2010 was continued as a resource for the Lake Marion Greenway. Materials from the open houses were posted online feedback and an online questionnaire was available for online comments and suggestions.

Public review

The public review draft master plan was posted on Dakota County's Web site and the greenway Web site from May 24 through July 5, 2013. The May open house gave the public the opportunity to talk to county staff and comment on the public review draft. The public review draft also was available to project stakeholders, including: city of Burnsville, city of Lakeville, city of Savage, city of Farmington, Credit River Township, Three Rivers Park District, Vermillion River Watershed Joint Powers Organization, Dakota County Historical Society and the Metropolitan Council. In addition, a summary presentation was prepared for technical advisory group members to present to their organizations. The Dakota County Board of Commissioners adopted the master plan on Aug. 27, 2013. Letters of support along with public comments can be found in Appendix A.



RECREATION NEEDS

The Lake Marion Greenway will enhance access to natural areas, trails and cultural resources. These activities are important for quality of life and are high demand recreational activities. Respondents to Dakota County's 2006 park survey cited these among the top activities residents would like to see in the county's park system. Current recreation and demographic trends suggest these needs will continue well into the future.

The need for a continuous trail in the Lake Marion location has been referenced in other planning documents. The Metropolitan Council's 2030 Parks Policy Plan references the Dakota East-West Regional Trail Search Corridor, which would be a new regional trail connecting Murphy-Hanrehan Park Reserve, Empire Wetlands Regional Park (now known as Whitetail Woods Regional Pakr) and the Mississippi River Regional Trail. In Dakota County's Park System Plan, the "Lake Marion Greenway Regional Trail" is identified as a first level priority (out of three levels) within the county system.

Visitors

A broadly generalized profile of greenway visitors was created based on input from existing visitors to Dakota County parks and trails, from stakeholders in the master planning process and from demographics of the population within 30 miles of Dakota County (see sidebar on page 7).

The following observations can be made about potential visitors based on comparative census data from 1990, 2000 and 2010.

- ► The people served by Dakota County parks and trails are becoming increasingly diverse. As recreation, interpretation and education are developed, outreach should be considered.
- ► There are more than half a million children enrolled in schools in the area served by Dakota County parks; more than one quarter of the population is younger than 17. School children and families are a large group of potential greenway users.
- ▶ In the 2010 U.S. Census, 10 percent of the population in Dakota County is older than 65, and this age group is projected to increase dramatically in number and proportion in the next 20 years. The influx of baby boomers into this age category will influence interpretive and education program development.
- ▶ Based on the 2011 American Community Survey one-year estimates, the average per capita income for the U.S. was \$26,708. The average per capita income for Dakota County was more than 23 percent higher, at \$32,935. Higher incomes have been associated with greater participation in recreation activities.



Trends

Popularity of trail-based activities, active living, interest in nature, transportation and connectivity, aging actively, interest in history and culture and population growth are all current trends that indicate that interest in and visits to Dakota County greenways are likely to increase.

Trail use

Trails are the most desired recreation facility in poll after poll. Trails can be enjoyed by people of all ages and abilities, they are inexpensive for users and they often are close to home. The Minnesota Statewide Comprehensive Outdoor Recreation Plan notes that the interest and demand for more trails are being felt at all levels of government. According to the 2008 Metropolitan Council Regional Parks and Trails Survey, among these trail users, biking and walking are the most common recreation form, while running, inline skating and dogwalking also were popular.

Active living

In 2009, 64.3 percent of adults in Dakota County were either overweight or obese. If the current trend continues, the percentage is expected to be 76 percent by 2020. Nationally, the obesity rate in children has tripled over the past 30 years. Today about 20 percent of school-age children are overweight or obese (Source: Dakota County Public Health).

Regular moderate physical activity can help prevent a host of disorders, including heart disease, obesity, high blood pressure, Type 2 diabetes and osteoporosis. More physical activity at a population level can reduce health care costs and other costs to society.

Walking and biking are two of the simplest and most popular ways to integrate regular physical activity into daily routines, referred to as active living. Places that have physical infrastructure such as trails and programs to promote walking and biking tend to have more physical active and healthier populations.

Interest in nature and sustainability

Increased sensitivity to ecological issues and the benefits of healthy ecosystems has led to people seeking more natural experiences. There also is increased interest in and opportunities for environmental stewardship such as stream and riparian restoration and the removal of invasive species. People also desire educational and interpretive programs and seek a balance of environment and recreation.

In 2010, members of the Dakota County Greenway Collaborative identified the following groups as current visitors to Dakota County Parks:

- ► Wildlife/bird watchers
- School groups
- Senior citizens
- ► Non-motorized commuters
- Hikers, walkers, runners, cyclists
- ▶ Regional users
- Anglers
- Park users (athletics and community events/activities)
- Residents
- ► Families
- Disabled users
- ▶ Bicycle racers
- Boaters

Stakeholders also identified groups of visitors they would like to see as greenway users in the future:

- Groups needing increased activity
- Corporate users
- Foragers (fruit, flowers)
- Commercial and business connections
- ► Art community



Transportation and connectivity

Health benefits, concerns about climate change and rising energy costs have increased demand for trails and bikeways as preferable transportation options. Regional trails with grade-separated crossings offer cyclists the advantages that motorists enjoy on freeways.

Connectivity to local trails is essential. The more connected the trail system, the more use it will see. Connecting trails reduce the need for vehicle parking at trailheads. In 2008, half of all regional trail users arrived by bicycle or on foot (Metropolitan Council Regional Parks and Trails Survey).

Engaged aging

Trail users tend to be older than park users. In 2008, 54 percent of Big Rivers Regional Trail users polled were between the 45 and 64. Trail use likely will remain high as the baby boom generation ages and remains physically active — or gets more physical activity with increased leisure time — by walking, hiking or biking on trails.

Interest in history and culture

As society has become more mobile, interest in local culture and history has increased. The ability to integrate cultural, historic and environmental interpretation into the greenway.

historic and environmental interpretation into the greenway will add richness to the greenway experience.

Population

Metropolitan Council studies indicate that half of regional trail users live within 3/4 mile of a trail and 75 percent live within 3 miles of the trail. The 3/4 mile area around the trail is considered the core service area and the 3-mile area the primary service area. Communities that fall within the Lake Marion Greenway's core and primary service areas are all expected to see growth within the next 20 years, including significant growth in Lakeville and Farmington.

Table 8. Population forecasts for communities adjacent to the Lake Marion Greenway. Source: Metropolitan Council Community Profiles, http://stats.metc.state.mn.us/profile and the U.S. Census

MUNICIPALITY	2010 POPULATION	2030 FORECAST	% CHANGE	
Core service area (within 3/4 mile of greenway)				
Lakeville	55,954	88,800	59%	
Farmington	21,086	32,700	55%	
Savage	26,911	39,200	46%	
Burnsville	60,306	65,000	8%	
Credit River Township	5,096	5,200	2%	
Core Total	169,353	230,900	36%	
Primary service area (within 3 miles of greenway)				
Apple Valley	49,084	71,000	45%	
Total (core + primary)	218,437	301,900	38%	
Dakota County	398,552	525,725	32%	



Use forecasts

Estimates for the Lake Marion Greenway usership were calculated by referencing data from the Rush Creek Regional Trail in Brooklyn Park and Maple Grove. Based on Metropolitan Council 2011 visit estimates for the Rush Creek Regional Trail (345,000 visits over 5 miles of trail) and adjusting for lower population in the cities included in the Lake Marion core service area, the Lake Marion Greenway, if open today, could expect 429,000 annual visits.

The 2030 population of the communities touching the greenway's 3-mile service area is expected to increase by 38 percent. Assuming use rates are stable — a very conservative assumption — in 2030, annual visitation can be expected to be 592,000. The estimate does not take into account increased use based on population increases in communities outside the primary service area, current recreation trends and increased use spurred by better connectivity to other regional and local trails. The use forecast is higher than most Dakota County greenways due to

Figure 9. Core and primary service areas Legend Alternate Greenway Alignment Areas within .75 mile of LM-SC Greenway Areas within 3 miles of LM-SC Greenway County Park Boundary Open Wate Wetland

its exceptional legnth and proximity to developed areas.

Use forecast methodology:

The 5-mile Rush Creek Regional Trail had 345,000 visits in 2011, or 69,000 per mile. The total population in Rush Creek's core service area is 138, 674 total/27, 734 per mile.

The total population in the 20 mile Lake Marion/South Creek Service area is 169,353 total or 8,467 per mile. The population per mile for the Lake Marion/South Creek Greenway is 31 percent of the Rush Creek Population per mile (8,467/27234*100).

The number per mile used for estimates is 21,451 per mile (Rush Creek's 69,000 per mile adjusted to reflect 70 percent lower populations in the communities immediately adjacent to the Lake Marion Greenway).



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Existing (Conditions)

OVERVIEW

The Lake Marion Greenway travels about 20 miles from the Minnesota River to downtown Farmington through residential and commercial areas in Burnsville, Savage, Lakeville, Credit River Township and Farmington. The greenway links destinations including: the Minnesota River, 14 local parks, three commercial areas and six schools.

The greenway area contains a rich cultural history with stories of natural recreation destinations, amusement parks, lake resorts and the Dan Patch rail line. Cultural sites that can be highlighted along the greenway include regional parks, residential communities, commercial hubs, the trout in South Creek, parks and schools.

The Lake Marion Greenway links several natural areas of significance: the Minnesota River, Murphy-Hanrehan Park Reserve, Ritter Farm Park, Lake Marion and South Creek. Between these anchors is a mosaic of natural areas, farmland, suburban development, patches of woodland, ponds, lakes and creeks. In the future, agricultural land along the South Creek will develop, heightening the importance of the greenway's connective green infrastructure.

Greenway character and land use

Today, the surrounding landscape is mostly residential development. In the future, the land will likely maintain its suburban character. The greenway can be broken into four segments, a brief description of each segment follows.

This chapter presents:

- Existing greenway corridor character and land use
- ► Relationship to the larger transportation system
- ► Existing cultural resources
- Existing natural resources



Segment 1: Minnesota River Greenway to Murphy-Hanrehan Park Reserve (5 miles)

The northern terminus of the greenway is the Minnesota River, where the Lake Marion Greenway will connect to the Minnesota River Greenway. From the river, the greenway winds through residential neighborhoods, parks and commercial development before arriving at Murphy-Hanrehan Park Reserve.



Rudy Kramer Nature Preserve



Sunset Pond

Segment 2: Murphy-Hanrehan Park Reserve to Lake Marion (6.5 miles)

After making its way through Murphy-Hanrehan Park Reserve as determined by Three Rivers Park District, the greenway continues to Ritter Farm Park and across Interstate 35 to Lake Marion and the existing Juno Trail along the west side of the lake.



Murphy-Hanrehan Park Reserve



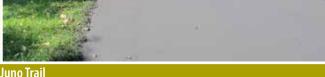
Lake Marion



Segment 3: Lake Marion to downtown Lakeville (3.5 miles)

The greenway will follow Juno Trail along the west side of Lake Marion, then it will follow Icalee Path to Lakeville Elementary School where it heads southeast along the north branch of the South Creek to downtown Lakeville.







Downtown Lakeville

Segment 4: Downtown Lakeville to downtown Farmington (5 miles)

From downtown Lakeville, the greenway follows South Creek through agricultural fields to downtown Farmington.



Trail along South Creek in Farmington



South Creek

Transportation system

The Lake Marion Greenway will support non-motorized transportation by providing a regional corridor for bicycle and pedestrian transportation. The greenway will intersect with existing local trails in Burnsville, Savage, Lakeville and Farmington that connect residential areas, commercial destinations, schools and employment destinations. Connections to other Dakota and Scott county regional greenways will connnet to Minneapolis, St. Paul, Bloomington and beyond.



EXISTING CULTURAL RESOURCES

Historical overview

Every place has a unique history with resources with which people have an emotional connection. Within the greenway corridor, there are parks, the Dan Patch rail line (now Canadian Pacific Railway) and many recreational resources, both historical and current, that have provided people with access to nature for generations. Though few of these resources are considered historic by state or federal definitions, or simply have yet to be evaluated, they are an important part of the landscape to the people along the greenway corridor. There are other cultural resources recognized by the State Historic Preservation Office within and around the Lake Marion Greenway. Of note, there are several structures of historic age within older portions of Lakeville and Burnsville. There are few known archaeological sites along greenway likely due to few archaeological studies being completed within and around the proposed greenway. The area's rich resources have attracted people for thousands of years: additional sites likely remain undiscovered in the corridor.





Antlers Park

Swimming in Lake Marion

EXISTING NATURAL RESOURCES

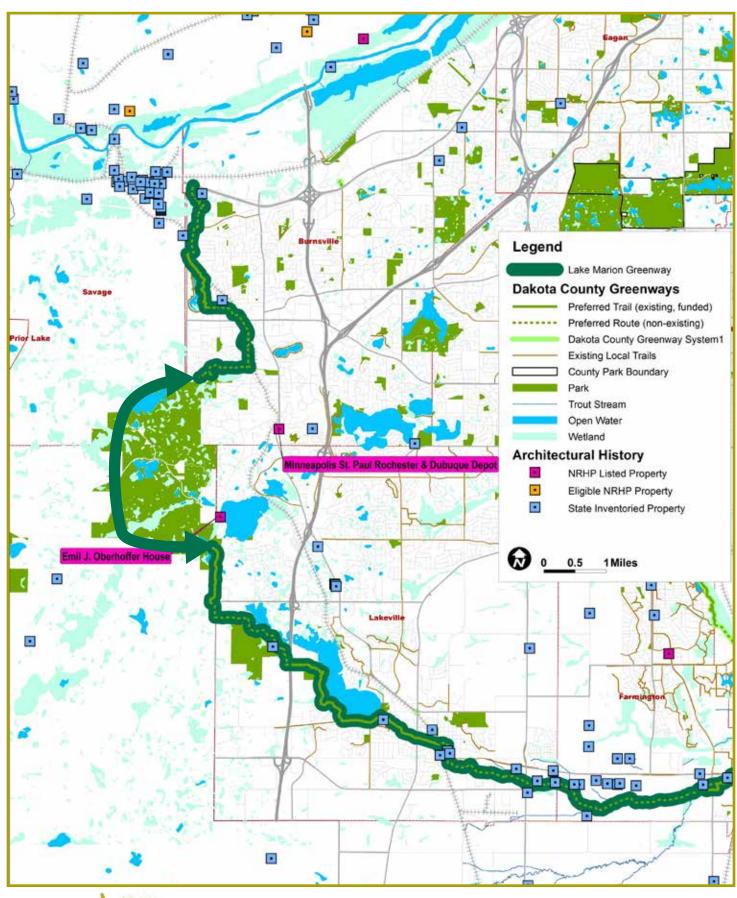
The natural resources in the area surrounding the Lake Marion Greenway consist of large complexes of high quality woodlands, prairies and wetlands, mostly within regional and community parks. There are several large natural areas within or touching the greenway corridor, including Murphy-Hanrehan Park Reserve, Ritter Farm Park and Lake Marion. The greenway links the Minnesota River to South Creek and the Vermillion River.

Vegetative Cover — Minnesota Land Cover Classification System (MLCCS)

According to Minnesota Department of Natural Resources' Land Cover Classification System, a majority of land cover along the Lake Marion Greenway is developed land, non-native grasses, or forest cover. Murphy-Hanrehan Park Reserve is a diverse preserve of prairie, shrub land, woodland and wetlands. There are scattered lakes, wetlands and forested areas elsewhere along the corridor.



Figure 15. Known cultural resources





Water resources

Water resources within the greenway corridor consist of several lakes, scattered wetlands, rivers and streams. Many of these water bodies are surrounded by forest cover or non-native grasses and some are directly adjacent to developed landscapes. However, some are contained within high quality preserves of natural landscapes. Throughout the residential and commercial developments, most of these ponds and wetlands take in street and parking lot runoff that contains significant nutrients and sediment. This runoff contributes to poor water quality and diminishing wildlife habitat.

South Creek

South Creek is a significant habitat and water resource for the greenway. It is part of the larger Vermillion River Watershed, which covers more than 300 square miles in Scott and Dakota counties. South Creek and other Vermillion River tributaries are designated Minnesota DNR trout streams. Fish community monitoring has been completed for South Creek. Although naturally reproducing trout populations are present, South Creek is on the federal Environmental Protection Agency's 303d impaired waters list. It currently is not meeting water quality standards for fecal coliform bacteria, fish community and macroinvertebrate community. There is a need for stream restoration on South Creek to improve conditions and remove it from the impaired waters list.

Ecological quality

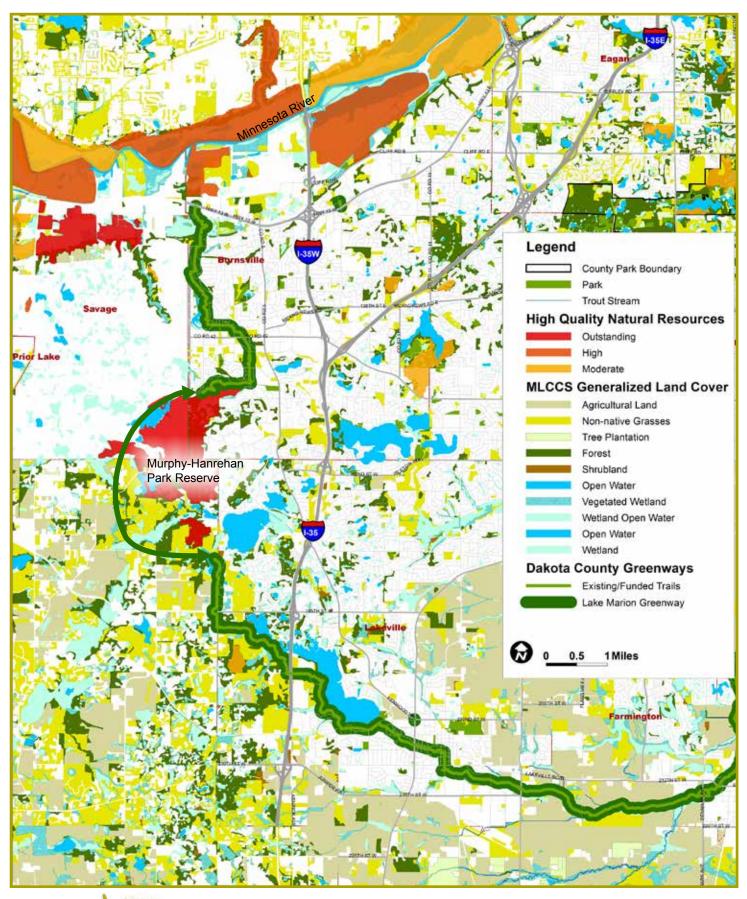
With the exception of areas along the Minnesota River, Murphy-Hanrehan Park Reserve and Ritter Farm Park, a majority of the land surrounding the greenway corridor has been heavily altered or disturbed. The highest quality natural area along the corridor is in Murphy-Hanrehan Park Reserve and is identified by the MCBS as "outstanding biodiversity significance." Other high and moderately significant biodiversity areas existing within Ritter Farm Park and along the Minnesota River.

Ecological impacts

A significant ecological impact to the landscape within the greenway corridor has been conversion of native forest and prairie landscapes, draining of natural wetland complexes for agricultural and urban land uses and straightening or ditching of waterways. Interruption of disturbance regimes (fire), invasive species colonization, habitat fragmentation and agricultural runoff have all contributed to a landscape that overall, has low ecological quality.



Figure 17. Existing natural resources (MLCCS & MCBS)





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OVERVIEW

The Lake Marion Greenway has the opportunity to be a regional destination trail linking the Minnesota River greenway to Murphy-Hanrehan Park Reserve, downtown Lakeville, South Creek and downtown Farmington, where it will connect to the North Creek Greenway. The greenway, like all of Dakota County's greenways, will integrate recreation, transportation, water quality and habitat. This chapter describes what features will be included in the greenway and the projects needed to realize the greenway.

The plan chapter is presented in four sections:

- ► A. Development plan Outlines the defining recreation and transportation features of the greenway.
- ▶ B. Key initiatives Describes specific development and natural resource projects for each greenway segment.
- ► C. The interpretive plan Identifies interpretive themes and subthemes for the greenway and provides a framework for cultural and environmental interpretive elements.
- ▶ D. The stewardship plan Addresses habitat stewardship and water resources.

DESIGN FRAMEWORK

The Greenway Guidebook provides the framework for this master plan:

- Regional trail for recreation and transportation that follows water and natural features
- ► Is maintained for year-round dry-pavement
- Provides frequent trailheads and access points
- ► Grade-separated crossings of major roads
- ► Has a consistent design with natural signature and high quality support facilities
- ► Has lighting for evening use in appropriate locations
- Links recreation destinations and activity centers
- Acts as a spine for loop trails
- ► Maximizes borrowed views
- Uses wayfinding as a systemwide unifying element
- ► Universally accessible
- ► Incorporates sustainability by using recycled materials, energy efficient lighting and enabling nonmotorized transportation



A. Development Plan

Access to recreation and nonmotorized transportation are two of the four foundational elements of Dakota County greenways. The primary recreation feature of the greenway is a continuous regional destination trail for nature-based recreation and nonmotorized transportation. While the greenway varies in width from 100 feet to more than 300 feet throughout the corridor, this chapter focuses on the design of the 30-foot trail corridor to create a safe, amenity-rich trail for year-round use.

Design consistency is critical in developing Dakota County greenways to create a high-quality, unified and legible system. The Greenway Guidebook identifies the elements that will be signatures of the greenway system, listed in the sidebar on the previous page. How the greenway addresses each of these topics is discussed in this chapter.

TRAIL CORRIDOR FEATURES AND DESIGN

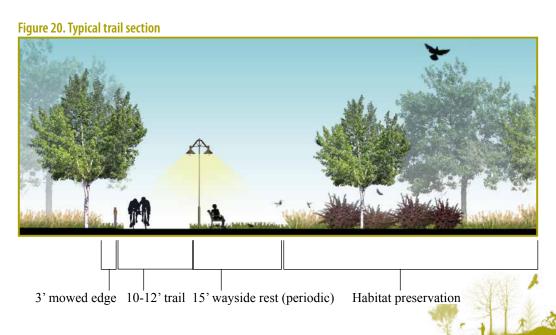
This section addresses design features that are signatures of Dakota County's greenway system. Design touches many facets of the trail alignment, including: the relationship of the trail alignment to the larger greenway corridor; the ability to connect destinations; the presence and location of grade-separated crossings, trailheads and support facilities; the style and location of furnishings and wayfinding; accessibility; and sustainability. Consistent, high-quality design will elevate the greenway experience above that of a utilitarian trail to a first-class regional destination.

TRAIL CORRIDOR

The regional trail within the greenway corridor will be a continuous multipurpose bituminous trail designed in accordance with American Association of State Highway Transportation Officials guidelines, Mn/DOT design guidelines and Dakota County standards. The trail will be 10 feet to 12 feet wide with a 3-foot grass clear zone on each side. Anticipated uses include walking, jogging, inline skating and bicycling. The trail will be maintained for dry-pavement winter use and, where appropriate, lighted.

80/20 Trail alignment

A goal of the greenway trail alignment is to be at least 80 percent off-road with a maximum of 20 percent adjacent roads. Where a regional trail already exists adjacent roads, treatments will be used to ensure a high-quality greenway experience.



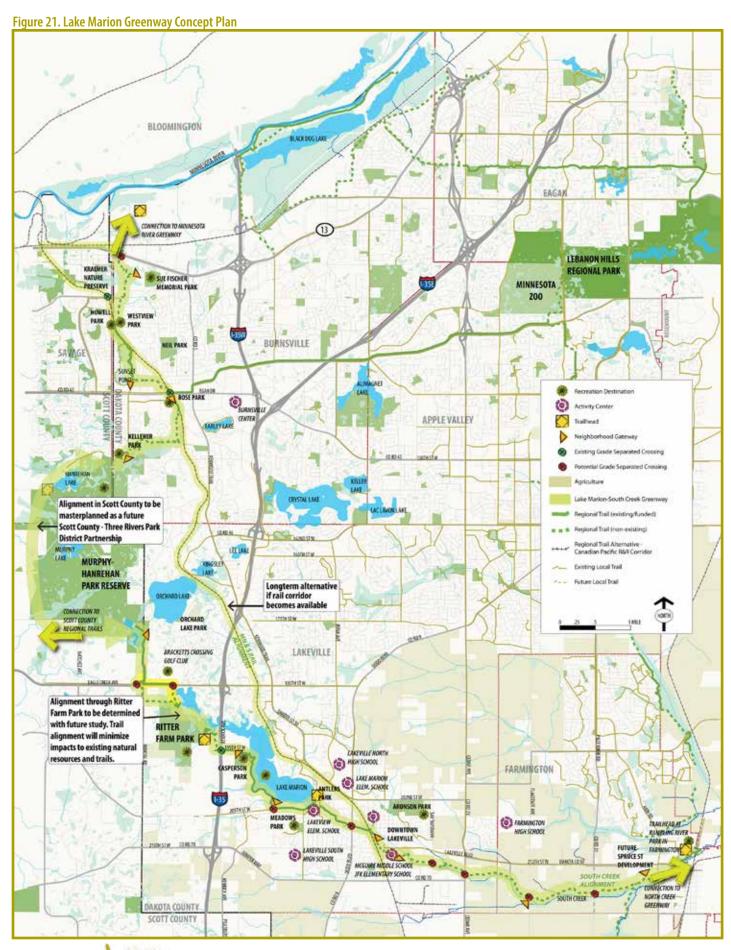




Table 22. Adjacent road, off-street trail alignment

	Adjacent road	Off-street
Segment 1	21.7%	78.3%
Segment 2	11.5%	88.5%
Segment 3	37.5%	62.5%
Segment 4	6.5%	93.5%
Lake Marion Greenway	18%	82%

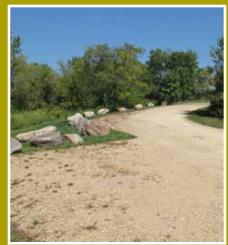
Note: All undeveloped areas are assumed to be off-street for purposes of estimating.

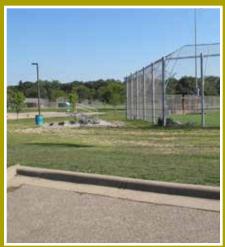
RECREATION DESTINATIONS, ACTIVITY CENTERS AND TRAIL CONNECTIONS

Inherent to greenways are the trails linking recreation destinations and activity centers, the social gathering places along the trail. Opportunities to stop along the trail to fish, observe wildlife or eat lunch are some of the features that will make the Lake Marion Greenway a regional destination. The greenway will be a spine for loop trails, connect to regional and local trails and roads and will itself serve as an important transportation route.

RECREATION DESTINATIONS







Lake Marion Greenway recreation destinations include Lake Marion trails, Casperson Park, Ritter Farm Park, Murphy-Hanrehan Regional Park Reserve and Sue Fischer Memorial Park.

ACTIVITY CENTERS





Lake Marion Greenway activity centers include downtown Lakeville and commercial and employment areas in western Burnsville.



TRAILHEADS AND NEIGHBORHOOD GATEWAYS

Frequent access is a priority for the Lake Marion Greenway. Two generalized types of greenway and trail access points are recommended: trailheads are intended for regional and local access; neighborhood gateways primarily are for local access at opportune locations. Typically, access points will be at recreation destinations, activity centers and trail intersections. Here trail users will find support facilities such as water and rest rooms as well as greenway information.

Trailheads are the primary greenway access points and will serve people who drive, walk, bike or take transit to the greenway. They will occur every three to five miles and share facilities such as parking and rest rooms with other facilities.

Neighborhood gateways are more frequent, local access points. They will be at convenient intervals between primary trailheads (two to three miles or closer at logical locations). Wherever possible, facilities are shared with other uses and ideally are located where there is a complementary recreation destination or activity center.

Trailheads will include:

- ▶ Water
- ► Motor vehicle parking
- ► Secure bicycle parking
- ► Picnic areas and/or facilities
- Wayfinding and traffic control
- Rest rooms
- **▶** Interpretation
- **▶** Benches
- ► Food where opportune
- ► Shelter and shade
- ► Local and/or regional trail connections

Neighborhood gateways will include the following elements:

- **▶** Benches
- ► Local and/or regional trail connections
- ► Secure bicycle parking
- Wayfinding and traffic control
- ▶ Water
- ► Interpretation

Neighborhood gateways may also include as shared facilities:

- ► Rest rooms
- Picnicking
- ▶ Food
- ► Motor vehicle parking

TRAILHEADS



NEIGHBORHOOD GATEWAYS









ROAD AND RAILROAD CROSSINGS

Grade-separated crossings are a critical component of Dakota County's greenway system. Grade separation promotes safety by reducing conflicts with motorized traffic and allows for more efficient and enjoyable trail experience for users of all abilities. To that end, grade-separated crossings are suggested at all major intersections, shown in Figure 25 and discussed in Table 24.

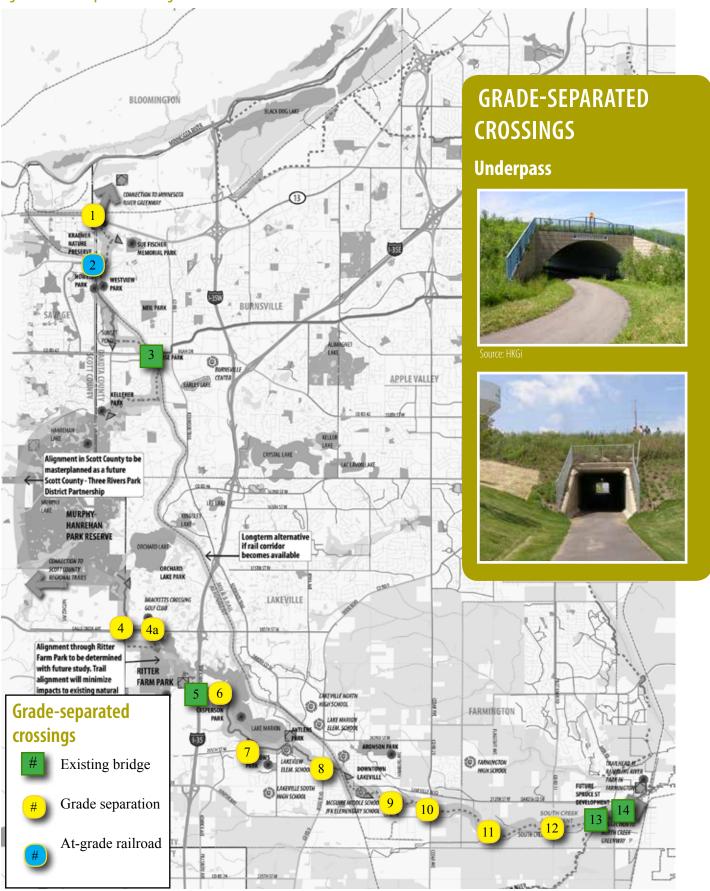
Grade separations on the greenway system should be of the highest quality possible to ensure safety, security and to establish the greenway system as a truly special and high-quality destination.

Grade-separated crossings were evaluated at potential locations along the Lake Marion Greenway. The evaluation is based on topography and utility information. For the purposes of the evaluation, it was assumed that a lowest-cost underpass would be a 10-foot by 14-foot box culvert and an overpass would consist of a pedestrian bridge with a minimum clearance of 17 feet over the roadway. The concept level cost estimates include grading, retaining walls, traffic control, turf establishment/ erosion control and mobilization. Engineering, administrative costs and contingencies are included in the estimate. Overall system drainage costs are not.

Table 24. Grade-separated crossings

NUMBER	LOCATION	RECOMMENDATION	IMPORTANCE FOR USER SAFETY AND EXPERIENCE	COST
1	Highway 13 at Chowen	Underpass	High	\$ 900,000
2	Railroad crossing	At grade	High	NA
3	County Road 42	Underpass modification	High	\$ 190,000
4	185th Street West	Grade-separated	High	\$ 890,000
4a	185th Street (alternate)	Underpass	High	\$ 730,000
5	Interstate 35	Existing/share the road	High	NA
6	Kenrick Avenue and 195th Street (further investigation of appropriate improvements needed may range from pedestrian activated lighting, signage and pavement markings to grade-separated crossing)	Improvements - TBD	High	\$ 50,000 - \$ 1,000,000
7	205th Street West	Underpass	Medium	\$ 495,000
8	Dodd Boulevar (CR 9)	Underpass	High	\$ 800,000
9	Hamburg and South Creek	Underpass	Low	\$ 495,000
10	Cedar Avenue and South Creek	Underpass	High	\$ 775,000
11	Flagstaff Avenue and South Creek	Underpass	Medium	\$ 500,000
12	Future Pilot Knob Road extension at South Creek	Underpass	High	\$ 600,000
13	Spruce Street at South Creek	Share existing bridge	Medium	NA
14	Denmark Avenue at South Creek	Share existing bridge	High	NA

Figure 25. Grade-separated crossings





AT-GRADE CROSSINGS

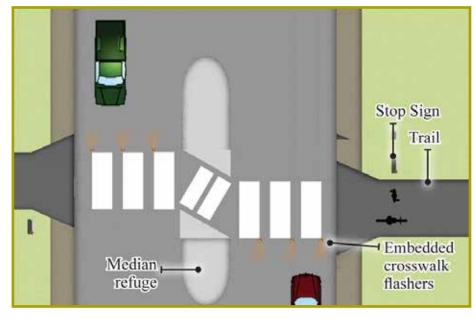
When grade-separated crossings are not possible on collector roads or higher, crossing should occur at controlled intersections with road users stopping at traffic lights or stop signs. In some instances, mid-block crossings may be appropriate and should be designed with pedestrian/cyclist safety and visibility in mind, as shown in Figure 26. On lower volume local roads, crossings may not be controlled with traffic lights or stop signs. In these cases, features such as pavement marking, refuge islands and bumpouts should be applied to reduce crossing distances for trail users and increase visibility for trail users and road users.

ACCESSIBILITY

Dakota County is committed to offering universal accessibility at all trail facilities. The primary paved trail and all access

points suggested in the master plan are located and planned for universal accessibility to provide all visitors with a meaningful experience.

Figure 26. Typical At-grade, Mid-block Road Crossing with Median Refuge



SUSTAINABILITY

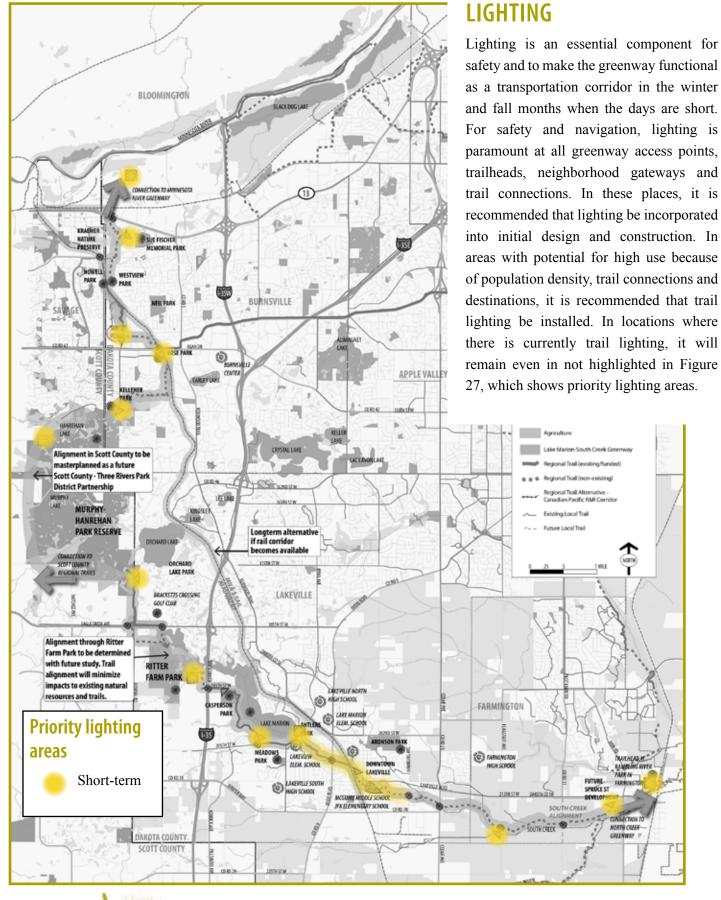
Environmental sustainability is at the core of the greenway concept. Improving ecological function, habitat creation, wildlife movement, stormwater infiltration and carbon sequestration as well as facilitating non-motorized recreation and transportation are all greenway objectives.

Greenways will be assembled in environmentally sustainable ways and designed to minimize impact on natural systems. Recommended strategies include:

- Protecting and restoring natural systems
- ► Emphasizing native plant species
- ▶ Reducing maintenance costs by promoting self sustaining wildlife and plant communities and treating stormwater onsite
- ▶ Use recycled materials and pervious pavement
- ► Energy-efficient lighting and use of timed lighting



Figure 27. Greenway Lighting Plan





SITE FURNISHINGS

One of the key features of the greenway system is having a consistent design signature for site furnishings. On the right are examples of site furnishings (benches, bike racks, lighting and trash receptacles) that show the desired character of facilities at trailheads, neighborhood gateways and other resting areas along the greenway.

WAYFINDING

Wayfinding is the way people navigate from place to place. For the Dakota County greenway system a consistent wayfinding system is essential for orientation, navigation and safety. Signage should be consistent across the system and should guide greenway users to local services, cultural destinations, transportation connections, activity centers, recreation destinations, cities, neighborhoods and other landmarks.

Greenway furnishing examples









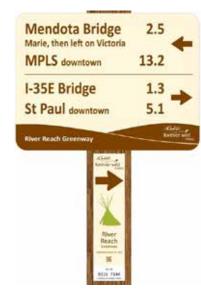






Figure 28. Wayfinding Examples



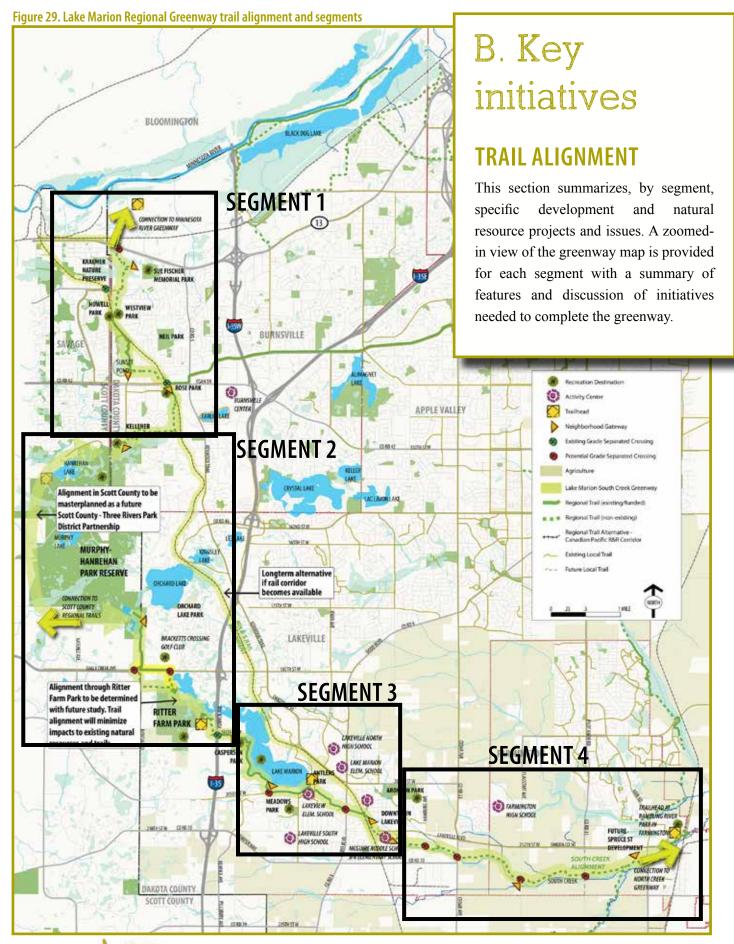


Directional sign



Kiosk







GREENWAY ALIGNMENT ALTERNATIVES

As part of the master planning process, the feasibility of two primary greenway alternatives were studied through Lakeville and Burnsville: the Minneapolis, Northfield and Souther line owned by Canadian Pacific Railway, and a westerly route along Lake Marion and making a connection to Murphy-Hanrehan Park Reserve in Scott County.

The MN&S line travels from downtown Lakeville to the Minnesota River through Lakeville, Burnsville and Savage. This portion of the rail line is currently inactive and leased to Progressive Rail. Canadian Pacific Railway has said it is not interested in divesting the corridor and do not believe that there is any potential to use the MN&S line as a recreational trail. The corridor is part of Canadian Pacific's long term strategy for moving rail freight through and around the Twin Cities and will return to active status in the future. Because the right of way is only 66 feet in places, sharing the corridor is not feasible.

Though currently unavailable, the rail line is ideally suited to a greenway corridor and is shown as a long term alignment on Figure 30. Its continuous 66- to 100-foot right of way is ample for a 10-foot regional trail and in most areas the corridor is buffered from adjacent land uses by vegetation. Constructing the greenway trail would likely be cost efficient as the rail corridor base is well suited for trail construction and grade-separated crossings at most roads are in place. The corridor, also known as the Dan Patch line, also is rich in cultural history that could be integrated into interpretive elements along the corridor. If the MN&S line becomes available it should be acquired and converted to include a greenway trail, and may become the regional greenway corridor.

Because Canadian Pacific does not believe that there is any opportunity for MN&S line to become a recreational trail, the preferred alignment is the westerly option.

Figure 30. MN&S Railway alignment option





Minnesota River to Murphy— Hanrehan Park Reserve

Recreation destinations

- ► Rudy Kraemer Nature Preserve/Sue Fischer Memorial Park
- ► Howell Park
- Westview Park
- Sunset Pond
- Rose Park
- Kelleher Park
- ► Murphy-Hanrehan Park Reserve

Activity centers

Minnesota River Quadrant redevelopment

Trailheads

- ► Minnesota River Quadrant
- Northern side of Murphy-Hanrehan Park Reserve

Neighborhood Gateways

- Westview Park
- Sunset Pond
- Rose Park
- Kelleher Park

Loop and connection trails

- ► Minnesota River Regional Greenway
- ► Trails in Murphy-Hanrehan Park Reserve
- ► Local trails

Grade-separated crossings

- Highway 13
- ► CR 42

SEGMENT 1: MINNESOTA RIVER TO MURPHY-HANREHAN PARK RESERVE (7.5 miles; 22 % on-road, 78% off-road)

The north end of the Lake Marion is at the Minnesota River Greenway in Burnsville's Minnesota River Quadrant. The greenway then travels south across Highway 13 to Kraemer Nature Preserve. South of Williams Drive, the greenway follows Judicial Road to Howell Park, where it crosses the MN&S line and connects to Sunset Pond. From Sunset Pond, the greenway makes its way under CSAH 42 using the MN&S Railway underpass. From there, the greenway connects to Rose Park and makes its way back to Judicial Road to Kelleher Park and the northern edge of Murphy-Hanrehan Park Reserve.

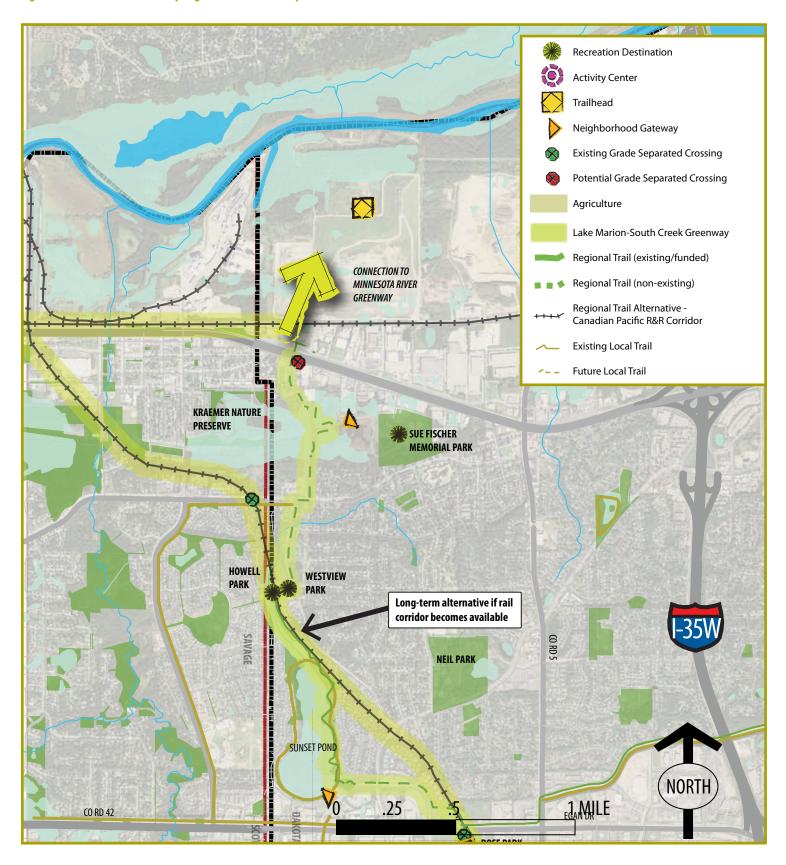
Minnesota River Quadrant

The Lake Marion Greenway begins at the junction of the Minnesota River Greenway in Burnsville's Minnesota River Quadrant. The city of Burnsville plans to redevelop this gravel mine and landfill with a mix of commercial, industrial, housing and recreational uses. The city's comprehensive plan identifies the development of a future regional trail in a similar alignment to that shown on the concept plan. The future greenway will be integrated into development plans and will extend south to Sue Fischer Memorial Park/Kraemer Nature Preserve south of Highway 13 using a future interchange at Chowen Avenue South.

If the preferred alignment shown on the concept plan is not feasible due to needed road and railroad crossings, an alternative is to travel though the center of the Minnesota River Quadrant to align with a planned interchange at Highway 13 and Highway 5. In this case, the trail would follow Highway 5, bridging Highway 13. After crossing Highway 13, the greenway would swing south/east to Sue Fischer Memorial Park.



Figure 32. Lake Marion Greenway Segment 1 North Concept Plan





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Canadian Pacific rail crossing

At Howell Park coordination with Canadian Pacific Railway is needed for an at-grade crossing.

Sunset Pond

North of Sunset Pond, the greenway follows an existing trail and intermittent stream. Improvements to this waterway, including potential remeandering and vegetation restoration will improve water quality and habitat while enhancing the greenway user experience. The greenway then follows existing trails along the east side of Sunset Pond. The Sunset Pond area also provides an opportunity for shoreline vegetation buffers and water quality enhancements.

CR 42 underpass

The greenway travels under CSAH 42 using the existing MN&S Railway underpass on the west side of the bridge piers. This underpass is of particular importance to the greenway as it is one of the few places for a grade-separated crossing of CSAH 42.

Figure 33. County Road 42 / MN&S Railway underpass conceptual section



Kelleher Park

The greenway will follow the edge of a large wetland in Kelleher Park and be aligned to minimize wetland impacts. This wetland is identified in the Burnsville Park System Master Plan as a high priority natural resource area and vegetation and water quality improvements will be coordinated with the Burnsville. The park will have a neighborhood gateway, oriented to the northwest corner near active park uses.

- ► Kraemer Quarry/Burnsville Landfill Buckthorn management, manage restored wetlands, monitor floodplain forest regeneration.
- ▶ Rudy Kraemer Nature Preserve Intensive restoration of prairies and wetland. Woodland regeneration.
- ▶ Sunset Pond Prairie restoration and land management to improve water quality.
- ▶ Judicial Road and Southcross Drive Native vegetation buffers at wetland.
- ► Kelleher Park Vegetation management and wetland water quality improvements.



Figure 34. Lake Marion Greenway segment 1 south concept plan

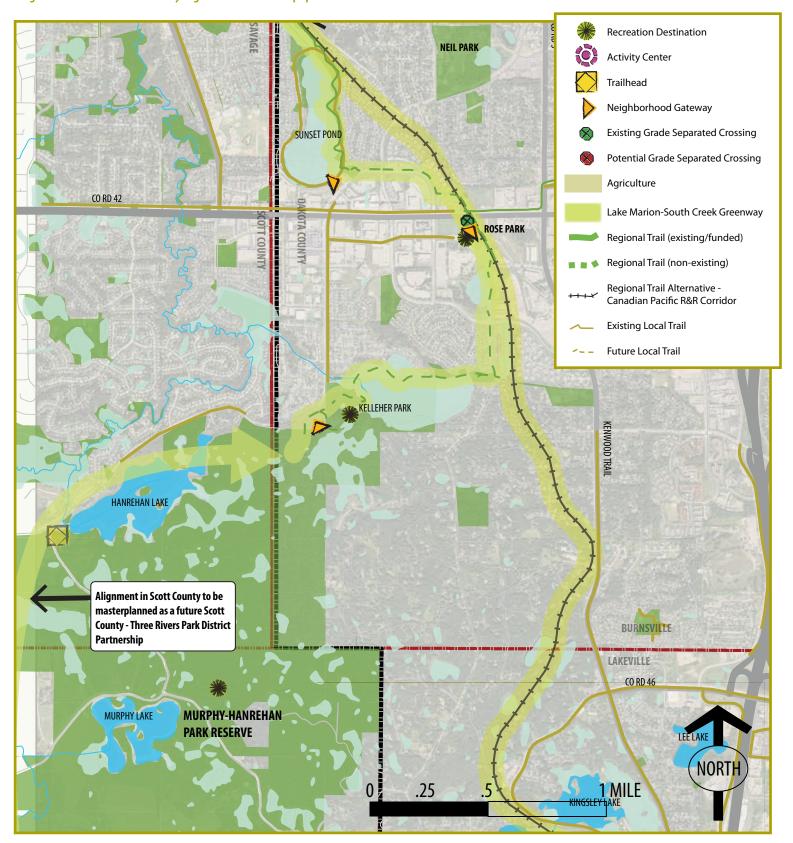




Figure 35. Sunset Pond detail

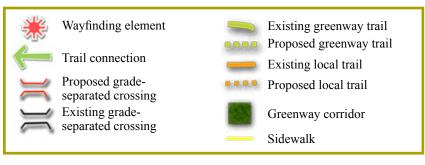






Figure 36. CSAH 42 to Murphy-Hanrehan Park Reserve detai







Murphy-Hanrehan Park Reserve to Lake Marion

Recreation destinations

▶ Ritter Farm Park

Trailheads

- North edge of Murphy-Hanrehan Park Reserve
- ► Ritter Farm Park

Neighborhood gateways

► South edge of Murphy-Hanrehan Park Reserve

Loop and connecting trails

- ▶ Ritter Farm Park
- ► Trails in Murphy-Hanrehan Park Reserve
- ► Connections to Scott County regional trails

Grade-separated crossings

- ▶ 185th Street West
- Interstate 35

SEGMENT 2: MURPHY-HANREHAN PARK RESERVE TO LAKE MARION (6.5 miles; 11% on-road, 89% off-road)

Murphy-Hanrehan Park Reserve

The greenway's north-south link through Scott County will be master planned as a future Scott County-Three Rivers Park District partnership.

Murphy-Hanrehan Park Reserve is operated by Three Rivers Park District and is one of the highest quality natural areas in the Twin Cities. As such, the vision for the park is to protect, preserve and restore the park for future generations. The park reserve will perpetuate and expand recreation and education opportunities appropriate to its semi-primitive nature. The Murphy-Hanrehan Park Reserve Master Plan directs that a regional trail located on the periphery of the park could be accommodated without significant impact to natural resources or the semi-primitive nature of the park.

For future visitors to the Lake Marion Greenway, a regional trail connection within the park that minimizes impacts to the park's high quality natural resources will provide the most direct connection between the north and south edges of the park and provide visitors the opportunity to experience the park's outstanding natural resources. Long term, alignments that will provide access to the park yet minimize environmental impacts should be explored by Scott County and Three Rivers Park District, including the feasibility of alignments parallel to or using existing roads within the park.

The Lake Marion Regional Greenway will share existing and planned trailhead facilities with Murphy-Hanrehan Park Reserve. The main trailhead at the north boundary of the park has parking, rest rooms and shelter. The park's master plan proposes a trailhead at the southeast edge of the park between Minnregs Lake and Judicial Road that, when built, will act as a neighborhood gateway for both the park and the greenway.

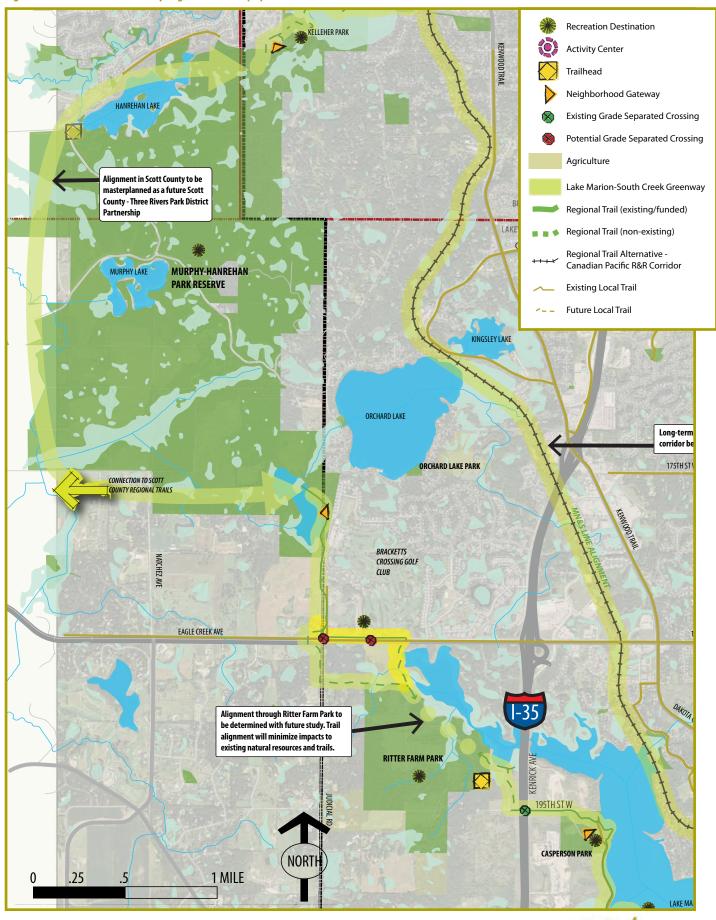
Ritter Farm Park

The preferred alignment travels south from Murphy-Hanrehan Park Reserve across 185th Street and then east to Ritter Farm Park. An alternate alignment is shown, traveling east on 185th Street and heading south to Ritter Farm Park at the northern end of Lake Marion.

In Ritter Farm Park, the greenway trail location will be coordinated with future plans for the park and aligned to avoid impacts to natural resources and existing soft surface trails. A trailhead will be located at the existing park trailhead and will share support facilities with park users.



Figure 38. Lake Marion Greenway segment 2 concept plan





Ritter Farm Park to Lake Marion

From Ritter Farm to Lake Marion, the greenway will travel adjacent 195th Street South on the existing bridge over Interstate 35. East of the bridge, the greenway will follow the existing trail on the south side of 195th street to Casperson Park. Crossing improvements should be made to at the intersection of Kenrick Avenue and 195th Street. Traffic moves at high speeds in this area and the intersection is not controlled. At a minimum high visibility crossing treatments such as pedestrian activated lights, crossing signs and highly visible pavement markings should be implemented along with exploration of the potential for a controlled intersection or grade-separated crossing in this location.

- ▶ Murphy-Hanrehan Park Reserve support Three Rivers Park District to maintain high quality natural resources
- ▶ Ritter Farm Park vegetation management and shoreline improvements

Figure 39. Judicial Road conceptual section





Lake Marion to downtown Lakeville

Recreation destinations

- Casperson Park
- Lake Marion
- Antlers Park
- Jaycee Park
- Marion Field Park

Activity centers

- ▶ Downtown Lakeville
- Lakeview Elementary School
- ▶ JFK Elementary School

Trailheads

► Antlers Park

Neighborhood gateways

- Casperson Park
- Juno trailhead
- ▶ Downtown Lakeville
- McGuire Middle School / JFK Elementary School

Loop and connecting trails

► Local trail connections

Grade-separated crossings

- ▶ 205th Street West
- ▶ Dodd Boulevard/ CR 9

SEGMENT 3: LAKE MARION TO DOWNTOWN LAKEVILLE

(4.0 miles; 38% on-road, 62% off-road)

From Casperson Park, the greenway will follow Juno Trail on the west side of Lake Marion to the existing trailhead at 205th Street. The greenway then follows 205th Street / Icalee Path, crossing Icalee Path at Lakeview Elementary School, near Antlers Park. At Lakeview Elementary School the greenway uses the existing trail on the north branch of South Creek. The greenway then makes its way through downtown Lakeville to McGuire Middle School/JFK Elementary School. Lakeville South High School and Meadows Park will be linked to the greenway via planned and existing local trails.

Casperson Park / Lake Marion / Juno Trail/ Antlers Park Trailhead

Neighborhood gateways will be located in Casperson Park and at existing Juno Trailhead at 205th Street and a trailhead will be located at Antlers Park. There are opportunities in all of these Lakeville parks to share parking and other facilities.

Along the southwest side of Lake Marion, the greenway will use the existing Juno Trail. No significant changes are envisioned to this trail segment; the greenway will use the existing 20-foot trail easement and care will be taken to ensure lake access and views from adjacent properties. Prior to any regional greenway improvements being made to this area, the city of Lakeville and Dakota County will work with residents on detailed design. Possible future changes may include additional trees, landscaping, benches, interpretive elements and wayfinding within the existing trail easement. The greenway will be open according to local ordinance and the city and county will outline responsibilities for maintenance and enforcement in a future joint powers agreement.

Downtown Lakeville

A gateway will be located in downtown Lakeville. The preferred location is the city-owned parking lot on the west side of downtown, adjacent to the rail corridor. The preferred trail alignment is an off-road trail along the east side of the C.P. Rail corridor, which would need to be coordinated with the landowners of five residential-use parcels and one industrial-use parcel. An alternate trail location, if a trail along the rail corridor is not feasible due to space constraints, is an off-road trail along the west side of Howland Avenue.

- ► Enhance lakeshore vegetation around Lake Marion
- ► Water quality improvements and stream restoration as opportunities allow from the north branch of South Creek



Figure 41. Lake Marion Greenway segment 3 concept plan

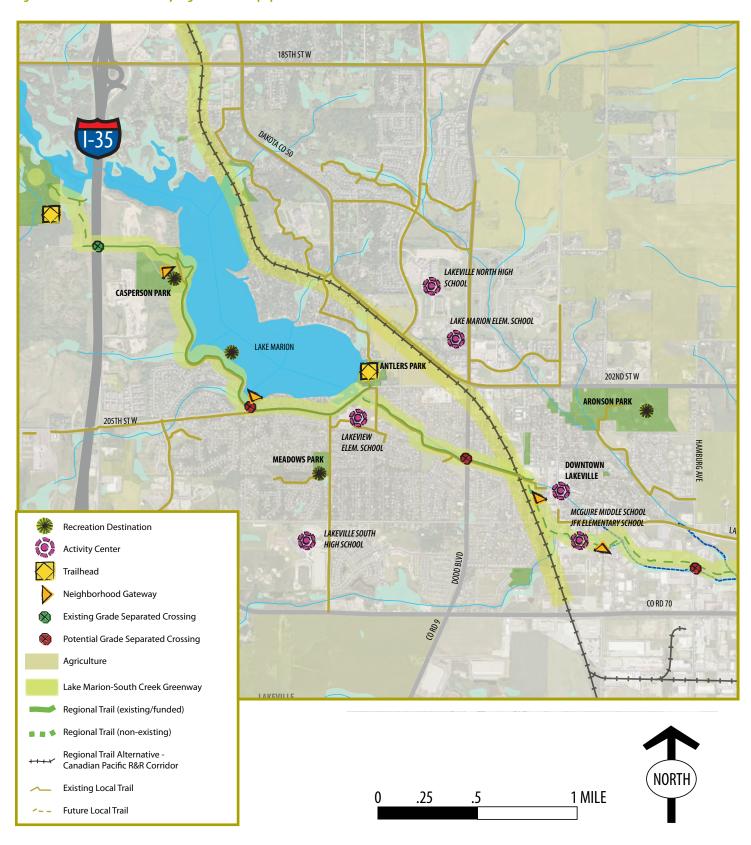
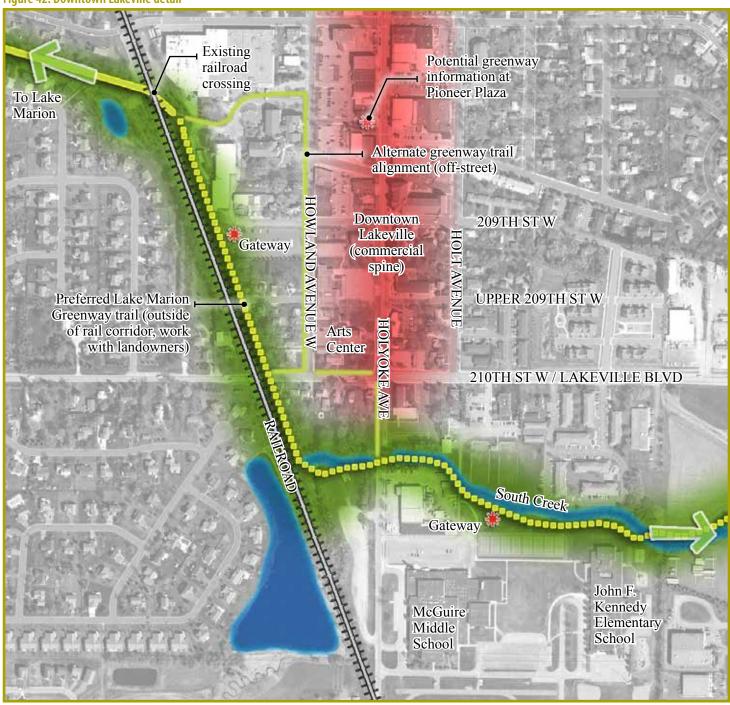
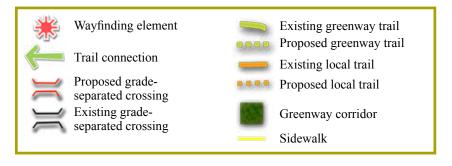




Figure 42. Downtown Lakeville detail







South Creek

Recreation destinations

► South Creek (fishing)

Activity centers

- ► McGuire Middle School
- Downtown Farmington

Trailheads

Rambling River Park

Neighborhood gateways

Spruce Street

Loop and connecting trails

- North Creek Greenway
- Rambling River Park trails

Grade-separated crossings

- ► Hamburg Avenue
- Cedar Avenue
- ► Flagstaff Avenue
- ► Future Pilot Knob Road extension
- Spruce Street
- Denmark Avenue

SEGMENT 4: SOUTH CREEK (DOWNTOWN LAKEVILLE TO DOWNTOWN FARMINGTON)

(5.0 miles; 7% on-road, 93% off-road)

This segment begins at McGuire Middle School and heads east following South Creek to the Vermillion River and downtown Farmington.

South Creek

Dakota County is working with landowners through Dakota County's Shoreholders Program to protect floodplain and restore the creek and wetland buffer areas. The Vermillion River Watershed JPO will partner with the County, local communities and others to implement restoration in this corridor. The greenway will follow South Creek. The greenway trail will primarily be located within the floodplain and stream restoration area and will cross the creek in key locations. The trail will provide fishing access to this trout stream. There are opportunities for soft surface walking trails to create recreation loops in this area.

Today, the land around South Creek is primarily agricultural. The area from Pilot Knob Road to Denmark Ave. is guided for a mix of residential, commercial and employment uses. As this area develops there will be opportunities to link the greenway to city parks and for local trail loops and neighborhood gateways.

Grade-separated crossings

For continuity, user experience and safety it is desirable that the greenway trail travel under roads parallel to South Creek whenever feasible. While many of the existing South Creek culverts/bridges will not accommodate both the creek and the trail, all new crossings should be designed to do so. Priority crossings for grade separation are Cedar Avenue and the future Pilot Knob Road extension.

Rambling River trailhead and downtown Farmington

A trailhead will be located at the ice arena on the southwest edge of Rambling River Park. Here there are opportunities to share existing parking and restroom facilities and add picnicking, interpretation and wayfinding. At the trailhead, the greenway intersects with the North Creek Greenway, which provides a connection to Downtown Farmington.

- ► South Creek restoration and remeandering in conjunction with the Vermillion River Watershed JPO
- ► Vermillion River and Rambling River Park widen and maintain stream buffers with native plants; improve floodplain wetlands and forest quality



Figure 44. Lake Marion Greenway segment 4 concept plan

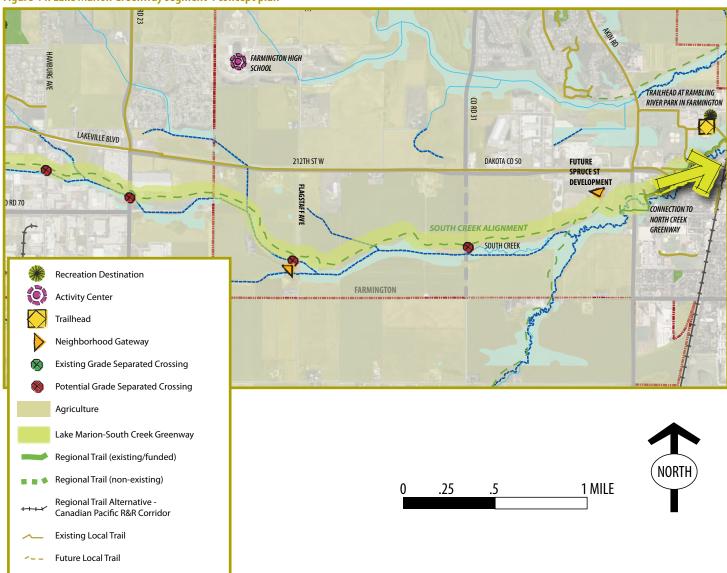


Figure 44a. South Creek typical section

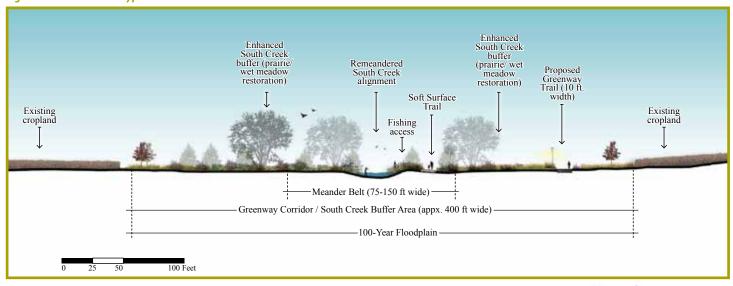
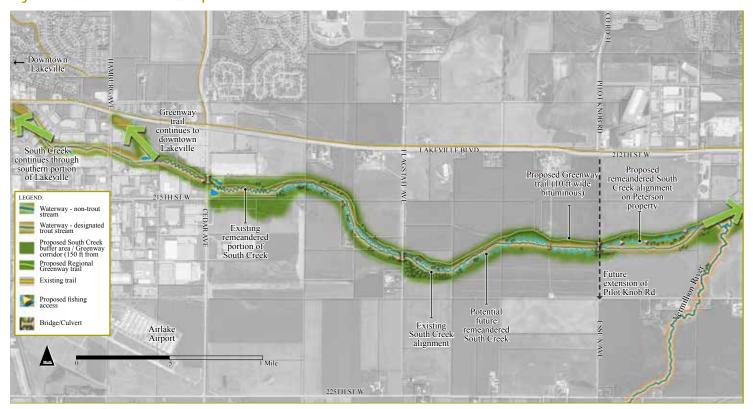




Figure 45. South Creek concept plan for greenway stream restoration Proposed Greenway Prairie restoration Proposed creek Fishing access point Rootwad cluster Existing South Creek Coarse woody habitat Proposed Greenway trail (10 ft wide bituminous) Proposed soft surface Rootwad cluster Proposed South Creek buffer area / Greenway Lunker structure 100-year floodplain boundary Prairie restoration Restored wet Fishing Proposed remeandered South Creek alignment Riffle and Pool Existing South Creek

Figure 45 a. South Creek - Overall Concept Plan





C. Interpretive plan

OVERVIEW

In today's world, people's connections to culture, land, nature and community are often detached. We sometimes cannot imagine the prairie before the metropolis, the wheat before the bread, or the world before Columbus. We forget, or never learn, the stories that define the significant places in our lives. Place-based interpretation seeks to "re-story" places, or reveal the connections between social and natural systems distinctive to each site. It is an approach rooted in the belief that people seek to understand the stories of the places they visit.

Dakota County has long been committed to sharing the stories of special places that comprise the county's parks and trails. Through interpretative programs and exhibits, Dakota County strives to create awareness and appreciation of the county's history, culture and environment. As the county expands its greenway system, interpretation for each greenway is a goal for the planning and development process.

Interpretive planning designs educational experiences that support an organization's vision and mission. The planning process considers the place-specific historical, cultural and natural resources to be interpreted and the demographics and interests of the people who use the site in order to develop relevant messages and media in support of an organization's mission. In the case of Dakota County, interpretation ought to support Dakota County Park's mission: to enrich lives by providing high-quality recreation and education opportunities in harmony with natural resource preservation and stewardship.

In the context of the Dakota County greenways, it is important to note that fostering an understanding of the relationships between social and natural systems can lead to environmental stewardship. In other words, helping visitors understand the connections between history, culture and nature is at the core of fostering stewardship of these resources and awareness of the connections between people and nature.

RESOURCES

In considering what is special and unique about the Lake Marion Greenway, it is helpful to identify some of the most outstanding resources found along the greenway corridor. These resources create a unique setting, or sense of place, and are places where stories of nature, history and culture intersect in ways that are meaningful to visitors.

Historical and cultural resources include Antlers Park, the Dan Patch (now MN&S) rail line, a variety of regional and municipal parks and several historical buildings in downtown Lakeville. Natural resources include Marion Lake, small lakes and ponds and Murphy-Hanrehan Park Reserve. Some of these cultural, historical and natural resources are on Dakota County property; however, many are located on adjacent properties. Therefore, continued partnerships with adjacent property owners will be important to developing interpretation along the greenway.

Cultural, historical and natural resources may be vulnerable and potentially compromised with increased traffic and human interaction. Resources such as unexcavated archaeological sites are culturally sensitive and susceptible to looting or vandalism if care is not taken to protect them. Therefore, interpretation of these resources should be sensitive to these potential impacts and Dakota County should work with necessary stakeholders, such as Minnesota Indian Affairs Council for burials, to determine an appropriate approach to both preservation and interpretation.

KEY MESSAGES

While each individual greenway within Dakota County's system will have a theme that is based on the specific resources associated with the greenway corridor, it is recommended that Dakota County undertake a systemwide interpretive planning effort to identify overarching themes for the greenway system. These overarching themes would represent broader messages that span the system and weave together specific themes for each individual greenway.

In the absence of a systemwide interpretive plan, this master plan suggests one central message, or theme for the greenway corridor. Supporting subthemes are also identified in order to further develop the central theme and provide organization for interpretation.

It is recommended that the subthemes be interwoven throughout the trail to provide both a richly layered and consistent interpretive experience. If a systemwide interpretive plan is developed, the themes presented below should be revisited and revised as necessary.

INTERPRETIVE THEME

A place for people: Lake Marion Greenway continues to provide abundant recreational opportunities to an evolving community.

Subthemes:

Active living: Counting the benefits

Supporting characteristics within neighboring communities:

- ► The greenway provides links through a variety of municipal parks rich with resources and activities
- ▶ Antlers Park was once home to a destination amusement park
- ► From Native Americans to early settlers and through to the present people have enjoyed hunting and fishing in the area
- ▶ Resort were common in the area, they were known resorts at Lake Marion, Orchard Lake and Crystal Lake
- ► South Creek is a DNR-designated trout stream
- ► Canadian Pacific Railway traverses a similar route. The train brought people from the Twin Cities to resorts, hunting grounds and recreation in the area.
- ▶ Buck Hill is a visible and actively used resource that continues the recreation tradition around the greenway.
- ▶ In addition to these place-based subthemes, it is recommended that interpretation in the Dakota County greenway system engages visitors to think about the active living and the benefits of greenways. Some interpretation could convey what greenways are and how they differ from standard trails. Mile markers along the trail could also serve as interpretation by linking the distance a visitor has traveled to calories lost. Interpretation could also compare the distance traveled to energy and money saved by cycling or walking rather than driving.



A changing community identity: A distinct urban fabric.

Supporting characteristics within neighboring communities:

- ▶ Burnsville's development history has changed the community's composition dramatically in the past few decades.
- ▶ The development of the Heart of the City shows Burnsville's dedication to creating a place for people to connect with one another.
- ► Lakeville has two distinct personalities; those in northern Lakeville have little connection to the more historically focused southern Lakeville

A population shift: We celebrate the changes and respect the history that shaped our community.

Supporting characteristics within neighboring communities:

- ▶ Burnsville is a fully developed city.
 - ► The population is becoming more diverse.
 - ► The overall population is aging.
- ► Lakeville and Farmington have grown rapidly in the past 20 years.
 - ▶ While the population is currently quite homogeneous the demographics are projected to be more varied in the future.

RECOMMENDATIONS

Build relationships

Establish a community advisory group to build relationships with the agencies and organizations that own adjacent property, facilitate an inclusive interpretive planning process, engage community members knowledgeable about history and culture and ensure that interpretation along the greenway is thematically and aesthetically cohesive.

Use interpretive media

- ► Interpretive media should not impinge on the natural landscape. As much as possible, Dakota County should adopt the National Park Service's Wayside Exhibit approach (http://www.nps.gov/hfc/products/waysides/index. htm) to interpretation along the greenways. In this approach, the focus is on experiencing the landscape firsthand; interpretation is an enhancement not the primary focus.
- ▶ Based on this approach, interpretive signs should be minimal, low profile, accessible to all and purposefully placed.
- ▶ Interpretation should be integrated into orientation signs at key locations along the greenway (such as trailheads and neighborhood gateways). This interpretation should serve to orient the greenway user thematically to the greenway and introduce the visitor to the experiences they can expect along the greenway. Interpretation at these locations could also be artfully integrated into trailhead or gateway facilities such as benches or picnic tables, pavement, fencing, or structures (e.g., rest rooms).
- ► Interpretive signs along the greenway should be considered a caption to distinct or important landscape features that a greenway user may not understand by looking at the feature on its own. In other words, interpretive signs should be



installed along the greenway only if they explain or describe something that is visible along the greenway. These signs should have brief but engaging text. More detailed or lengthy information should be delivered through another form of media.

- ▶ Dakota County should consider developing multi-media interpretation. Audio tours provide an opportunity for unobtrusive interpretation along the greenway for interested users. Self-guided MP3 tours could be developed and made available on the Dakota County Parks website for downloading to iPods or other personal MP3 devices. Initially a greenway-wide audio tour should be developed based on the greenway theme. As staff time and resources allow, additional tours could be developed for the subthemes or for different age groups.
- ▶ Dakota County should work closely with community partners to ensure that interpretation along the greenway enhances but does not overlap interpretative experience in adjacent or collaborating public spaces.

Greenway naming

As individual Dakota County greenway corridors are master planned, more is discovered about the unique cultural, historic and natural resource attributes for each corridor, which opens new possibilities for greenway naming. Greenway names are important for creating a unique identity for individual corridors, public awareness and recognition, and creating a sense of place. At 20 miles, the Lake Marion Greenway is one of the longest Dakota County greenways. As the greenway moves from plan to reality consideration should be given to dividing this greenway into two distinct greenways and renaming the section north of Lake Marion. Potential names include: Daytripper Greenway, in reference to the popularity of day excursions to the area via railroad in the early 1900s; Prairie Greenway in reference to Lake Marion's original name; Billy Goat, Orchard Gardens, Dan Patch, Two Step, or People's greenway referencing the nearby railroad line that was so important to the area's early history and development; or others.



Table 50. Habitat investment strategies









HABITAT PRESERVE	HABITAT CORRIDOR	NATURAL LANDSCAPES	DESIGNED LANDSCAPES
Top priority habitat restoration/ management	Second priority habitat management	Lowest landscape investment priority	High landscape investment
 Adequate patch size/shape to sustain native plant community 	Provides connection between habitat preserves	Primary task is to control invasive plants	Managed urban landscapes Limited habitat value
 Contains existing remnant of native plant community 	 Adequate width to sustain native plant ground layer 	Managed as a natural, low- maintenance landscape	Relatively small area
Has interpretive potential	Grades allow for rainwater infiltration		
Has benign surrounding uses	Buffers natural waters		
Buffers or contains natural waters	• Dullers liatural waters		



D. Stewardship plan

The linear nature of the greenway will require natural resource management strategies that are geographically targeted, cooperative and realistic. Restoration and protection efforts should be focused near trailheads, as these locations will provide the greatest opportunity for greenway users to see the results of stewardship and provide a high-quality user experience. Given the linear nature of the greenway, stewardship activities should be in cooperation with adjoining landowners, public and private. Cooperative stewardship activities likely will be easier with other public agencies, but this should not preclude the possibilities of stewardship work on adjoining private lands. All stewardship actions should be evaluated through the lens of sustainability — is the stewardship effort economically and ecologically sustainable over the long term.

HABITAT INVESTMENT AREAS

Given the length of the greenway corridors, efforts to manage and restore the natural resources and native plant communities would be a daunting task — well beyond the ability of any one agency. In order to provide for a realistic and sustainable restoration and management of the resources, key habitat investment areas are identified for natural resource management. These habitat investment areas are prioritized and targeted to areas associated with high quality ecological resources and greenway use patterns. These areas are identified in Figure 52.

The highest priority landscapes to preserve, protect and enhance for habitat and water quality include the existing high quality landscapes at Murphy-Hanrehan Regional Park Reserve and Ritter Farm Park, the wetlands at Kraemer Nature Preserve, the shoreline of Lake Marion and the South Creek corridor. The Lake Marion Greenway has tremendous natural areas adjacent to its corridor that could make this greenway a key linear habitat preserve.

Much of the area along the corridor is developed suburban residential land use. However, the agricultural land use areas along South Creek have the opportunity to incorporate the greenway prior to development, allowing the potential to retain high habitat and water quality value. With the application of surface water best management practices and low-impact development standards for future development along the greenway, water quality and habitat can be preserved, managed and enhanced

STEWARDSHIP RECOMMENDATIONS

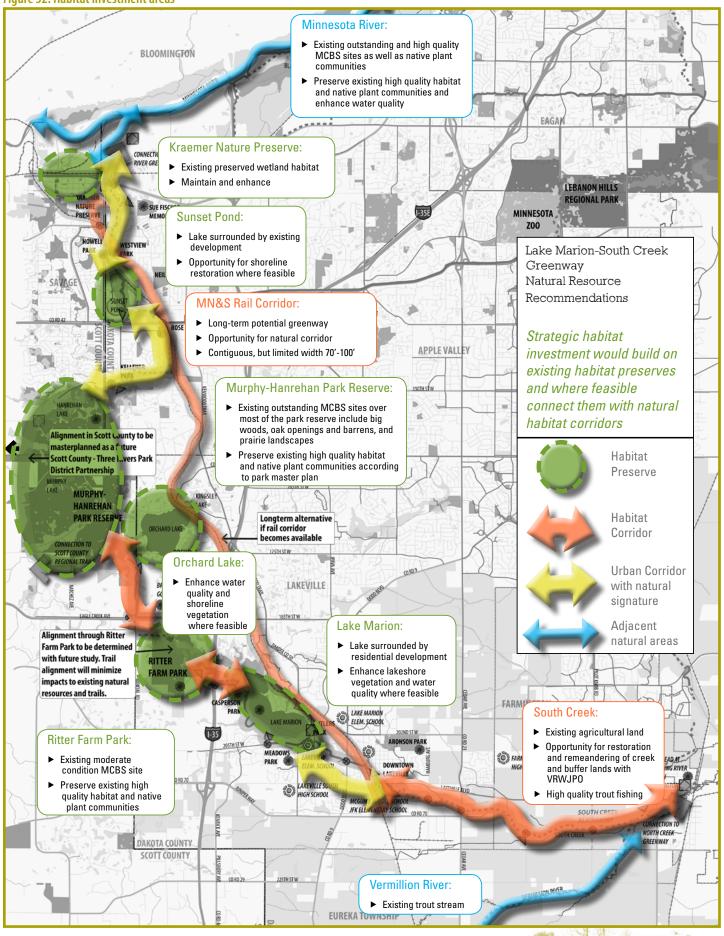
General considerations for stewardship activities within this investment hierarchy are organized around ecological quality, landscape position and future uses and are described in Table 50.

Vegetation management

In native plant communities — prairie, woodlands and wetlands — invasive species removal, buffer protection or establishment and reestablishment of disturbance regimes will be the key activities. Oak savannas may need to be supplemented with tree plantings and all of the grassland systems will likely need supplemental seeding.



Figure 52. Habitat investment areas



Site specific actions

Kraemer Quarry / Burnsville landfill

Existing conditions: Large floodplain forest complex with good canopy diversity — high quality area with a few small areas of buckthorn. A restored wetland is progressing well. The floodplain is still connected to the river and floods regularly.

Recommendations: Buckthorn needs management to prevent spread. Periodically manage restored wetland area. Monitoring of forest regeneration will be needed in the floodplain. City of Burnsville management goals include: natural heritage restoration plans; integrate wetlands with uplands; protect recreational use of future quarry lake.

Rudy Kraemer Nature Preserve

Existing conditions: Existing wetlands surrounded by trails and invasive wetland vegetation. Boardwalk crossing in middle of wetland

Recommendations: Manage invasive species at key locations, including adjacent to trails and boardwalk for educational purposes, through burning and replanting of aggressive native species. City of Burnsville management goals include: intensive restoration of prairies, wetland; bluff slope and woodland regeneration; parkland expansion in southwest corner. Buckthorn management is currently underway by the city.

Sunset Pond

Existing conditions: Excessive plant growth is common by midsummer in this shallow lake of 11 feet depth. Sunset Pond offers fishing for many game species. The 2009 DNR fish survey found abundant bluegill and northern pike. Crappie and largemouth bass are also found here.

Recommendations: Prairie restoration and land management to improve water quality. Prairie restoration adjacent to the lake is currently underway by the City. Native vegetation buffer is recommended around the stormwater wetland at the southeastern corner of Judicial Road and Southcross Drive.

Kelleher Park

Existing conditions: Most of the park is identified by Burnsville as a high priority natural resource area for protection and management activities. The city received a Conservation Partners Legacy Grant in 2010 for Kelleher Park, with the following goals: control invasive woody vegetation, re-introduce fire to the fire-dependent ecotypes, and reestablish vigorous, sustainable native plant populations.

Recommendations: Continue vegetation management and restoration work underway by Burnsville.

Murphy-Hanrehan Park Reserve

Existing conditions: Outstanding and high quality ecological landscapes in preservation with limited recreational access.

Recommendations: Support Three Rivers Park District to maintain high quality natural resources



Ritter Farm Park

Existing conditions: High quality landscapes with recreational trails and lakes.

Recommendations: Manage invasive vegetation and restore shorelines.

Lake Marion

Existing conditions: Highly used recreational lake with entirely developed shoreline consisting of mostly single-family residential. Lake is annually stocked with walleye fry by the Minnesota DNR. Eurasian milfoil exists in the lake.

Recommendations: Manage milfoil and restore shoreline where feasible.

South Creek

Existing conditions: South Creek is a designated trout stream that feeds into the Vermillion River. The stream is monitored regularly and portions have been remeandered by the DNR, Dakota County and Lakeville. Dakota County is working with landowners adjacent to the stream to protect the stream corridor and partner with the VRWJPO and others to remeander and restore further portions.

Recommendations: Continue work underway to remeander the stream and monitor trout habitat. As development comes to these areas, maintain ample buffer with native vegetation on both sides of the stream.

Vermillion River and Rambling River Park

Existing conditions: Rambling River Park in the City of Farmington is predominantly turf grass, but the stream corridor is floodplain forest and shrub swamp - both need buckthorn management. Protection of existing streambank and floodplain plant communities is needed. The confluence of North and Middle creeks is mostly turf grass with some remnant floodplain forest.

Recommendations: Manage buckthorn along stream corridor and floodplain. Widen and maintain stream buffers with native plants to improve floodplain wetlands and forest quality. Monitor areas on the north side of Vermillion River to prevent degradation of the plant communities. Interseed and manage converted farmland that contains low plant diversity.



SURFACE AND GROUND WATER MANAGEMENT/PROTECTION

Lake restoration considerations

Lake and wetland restorations should be considered along the greenway. Restorations should be designed by multidisciplinary teams that include expertise in engineering, hydrology, aquatic and restoration ecology, geomorphology, soil science and policy/permitting.

Stream restoration considerations

Stream restoration and stabilization should be designed by multidisciplinary teams that include expertise in engineering, hydrology, aquatic and restoration ecology, geomorphology, soil science and policy/permitting.

Each stream project design should follow these guidelines:

- ► Construct the channel to accommodate current and future processes
- ▶ Maintain or reduce bed load movement
- ► Remove existing fish migration barriers
- ► Restore pools and riffles to the stream
- ▶ Introduce stream habitat features for cover and colonization of fish and other aquatic organisms
- ► Reduce stresses on the banks
- Provide for floodplain connection
- Reduce flooding
- ► Improve water quality

All stream restoration/stabilization should have definitive end points that consider:

- ▶ Where there is horizontal and vertical control.
- ▶ Where the forces of the stream are no longer unstable.
- ▶ Where one can successfully design a robust solution to end on (like a riffle).

Ensuring these guidelines are followed — especially in point or localized segment fixes — will ensure the project does not unravel from upstream or downstream.



Surface water management options at trailheads

Trailhead parking lots typically are small; 10- to 20-stall lots situated within green space. This means that surface water can be directed to drain off the paved surface onto surrounding ground where it can infiltrate. The best place to manage surface water (regardless of where one is within the corridor) is at the point it runs off a hard surface; i.e. near every street, driveway and parking lot.

Water is a valuable resource that should be used to recharge groundwater or be reused to water plants rather than run off into pipes to a natural water body where it causes problems. Directing surface water onto the ground rather than into a pipe aids the following important functions:

- ► Filter pollutants such as phosphorus, grease and oil through plants and soil that mitigate their effects.
- ▶ Protect downstream water bodies by preventing the influx of large amounts of water it is best to have water slowly reach a stream or lake underground via subsurface flow.
- ▶ Protect natural water bodies by capturing pollutants at their source.
- ► Cool surface water before reaching trout streams.
- ► Recharge groundwater and eventually aquifers.
- ▶ Water trees and other plants at the source allowing for vigorous growth and shaded parking lots.

Opportunities for surface water management

Many practices are available to manage stormwater at trailheads. Some make more sense than others and provide greater return on investment.



It is best to treat surface water at its source (alongside hard surfaces).



Depressed parking lot islands capture surface water and water trees that eventually will shade the lot.

Practical surface water management practices include:

- ► Creating shallow depressions (rain gardens) alongside parking lots and grade the parking lot to tip in that direction.
- ► Creating planted depressed parking lot islands to capture surface water.
- For small parking lots surrounded by green space running the water onto the surrounding grass (ideally prairie).
- Around parking lots, planting trees to capture and evaporate rainwater on their leaves and create pores in the soil with their roots to allow water to soak in. Trees also shade pavement to keep it cooler in the summer.
- ▶ Planting prairie plants around parking lots they function much like trees (minus the shading). They are especially useful on clay soils, where they drive roots deep and facilitate surface water infiltration.





OVERVIEW

This master plan is a long-range vision for recreation, transportation, water quality and habitat improvements for the Lake Marion Greenway. Accomplishing this vision depends on multiagency collaboration. Without continued coordination between the communities it is unlikely the greenway could be realized as envisioned. Working collaboratively will enable Dakota County, cities and other agencies to leverage resources to build, operate and maintain the greenway.

While the 30-foot regional trail corridor will be the jurisdictional and operational responsibility of Dakota County, the larger greenway corridor will be governed in many ways, depending on the situation. Similarly, responsibilities for land acquisition, construction, stewardship, operations and maintenance will depend on the particularities of each segment.

This Chapter outlines approaches for greenway implementation, including:

- ► Phasing and priorities
- ► Land protection and stewardship
- Operations
- **▶** Funding
- ► Capital and operational budgets

PHASING AND PRIORITIES

The Lake Marion Greenway will be implemented in phases. Greenway segments have been prioritized into first priority projects, second priority projects and long-term projects (Table 56). It is anticipated that first priority projects will be built in advance of second priority projects, but the master plan remains flexible so that any project can be implemented as partnership or funding opportunities arise.

First priority projects are those that are needed to create a continuous, functional greenway experience. Of foremost importance is securing land or easements for the 30-foot corridor as opportunities arise. After land has been secured, building missing trail segments is the first priority. It is intended that recreation, water quality, non-motorized transportation and natural resource elements be integrated into the greenway at the time of initial construction.



Second priority projects will enhance the greenway experience. These are things such as: trailhead development; and enhancements to existing trails such as landscaping, habitat restoration interpretation, wayfinding, benches, trash receptacles, etc.

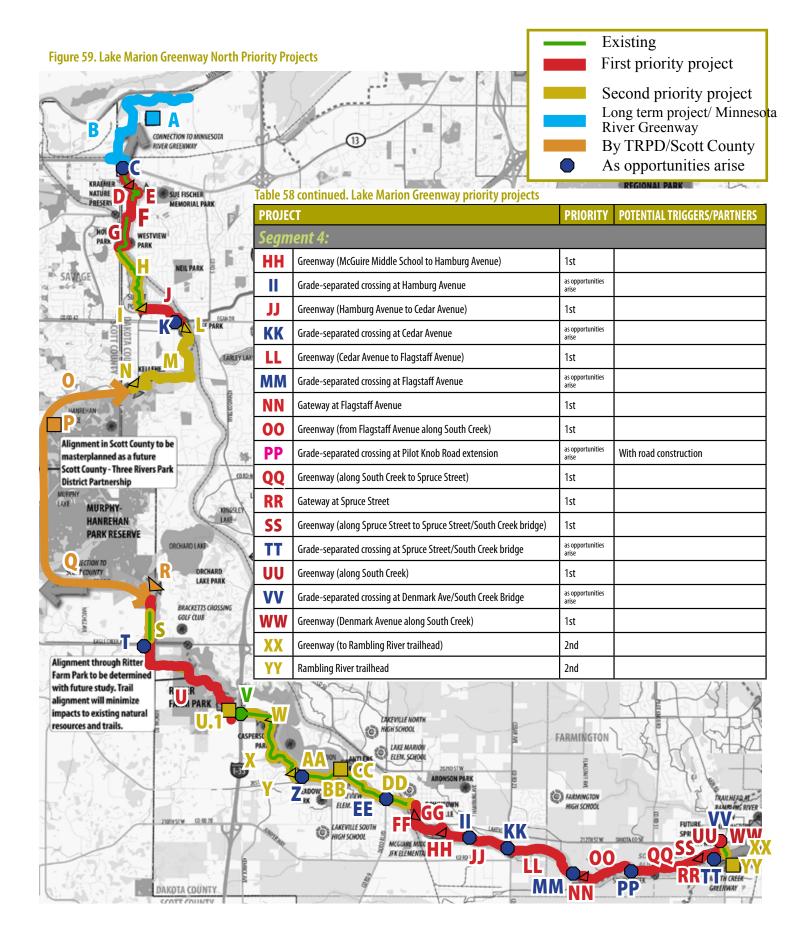
Grade-separated crossings will be installed as funding, partnership, or construction opportunities arise.

In cases where gaps in the regional trail exist and alternative trail connections can be made on existing trails, interim routes will be designated until the preferred alignment can be assembled.

Table 58. Lake Marion Greenway priority projects

PROJEC	Т	PRIORITY	POTENTIAL TRIGGERS/PARTNERS
Segm	ent 1:		
A	Trailhead at MN River Greenway	Long Term	Part of Minnesota River Greenway
В	Greenway along Minnesota River to Highway 13	Long Term	Part of Minnesota River Greenway
C	Grade-separated crossing at Highway 13		
D	Gateway at Rudy Kraemer Nature Preserve		
E	Greenway (Through Rudy Kraemer Nature Preserve)		
F	Greenway (Rudy Kraemer Nature Preserve to Williams Drive)		
G	Greenway (Williams Drive to Judicial Road to Howell Park)	1st	
Н	Improvements to greenway (Howell Park to Sunset Pond Park)	2nd	
I	Gateway at Sunset Pond Park	2nd	
J	Greenway (grom Sunset Pond Park C.P. Rail corridor/CSAH 42 crossing)	1st	
K	Improvements to grade-separated crossing at CSAH 42	as opportunities arise	
L	Gateway at Rose Park	2nd	
M	Greenway (Rose Park to Kelleher Park)	2nd	
N	Gateway at Kelleher Park	2nd	
Segm	ent 2:		
0	Greenway through Scott County	By Others	To be masterplanned by Scott Co/TRPD
P	North Trailhead at Murphy Hanrehan Park	By Others	Three Rivers Park District
Q	Greenway through Scott County	By Others	To be plannedby Scott County/TRPD
R	Gateway at Murphy-Hanrehan Park Reserve	By Others	Three Rivers Park District
S	Greenway (Murphy-Hanrehan Park Reserve to 185th Street West)	2nd	
T	Grade-separated crossing at 185th Street West	as opportunities arise	
U	Greenway (185th Street West through Ritter Farm Park)	1st	
U.1	Trailhead at Ritter Farm Park	2nd	
Segm	ent 3:		
V	Overpass at Interstate 35	Existing	
W	Gateway at Casperson Park	2nd	
X	Greenway (Interstate 35 to 205th Street West)	2nd	
Y	Gateway at south end of Lake Marion	2nd	
Z	Grade-separated crossing at 205th Street West	as opportunities arise	
AA	Improvements to greenway (Along 205th Street to Antlers Park)	2nd	Improve existing paved trail
BB	Trailhead at Antlers Park	2nd	
CC	Greenway (Antlers Park to Dodd Boulevard)	2nd	
DD	Greenway (Dodd Boulevard to (C.P. Railway)	2nd	Improve existing paved trail
EE	Grade-separated crossing at Dodd Boulevard/CR9	as opportunities arise	
FF	Gateway at downtown Lakeville	1st	
GG	Greenway (208th Sreet to McGuire Middle School)	1st	100







LAND PROTECTION AND STEWARDSHIP

Dakota County's greenway concept incorporates recreation, transportation, ecological and water quality components in a 100- to 300-foot corridor secured through two approaches:

Land protection — protecting land essential to make the greenway usable. For the Lake Marion Greenway, this means securing land needed for the trail corridor and trailheads.

Land stewardship — the care of native landscapes and habitat within the greenway.

Land protection

It is essential that Dakota County secure lands for the minimum 30-foot trail alignment and trailheads. Sections of the Lake Marion Greenway corridor where protection is needed are shown on Figure 59. Four categories of land are shown: land owned by Dakota County, land owned by other public entities, privately held land and existing public easements on private land. For land owned by other public agencies or with public easements on privately held land, Dakota County will need to permanently protect the trail corridor and trailheads for regional trail use with easement or joint powers agreements. For land that is privately owned, the County will need to acquire the trail corridor for public use. Table 59 summarizes the approximate number of acres of land needed for protection. Land protection strategies include: park dedication, direct purchase with resale of land not required for the trail, permanent easements, land donation, bargain sale, life estate and negotiations with cities and developers. Table 58 highlights several techniques for protecting land in different ownership scenarios.

Land stewardship

The natural resource objective for the greenway system is to maintain or create a healthy context within which nature can thrive. The first stewardship priority is restoring continuous habitat within the greenway corridors. The second is habitat restoration and protection of the most sensitive lands, including uplands that link greenways to the broader landscapes. Generally, Dakota County will not be the lead agency in stewardship activities outside the 30-foot trail corridor and trailheads, but will work as steward partners with local jurisdictions, agencies and private landowners and provide funding and expertise.

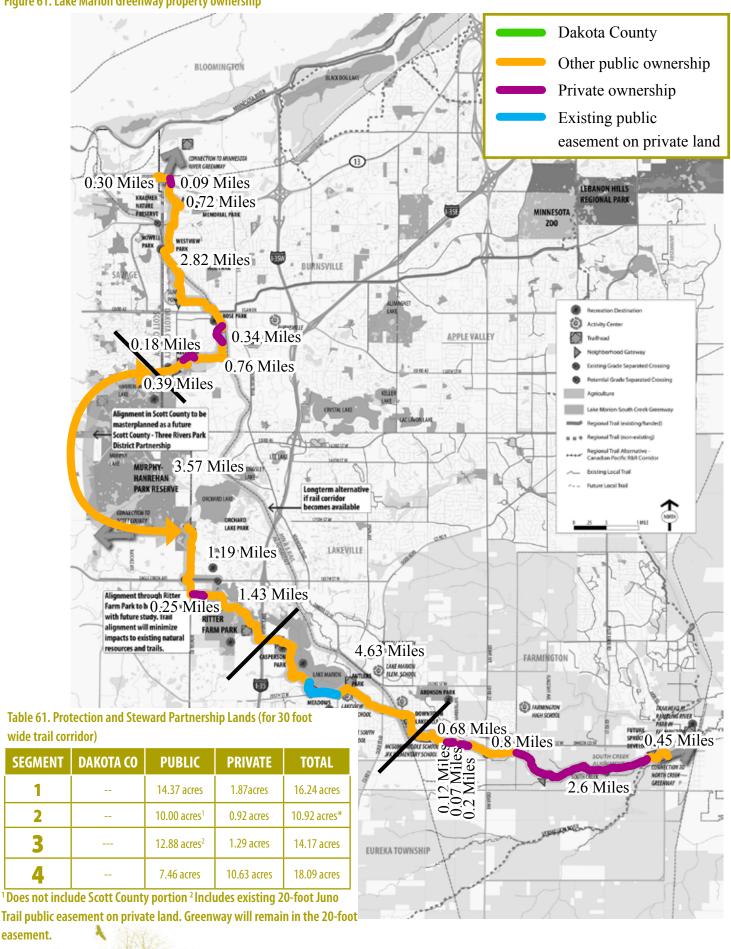


Figure 61. Lake Marion Greenway property ownership

1

2

3



MANAGEMENT AND OPERATIONS

Like other aspects of the greenway, management and operations will be a collaboration between the county, cities and other partners. Responsibilities will vary by greenway segment. While this master plan defines general responsibilities for each greenway segment, formal joint powers agreements between Dakota County and collaborating agencies will be needed to outline specific agency responsibilities. These agreements will outline who has control of the trail right-of-way as well as who will operate and maintain the trail and how they will do it. Table 58 provides a framework for anticipated agency roles in ownership, design and engineering, construction, restoration, operations and maintenance.

Management

The Dakota County Parks Department will be the lead agency for coordinating greenway and management operations. The Dakota County Board of Commissioners establishes policies and goals for the park system and through an annual budget provides capital and operating funds for the department. The Planning Commission, appointed by the Board of Commissioners, advises the county on park and recreation trail issues.

General operations

Dakota County Parks Department will be responsible for the operation of the 30-foot regional trail corridor. Where there are opportunities for operational partnerships, Dakota County will enter a joint powers agreement with partner agencies. The Parks Department employes a staff of permanent employees and seasonal employees adequate to maintain the system. Volunteers assist with outdoor education programs, patrol, park cleanups and special events. Contractual agreements also are in place with outside agencies for some maintenance and natural resource work. Dakota County recognizes that as facilities expand, it will need to increase staffing. Based on operations and maintenance staffing for current Dakota County regional trails, it is anticipated that when the regional trail within Lake Marion Greenway is complete, an additional 0.5-1.0 full time employee park keeper (1,000 -2,000 hours of labor) and 0.5 seasonal FTE (1,000 hours of labor) will be needed.

Operating hours

Where the regional greenway is in city parks, hours will be open according to jurisdictional ordinance or policy. The greenway outside city parks will be open 24 hours for transportation purposes.



Maintenance

Maintenance of facilities and lands is essential to protect public investment, enhance natural resource quality and achieve the county's goals of providing recreational users clean, safe, enjoyable year-round experiences. The Dakota County Parks Department has a clearly defined maintenance program and reporting hierarchy led by the manager of park development and maintenance, who reports to the parks director.

Regular maintenance activities for the greenway will include:

- ► Sign maintenance
- ► Trash collection
- Sweeping and blowing
- ► Trail repair
- ▶ Bridge repair
- ► Trailhead facility repair and maintenance
- Mowing
- ► Tree trimming
- ► Winter trail clearing

Table 63. Pavement Management Activities

YEAR	MAINTENANCE ACTIVITY
0	Original construction of the paved trail
3	Seal coating
7	Routine maintenance — crack filling, minor patching, minor curb repairs
11	Routine maintenance — crack filling, minor patching, minor curb repairs
13	Seal coating
18	Routine maintenance — crack filling, minor patching, minor curb repairs
21	Routine maintenance — crack filling, minor patching, minor curb repairs
25	Mill and overlay

Pavement management

Pavement deteriorates as it ages. Regular pavement maintenance can prolong the life-span of the greenway trail in a cost effective manner. See Table 63 for an outline of recommended activities.

Ordinances

Public use and enjoyment of the county park system is controlled by Ordinance 107, Parks Ordinance, which was last revised June 3, 1997. The ordinance incorporates pertinent Minnesota statutes and addresses the following issues:

- ► Regulation of public use
- ► Regulation of general conduct
- ► Regulations pertaining to general parkland operation
- ▶ Protection of property, structures and natural resources
- ► Regulation of recreational activity
- ► Regulation of motorized vehicles, traffic and parking

Enforcement and security

Visitors are informed of park and trail rules and regulations through strategically located kiosks and signs that address specific information about hours, trails, permitted and prohibited activities, fees and directions. Dakota County Parks, Lakes and Trails officers will patrol the park in motorized vehicles, on bicycles and on foot. Officers will also educate visitors and enforce ordinances. Local law enforcement and public safety agencies will be responsible for emergency and criminal complaints within the greenway.



Public awareness

Dakota County's Parks Department will continue working with the County's Dakota County Communications Department to promote awareness and use of the County's parks and greenway system. Many tools are available to promote awareness of Dakota County parks and greenways including, but not limited to, Web sites, direct mail, news releases, brochures, on-site promotion, monument signage along roads, wayfinding within greenways and parks and paid advertising. Dakota County also collaborates with cities, businesses, the regional parks system and others to promote its facilities, programs and services and educate the public about its resources.

Conflicts

The surrounding land uses and the greenway are generally compatible and no conflicts outside of norm affect the viability of master plan recommendations. Minor conflicts will occasionally arise from private encroachment or neighboring residents' sensitivity to greenway, recreation or maintenance uses. Dakota County will work with individual landowners to resolve these issues case by case.

Public services

No significant new public services will be needed to accommodate the greenway. Proposed trailheads and neighborhood gateways are served by the existing road network. If utilities are not accessible at gateways and trailheads, options such as solar powered lighting, self-composting toilets or wells will be considered. Surface water will be treated on site. Accommodations for later installation of continuous trail lighting will be considered at initial trail construction.

FUNDING

Funding for initial capital cost and ongoing operations and maintenance costs is essential for a successful greenway. Funding will be a collaboration among the county, cities and other agencies, with an emphasis on seeking outside funding such as through federal transportation grants. Cost-share roles will be determined by the strengths of each agency and circumstances of each project. In-kind contributions of land, easement, design, engineering, construction and maintenance and operations are encouraged and will be outlined in joint powers agreements among agencies.

It is anticipated that most future capital projects will be well positioned to secure regional, state and federal funds for recreation, transportation, water and habitat and that these sources will account for a majority of capital construction costs. In many cases, but not all, Dakota County, as the regional agency, will be in the best position to pursue outside funding. Examples of outside funding sources include:

- ► Federal transportation grants (MAP 21/TAP)
- ► Metropolitan Council
- ▶ National Park Service Rivers, Trails and Conservation Assistance Program
- ► Minnesota Department of Transportation
- ► Minnesota Department of Natural Resources
- ► Minnesota Pollution Control Agency



- ► The Environment and Natural Resources Trust Fund
- ► Clean Water, Land and Legacy Amendment funds
- Watershed management organizations
- ► Foundations and nonprofits
- ► Statewide Health Improvement Program

Funding for operating and maintaining the 30-foot regional trail easement and trailheads primarily will be Dakota County's responsibility. Annual operating costs are funded though the County's general fund and from regional park allocations from the Metropolitan Council. In situations where there are efficiencies in local jurisdictions performing maintenance and operations, Dakota County will enter a joint powers agreement outlining responsibilities and cost sharing.

CAPITAL AND OPERATIONAL BUDGETS

Estimated costs in 2013 dollars for land protection, development costs, natural resources and annual operations and maintenance are included in Tables 66, 67 and 74.

Land acquisition costs are included by segment in Tables 66 and 67. Because land protection strategies might include direct purchase with resale of land not required for the trail, permanent easements, land donation, bargain sale, life estate and negotiations with cities and developers, is very difficult to accurately project total acquisition costs. Estimated costs assume land protection of a 30-foot trail corridor on land that is currently privately owned with an average cost of \$90 per lineal foot.

Table 66 and 67 includes budgets for capital investments, the priority of the investment and project partners. The table identifies the full anticipated construction costs of the plan elements. It is not anticipated that Dakota County will be responsible for the full cost of improvements outlined; funding will be a collaboration between the County and partner agencies. Habitat restoration within the greenway corridor is also included in these tables under the item landscaping/habitat management. It is assumed that along with greenway construction an average of 200 trees and 12.5 acres of prairie will be needed per mile, along with basic water management. Natural Resource project opportunities beyond the greenway corridor that the County may choose to partner with other public or private entities are identified in Table 75. Most capital projects also will be well positioned to secure regional, state and federal funds for recreation, transportation, water and habitat.

While the Tables 66 and 67 identify priorities for capital projects, development will occur as funding becomes available and at the discretion of the Dakota County Board.

Table 74 identifies annual maintenance and operations costs for the 30-foot trail corridor including gateways, trailheads and grade-separated crossings for each greenway segment. It includes yearly amortization of costs for major capital maintenance or mill and overlay about every 25 years the 30-foot trail corridor and trailheads and every 50 years for grade-separated crossings. The estimates reflect a higher level of maintenance and expanded maintenance than is required today. Maintenance responsibilities will include landscaping, habitat management, sign replacement, winter plowing and other activities.

Table 75 identifies natural resource project opportunities beyond the greenway corridor. Dakota County supports the restoration of habitat adjacent to the greenway and may choose to collaborate with individual landowners and other public agencies where it is to the mutual benefit of both agencies and as funding for restoration and ongoing habitat management allows.



Table 66. Lake Marion Greenway Overview of Probable Costs

ITEM DESCRIPTION	FIRST PRIORITY	SECOND PRIORITY	GRADE-SEPARATED CROSSINGS	TOTAL	PERCENT TOTAL
SEGMENT 1: Rudy Kramer Nature Preserve to	Kelleher Park				
Land Protection	\$245,250		\$0	\$245,250	7.23%
Greenway Development	\$478,500	\$818,500	\$0	\$1,297,000	38.24%
Landscaping/Habitat Management	\$72,500	\$78,500	\$0	\$151,000	4.45%
Grade Separated Crossings			\$851,563	\$851,563	25.11%
Trailheads and Gateways		\$105,000	\$0	\$105,000	3.10%
Contingency (10%)	\$79,625	\$100,200	\$85,156	\$264,981	7.819
Segment 1 Subtotal	\$875,875	\$1,102,200	\$936,719	\$2,914,794	85.94%
Anticipated Engineering Fees (18%)	\$143,325	\$180,360	\$153,281	\$476,966	14.069
Segment 1 Total	\$1,019,200	\$1,282,560	\$1,090,000	\$3,391,760	100.00%
EGMENT 2: Kelleher Park to Interstate 35 at					
Land Protection	\$119,250	\$0	\$0	\$119,250	4.269
Greenway Development	\$872,800	\$0	\$0	\$872,800	31.179
Landscaping/Habitat Management					
Grade Separated Crossings		\$0	\$695,313	\$695,313	24.839
Trailheads and Gateways	\$500,000	\$0	\$0	\$500,000	17.869
Contingency (10%)	\$149,205	\$0	\$69,531	\$218,736	7.81
Segment 2 Subtotal	\$1,641,255	\$0	\$764,844	\$2,406,099	85.94%
Anticipated Engineering Fees (18%)	\$268,569	\$0	\$125,156	\$393,725	14.06
Segment 2 Total	\$1,909,824	\$0	\$890,000	\$2,799,824	100.00%
EGMENT 3: Interstate 35 at Casperson Park	to McGuire Middle School				
Land Protection	\$162,000	\$0	\$0	\$119,250	4.109
Greenway Development	\$151,800	\$135,900	\$0	\$1,008,700	34.669
Landscaping/Habitat Management	\$23,000	\$144,900		<i>ϕ 1,000,100</i>	3 1100
	· ·		£1.050.702	44.050.700	2440
Grade Separated Crossings	\$0	A 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	\$1,050,782	\$1,050,782	36.119
Trailheads and Gateways	\$35,000	\$570,000	\$0	\$605,000	20.799
Contingency (10%)	\$37,180	\$85,080	\$105,078	\$227,338	7.81
Segment 3 Subtotal	\$408,980	\$935,880	\$1,155,860	\$2,500,720	103.48%
Anticipated Engineering Fees (18%)	\$66,924	\$153,144	\$189,141	\$409,209	14.069
Segment 3 Total	\$475,904	\$1,089,024	\$1,345,000	\$2,909,928	117.54%
EGMENT 4: McGuire Middle School to Rambl	ing River Park/Trailhead			·	
Land Protection	\$1,266,750	\$0	\$0	\$1,266,750	19.319
Greenway Development	\$1,896,200	\$26,600		\$1,922,800	29.329
Landscaping/Habitat Management					
Grade Separated Crossings			\$1,864,550	\$1,864,550	28.439
Trailheads and Gateways	\$35,000	\$35,000	\$0	\$70,000	1.079
Contingency (10%)	\$319,795	\$6,160	\$186,455	\$512,410	7.81
Segment 4 Subtotal	\$3,517,745	\$67,760	\$2,051,005	\$5,636,510	85.94%
Anticipated Engineering Fees (18%)	\$575,631	\$11,088	\$335,619	\$922,338	14.069
Segment 4 Total	\$4,093,376	\$78,848	\$2,386,624	\$6,558,848	100.00%
GREENWAY TOTAL	\$7,498,304	\$2,450,432	\$5,711,624	\$15,660,360	



Table 67. Lake Marion Greenway Capital Development Estimates

	T T		ш	П							
									TOTAL	GRADE SEPARATED	
ITEM	DESCRIPTION	QTY	UNIT	UNIT CO	ST	1	ST PRIORITY	21	ID PRIORITY	CROSSINGS	NOTES
SEGME	ENT 1: Rudy Kraemer Nature Preserve to I	Celleher P	ark								
Α	Trailhead at MN River Regional Greenway										
	Assumes benches, bike rack, 25-stall parking, picnic tables, picnic										
	shelter and restrooms, signage, waste receptacles, water fountain a landscaping	Lump Su	ım								Included in cost estimate for
	Design & Engineering at 18%	Europ Se	1								Minnesota River Greenway Master
	Contingency at 10%										Plan
	A Subtote										
В	Greenway (Along Minnesota River to Rudy	Kraemer	Nature P	reserve)							
	NEW TRAIL	13,950									
	Signage / Wayfinding	13,950									
	Landscaping / Habitat Management	13,950									Included in cost estimate for
	Site Furnishings	13,950									Minnesota River Greenway Master
	Design & Engineering at 18%										Plan
	Contingency at 10%										
	B Subtote	ıl									
C	Grade separated crossing at TH 13										
	Grade separated crossing	Lump su	m							\$ 703,125	
	Design & Engineering at 18%									\$ 126,563	Included in cost estimate for
	Contingency at 10%									\$ 70,313	
	CSubtote									\$ 900,000	Plan
D	Gateway at Rudy Kraemer Nature Preserv [Assumes 2 benches, 1 bikerack, 1 trailhead/gateway sign with										
	interpretation, 2 waste receptacles, 1 water fountain and 1	'									
	pedestrian light	Lump Su	ım								Included in cost estimate for
	Design & Engineering at 18%										Minnesota River Greenway Master Plan
	Contingency at 10%										Pian
	D Subtote			<u> </u>							
E	Greenway Enhancement (Through Rudy K										
	Signage / Wayfinding Landscaping / Habitat Management	2,000	Ln Ft Ln Ft	\$	10			\$	4,000 20,000		
	Site Furnishings	2,000		\$	4			\$	8,000		
	Design & Engineering at 18%							\$	5,760		
	Contingency at 10% E Subtote	-1						\$ \$	3,200 40,960		
E	Greenway (Rudy Kraemer Nature Preserve		nc Dr)					7	40,300		
Г	NEW TRAIL	1,050	1			,	63.000				
	Signage / Wayfinding	1,050	Ln Ft Ln Ft	\$	60 2	\$	63,000 2,100				
	Landscaping / Habitat Management	1,050	Ln Ft	\$	10	\$	10,500				
			Lnrt	\$	4	\$					
	Site Furnishings	1,050		>	4	i -	4,200				
	Design & Engineering at 18% Contingency at 10%					\$	14,364 7,980				
	F Subtoto	ıl				\$	102,144				
G	Greenway (Williams Dr to Judicial Rd to Ho	well Park)			Ė					
	NEW TRAIL	2,950	Ln Ft	\$	60	\$	177,000				
	Signage / Wayfinding	2,950	Ln Ft	\$	2	\$	5,900				
	Landscaping / Habitat Management	2,950	Ln Ft	\$	10	\$	29,500				
	Site Furnishings	2,950		\$	4	\$	11,800				
	Design & Engineering at 18%					\$	40,356				
	Contingency at 10% G Subtote	ıl		1		\$ \$	22,420 286,976				
Н	Greenway Enhancement (Howell Park to S		d Park)			Ť					
	Signage / Wayfinding	5,850		\$	2			\$	11,700		
	Signage / Wayfinding Landscaping / Habitat Management	5,850		\$	10	 		\$	11,700 58,500		
	Site Furnishings	5,850		\$	4			\$	23,400		
	Design & Engineering at 18%	3,030	#	Ť	7			\$	16,848		
	Contingency at 10%							\$	9,360		
	H Subtote	ıl 💮						\$	119,808		
I	Gateway at Sunset Pond Park										
	Assumes 2 benches, 1 bikerack, 1 trailhead/gateway sign with	1									
	interpretation, 2 waste receptacles, 1 water fountain and 1 pedestrian light	Lump Su						\$	35,000		
	Design & Engineering at 18%	Lump 30	 I	1				\$	6,300		
	Contingency at 10%							\$	3,500		
	I Subtote	ıl						\$	44,800		
J	Greenway (From Sunset Pond Park CP R&F	corridor/	CSAH 42 c	rossing)							
	NEW TRAIL	3,250		\$	60	\$	195,000				
	Signage / Wayfinding	3,250	Ln Ft	\$	2	\$	6,500				
	Landscaping / Habitat Management	3,250	Ln Ft	\$	10	\$	32,500				
	Site Furnishings	3,250		\$	4	\$	13,000				
	Design & Engineering at 18%					\$	44,460				
	4			II		\$	24,700				
	Contingency at 10%		<u> </u>	Ш		\$	316,160				



									TOTAL		
ITEM	DESCRIPTION	QTY	UNIT	UNIT	COST		1ST PRIORITY	2	ND PRIORITY	DE SEPARATED CROSSINGS	NOTES
K	Improvements to grade separated crossing	at CSAH	42								
	Grade separated crossing	Lump su	m							\$ 148,438	
	Design & Engineering at 18%									\$ 26,719	Francisco Bridge
	Contingency at 10%									\$ 14,844	Existing Bridge
	K Subtotal									\$ 190,000	
L	Gateway at Rose Park										
	Assumes 2 benches, 1 bikerack, 1 trailhead/gateway sign with interpretation, 2 waste receptacles, 1 water fountain and 1 pedestrian light	Lump Su	m					\$	35,000		
	Design & Engineering at 18%							\$	6,300		
	Contingency at 10%							\$	3,500		
	L Subtotal							\$	44,800		
M	Greenway (Rose Park to Kelleher Park)										
	NEW TRAIL	10,150	Ln Ft	\$	60			\$	609,000		
	Signage / Wayfinding	10,150	Ln Ft	\$	2			\$	20,300		
	Landscaping / Habitat Management	10,150	Ln Ft	\$	10			\$	101,500		
	Land Protection	2,725	Ln Ft	\$	90	\$	245,250				
	Site Furnishings	10,150		\$	4			\$	40,600		
	Design & Engineering at 18%					\$	44,145.00	\$	138,852		
	Contingency at 10%					\$	24,525.0		77,140		
	M Subtotal					\$	313,920	\$	987,392		
N	Gateway at Kelleher Park										
	Assumes 2 benches, 1 bikerack, 1 trailhead/gateway sign with interpretation, 2 waste receptacles, 1 water fountain and 1 pedestrian light	Lump Su	m					\$	35,000		
	Design & Engineering at 18%							\$	6,300		
	Contingency at 10%							\$	3,500		
	N Subtotal							\$	44,800		
	First Priority Subtotal					\$	1,019,200				
	Second Priority Subtotal			1		1		\$	1,282,560		
	Grade-separated crossings Subtotal									\$ 1,090,000	
											·
	Segment 1 Subtotal		1	1		\$				3,391,760	
		1	#	1							
			-	#		-					



	-							TOTAL			
										ADE SEPARATED	
SEGM	DESCRIPTION ENT 2: Kelleher Park to Interstate 35 at Cas	QTY	UNIT	UNIT	COST		1ST PRIORITY	2ND PRIORITY		CROSSINGS	NOTES
0	Greenway through Scott Co	er son r	uik L								
U	dieenway tinough scott co										
											By Other Agencies - Scott County / Three Rivers Park District Partnership
	NEW TRAIL		Ln Ft	\$	85				\$	-	I nree Rivers Park District Partnership
Р	Trailhead at Murphy Hanrehan Park (North)										
	Assumes benches, bike rack, 25-stall parking, picnic tables, picnic										Uses Existing Three Rivers Park
	shelter and restrooms, signage, waste receptacles, water fountain and landscaping	Lump Su	m						\$	-	District Trailhead
Q	Greenway through Scott Co										
											By Other Agencies- Scott County /
	NEW TRAIL		Ln Ft	Ś	60				5		Three Rivers Park District Partnership
R		ac#\	Ln Ft	\$	60				\$		
n	Gateway at Murphy Hanrehan Park (Southe Assumes 2 benches, 1 bikerack, 1 trailhead/gateway sign with	ast)									By Other Agencies - Three Rivers Park
	interpretation, 2 waste receptacles, 1 water fountain and 1										District. Use planned future trailhead
S	pedestrian light	Lump Su		14/\					\$	-	at southeast edge of Park
3	Greenway Enhancement (Murphy Hanrehan Signage / Wayfinding		Ln Ft	W)	2	\$	6,500				
	Landscaping / Habitat Management		Ln Ft	\$	10		32,500				
	Site Furnishings	3,250		\$	4	\$	13,000				
	Design & Engineering at 18% Contingency at 10%					\$	9,360 5,200				
	S Subtotal					\$	66,560				
Т	Grade separated crossing at 185th St W					٠	00,300				
•	Underpass	Lump su							\$	695,313	
	Design & Engineering at 18%	Lump su	iii						\$	125,156	
	Contingency at 10%								\$	69,531	
	T Subtotal								\$	890,000	
U	Greenway (185th St W through Ritter Farm	Park)									
	NEW TRAIL	10,800		\$	60		648,000				
	Signage / Wayfinding Landscaping / Habitat Management	10,800 10,800		\$	10		21,600 108,000				
	Land Protection	1,325	Ln Ft	\$	90	\$	119,250				
	Site Furnishings Design & Engineering at 18%	10,800		\$	4	\$	43,200 169,209				
	Contingency at 10%					\$	94,005				
	U Subtotal					\$	1,203,264				
U.1	Trailhead at Ritter Farm Park										
	Assumes benches, bike rack, 25-stall parking, picnic tables, picnic shelter and restrooms, signage, waste receptacles, water fountain and										
	landscaping	Lump Su	m			\$	500,000				
	Design & Engineering at 18%					\$	90,000				
	Contingency at 10%					\$	50,000				
	P Subtotal					\$	640,000				
	First Priority Subtotal					\$	1,909,824				
	Second Priority Subtotal			l –		1	.,505,024		1		
	· · · · · · · · · · · · · · · · · · ·			l –					Ś	900.000	
	Grade-separated crossings Subtotal		-	1					>	890,000	
	Segment 2 Subtotal					Ś			1	2,799,824	
	Segment 2 Subtotal			1		Þ				2,177,024	
			11	Ш		<u> </u>			1		



								TOTAL			
							T		GRAI	DE SEPARATED	
ITEM	DESCRIPTION	ОТУ	UNIT	UNIT	COST	1ST PRIORITY	2	ND PRIORITY		ROSSINGS	NOTES
	ENT 3: Interstate 35 at Casperson Park to M				.031	1511 MORITI		TO THIS MITT	·	MOSSINGS	
٧	Overpass at Interstate 35 & Crossing Improv				nd 195	th Street					
	Use existing I-35 Bridge, pedestrian activated signals, signage and pavement markings at Kenrick and 195th Street	Lump sui	m						\$	39,063	
	Design & Engineering at 18%								\$	7,031	Share the road stripping & at grade
	Contingency at 10%								\$	3,906	crossing improvements
	V Subtotal								\$	50,000	
W	Gateway at Casperson Park										
	Assumes 2 benches, 1 bike rack, 1 trailhead/gateway sign with interpretation, 2 waste receptacles, 1 water fountain and 1 pedestrian light Design & Engineering at 18%	Lump Su	m				\$ \$	35,000 6,300 3,500			
	Contingency at 10% W Subtotal						\$.,			
v	77 240 (014)		r\				Þ	44,800			
X	Greenway Enhancement (Interstate 35 to 2										
	Signage / Wayfinding Landscaping / Habitat Management	8,700 8,700		\$	10		\$	17,400 87,000			
	Site Furnishings	8,700	Ln Ft	\$	4		\$	34,800			
	Design & Engineering at 18%	0,700		3	4		\$	25.056			
	Contingency at 10%						Ś	13,920			
	X Subtotal						Ś	178,176			
Υ	Gateway at south end of Lake Marion						Ť	110,110			
•	Assumes 2 benches, 1 bikerack, 1 trailhead/gateway sign with interpretation, 2 waste receptacles, 1 water fountain and 1 pedestrian light	Lump Su	m				\$	35,000			
	Design & Engineering at 18%						\$	6,300			
	Contingency at 10%						\$	3,500			
	YSubtotal						\$	44,800			
Z	Grade separated crossing at 205th St W										
	Underpass	Lump sui	m						\$	386,719	
	Design & Engineering at 18%								\$	69,609	
	Contingency at 10%								\$	38,672	
	ZSubtotal								\$	495,000	



									TOTAL			
	PECCULATION	077				_	CT DDIOD:T/	_			ADE SEPARATED	NOTES
AA	DESCRIPTION Greenway Enhancement (Along 205th St W	QTY	UNIT	UNIT	COST	1	ST PRIORITY	2	ND PRIORITY		CROSSINGS	NOTES
AA	Signage / Wayfinding		Ln Ft	\$	2			\$	7,100			
	Landscaping / Habitat Management	3,550		\$	10			\$	35,500			
	Site Furnishings	3,550	Litte	\$	4			\$	14,200			
	Design & Engineering at 18%	3,330		7				Ś	10,224			
	Contingency at 10%							Ś	5,680			
	AA Subtotal							\$	72,704			
ВВ	Trailhead at Antlers Park							7	,			
00	assumes benches, bike rack, 25-stall parking, picnic tables, picnic											
	shelter and restrooms, signage, waste receptacles, water fountain and											
	landscaping	Lump Su	m					\$	500,000			
	Design & Engineering at 18%							\$	90,000			
	Contingency at 10%							Ś	50,000			
	BB Subtotal							\$	640,000			
00		a dd Dlaa						_	-			
CC	Greenway Enhancement (Lakeview E.S. to D							\$	640,000			
	Signage / Wayfinding	3,750		\$	2			\$	7,500			
	Landscaping / Habitat Management	3,750	Ln Ft	\$	10			\$	37,500			
	Site Furnishings	3,750		\$	4			\$	15,000			
	Design & Engineering at 18%							\$	10,800			
	Contingency at 10%							\$	6,000			
	CC Subtotal							\$	76,800			
DD	Greenway Enhancement (Dodd Blvd to MN &	2. S lina)						Ė				
טט			Ln Ft		٦.			,	2.100			
	Signage / Wayfinding	1,550		\$	10			\$	3,100			
	Landscaping / Habitat Management Site Furnishings	1,550 1,550	Ln Ft	\$	4			\$	15,500			
	-	1,550		\$	4			\$	6,200			
	Design & Engineering at 18%							\$	4,464			
	Contingency at 10%							\$	2,480			
	DD Subtotal							\$	31,744			
EE	Grade separated crossing at Dodd Blvd/CR 9											
	· · · · · · · · · · · · · · · · · · ·		II									
	Underpass	Lump su	m							\$	625,000	
	Design & Engineering at 18%									\$	112,500	
	Contingency at 10%									Ś	62,500	
-												
	EE Subtotal									\$	800,000	
FF	Gateway at Downtown Lakeville											
	Assumes 2 benches, 1 bikerack, 1 trailhead/gateway sign with											
	interpretation, 2 waste receptacles, 1 water fountain and 1											
	pedestrian light	Lump Su	m			\$	35,000					
	Design & Engineering at 18%					\$	6,300					
	Contingency at 10%					\$	3,500					
	EE Subtotal					\$	44,800					
GG	Greenway (208th St W to McGuire M.S.)											
	NEW TRAIL	2,300	Ln Ft	\$	60	\$	138,000					
	Signage / Wayfinding	2,300	Ln Ft	\$	2	\$	4,600					\$ 151,800
	Landscaping / Habitat Management	2,300	Ln Ft	\$	10	\$	23,000					131,660
	Site Furnishings	2,300	Liiii	\$	4		9,200					
	Land Protection	1,800	Ln Ft	\$	90	\$	162,000					
	Design & Engineering at 18%	.,000		H*	,,,	\$	60,624					
-	Contingency at 10%	 	#	#		\$	33,680					
\vdash	GG Subtotal		-	#		\$	431,104	ć				
	GG Sabtotal					,	731,104	٠				
	First Priority Subtotal					\$	475,904					
			-	1		Ť	., 5,554	ć	1,000,024			
	Second Priority Subtotal	-		-		-		\$	1,089,024			
	Grade-separated crossings Subtotal		<u></u>							\$	1,345,000	
	3			11 -		II —		1 -				
						\$					2.909.928	
	Segment 3 Subtotal					\$					2,909,928	



		1	П	П		Г		TOTAL			
						 	1	TOTAL	GR/	DE SEPARATED	
ITEM	DESCRIPTION	QTY	UNIT	UNIT	COST		1ST PRIORITY	2ND PRIORITY		CROSSINGS	NOTES
SEGME	NT 4: McGuire Middle School to Rambling R	liver Par	k/Trailhe	ead							
НН	Greenway (McGuire M.S. to Hamburg Ave)										
	NEW TRAIL	4,500		\$	60	\$	270,000				
	Signage / Wayfinding	4,500		\$	2	\$	9,000				
	Landscaping / Habitat Management	4,500	Ln Ft Ln Ft	\$	10 90	\$	45,000 58,500				
	Land Protection Site Furnishings	650 4,500	Ln Ft	\$	4	\$	18,000				
	Design & Engineering at 18%	4,500		~	-	\$	72,090				
	Contingency at 10%					\$	40,050				
	HH Subtotal					\$	512,640				
II	Grade separated crossing at Hamburg Ave					Ť	312,010				
••	Underpass	Lump su	m m						\$	378,906	
	Design & Engineering at 18%	·							\$	68,203	
	Contingency at 10%								\$	37,891	
	II Subtotal								\$	485,000	
JJ	Greenway (Hamburg Ave to Cedar Ave)										
	NEW TRAIL	2,750	Ln Ft	\$	60	\$	165,000				
	Signage / Wayfinding	2,750	Ln Ft	\$	2	\$	5,500				
	Landscaping / Habitat Management	2,750		\$	10	\$	27,500				
-	Land Protection	1,075	Ln Ft	\$	90	\$	96,750				
-	Site Furnishings	2,750		\$	4	\$	11,000				
-	Design & Engineering at 18% Contingency at 10%					\$	55,035 30,575				
						\$					
VV	JJ Subtotal					>	391,360				
KK	Grade separated crossing at Cedar Ave									505.450	
	Underpass	Lump su	m II			-			\$	605,469	
	Design & Engineering at 18% Contingency at 10%								\$	108,984 60,547	
	KK Subtotal								\$		
									Þ	775,000	
LL	Greenway (Cedar Ave to Flagstaff Ave)	6.450					250,000				
	NEW TRAIL Signage / Wayfinding	6,150 6,150		\$	60	\$	369,000 12,300				
	Landscaping / Habitat Management	6,150		\$	10	\$	61,500				
	Land Protection	2,700		\$	90	\$	243,000				
	Site Furnishings	6,150		\$	4	\$	24,600				
	Design & Engineering at 18%					\$	127,872				
	Contingency at 10%					\$	71,040				
	LL Subtotal					\$	909,312				
MM	Grade separated crossing at Flagstaff Ave										
	Grade separated crossing	Lump su	m						\$	390,625	
	Design & Engineering at 18%								\$	70,313	
	Contingency at 10%								\$	39,063	Use Existing Bridge
	MM Subtotal								\$	500,000	
NN	Gateway at Flagstaff Ave										
	interpretation, 2 waste receptacles, 1 water fountain and 1	Lump Su	m			\$	35,000				
	Design & Engineering at 18%					\$	6,300				
	Contingency at 10%					\$	3,500				
	NN Subtotal					\$	44,800				
00	Greenway (From Flagstaff Ave along South (
	NEW TRAIL		Ln Ft	\$	60	\$	264,000				
-	Signage / Wayfinding Landscaping / Habitat Management		Ln Ft	\$	10		8,800				
	Landscaping / Habitat Management Land Protection	4,400	Ln Ft Ln Ft	\$	10 90	\$	44,000 396,000				
	Site Furnishings	4,400		\$	4	\$	17,600				
	Design & Engineering at 18%	,		ll .	•	\$	131,472				
	Contingency at 10%		l			\$	73,040				
	00 Subtotal					\$	934,912				
PP	Grade separated crossing at Pilot Knob Rd E	xtension				Ť					
	Grade separated crossing	Lump su							\$	468,750	
	Design & Engineering at 18%								\$	84,375	Constructed as part of planned road
	Contingency at 10%								\$	46,875	extension
	QQ Subtotal						П		\$	600,000	
QQ	Greenway (Along South Creek to Spruce St)										
	NEW TRAIL	5,250	Ln Ft	\$	60	\$	315,000				
	Signage / Wayfinding		Ln Ft	\$	2	\$	10,500				
	Landscaping / Habitat Management		Ln Ft	\$	10	\$	52,500				
<u> </u>	Land Protection	5,250	Ln Ft	\$	90	\$	472,500		ļ		
<u> </u>	Site Furnishings	5,250	-	\$	4	_	21,000				
-	Design & Engineering at 18% Contingency at 10%					\$	156,870 87,150				
				-		\$					
	RR Subtotal	1	11	II		Þ	1,115,520		L		



			1	I					TOTAL			
										GRAI	DE SEPARATED	
ITEM	DESCRIPTION	QTY	UNIT	UNIT	COST	1	ST PRIORITY	2N	D PRIORITY		ROSSINGS	NOTES
RR	Gateway at Spruce St											
	interpretation, 2 waste receptacles, 1 water fountain and 1	Lump Su	ım					\$	35,000			
	Design & Engineering at 18% Contingency at 10%							\$	6,300			
	++							\$	3,500			
	RR Subtotal		<u> </u>					\$	44,800			
SS	Greenway (Along Spruce St to Spruce St/Sou											
	NEW TRAIL	1,000	Ln Ft Ln Ft	\$	60 2	\$	60,000					
	Signage / Wayfinding Landscaping / Habitat Management	1,000	4	\$	10	\$	2,000 10,000					
	Site Furnishings	1,000	LITT	\$	4	\$	4,000					
	Design & Engineering at 18%	1,000		7	-	\$	13,680					
	Contingency at 10%					\$	7,600					
	SS Subtotal					Ś	97,280					
TT	Grade separated crossing at Spruce St/Sout	h Crook B	Pridae				37,200					
• •	Grade separated crossing	Lump su								\$	8,400	
	Design & Engineering at 18%	Eurip 3u	1							\$	1,512	
	Contingency at 10%									\$	840	Use Existing Bridge
	TT Subtotal			t						\$	10,752	
UU	Greenway (Along South Creek)									-	. 0,7 32	
30	NEW TRAIL	600	Ln Ft	\$	60	\$	36,000					
	Signage / Wayfinding	600	Ln Ft	\$	2	\$	1,200					
	Landscaping / Habitat Management	600	_	\$	10	\$	6,000					
	Site Furnishings	600		\$	4	\$	2,400					
	Design & Engineering at 18%					\$	8,208					
	Contingency at 10%					\$	4,560					
	UU Subtotal					\$	58,368					
VV	Grade separated crossing at Denmark Ave/S	outh Cre	ek Bridge	2			-					
	Grade separated crossing	Lump su								\$	12,400	
	Design & Engineering at 18%									\$	2,232	
	Contingency at 10%									\$	1,240	Use Existing Bridge
	VV Subtotal									\$	15,872	
ww	Greenway (Denmark Ave along South Creek	3)										
	NEW TRAIL	300	Ln Ft	\$	60	\$	18,000					
	Signage / Wayfinding	300	Ln Ft	\$	2	\$	600					
	Landscaping / Habitat Management	300	Ln Ft	\$	10	\$	3,000					
	Site Furnishings	300		\$	4	\$	1,200					
	Design & Engineering at 18%					\$	4,104					
	Contingency at 10%					\$	2,280					
	WW Subtotal					\$	29,184					
XX	Greenway (to Rambling River Trailhead)											
	NEW TRAIL	350		\$	60			\$	21,000			
	Signage / Wayfinding	350	Ln Ft	\$	2			\$	700			
	Landscaping / Habitat Management	350	Ln Ft	\$	10			\$	3,500			
	Site Furnishings	350	1	\$	4			\$	1,400			
	Design & Engineering at 18% Contingency at 10%	+	1	-		-		\$	4,788 2,660			
\/\/	XX Subtotal							\$	34,048			
YY	Rambling River Trailhead	lum C										
	shelter and restrooms, signage, waste receptacles, water fountain and Design & Engineering at 18%	Lump Su	III)	1								
	C+i+ 100/	-										Included in North Creek Greenway
	Contingency at 10%		1	-								cost estimate
	YY Subtotal											
	First Priority Subtotal					\$	4,093,376					
	Second Priority Subtotal		1	l		Ė		\$	78,848			
			1	l				-	, 0,0 10	\$	2 204 424	
	Grade-separated crossings Subtotal	1	1	-						ş	2,386,624	
	0		1	1								
	Segment 4 Subtotal	1	1	<u> </u>		\$				(5,558,848	
	1		1	-		-						
	Final Bulanita Contact	1	1	1			7 400 301					
	First Priority Subtotal		1	1		\$	7,498,304					
			II .	11		1			2 450 422			
	Second Priority Subtotal			H				\$	2,450,432			
	Second Priority Subtotal Grade-separated crossings Subtotal							,	2,430,432	\$	5,711,624	



Table 74. Lake Marion Greenway Operations and Maintenance Cost Estimates

				An	•	erations and enance			ance/	Facility ent		
								railheads, eve				
ITEM DES	CRIPTION	QTY	UNIT	UNIT	COST	SUBTOTAL	UN	IIT COST	SU	IBTOTAL	TOTAL	
SEGMENT 1	: Rudy Kramer Nature Preserve to Kelleher Park											
Trailhe	ad at MN River Regional Greenway (Included in MN River Greenway Master Plan)	1.00	LS	\$	-	\$ -	\$	-	\$	-	\$	-
Trail Co	orridor and Gateways	4.51	Miles	\$	7,500	\$ 33,825	\$	15,000	\$	67,650	\$	101,475
Grade S	Separated Crossings - Underpass	2.00	EA	\$	3,000	\$ 6,000	\$	10,000	\$	20,000	\$	26,000
	1 Subtotal					\$ 39,825			\$	87,650	\$	127,475
SEGMENT 2	: Kelleher Park to Interstate 35 at Casperson Park											
Trail Co	orridor and Gateways (Greenway through Scott Co. to be operated by 3 Rivers Park District / Scott County)	3.00	Miles	\$	7,500	\$ 22,500		15,000	\$	45,000	\$	67,500
Trailhe	ad at North Murphy Hanrehan Park (Trailhead operated by 3 Rivers Park District)	1.00	LS	\$	-	\$ -	\$	-	\$	-	\$	=
Trailhe	ad at Ritter Farm Park	1.00	LS	\$	15,000	\$ 15,000	\$	20,000	\$	20,000	\$	35,000
Grade S	Separated Crossings - Underpass	1.00	EA	\$	3,000	\$ 3,000	\$	10,000	\$	10,000	\$	13,000
	2 Subtotal					\$ 40,500			\$	75,000	\$	80,500
SEGMENT 3	: Interstate 35 at Casperson Park to McGuire Middle School											
Trailhe	ad at Antlers Park	1.00	LS	\$	15,000	\$ 15,000	\$	20,000	\$	20,000	\$	35,000
Trail Co	orridor and Gateways	3.90	Miles	\$	7,500	\$ 29,250	\$	15,000	\$	58,500	\$	87,750
Grade S	Separated Crossings - Underpass	4.00	EA	\$	3,000	\$ 12,000	\$	10,000	\$	40,000	\$	52,000
	3 Subtotal					\$ 56,250			\$	118,500	\$	174,750
SEGMENT 4	: McGuire Middle School to Rambling River Park/Trailhead											
Trailhe	ad Rambling River (Included in North Creek Greenway cost estimate)	1.00	LS	\$	15,000	\$ -	\$	20,000	\$	-	\$	-
Trail Co	orridor and Gateways	4.97	Miles	\$	7,500	\$ 37,275	\$	15,000	\$	74,550	\$	111,825
Grade S	Separated Crossings - Underpass	6.00	EA	\$	3,000	\$ 18,000	\$	10,000	\$	60,000	\$	78,000
	4 Subtotal					\$ 55,275			\$	134,550	\$	189,825
	GREENWAY TOTAL					\$ 191,850			\$	415,700	\$	572,550



Table 75. Lake Marion Greenway Natural Resources Investments - Partner Opportunities

Sunset Pond Support prairie restoration work underway by the City Plant native vegetation buffer around stormwater pond at SE corner of Judicial Rd and Southcross Dr. City of Burnsville Ci
Kraemer Quarry / Burnsville Landfill Manage buckthorn Monitor floodplain forest regeneration Rudy Kraemer Nature Preserve Continue buckthorn management and native habitat restoration work by City of Burnsville (assume shared costs) City of Burnsville Kelleher Park City of Burnsville
Kraemer Quarry / Burnsville Landfill Manage buckthorn Monitor floodplain forest regeneration Rudy Kraemer Nature Preserve Continue buckthorn management and native habitat restoration work by City of Burnsville (assume shared costs) Sunset Pond Support prairie restoration work underway by the City Plant native vegetation buffer around stormwater pond at SE corner of Judicial Rd and Southcross Dr. Kelleher Park Support vegetation management and restoration work underway by the City City of Burnsville City of Burnsville
Continue buckthorn management and native habitat restoration work by City of Burnsville (assume shared costs) Sunset Pond Support prairie restoration work underway by the City Plant native vegetation buffer around stormwater pond at SE corner of Judicial Rd and Southcross Dr. Kelleher Park Support vegetation management and restoration work underway by the City City of Burnsville City of Burnsville
Continue buckthorn management and native habitat restoration work by City of Burnsville (assume shared costs) Sunset Pond Support prairie restoration work underway by the City Plant native vegetation buffer around stormwater pond at SE corner of Judicial Rd and Southcross Dr. Kelleher Park Support vegetation management and restoration work underway by the City City of Burnsville City of Burnsville
Support prairie restoration work underway by the City Plant native vegetation buffer around stormwater pond at SE corner of Judicial Rd and Southcross Dr. Kelleher Park Support vegetation management and restoration work underway by the City City of Burnsville
Support vegetation management and restoration work underway by the City City of Burnsville
Subtotal
SEGMENT 2: Murphy-Hanrehan Park Reserve to Lake Marion
Murphy-Hanrehan Regional Park Reserve Support existing restoration and preservation projects Three Rivers Park District
Ritter Farm Park Manage invasive vegetation throughout park Restore native vegetation within park City of Lakeville
Subtotal
SEGMENT 3: Lake Marion to Downtown Lakeville
Lake Marion City of Lakeville, Dakota County and Water Conservation Distriction Restore shorelines where feasible (assumes cost-share for homeowners) homeowners
Subtotal
SEGMENT 4: South Creek (Downtown Lakeville to Downtown Farmington)
South Creek
Continue remeandering work underway by VRWJPO City of Farmington, Dakota Count
Maintain stream buffer over time as surrounding areas are developed and Water Conservation Distriver Watershed JP
Vermillion River and Rambling River Park MnDNR
Natural Resource Management



LAKE MARION GREENWAY MASTER PLAN

2013





Public and Stakeholder Outreach Summary

Public and stakeholder input was gathered in December 2012 and January 2013 during the alternative exploration phase of the project and again in spring 2013 to get feedback on the draft plan. Input involved: presentations to commissions and city councils in each community the greenway travels through, community open houses and individual meetings with key stakeholders. A summary of public comments and stakeholder meetings follows.

Open house No. 1

Public input was gathered at an open house at the Lakeville Water Treatment Facility, on Jan. 24, 2013. Dakota County staff notified all landowners within 500 feet the greenway by mail with a brochure outlining the project and an invitation to the open house.

More than 80 people attended the open ouses, including property owners, interested residents and public officials. Most attendees had received mailings notifying them of the open house. Many property owners came with questions and concerns, but overall there was support for the greenways. In addition to the open house, the plans, along with the ability to comment online, were posted on the project Web site in mid-January.

Overall, the comments were positive about the greenway, but several questions were asked about the specific alignment options. Attendees expressed interest in both on-road and off-road trails for varying reasons, including cost, maintenance, access and experience.

In addition to public input, individual meetings were held with key stakeholders to provide project information and get feedback on alternative alignments.

Open house comments

Most comments were from residents of Lakeville or Burnsville, who had received direct mailings about the open house. Many meeting attendees like the idea of a greenway trail along the rail corridor and expressed interested in helping that come to reality. A few attendees raised concerns about property values and adjacency issues.



▶ General comments:

- » The investment will have huge and long-term benefits! Completing the 'regional loop' will drive tourism. Thanks for your work!
- » Work with LFE (Lakeville Friends of the Environment) for a Pedal the Parks to promote this greenway
- » Thank you for providing the opportunity for community education, awareness and feedback. Your presentation was well designed.
- » I think the idea for a greenway is an outstanding one. It adds something to our community that is beneficial and worthwhile and that will last and be available for generations. Hats off to the planners. Now if you could just get rid of the railroad cars parked end-to-end in Lakeville, that would be great! Thank you!

► Transportation related comments:

- » Work hard to acquire rights to Progressive Rail Corridor perfect path, grade and access for wetlands.
- » Ensure that trail alignment through Ritter Farm Park does not disrupt or replace existing soft surface trail network.
- » Upgrade of existing trailhead at Ritter Farm Park would be welcome especially drinking water and restrooms.
- » Keep in contact with Canadian Pacific acquiring the railroad track for a trail.
- » Love the tracks by Orchard Lake beautiful walk.
- » I live along the railroad tracks in Lakeville would love to have trails in place of the tracks!
- » The CP railway is perfect for a project like this. If I was in charge, I'd make negotiating with the rail company a top priority.
- » This is an exciting opportunity the connection between Farmington and Lakeville will connect two fun downtowns. I am super disappointed there does not seem to be much hope of access to the rail line through Lakeville and Burnsville seems like a missed opportunity to improve living standards for both populations.
- » It would be nice to have a grade separated crossing to get across Dodd on either the north or south route.
- » Please leave the railway for commuter rail.
- » Please develop a long trail for road biking and longer trips need this to be competitive with other communities/counties.
- » Our house backs up to the railroad we have to live with looking at tall weeds and grass all summer long. The RR does not mow or get rid of weeds. It is an eye sore. It would be wonderful to have a neatly kept trail there instead. Would be glad to help!
- » We love the idea of using the rail tracks along Hwy 50. We back up to them. What can we do to help with this concern? What a great addition to all of these communities! (Pam Steinhagen 952-469-4631)
- » Very excited to have a trail that circumnavigates Lake Marion. A walking trail to allow connection between Casperson Park and 185th would be a huge benefit to walkers south of 185th. So excited things like this are being considered.
- » We would love to see the rail tracks used with the Lake Marion part, it would help with so many things, no parked rail cars, more maintenance along County rd 50 a main cooridor for many, our property values would increase, more people would come to live and play here. It may help with the 185th round a bout and corridor expansion as well. We welcome this and will put every effort into seeing this through.
- » I would like to see the old railway converted into a trail. The right-of-way is already there (60 feet) It just makes sense. The railway also travels through some very scenic areas that would be neat when converted to a greenway trail.
- » I live along the railroad tracks next to Lake Marion and we would LOVE LOVE a greenway in place of the railroad tracks. Please do all possible to obtain this route! Progressive Rail, who is leasing the track from CP, has not been a good neighbor to us and we feel a greenway would be a huge win for the City and the County. You are our only hope!

► Natural resources comments:

- » What a great use of the beautiful natural resources Dakota County and Lakeville have.
- » As a nature oriented project, I'd try to stay away from some of the more 'futuristic' ideas on display. Think natural!
- » Natural resources and water quality: You have considered your existing resources well.
- » At minimum, I know they will be higher than the railroad's. The railroad in Lakeville seems to have no problem



about polluting the area and Lake Marion watershed area. Water quality should be at a high maintenance level IAW EPA and MPCA standards, at a minimum. Same for natural resources -- for example wooded areas. A minimum of tree damage should be the maximum acceptable level for building the trails. If there are views of natural or scenic areas in a neighborhood, the trail should not obstruct these areas. That is, no walls, giant buffers like evergreens and the like ... that would obstruct homeowners and community views of a pond or lake area (or wooded area for that matter).

► Greenway amenities comments:

- » Family 1 is preferred for furnishings in keeping with the nature and contemporary design mindsets.
- » Please plant more trees along the current paths and include funding for trees and landscaping along future paths.
- » I think a north-woods like trail would be cool. Rustic signs, etc. As to lighting I would keep that to a minimum, except for intersections where the trail may cross a road. If the trail is through or adjacent to residential areas the lighting should not interfere with the natural beauty of the area and may be unnecessary. The starts should still be viewable at night (when the trail will probably be closed anyway -- for safety and noise purposes).
- » Interpretation should accentuate the natural and or community surroundings. It should add, not take away from the environment of the area it is passing through.

Stakeholder meetings

► City of Lakeville

City Staff – 12-4-12

- » County Staff and HKGi met with City Staff to introduce the project, discuss issues surrounding the CP Rail Line and public and stakeholder outreach
- » Park and Recreation Commission 1/2/13
- » Dakota County Staff presented an overview of the project to the Parks and Recreation Commission. The Planning Commission and City Council were invited to the meeting.

► Three Rivers Park District - 12-17-12

Lil Leatham, HKGi

John Mertens, Dakota County, Senior Planner

Kurt Chatfield, Dakota County, Director of Planning

Jonathan Valming, Three Rivers Park District, Associate Superintendent of Planning

John Barten, Three Rivers Park District Director of Natural Resources

Kelly Grissman, Three Rivers Park District Director of Planning

Ann Rexine, Three Rivers Park District, Planner

Andy Hilvgard, Scott County

Mark Themig, Scott County

- » Murphy-Hanrehan Park Reserve is one of the highest quality natural resources in the Metro Area. Three Rivers Park District currently does not have paved trail uses. The park master plan says: "Regional trails can be accommodated without significant impacts to the natural resources or the semi primitive character of the park reserve if they are located on the periphery. With the exception of the proposed trailhead developments outlined above, there are no additional regional trail development projects proposed in this Master Plan. Three Rivers Park District will continue to coordinate with Dakota and Scott Counties on regional trail planning"
- » Three Rivers Park District would like for the Dakota County Regional Trail to connect to a Scott County Trail at the southern boundary of the park. The connection to the Minnesota River Greenway can be made through a future Scott County trail, to be master planned by Scott County west of the park.



- » If the Lake Marion-South Creek Greenway Master Plan is aligned with The Murphy-Hanrehan Park Reserve Master Plan, the Three Rivers Park District Board should be able to offer a resolution of support for the Greenway.
- » When the inoldings on Sunset Lake Blvd/Murphy Lake Blvd are acquired, the gravel road will be restored to natural vegetation. There is no opportunity for a future paved trail on these roads. Sunset Lake Road (gravel) and Hanrehan Lake Blvd (paved) are Scott County Roads.
- » The CP rail option should continue to be pursued, it would make a great trail corridor.

► MOM Brands - 1-9-2013

Paul Holzhueter, Vice President of Business Development

Pauline Weigrefe, Corporate Facilities Manager

- » Overall positive about the Greenway Concept
- » Existing 50' conservation easement with City of Lakeville may allow for trail corridor
- » Concern about neighbors on north side of property line based on previous development projects
- » Could be an asset to the employees at MOM Brands and adjacent businesses
- » Liability issues would need to be addressed
- » MOM Brands (Paul) will be sending a notice/letter to adjacent property owners explaining that Dakota County is studying the possibility of a greenway through the MOM Brands business campus.
- » Possible alternatives exist to minimize impacts on north neighbors

► Lakeville School District - 1-16-2013

Dr. Lisa Snyder, Superintendent

Canadian Pacific Railroad

- » Consistent with previous correspondence and discussions, Canadian Pacific does not support any proposed, or hoped-for, use of its rail corridor for trail or recreational purposes.
- » Canadian Pacific's long term expectations for this corridor are that freight traffic will resume and over time increase in frequency, train length and speed. Recreational use along or near the freight operations would be entirely inconsistent with the future of the freight line.
- » Additional public spending on planning or studies for inclusion of Canadian Pacific's rail corridor into recreation trails would be more productively spent on economic planning and industrial development that would facilitate the increase and viability of rail traffic on this corridor
- » Canadian Pacific is not opposed to accommodating crossings of the railroad where needed. However, ample time and budgets should be allocated for these possibilities. Public projects, such as crossings, demand considerable amount of railroad engineering time and review. As a prerequisite to commencement of a crossing project, a service agreement will
- We are happy to see that our previous comments were reflected in the MP (Page 30). However, we believe that labeling of Canadian Pacific's freight line as a "potential" or "possible" trail, or as a "long term opportunity" is biased and should be eliminated from all materials and exhibits. We understand this would not apply to comments and opinions submitted by individuals. We have been strived to be very clear that we do not support the proposals being discussed and do not believe that there is any potential or opportunity to use our freight line for a recreational trail.
- » As clarification, the railroad should be referred to as "Canadian Pacific Railway," or simply "Canadian Pacific." The



- corridor should be labeled as the MN&S line or the Dan Patch line, although the latter doesn't seem to be as familiar to many people as it once was.
- » These comments are based upon a very brief review of the April 18 draft of the Lake Marion Master Plan. They are not entirely comprehensive nor to be taken as Canadian Pacific's final comments.

▶ South Creek Landowners

Public review draft review process

The Draft Lake Marion Greenway Master Plan was released for public review May 21st, 2013. Public outreach was conducted from May 21st – July 24th. The Draft Master Plan, along with an executive summary and summary presentation was available for review and comment on the project website; 2 public open houses were held; presentations were made to the City of Burnsville, the City of Lakeville, the City of Farmington and the Vermillion River Watershed JPO.

Open House No. 2

Residents within 500 feet of the greenway alignment were again notified of the open house by mail, this one on May 28 at the Lakeville Water Treatment Facility.

Open house comments

- ▶ Move trail off Lake Marion-southside all together. Current trail on southside of Lake Marion should be referred to as "existing easement" instead of public property in plans. This should be updated in plans to reduce confusion. Same trail should maintain existing hours-5am to 10pm and should not be open for longer periods of time.
- ▶ Eliminate south shore of Lake Marion as part of the trail alignment. No additional design features along Juno Trailway
- ► Current trail southwest side lake Marion is open 5:00 am -10:00 pm. Would like to see this stay this way. Trail is on easements and was mentioned that it was public property (please reword). Move trail off Lake Marion
- ▶ I am concerned about the 24 hour accessibility of the trail when so many homes are near this path. The concern for noise at night and people walking through private property at night. What is liability to property owners for this project? I am opposed to any physical sign, bench or plantings along the private beaches on the so side of Lake Marion. It would concern us to have trail users loiter along our property with our children playing in the yard, or family swim time at the private beach. The Green space between the trail and shoreline is used for dock and lift storage in the wintertime. What is anticipated increase in path usage with this project? Residents deserve to know the impact. This is privately owned property with a 20' city easement for "drainage & utility". Be aware that private owners have electric line s and possibly irrigation pipes under the path.
- Our property is on Juno trail: 1) We are concerned about traffic and light at night especially. Can we close the trail at night? We are concerned about the safety our grandchildren, for instance, tenting outside overnight. 2) Will we be indemnified against accidents on our property? 3) We would want a say in anything impacting the way we use our property 4) We would not want any impediments between us and the lake.

Outreach to local jurisdictions

The draft master plan was also presented at city council and commission meetings for each community in the corridor to solicit input, resolve issues of concern and ultimately obtain resolutions of support. The following meetings were held.



- **▶** Burnsville
 - » July 9 Burnsville Joint City Council/Park and Recreation Commission Meeting (resolution of support adopted)
- ► Lakeville
 - » June 5 –Parks Recreation and Natural Resources Commission
 - » June-City Council Work Session
 - » July 1 Lakeville City Council (resolution of support adopted)
- Farmington
 - » June 17 –City Council (resolution of support adopted)
- ► Scott County / Three Rivers Park District
 - » July 8 Joint Letter of Support
- Vermillion River Watershed Joint Powers Board
 - » June 27th Presentation (resolution of support adopted)

Public review draft — input summary and master plan changes

Input on the draft master plan has been generally supportive though several concerns have been raised. The following is a summary of concerns raised during the public review period and master plan document changes that will address those concerns.

Burnsville

No specific concerns

No Master Plan changes

Lakeville

- ▶ Many residents who live along Juno Trail attended the May 28 open house and voiced the following concerns:
 - » Reference to area as "other public ownership" is incorrect, it is an easement on private land
 - » Master plan indicating the greenway will be open 24 hours a day
 - » Implication that Dakota County will acquire a 30-foot trail easement (the current trail easement is 20 feet in the Juno Trail area)
 - » Design changes benches, lighting, landscaping, signage would be on private property, obstruct lake views, or hinder private dock installation/removal
 - » Enforcement leash dogs, curfew, crime
 - » Liability



- » Increased use
- ► The need for a grade separated crossing at Dodd Road south of 207th street due to proximity to a school, traffic speed and volume
- ► Interest in water quality improvements for the pond near 207th and Dodd Road
- ► Concern about the soft surface trail alignments in Ritter Farm Park
- ► Location for model airplane flying

Plan changes based on input:

- ▶ Related to Juno Trail area:
 - » A new category, "existing easement on private land," has been created and the ownership maps changed
 - » Greenway will be open according to current city ordinances
 - » Plan language will clarify that for the Juno Trail section the greenway will utilize the existing 20-foot easement
 - » Plan language clarifies that if changes are made to Juno Trail, the county and city will work with residents on design details
 - » Plan language will clarify that the county and city will outline responsibilities for enforcement in a future joint powers agreement
- ► A grade separated crossing will be added to Dodd Road south of 207th Street
 - » Plan language was added that the alignment through Ritter Farm Park is designed in a manner that is environmentally sensitive and avoids or mitigates impacts to existing hiking trails. The alignment for Ritter Farm has been generalized with a note indicating alignment will be determined with future study.

Farmington

No master plan changes



RESOLUTION NO. 13-6137

CITY OF BURNSVILLE, MINNESOTA

RESOLUTION SUPPORTING DAKOTA COUNTY'S PLANS FOR LAKE MARION – SOUTH CREEK REGIONAL GREENWAY

WHEREAS, the City of Burnsville has been working with Dakota County on the development of a master plan for a regional greenway project that would bring new recreational and open space opportunities to the City of Burnsville; and

WHEREAS, the unique approach to trail design outlined in the master plan integrates functional use, scenic value, historic and environmental interpretation, water quality improvements, and ecological restoration; and

WHEREAS, the proposed greenway is an identified unit of the Metropolitan Regional Park System Plan and will establish a link between the Minnesota River and the Vermillion River through the communities of Burnsville, Lakeville, and Farmington as well as a portion in Scott County; and

WHEREAS, the master plan was developed in accordance with the 2030 Regional Parks Policy Plan; and

WHEREAS, the alignment identified in the master plan was developed in accordance with City of Burnsville's 2030 Comprehensive Plan; and

WHEREAS, the development and operation of the regional greenway will be a cooperative effort between Dakota County and the communities through which it extends.

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Burnsville, Minnesota adopts this resolution supporting Dakota County's Plans for the Lake Marion – South Creek Regional Greenway.

Passed and duly adopted by the City Council of the City of Burnsville this 9th day of July, 2013.

abeth B. Kautz, Mayor

TEST:

Macheal Brooks, City Clerk



July 8, 2013

Mr. John Mertens Dakota County Office of Planning and Analysis 14955 Galaxie Avenue Apple Valley, MN 55124

RE: Letter of Support for the Lake Marion-South Creek Greenway Master Plan

Dear Mr. Mertens:

The Three Rivers Park District (Park District)/ Scott County partnership supports Dakota County's *Lake Marion-South Creek Greenway Master Plan*. The proposed 20-mile greenway is an identified unit of the Metropolitan Regional Parks System Plan, developed in accordance with the Metropolitan Council 2030 Regional Parks Policy Plan, and will establish a link between the Minnesota and Vermillion Rivers through the communities of Burnsville, Lakeville, and Farmington - as well as a portion in Scott County.

The Lake Marion-South Creek Greenway segment in Scott County is proposed to connect through Murphy-Hanrehan Park Reserve. This park reserve protects one of the last large mature mesic oak forest in the Twin Cities metro area and the second largest prairie in the Park District while offering a diversity of recreational opportunities through its semi-primitive wilderness setting.

The Park District's *Murphy-Hanrehan Park Reserve Master Plan* (2008) supports adjacent regional trail planning efforts and encourages continued coordination with Dakota and Scott County to realize a larger vision for recreational connectivity in this area of the metro. The master plan supports regional trail development on the park reserve's periphery, under the premise that it can be accommodated without significant impacts to natural resources of the semi primitive character of Murphy-Hanrehan Park Reserve. In turn, the regional trail network is intended to provide increased access and visitation to the park reserve.

As part of the Lake Marion-South Creek Greenway Master Plan process, it was determined that the Lake Marion-South Creek Greenway trail alignment through Murphy-Hanrehan Park Reserve will be master planned by the Three Rivers Park District/Scott County partnership in the future.

Kelly Grissman
Director of Planning
Three Rivers Park District

Mark Themig General Manager Regional Parks of Scott County

Mark Them

Scott County Government Center, 200 Fourth Avenue West, Shakopee, Minnesota 55379-1220 Information 952.496.8475 • Fax 952.496.8496 • www.ThreeRiversParks.org • www.co.scott.mn.us/parkstrails



RESOLUTION NO. R28-13

A RESOLUTION SUPPORTING DAKOTA COUNTY'S MASTER PLAN FOR THE LAKE MARION – SOUTH CREEK REGIONAL GREENWAY

Pursuant to due call and notice thereof, a regular meeting of the City Council of the City of Farmington, Minnesota, was held in the Council Chambers of said City on the 17th day of June, 2013 at 7:00 p.m.

Members Present: Larson, Bartholomay, Bonar

Members Absent: Donnelly, Fogarty

Member Bonar introduced and Member Bartholomay seconded the following:

WHEREAS, the City of Farmington staff members have been working with Dakota County on the development of a master plan for a regional greenway project that would bring new recreational and open space opportunities to the City of Farmington; and,

whereas, the unique approach to trail design outlined in the regional greenway master plan will integrate functional use, scenic value, historic and environmental interpretation, water quality improvements, and ecological restoration; and,

WHEREAS, the proposed regional greenway is an identified unit of the Metropolitan Regional Park System Plan and will establish a link between the Minnesota River and the Vermillion River through the communities of Burnsville, Lakeville and Farmington as well as a portion of Scott County; and,

WHEREAS, the regional greenway master plan was developed in accordance with the 2030 Regional Parks Policy Plan; and,

WHEREAS, the alignment is identified in the master plan with the City of Farmington's 2030 Comprehensive Plan; and,

WHEREAS, the development and operation of the regional greenway will be a cooperative effort between Dakota County and the communities through which the regional greenway extends.

NOW, THEREFORE, BE IT RESOLVED that the City of Farmington hereby adopts this resolution in support of Dakota County's master plan for the Lake Marion – South Creek Regional Greenway.

This resolution adopted by recorded vote of the Farmington City Council in open session on the 17th day of June, 2013.

Mayor

Attested to the 1846 day of June 2013.

City Administrator

SEAL



7d. Adopt a Resolution of Support for the Lake Marion – South Creek Regional Greenway

Meeting Date: 6/27/13
Item Type: Regular-Action
Contact: Travis Thiel
Telephone: 952-891-7546
Prepared by: Travis Thiel

Reviewed by: N/A N/A



PURPOSE/ACTION REQUESTED

Adopt a resolution of support for the Lake Marion-South Creek Regional Greenway

SUMMARY

Dakota County has completed a draft greenway master plan for the Lake Marion-South Creek regional greenway corridor. The master plan integrates the principles from the approved 2010 Dakota County Greenway Guidebook and the 2030 Greenway Vision established in the 2008 Dakota County Park System Plan. The staff requests the Vermillion River Watershed Joint Powers Board (VRWJPB) to adopt a resolution of support for the Lake Marion-South Creek Regional Greenway, which will be provided (along with other letters of support from partners) to the Metropolitan Council after the plan is adopted by the Dakota County Board of Commissioners.

The purpose of this master plan is to:

- Establish a vision for recreation, non-motorized transportation, habitat value, and water quality
- Determine preferred and alternate trail alignments
- Provide strategies for interpretation, resources stewardship, development, land acquisition, restoration, and operations
- Engage major landowners and agency partners
- Estimate project costs and determine priorities
- Satisfy requirements for Metropolitan Council regional destination trails and greenways

The draft plan has been developed with a consulting firm (HKGi) using a Technical Advisory Committee (TAC) with representatives from cities, the County, and other stakeholder agencies. The Lake Marion-South Creek Greenway is partly within the Vermillion River Watershed Joint Powers Organization (VRWJPO) and Dakota County staff has consulted with VRWJPO staff during plan development (see Attachment A). Highlights of the 23-mile Lake Marion-South Creek Regional Greenway within the watershed include:

- Extends from Minnesota River in Burnsville to the Vermillion River in Farmington
- Provides connection between downtown Farmington and downtown Lakeville
- Links 14 city parks through Burnsville, Lakeville, and Farmington

Public open houses were scheduled in June as part of the public review process. Following public review, staff will return to the Physical Development Committee in July to consider final plan adoption. The staff requests the VRWJPB to adopt a resolution of support for the Lake Marion-South Creek Regional Greenway.

EXPLANATION OF FISCAL/FTE IMPACT

No fiscal impact.

Vermillion River Watershed Joint Powers Organization Board Meeting June 27, 2013



CITY OF LAKEVILLE

RESOLUTION NO. 13-64

RESOLUTION SUPPORTING THE LAKE MARION-SOUTH CREEK REGIONAL GREENWAY

WHEREAS, the City of Lakeville has been working with Dakota County on the development of a master plan for a regional greenway project that would bring new recreational and open space opportunities to the City of Lakeville; and

WHEREAS, the unique approach to trail design outlined in the master plan integrates functional use, scenic value, historic and environmental interpretation, water quality improvements, and ecological restoration; and

WHEREAS, the proposed greenway is an identified unit of the Metropolitan Regional Park System Plan and will establish a link between the Minnesota River and the Vermillion River through the communities of Burnsville, Lakeville, and Farmington as well as a portion in Scott County; and

WHEREAS, the master plan was developed in accordance with the 2030 Regional Parks Policy Plan; and

WHEREAS, the alignment identified in the master plan was developed in accordance with City of Lakeville's 2030 Comprehensive Plan; and

WHEREAS, the development and operation of the regional greenway will be a cooperative effort between Dakota County and the communities through which it extends; and

NOW, THEREFORE, BE IT RESOLVED that the City of Lakeville adopts a resolution supporting Dakota County's Master Plan, in concept, for the Lake Marion–South Creek Regional Greenway.

DATED this 1st day of July, 2013

CITY OF LAKEVILLE

Matt Little, Mayor

Charlene Friedges, City Clerk



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LAKE MARION GREENWAY MASTER PLAN

2013





Alternatives analysis

Multiple alignment alternatives were evaluated for the Lake Marion Greenway. Alternatives were evaluated against nine criteria based on greenway performance goals outlined in the 2010 Dakota County Guidebook and on feasibility. The evaluation was presented to the technical advisory group and discussed, which resulted in elimination of some alternatives and suggestion of other alignments for consideration. These new alignments were evaluated and discussed with the TAG to determine the final alignments presented in the plan. This appendix contains the alternatives evaluated during the planning process.



Hoisington Koegler Group Inc.





To: Technical Advisory Group

From: HKGi

Subject: Lake Marion/South Creek

Draft Alternatives Analysis

Date: November 12, 2012

There are several alternative alignment possibilities for the Lake Marion-South Creek Regional Greenway. Each major alternative has been evaluated against 9 criteria based on greenway performance goals outlined in the 2010 Dakota County Greenway Guidebook and feasibility.

The Criteria are:

- 1. Follows natural resources and is away from roads
- 2. Opportunities for natural resource corridors, habitat and water quality enhancements
- 3. Access
- 4. User experience
- 5. Grade separated crossings
- 6. Distance between destinations
- 7. Current ownership
- 8. Timing and availability of lands
- 9. Natural resource constraints

Below is a summary of preliminary recommendations. Recommendations will be refined throughout the planning process based on TAG input, analysis of grade separated crossings (in process), meetings with key land owners/CP Railroad and public input. Attached is a map depicting the alternatives discussed and a detailed table comparing each criteria.

Alternatives 1-A and 1-B (see attached map)

Preliminary Recommendation: 1-B, dependent on land availability. If 1-B is feasible, local trail connections should be made to the Sunset Pond Park loop trail and to Judicial Way near Boulder's way

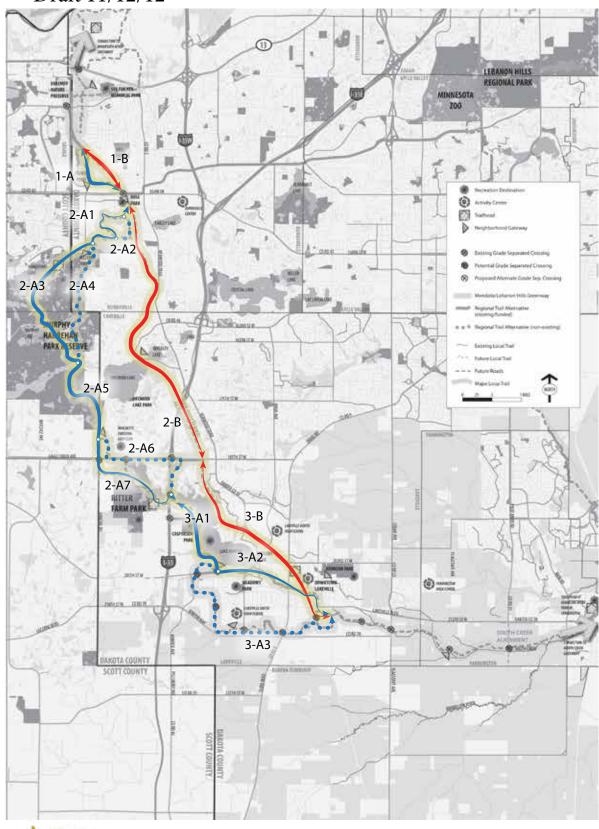
Alternatives 2-A and 2-B (see attached map)

Both alternatives have merits. 2-A better connects destinations and provides a more varied user experience but is less direct than 2-B. 2-B on the CP rail line is most direct, would be a continuous corridor, is close to residential areas, and trail construction would likely be less expensive (due to existing grade separated crossings and construction on a rail bed). Recommendation dependent on input from CP Rail.

Alternatives 3-A and 3-B (see attached map)

Preliminary Recommendation: 3-B, dependent on land availability. Based on connectivity to destinations, user experience, ease of construction (if land is available), and ability to complete a trail loop around Lake Marion in conjunction with 3-A1/A2. If CP rail land is not available, 3-A1/A2 is also a good option; it is already in place and follows the shore of Lake Marion providing an excellent user experience. Local trail connections provide links to destinations along 3-A3. Dependent on input from CP Rail.

Lake Marion/South Creek Greenway Alignment Alternatives Draft 11/12/12





Lake Marion-South Creek Regional Greenway – Alternative 1 Comparison Preliminary Draft for TAG discussion 11.12.12

Criteria	Alternative 1-A	Alternative 1-B
Follows natural resources and is away from roads Goal: away from roads 80% of the time	Less Desirable • 61 % away from the road, with much of the alignment being adjacent to open water and park space	Best Alternative Entire alignment is 100% away from road and adjacent to residential backyards on both sides.
Opportunities for wildlife/natural resources habitat, corridors, & water quality enhancement	Less Desirable Limited alignment does not connect natural resource patches and runs through urban areas Sunset Pond area is opportunity for shoreline restoration	Best Alternative High potential as a linear wildlife corridor, though the corridor width is limited (70'-100')
Access local trail connections, recreation destinations, activity centers	Best Alternative Links 4 destinations Sunset Pond Park – recreation destination Sue Fischer Memorial Park – recreation destination Private Park – south of County Road 42 Employment/commercial near County Road 42 Local sidewalks	Less Desirable Links 2 destinations Sue Fischer Memorial Park – recreation destination Private Park – south of County Road 42 Local sidewalks/other destinations via Burnsville Parkway
User experience setting, views, interpretive opportunities	Considerations Good option for user experience Sunset Pond Park and the loop trail around it provides an attractive user experience with enjoyable views, additionally there are opportunities for an interpretive stop	Considerations

	Grade Separated Crossings	Similar Conditions County Road 42, using existing railroad underpass	Similar Conditions County Road 42, using existing railroad underpass
	Criteria	Alternative 1-A	Alternative 1-B
	Distance between destinations	Less Desirable • Least direct, 1.3 miles between Sunset Pond Park and County Road 42	Best Alternative This alignment is the most direct, 1 mile between Sunset Pond Park and County Road 42
Feasibility	Current Ownership	Similar Conditions • 90% public ownership • 10% private (1 landholder – Ames Business Center LLP)	Similar Conditions • 100% Dan Patch Rail Corridor (1 landowner, C.P. rail)
ш.	Timing and Availability of lands		Dependent on willing landowners
	Natural resource constraints (e.g. slopes, wet soils)	Similar Conditions None known	Similar Conditions None known
	Preliminary Recomme	endation	
	1-B, dependent on land ava near Boulder's way	ilability. If 1-B is feasible, local trail connections should be ma	ade to the Sunset Pond Park loop trail and to Judicial Way



	Criteria	Alternati	ve 2-A	Alternative 2-B
	Follows natural resources and is away from roads Goal: away from roads 80%	Less Desirable • 55%-84%		Best Alternative • 95% away from roads
	of the time	2-A1 , 84%	2-A2 , 61%	
		2-A3 , 55% (rural character), within Murphy Hanrehan Regional Park Reserve	2-A4, 100% away from roads	
Criteria		2-A6 , 21%	2-A7 , 73%	
Greenwav Performance (Opportunities for wildlife/natural resources habitat and corridors & water quality enhancement	areas (Ritter Farm Park, N	and high quality natural resource Murphy Hanrehan Regional Park Ild be less continuous with larger ads/residential areas	Potential as a wildlife corridor, Dan Patch corridor connects lakes and wooded areas but protected corridor width would be limited to the RR right-of way (approx. 100') and the corridor
Greenwa		2-A1 , Limited, the alignment is fragmented by urban uses	2-A2 , Limited, the alignment is fragmented by urban uses	does not connect large upland patches.
		2-A3, High potential, a significant length runs through Murphy Hanrehan Park Reserve	2-A4, Highest potential, entire length runs through Murphy Hanrehan Park Reserve	
		2-A6, Very limited, most of the alignment runs along	2-A7, moderate to high, a significant portion of the alignment runs through Ritter Farm Park	

Access local trail connections, recreation destinations, activity centers	Best Alternative Links 3-4 Significant destinations including Lake Marion, Ritter Farm Park, and Murphy Hanrehan Park, but is further from residential areas		 Less Desirable Links 2 destinations Small park between Judicial Road and Highway 42 - Recreation Destination
	2-A1 Hollows Park Neighborhood Gateway	2-A2	 Lake Marion – Recreation Destination Is closer more residential areas
	2-A3 Murphy Hanrehan Park Reserve - Recreation Destination	2-A4 Murphy Hanrehan Park Reserve – Recreation Destination	
	2-A6 Ritter Farm Park – Recreation Destination Lake Marion	2-A7 Lake Marion	
User experience setting, views, interpretive opportunities	woodlands, grasslands, a	more varied landscape including nd near water-bodies and some on road or more suburban	Considerations Alignment travels narrower wooded corridor providing an enjoyable setting with views of Horseshoe Lake, Orchard Lake, Kingsley Lake, and several small ponds/wetlands afford
2-A1, Best: access to Hallows park, open space areas, and views of open water and wetlands 2-A2, Average: through some woodlands and near open water	desirable views, but is less varied than 2-A		
	2-A3, Best: through Murphy- Hanrehan Park Reserve, woodlands, grasslands, and near water/ wetlands; near more open water than alignment option 2-A4	2-A4, Best: through Murphy- Hanrehan Park Reserve, woodlands, grasslands, and near water-bodies and wetlands	
	2-A6, Very limited: most along a road	2-A7, Very high : through Ritter Farm Park, woodlands, grasslands, water/ wetlands	



	Criteria	Alterna	tive 2-A	Alternative 2-B
	Grade Separated Crossings	Less Desirable Two crossings needed (2-A7)		Best Alternative No new crossings needed
	Distance between destinations	Less Desirable • Between 8-9 miles		Best Alternative
		2-A1, comparable	2-A2, comparable	
		2-A3, less direct – 3 miles	2-A4, more direct – 2.5 miles	
		2-A6, comparable	2-A7, comparable	
ility	Current Ownership	Similar Conditions • 95% public ownership • 5% private (1-3 landowners)		Similar Conditions • 100% Dan Patch Rail Corridor (1 landowner)
Feasibility		2-A1 , 55% public, 45% private (2 owners)	2-A2 , 77% public, 23% private (1 owners)	
		2-A3 , 100% public	2-A4 , 100% public	
		2-A6 , 100% public	2-A7 , 90% public, 10% private (1 owner)	
	Timing and Availability of lands			Dependent on willing landowner

Criteria	Alternat	tive 2-A	Alternative 2-B	
Natural resource constraints (e.g. slopes, wet soils)	different locations as it pa	wetland complexes at several sses through Murphy-Hanrehan n Park, and other open space	Best Alternative None known, Dan Patch Corridor is straight a flat making trail construction straightforward	
	2-A1, southern portion runs through/adjacent to a wetland, mitigation/boardwalk may be needed	2-A2, none known		
	2-A3, crosses many wetland complexes	2-A4, crosses several wetland, however the crossings are shorter and less numerous than alignment 2-A3		
	2-A6 , alignment crosses two wetland complexes north of 185 th Street West	2-A7, This alignment crosses more and larger wetland complexes as it passes through Ritter Farm Park than alignment option 2-6A		
Considerations				

Both alternatives have merits. 2-A better connects destinations and provides a more varied user experience but is less direct than 2-B. 2-B on the CP rail line is most direct, would be a continuous corridor, is close to residential areas, and trail construction would likely be less expensive (due to existing grade separated crossings and construction on a rail bed). Recommendation dependent on input from CP Rail.



Timing and Availability of lands	Much of 3-A2 has a trail constructed already	Dependent on willing landowner
Natural resource constraints (e.g. slopes, wet soils)	Less Desirable	Best Alternative None known

Preliminary Recommendation

3-B based on connectivity to destinations, user experience, ease of construction (if land is available), and ability to complete a trail loop around Lake Marion in conjunction with 3-A1/A2. 3-A1/A2 is already in place and follows the shore of Lake Marion providing an excellent user experience and would form an excellent trail loop around Lake Marion in conjunction with the regional greenway on 3-B. Local trail connections provide links to destinations along 3-A3. Dependent on input from CP Rail.



Hoisington Koegler Group Inc.





To: Lake Marion / South Creek TAG

From: HKGi

Subject: Draft Preferred Alternatives: Summary

Date: February 22, 2012

There are several alternative alignment possibilities for the Lake Marion-South Creek Regional Greenway. Each major alternative has been evaluated against 9 criteria based on greenway performance goals outlined in the 2010 Dakota County Greenway Guidebook and feasibility.

The Criteria are:

- 1. Follows natural resources and is away from roads
- 2. Opportunities for natural resource corridors, habitat and water quality enhancements
- 3. Access
- 4. User experience
- 5. Grade separated crossings
- 6. Distance between destinations
- 7. Current ownership
- 8. Timing and availability of lands
- 9. Natural resource constraints

Below is a summary of draft recommendations, to be discussed at the upcoming TAG meeting. Recommendations will be refined based on TAG input. Attached is a map depicting the alternatives discussed and a detailed table comparing each criteria.

The Canadian Pacific Railroad is highly desirable for the greenway. Due to uncertainty regarding possible corridor availability, the alignment will be identified as an alternative alignment with language directing that if it should become available, it would be elevated to preferred.

Area 1 (see attached map)

In this area, the preferred alignment is the best option in that it is the most direct, and when it must be near roads follows Judical Road, a local, lower volume road. The main disadvantage is that a railroad crossing will be needed near Westview Park.

Advantages:

- Away from roads greater percentage than the other alternatives
- When along roads, local, low volume roads
- Most direct

Disadvantages:

• Railroad Crossing near Westview Park needed

Area 2 (see attached map)

In the area between CR 42 and Murphy Hanrehan Park Reserve, the preferred alignment is recommended because it is most direct, has less impact to residential areas and at a planning level, appears to be more feasible and has less wetland impacts.

123 North Third Street, Suite 100, Minneapolis, MN 55401-1659 Ph (612) 338-3800 Fx (612) 338-6838 www.hkgi.com



Advantages:

- Less impact to residential homes and private landowners
- Less wetland impact/boardwalk needed
- More direct

Disadvantages:

- Slightly less desirable user experience (more time along roads)
- No direct connection to Hallows Park

Area 3

Two alignments were considered between Ritter Farm Park and 185th Street West in Lakeville. The preferred alignment is recommended for its overall better user experience: it is away from roads more of the time, has more opportunities for wildlife corridors, and travels through Ritter Farm Park.

Advantages:

- Away from roads more of the time
- More opportunities for wildlife corridors
- Travels through Ritter Farm Park
- Overall better user experience

Disadvantages:

• Small amount of private land

Area 4

Two alignments were considered between 205th Street West in Lakeville and Ritter Farm Park: one following the shore of Lake Marion and a second, more westerly alignment. The eastern alignment is preferred mostly because of the ability to travel along the shore of Lake Marion, a major recreation and scenic feature. The alignment already has a built trail, making it highly feasible.

Advantages:

- Travels along the shore of Lake Marion, a significant recreation and scenic draw
- Provides access to Casperson Park
- Most of the alignment already has a built trail
- Entire alignment is already in public ownership

Area 5

Three alignments have been considered between Cedar Ave/CR 23 and Lake Marion. All three follow drainage ways – that flow to South Creek. In this area, two options labeled 5-A & 5-B are presented for TAG input and discussion. They are preferred over the western alignment in that they more directly connect to both downtown Lakeville and Lake Marion, have significant trail segments already built, and require fewer grade separated crossings.

Advantages 5-A/5-B compared to other alignment considered:

- Most direct
- Fewer grade separated crossings needed
- Connects to the center of Downtown Lakeville
- Segments of trail already built

Advantages of 5-A compared to 5-B:

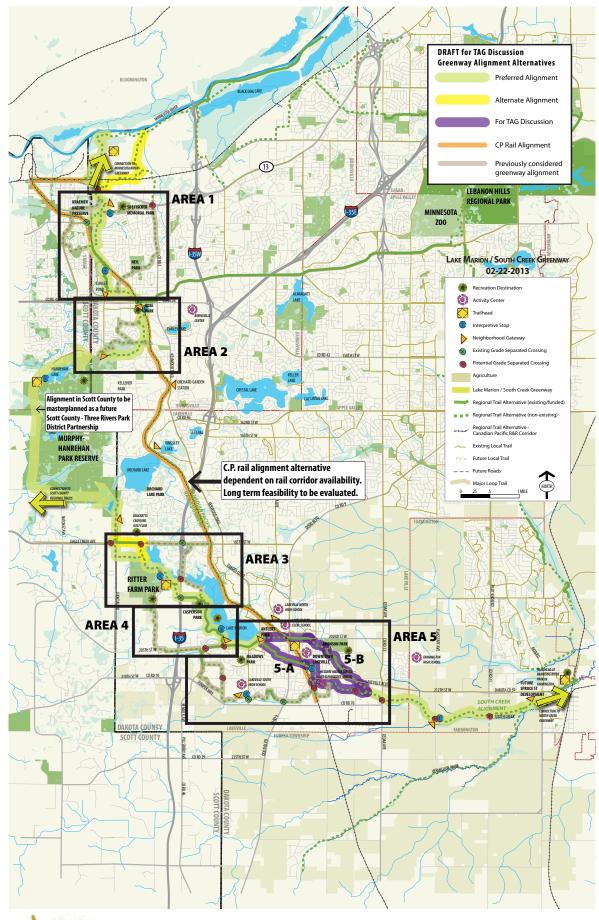


- Away from roads more of the time
- Connects more destinations

Advantages of 5-B compared to 5-A:

• Potentially an opportunity for more water quality enhancements/better user experience







Lake Marion-South Creek Regional Greenway – Area 1 Comparison Revised 2.20.13

	Criteria	Preferred	Savage Alignment	CR 5 Alignment
	Follows natural resources and is away from roads Goal: away from roads 80% of the time	Best Alterative	Less Desirable • 62% away from roads	Less Desirable • 15% away from roads
	Opportunities for wildlife/natural resources habitat, corridors, & water quality enhancement	Comparable	Comparable Opportunities north of Williams Dr / McColl Dr	Less Desirable • Limited opportunities
Greenway Performance Criteria	Access local trail connections, recreation destinations, activity centers	Comparable Links 4 destinations Sunset Pond Park – recreation destination Sue Fischer Memorial Park – recreation destination Kramer Nature Preserve – recreation destination Employment/commercial near County Road 42	Comparable Links 5 destinations Sunset Pond Park – recreation destination Kramer Nature Preserve - recreation destination Sue Fischer Memorial Park – recreation destination Employment/commercial near County Road 42 Parks in Savage	Comparable Links 5 destinations Sunset Pond Park – recreation destination Sue Fischer Memorial Park – recreation destination Kramer Nature Preserve - recreation destination Employment/commercial near County Road 42 Neil Park recreation destination
	User experience setting, views, interpretive opportunities	Sunset Pond Park and the loop trail around it provides an attractive user experience with enjoyable views, additionally there are opportunities for an interpretive stop Judicial road is low volume	Comparable • Sunset Pond Park and the loop trail around it provides an attractive user experience with enjoyable views, additionally there are opportunities for an interpretive stop	Less Desirable Less direct link to Sunset Pond Park and natural areas north of Williams Dr. Highway 5 is a high volume road, less pleasant experience than other options

Criteria	Preferred	Savage Alignment	CR 5 Alignment
Grade Separated Crossings	County Road 42, using existing railroad underpass Need for a RR crossing (at grade or grade separated)	Similar Conditions County Road 42, using existing railroad underpass	Similar Conditions County Road 42, using existing railroad underpass
Distance between destinations	Comparable • 2.6 miles to Highway 13	Less Desirable • 3.5 miles to Highway 13	Comparable • 2.0 miles to Highway 13
Current Ownership	Similar Conditions • 100% public ownership	Similar Conditions • 80%-100% public ownership	Similar Conditions • 100% public ownership
Timing and Availability of lands	Less Desirable Dependent on ability to cross RR	Comparable None known	Comparable None known
Natural resource constraints (e.g. slopes, wet soils)	Comparable None known	Comparable None known	Comparable None known

Preferred Alignment Summary

Advantages:

- Away from roads greater percentage than the other alternatives
- When along roads, local, low volume roads
- Most direct

Disadvantages:

Railroad Crossing near Westview Park needed



	Criteria	Preferred	Other Alignments Considered
e Criteria	Follows natural resources and is away from roads Goal: away from roads 80% of the time	Less Desirable • 61%	Best Alternative 84%
	Opportunities for wildlife/natural resources habitat and corridors & water quality enhancement	Comparable • Limited, the alignment is fragmented by urban uses	Comparable • Limited, the alignment is fragmented by urban uses
Greenway Performance Criteria	Access local trail connections, recreation destinations, activity centers	Less Desirable Links 1 destination Murphy Hanrehan Park Reserve – Recreation Destination	Best Alternative Links 2 destinations Hollows Park Neighborhood Gateway Murphy Hanrehan Park Reserve – Recreation Destination
Gree	User experience setting, views, interpretive opportunities	Comparable Through some woodlands and near open water, but more on-road sections	Comparable Access to Hallows park, open space areas, and views of open water and wetlands, but travels between two neighborhoods
	Grade Separated Crossings	Comparable None needed	Comparable None needed
oility	Distance between destinations	Best Alternative • 1 mile approx	Less desirable - 1.5 mile approx
Feasibility	Current Ownership	Best Alternative • 85% public, 15% private (1 owners)	Less Desirable

Criteria	Preferred	Other Alignments Considered
Timing and Availability of lands	Best Alternative - Dependent on willing landowners	Less Desirable - Dependent on willing landowners + homeowners
Natural resource constraints (e.g. slopes, wet soils)	Southern portion runs through/adjacent to a wetland, mitigation/boardwalk may be needed, but less than the other alignment considered	Southern portion runs through a wetland, mitigation/boardwalk will be needed
Preferred Alignment Summ	an,	

Preferred Alignment Summary

Advantages

- Less impact to residential homes and private landowners
- Less wetland impact/boardwalk needed
- More direct

Disadvantages:

- Slightly less desirable user experience (more time along roads)
- No direct connection to Hallows Park



	Criteria	Preferred	Other Alignments Considered
	Follows natural resources and is away from roads Goal: away from roads 80% of the time	Best Alternative • 73%	Less Desirable • 21%
ia	Opportunities for wildlife/natural resources habitat and corridors & water quality enhancement	Best Alternative Moderate to high, a significant portion of the alignment runs through Ritter Farm Park	Less Desirable Very limited, most of the alignment runs along road
Greenway Performance Criteria	Access local trail connections, recreation destinations, activity centers	Best Alternative • Ritter Farm Park – Recreation Destination • Lake Marion • Caseperson Park – Recreation Destination	Less Desirable Lake Marion Caseperson Park – Recreation Destination
	User experience setting, views, interpretive opportunities	Best Alternative • Very high- through Ritter Farm Park, woodlands, grasslands, water/ wetlands	Though a portion does travel along lake Marion, most of the route is along a road
Gre	Grade Separated Crossings	Best Alternative None needed	Less Desirable • Crossing 35E needed, on-road alternative bypasses Ritter Farm Park
	Distance between destinations	Comparable • 2 mile approx	Comparable • 2 mile approx.

	Criteria	Preferred	Other Alignments Considered
	Current Ownership	Less Desirable 90% public, 10% private (1 owner)	Best Alternative • 100% public
Feasibility	Timing and Availability of lands	Less Desirable • Dependent on willing landowners	Best Alternative No known issues
Fea	Natural resource constraints (e.g. slopes, wet soils)	Comparable • No known issues	Comparable • No known issues

Preferred Alignment Summary

Advantages:

- Away from roads more of the time
- More opportunities for wildlife corridors
- Travels through Ritter Farm Park
- Overall better user experience

Disadvantages:

Small amount of private land



	Criteria	Preferred	Other Alignments Considered
	Follows natural resources and is away from roads Goal: away from roads 80% of the time	Less Desirable 70% away from roads	Best Alternative • 77% away from roads
	Opportunities for wildlife/natural resources habitat and corridors & water quality enhancement	Comparable Along shore of Lake Marion	Comparable Alignment travels through land that is currently natural/farmland.
rmance Criter	Access local trail connections, recreation destinations, activity centers	Best Alternative Ritter Farm Park – Recreation Destination Caseperson Park – Recreation Destination Lake Marion - Recreation Destination	Less Desirable Ritter Farm Park - Recreation Destination
Greenway Performance Criteria	User experience setting, views, interpretive opportunities	Best Alternative • Along Lake Marion, a feature unique to the corridor	Route travels natural areas that are more common in other places along the corridor
	Grade Separated Crossings	Comparable ■ 1 crossing: 205 th Street	Comparable ■ 1 crossing: 205 th Street
	Distance between destinations	Comparable • 2.5 mile approx.	Comparable • 2.5 mile approx.

	Criteria	Preferred	Other Alignments Considered
	Current Ownership	Best Alternative • 100% public	Less Desirable • 60% public, 40% private (3 owners)
Feasibility	Timing and Availability of lands	Best Alternative No known issues – already constructed	Less Desirable Dependent on willing landowners
Feas	Natural resource constraints (e.g. slopes, wet soils)	Best Alterative No known issues – already constructed	Less Desirable No known issues

Preferred Alignment Summary

Advantages:

- Travels along the shore of Lake Marion, a significant recreation and scenic draw
- Provides access to Casperson Park
- Most of the alignment already has a built trail
- Entire alignment is already in public ownership



Lake Marion-South Creek Regional Greenway – Area 5 Comparison Revised 2.20.13

	Criteria	Alternate 5-A	Alternate 5-B	Other Alignments Considered
Greenway Performance Criteria	Follows natural resources and is away from roads Goal: away from roads 80% of the time	Less Desirable	Less Desirable	Best Alterative • 88% away from roads • 5.4 miles • .6 on road
	Opportunities for wildlife/natural resources habitat, corridors, & water quality enhancement	Alignment has moderate potential for vegetation and water quality enhancements within a corridor that varies from 20'-150'. There may be opportunities for additional enhancements by working with individual landowners.	Opportunities for water quality enhancements along the creek and connects several woodland, open space and riparian areas	Opportunities for water quality enhancements along the creek and connects several woodland, open space and riparian areas
	Access local trail connections, recreation destinations, activity centers	Comparable 6 Destinations • Lakeview Elementary Center – Activity Center • Marion Field Park – Recreation Destination • Lake Marion – Recreation Destination • John F Kennedy Elementary School & McGuire Middle School – Activity Center	Less Desirable 4 Destinations	Comparable 7 Destinations • Downtown Lakeville – Activity Center • Lakeview Elementary Center – Activity Center • John F Kennedy Elementary School & McGuire Middle School – Activity Center • Lakeville South High School – Activity Center • Lake Marion – Recreation Destination • Kinsington Park – Recreation Destination

Criteria	Alternate 5-A	Alternate 5-B	Other Alignments Considered
User experience setting, views, interpretive opportunities	Less Desirable • Less opportunities to travel near water, more of this area is adjacent to roads and between homes	Less Desirable • Areas of open water, streams, grasslands, open space and parks along a South Creek	Less Desirable • Areas of open water, streams, grasslands, open space and parks along a small creek
Grade Separated Crossings	Comparable • 1 crossing	Comparable • 1 crossing	Less Desirable 4 crossings
Distance between destinations	Comparable • Approx. 3 miles	Comparable • Approx. 3 miles	Less Desirable • 5.5 Miles
Current Ownership	Comparable • 85% public ownership (5 landowners)	Comparable • 85% public ownership (5 landowners)	Comparable • 86% public ownership (4 landowners)
Timing and Availability of lands	Comparable Dependent on willing landowners	Comparable	Comparable
Natural resource constraints (e.g. slopes, wet soils)	Comparable None known	Comparable None known	Comparable None known



Discussion

Advantages 5-A/5-B compared to other alignment considered:

- Most direct
- Fewer grade separated crossings needed
- Connects to the center of Downtown Lakeville
- Segments of trail already built

Advantages of 5-A compared to 5-B:

- Away from roads more of the time
- Connects more destinations

Advantages of 5-B compared to 5-A

Potentially an opportunity for water quality enhancements/better user experience



LAKE MARION GREENWAY MASTER PLAN 2013

